

Education in the Asia-Pacific Region:
Issues, Concerns and Prospects 38

Rupert Maclean *Editor*

Life in Schools and Classrooms

Past, Present and Future



ASIA-PACIFIC EDUCATIONAL
RESEARCH ASSOCIATION



Springer

EDUCATION IN THE ASIA-PACIFIC REGION: ISSUES, CONCERNS AND PROSPECTS

Volume 38

Series Editors-in-Chief

Professor Rupert Maclean, *Office of Applied Research and Innovation, College of the North Atlantic-Qatar*

Dr Lorraine Pe Symaco, *Centre for Research in International and Comparative Education (CRICE), University of Malaya, Kuala Lumpur, Malaysia*

Editorial Board

Professor Bob Adamson, *The Hong Kong Institute of Education, China*

Dr Robyn Baker, *New Zealand Council for Educational Research, Wellington, New Zealand*

Professor Michael Crossley, *University of Bristol, United Kingdom*

Ms Shanti Jagannathan, *Asian Development Bank, Manila, Philippines*

Dr Yuto Kitamura, *University of Tokyo, Japan*

Professor Colin Power, *Graduate School of Education, University of Queensland, Brisbane, Australia*

Professor Konai Helu Thaman, *University of the South Pacific, Suva, Fiji*

Advisory Board

Professor Mark Bray, *UNESCO Chair, Comparative Education Research Centre, The University of Hong Kong, China*; **Professor Yin Cheong Cheng**, *The Hong Kong Institute of Education, China*; **Professor John Fien**, *Swinburne University, Melbourne, Australia*; **Dr Pham Lan Huong**, *International Educational Research Centre, Ho Chi Minh City, Vietnam*; **Dr Chong-Jae Lee**, *Korean Educational Development Institute (KEDI), Seoul, Republic of Korea*; **Ms Naing Yee Mar**, *GIZ, Yangon, Myanmar*; **Professor Geoff Masters**, *Australian Council for Educational Research, Melbourne, Australia*; **Margarita Pavlova**, *The Hong Kong Institute of Education, China*; **Dr Max Walsh**, *Secondary Education Project, Manila, Philippines*; **Dr Uchita de Zoysa**, *Global Sustainability Solutions (GLOSS), Colombo, Sri Lanka*

More information about this series at <http://www.springer.com/series/5888>

Rupert Maclean
Editor

Life in Schools and Classrooms

Past, Present and Future

 Springer

Editor

Rupert Maclean
College of the North Atlantic–Qatar
Doha, Qatar

ISSN 1573-5397 ISSN 2214-9791 (electronic)
Education in the Asia-Pacific Region: Issues, Concerns and Prospects
ISBN 978-981-10-3652-1 ISBN 978-981-10-3654-5 (eBook)
DOI 10.1007/978-981-10-3654-5

Library of Congress Control Number: 2017938575

© Springer Nature Singapore Pte Ltd. 2017

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Printed on acid-free paper

This Springer imprint is published by Springer Nature
The registered company is Springer Nature Singapore Pte Ltd.
The registered company address is: 152 Beach Road, #21-01/04 Gateway East, Singapore 189721, Singapore

Dedication to Professor Maurice Galton
University of Cambridge, whose studies of classrooms over four decades has made a stellar contribution



This volume comprises original contributions, written by leading international scholars, policymakers and practitioners, which together provide a comprehensive portrait of key aspects of life in schools and classrooms, with regard to past, present and future practices and perspectives. Each contributor has in some way been professionally associated with Maurice Galton during the past four decades and has influenced, or been influenced by, his work.

This Festschrift is dedicated to Professor Maurice Galton, University of Cambridge, who has made a stellar contribution over many decades to strengthening the impact of educational research on improving education policy and practice, in the United Kingdom and also internationally.

Contents

Part I Introduction

- 1 **Life in Schools and Classrooms: Past, Present and Future (An Overview)** 3
Rupert Maclean
- 2 **The Research and Writing of Professor Maurice Galton: His Contribution to the Field** 9
John Williamson

Part II Historical, International and Policy Perspectives

- 3 **Social Learning Norwegian Classrooms and Schools: Educational Research in Perspective** 21
Rune Kvalsund
- 4 **How Research Messages Get Sidetracked by Governments** 57
David Berliner
- 5 **The Development of Research on Small Class Teaching in China** 71
Beifei Dong and Lianghuan Lv
- 6 **Teacher Education and the University: The Global Reform Imperative**..... 85
Bob Moon
- 7 **What Type of Pedagogy Is Required in Schools and Classrooms to Support Sustainable Green Growth? A Case Study of Hong Kong Within the International Context** 101
Rupert Maclean and Margarita Pavlova

Part III Looking in Classrooms: How Have the Ways of Studying Classrooms Changed?	
8	Systematic Observation: Changes and Continuities Over Time 123 Frank Hardman and Jan Hardman
9	Classroom Cultures and the Ethnographic Experience 139 Sara Delamont
10	Cultural-Historical Theory and Pedagogy: The Influence of Vygotsky on the Field 153 Anne Edwards
Part IV Looking in Classrooms: Have Classrooms Changed? Some Key Issues of Debate	
11	ORACLE to MAST: 40 Years of Observation Studies in UK Junior School Classrooms 169 Peter Blatchford and Rob Webster
12	Group Work in Primary Schools in Hong Kong 187 Peter Kutnick
13	Classroom Creativities, Pedagogic Partnership and the Improvisatory Space of Creative Teaching and Learning 211 Pamela Burnard
14	Primary Education in Small Rural Schools: Past, Present and Future 223 Linda Hargreaves
15	Life in Hong Kong International School Classrooms: A Case Study of Curricula Reform at the Primary School Level 245 David Sorrell
Part V Looking in Classrooms: Teaching in and for Different Cultural Contexts	
16	The Predicament of Racial Harmony and National Unity in Malaysia: Evidence Accrued from Schools and Classroom Practices 261 Suseela Malakolunthu and Nagappan C. Rengasamy
17	Supporting Headteachers in a Developing Country 277 Sue Swaffield
18	From Exclusion to Connection 293 Colleen McLaughlin

19	If Student Engagement Is the Objective, the Engaged Teachers May Be the Answer	307
	Kerry Kennedy and Keith Ki Chan	
20	Life in a Trilingual School: Perspective from Inner Mongolia	323
	Yi Yayuan and Bob Adamson	
21	Understanding Traditional Classroom Culture and Student Behaviour: The Know-How of Being a Foreign Teacher in Hong Kong	337
	Ho-Kong Christopher Au-Yeung	
Part VI Changing Teaching: School Leadership and Teachers' Professional Development		
22	Leadership for Learning: What Else Could Leadership Be For?	353
	John MacBeath	
23	Linking Learning: Developing Cross-Sector Policies for Transitions to School	369
	Tess Boyle and Susan Grieshaber	
24	Sustaining the Profession	385
	Ronald Thorpe	
Part VII Changing Teaching: School Based Professional Development: Sustaining Communities of Practice		
25	Developing Learning-Centred Classrooms and Schools	407
	Chris Watkins	
26	Sustaining the Effect of Professional Development on Small-Class Teaching: Self-Owned Model of School-Based Teacher Development	421
	Kam Wing Chan	
27	Effects of Professional Learning Community and Collective Teacher Efficacy on Teacher Involvement and Support as well as Student Motivation and Learning Strategies	433
	Zhonghua Zhang and Hongbiao Yin	
Part VIII Understanding Students and Pupils: Psychological and Social Aspects of Pupils and Young Persons' Development		
28	Children and Young People's Wellbeing in the School Context	455
	Ros McLellan	

29	The Gender Agenda in the United Kingdom, 1975–2015: Searching for Balance in Policy and Practice	473
	Mike Younger	
30	Building Social–Emotional Resilience in Schools	489
	Paul Cooper	
Part IX Understanding Students and Pupils: Assessing Student Learning		
31	Embedding Formative Assessment in Classroom Practice	509
	Mary James	
32	Paradigm Shifts in Assessment for Learning: A Secondary Analysis of the International Civic and Citizenship Study (ICCS) 2009	527
	Magdalena Mok and Wing On Lee	
Part X Understanding Students and Pupils: Coping with Childrens’ Special Education Needs and Disabilities		
33	Catering for Diversity: Including Learners with Different Abilities and Needs in Regular Classrooms	555
	Chris Forlin and Dianne Chambers	
34	An American Special Education Teacher’s Reflections	573
	Beverly Chase	
Part XI The Impact of Technology on Teachers and Students: New Technologies – New Relationships		
35	E-Learning Challenging ‘Old’ Pedagogy	589
	Margaret Robertson	
36	Computers in Education: The Impact on Schools and Classrooms	603
	Len Cairns and Margaret Malloch	
37	Social Networks: Impact on Teaching and Learning in Schools and Classrooms	619
	Len Cairns and Margaret Malloch	
38	International Experiences with Intergrating Interactive Whiteboards: Policy, Practice, Pedagogy and Professional Development	633
	Sara Hennessy	

**Part XII Summing Up: A Life in Schools and Classrooms
in the Twenty-First Century**

**39 Becoming Persons: A “Forward-to-Basics”
View of Classroom Life**..... 653
Laurance Splitter

**40 Life in Schools and Classrooms: A Personal Journey
and Reflection**..... 675
Maurice Galton

Contributors

Bob Adamson Department of International Education and Lifelong Learning, The Education University of Hong Kong, Hong Kong, SAR China

David Berliner Arizona State University, Tempe, AZ, USA

Peter Blatchford Department of Psychology & Human Development, Institute of Education, University of London, London, UK

Tess Boyle School of Education, Southern Cross University, Gold Coast, QLD, Australia

Pamela Burnard Faculty of Education, University of Cambridge, Cambridge, UK

Len Cairns Faculty of Education (Clayton Campus), Monash University, Melbourne, VIC, Australia

Dianne Chambers The University of Notre Dame, Fremantle, WA, Australia

Kam Wing Chan Department of Curriculum and Instruction, The Education University of Hong Kong, Hong Kong, SAR China

Keith Ki Chan Department of Curriculum and Instruction, The Education University of Hong Kong, Hong Kong, SAR China

Beverly Chase Special Education Teacher, New Orleans, LA, USA

Ho-Kong Christopher Au-Yeung General Education Office, The Education University of Hong Kong, Hong Kong, SAR China

Paul Cooper Department of Special Education and Counselling, Brunel University, London, UK

Sara Delamont School of Social Sciences, University of Cardiff, Cardiff, UK

Beifei Dong East China Normal University, Shanghai, China

Anne Edwards Department of Education, University of Oxford, Oxford, UK

Chris Forlin International Inclusive Education Consultant, Perth, Australia

Maurice Galton Faculty of Education, University of Cambridge, Cambridge, UK

Susan Grieshaber Faculty of Education, Monash University, Frankston, VIC, Australia

Frank Hardman Institute of Effective Education, University of York, York, UK

Jan Hardman University of York, York, UK

Linda Hargreaves Faculty of Education, University of Cambridge, Cambridge, UK

Sara Hennessy Faculty of Education, University of Cambridge, Cambridge, UK

Mary James Faculty of Education, University of Cambridge, Cambridge, UK

Kerry Kennedy Department of Curriculum and Instruction, The Education University of Hong Kong, Hong Kong, SAR China

Peter Kutnick Faculty of Education, University of Hong Kong, Hong Kong, SAR China

Rune Kvalsund Department of Social Science & History, Volda University College, Volda, Norway

Wing On Lee The Open University of Hong Kong, Hong Kong, SAR China

Lianghuan Lv East China Normal University, Shanghai, China

John MacBeath Faculty of Education, University of Cambridge, Cambridge, UK

Rupert Maclean Office of Applied Research and Innovation, College of the North Atlantic–Qatar, Doha, Qatar

Suseela Malakolunthu Department of Educational Management, Planning and Policy, University of Malaya, Kuala Lumpur, Malaysia

Margaret Malloch College of Education (Footscray Park Campus), Victoria University, Melbourne, VIC, Australia

Colleen McLaughlin School of Education and Social Work, University of Sussex, Brighton, UK

Ros McLellan Faculty of Education, University of Cambridge, Cambridge, UK

Magdalena Mok Department of Psychological Studies, The Education University of Hong Kong, Hong Kong, SAR China

Bob Moon Faculty of Education and Language Studies, The Open University, Milton Keynes, UK

Margarita Pavlova Department of International Education and Lifelong Learning, The Education University of Hong Kong, Hong Kong, SAR China

Nagappan C. Rengasamy PEMM Consultants and Asian Institute of Logistics, Kuala Lumpur, Malaysia

Margaret Robertson School of Education, La Trobe University, Melbourne, VIC, Australia

David Sorrell Faculty of Education and Human Development, The Education University of Hong Kong, Hong Kong, SAR China

Laurance Splitter Department of International Education and Lifelong Learning, The Education University of Hong Kong, Hong Kong, SAR China

Sue Swaffield Faculty of Education, University of Cambridge, Cambridge, UK

Ronald Thorpe National Board for Professional Teaching Standards, Arlington, VA, USA

Chris Watkins London Centre for Leadership in Learning, Institute of Education, University of London, London, UK

Rob Webster Institute of Education, University of London, London, UK

John Williamson Faculty of Education, University of Tasmania, Launceston, Australia

Yi Yayuan Department of International Education and Lifelong Learning, The Education University of Hong Kong, Hong Kong, SAR China

Hongbiao Yin The Chinese University of Hong Kong, Hong Kong, SAR China

Mike Younger Faculty of Education, University of Cambridge, Cambridge, UK

Zhonghua Zhang University of Melbourne, Melbourne, VIC, Australia

Abbreviations

ACER	Australian Council for Educational Research
ADHD	Attention deficit/hyperactivity disorder
AERA	American Educational Research Association
AfL	Assessment for learning
AifL	Assessment is for Learning
AM	Anomalous monism
AoL	Assessment of learning
ARG	Assessment Reform Group
ART	Aggression Reduction Training
ATLAS	Accomplished Teaching, Learning and Schools
AaL	Assessment as learning
BCS	Behaviour Change Scale
BERA	British Educational Research Association
BU	Boston University
BYOD	Bring your own device
CAEP	Council for the Accreditation of Educator Preparation
CB	Cognitive behavioural
CCE	Creativity, culture and education
CCSS	Common Core State Standards
CDC	Curriculum Development Council
CDCHK	Curriculum Development Council Hong Kong
CEC	Class Engagement in Community Activities
CERI	Centre for Educational Research and Innovation
CFA	Confirmatory factor analyses
CFI	Comparative fit index
CHAT	Cultural-historical activity theory
CHC	Confucian heritage culture
CIA	Central Intelligence Agency
CLASS	Classroom Assessment Scoring System
COL	Commonwealth of Learning
CRC	Commission for Rural Communities

CRE	Common Recruitment Examinations
CSPAR	Class size and pupil-adult ratio
CSR	Class size reduction
CT	Circle time
DCSF	Department for Children, Schools and Families
DESD	Decade of Education for Sustainable Development
DfES	Department for Education and Skills
DFID	Department for International Development
DISS	Deployment and impact of support staff
DP	Diploma programme
DSE	Diploma of secondary education
EAL	English as an additional language
ECER	European Conference on Educational Research
EERA	European Educational Research Analysis Association
EFA	Exploratory factor analysis
EFL	English as a foreign language
EI	Early intervention
EMI	English medium of instruction
ESD	Education for sustainable decade
ESF	English Schools Foundation
ESG	Education support grants
ESRC	Economic and Social Research Council
EU	European Union
EYLF	Early Years Learning Framework
FBA	Functional behavioural assessment
FBI	Federal Bureau of Investigation
FIAC	Flanders' (1970) Interaction Analysis Category
GBG	Good behaviour game
GCSE	General certificate of secondary education
GDP	Gross domestic product
GDST	Girls' Day School Trust
GED	General Educational Development
GERM	Global Educational Reform Movement
GES	Ghana Education Service
GMES	Global monitoring and evaluation survey
HKALE	Hong Kong Advanced Level Examination
HKDSE	Hong Kong diploma of secondary education
HKE	Hong Kong English
HLM	Hierarchical linear modelling
HMIe	Her Majesty's Inspectorate of Education
IB	International Baccalaureate
IBO	International Baccalaureate, formerly known as the International Baccalaureate Organization
ICCS	International Civic and Citizenship Education Study
ICT	Information and communications technology

IDEA	Individuals with Disabilities Education Act
IEA	International Association for the Evaluation of Educational Achievement
IEP	Individualised education programme
IMAR	Inner Mongolian Autonomous Region
IQ	Intelligence quotient
IRF	Initiation response feedback
IRT	Item response therapy
ISES	International Schools Examination Syndicate
IT	Information technology
ITR	Instructional tools and routines
IUFM	Institut Universitaire de Formation des Maitres
IWB	Interactive whiteboard
KIS	Knowledge Increase Scale
KMOFAP	King's, Medway and Oxfordshire Formative Assessment Project
LEA	Local Education Authority
LfL	Leadership for learning
LHTL	Learning how to learn in classrooms, schools and networks
MAST	Making a statement
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
MDG	Millennium Development Goals
MD	Medical degree
MI	Modification indices
MIT	Massachusetts Institute of Technology
MOI	Medium of instruction
MOOCs	Massive online open courses
MSW	Master of social work
MYP	Middle years programme
NACCCE	National Advisory Committee on Creative and Cultural Education
NAEP	National Assessment of Educational Progress
NAPLAN	National Assessment Program – Literacy and Numeracy
NASA	National Aeronautics and Space Administration
NC	National curriculum
NCES	National Center for Education Statistics
NCR	Norwegian Research Council
NEET	Not in education, employment or training
NEP	New Economic Policy
NET	Native-speaking English teacher
NPDT	National Primary Care Development Team
NSW	New South Wales
NUT	National Union of Teachers
OECD	Organisation for Economic Co-operation Development
OFSTED	Office for Standards in Education, Children's Services and Skills
ONS	Office for National Statistics

ORACLE	Observational Research and Classroom Learning Evaluation
OWP	One-way permit
PACE	Parent and child enrichment
PD	Professional development
PDLs	Professional development leaders
PERMA	Positive emotions, engagement, relationships, meaning, and accomplishments
PGCE	Postgraduate certificate in education
PIRLS	Progress in International Reading Literacy
PISA	Program for International Student Assessment
PLC	Professional learning community
PLCA	Professional learning communities assessment
PPR	Positive peer reporting
PPW	Principle of personal worth
PRC	People's Republic of China
PSHE	Personal, social and health education
PYP	Primary years programme
RCT	Randomised clinical training
RET	Rural educational tourism
RMSEA	Root mean square error of approximation
SAGE	Student Achievement Guarantee in Education
SAP	Student active participation
SAT	Scholastic Aptitude Test/Scholastic Assessment Test
SBA	School-based assessment
SCE	Small-class education
SCT	Small-class teaching
SDSU	San Diego Unified School District
SEBD	Social, emotional and behavioural difficulties
SEN	Special education(al) needs
SES	Socio-economic status
SLC	Student-led conference
SMS	Short message service
SMT	Science, math and technology education
SPC	Students' participation in class
SPeD	Security Professional Education Development
SPRinG	Social Pedagogic Research into Group-work
SPS	Statement of Professional Standing
SSRC	Social Science Research Council
STAGE	Student-Teacher Achievement Guarantee in Education
STAR	Student-teacher achievement ratio
STEM	Science, technology, engineering and math
STOS	Science Teacher Observation Schedule
SWB	Subjective wellbeing
SWE	Schools Whiteboard Expansion
SWEEP	Schools Whiteboard Expansion Evaluation Project

TA	Teaching assistant
TAs	Teaching assistants
TCRU	Thomas Coram Research Unit
TEC	Teacher engagement in the community
TEFL	Teaching English as a foreign language
TES	Teacher engagement in school
TESSA	Teacher Education in Sub-Saharan Africa
TGAT	Task Group on Assessment and Testing
TIMSS	Trends in International Mathematics and Science Study
TLP	Teaching and learning paradigm
TLRP	Teaching and learning research programme
TTC	Teachers' teaching confidence
TVET	Technical Vocational Education and Training
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNESCO-UNEVOC	International Centre for Technical and Vocational Education and Training of the United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNLD	United Nations Literacy Decade
UNRWA	United Nations Relief and Works Agency
US/USA	United States of America
USDA	United States Department of Agriculture
VISTA	Volunteers in Service to America
WWII	World War II
WWW	World Wide Web
ZER	Zones escolares rurals
ZPD	Zone of proximal development

Series Editors' Introduction

For the vast majority of pupils and students undertaking formal education, the core learning activities largely occur in schools and classrooms where learners and teachers meet and interact. This is true at all levels of education: in kindergartens, primary and secondary schools and at the post-secondary level in universities and colleges. This book is a timely contribution to that field of research which seeks to better understand what actually occurs in classrooms in the Asia Pacific and worldwide. The volume examines *life in classrooms* within a context where it is also at the same time recognised that lifelong learning, and non-formal and informal learning, is also important.

The volume provides a comprehensive portrait of life in classrooms, with regard to past, present and future practices and perspectives. In doing, this the evidence-based views of a wide range of eminent researchers, policymakers and practitioners, from different parts of the world, are presented.

After examining the context of schooling with regard to historical and international perspectives, the book goes on to provide a wealth of data to enhance readers' understanding of such important matters as how and under what conditions students and pupils most effectively learn, including what can be done to improve the dynamic of classroom practice and the accuracy of student assessment. It showcases how classrooms (and ways of studying classrooms) have changed over the past several decades in education systems worldwide. It examines teachers' work in classrooms and how policymaking and research interact with one another to change teaching and teachers themselves in terms of their constructions of reality. The book provides an international perspective on research, policy and practice in the Asia Pacific and beyond concerning teaching and living in a global village, the international agenda in education and teaching in and for different cultural contexts.

In addition to being a major contribution in its own right to policy- and practice-orientated research, to better understanding life in schools and classrooms, this volume is also a Festschrift which celebrates and recognises the enormous contribution of Professor Maurice Galton, University of Cambridge, to this important field of research, policy and practice. Professor Galton has been effectively working in this field for more than half a century and as such has made an enormous contribution to

our understanding of life in classrooms, not only in the United Kingdom but also internationally. His sphere of influence has been significant with all of the contributors to this volume having either been students of his or else they have been influenced by his insightful and ground-breaking work in this area of study.

This is an important book on an important subject. As such, it deserves to be widely read by researchers, policy makers and practitioners worldwide.

In conclusion, the book series editors, and the editor of this volume would like to thank Dr. Marion Myhill of the University of Tasmania, who was initially involved as coeditor of this volume until pressure of work required her to relinquish this role. We also thank the two hard-working research assistants in the Centre for Lifelong Learning Research and Development, the Education University of Hong Kong, Dr. Xie Qing (Jenny) and Ms Ada Kwok, who were involved at all stages in the project and who worked tirelessly and efficiently to bring the project to fruition. Thanks are also due to Ms. Mitzi Legge and Ms. Benita Judith, in the Office of Applied Research and Innovation, College of the North Atlantic–Qatar, and to Sally Roach and Bryony Horsley-Heather, staff in the former Centre for Commonwealth Education, at the University of Cambridge, for their assistance in finalising the manuscript.

College of the North Atlantic–Qatar
Doha, Qatar
University of Malaya
Kuala Lumpur, Malaysia
October 2016

Rupert Maclean

Lorraine Symaco

Part I
Introduction

Chapter 1

Life in Schools and Classrooms: Past, Present and Future (An Overview)

Rupert Maclean

Abstract The chapter provides a brief overview of the contents of this book on *Life in Schools and Classrooms: Past, Present and Future*. It refers to the importance of this topic for better understanding the process and outputs of education and schooling, provides a rationale for how the book is organized with regard to its division into sections and subsections and examines the interrelationship between research, policy and practice concerning life in classrooms. In addition to this volume being a contribution to the field of study in its own right, it is also intended as a Festschrift to celebrate the research and publications of Professor Maurice Galton, University of Cambridge.

Keywords Schools • Classrooms • Purpose of education • Functions of schools • Lifelong learning • Formal • No-formal and informal delivery systems • Teacher behaviour and outcomes • Evaluation and assessment

Ancient philosophers such as [Aristotle](#), [Plato](#), [John Locke](#), [Rousseau](#), [Mo Tzu](#) and [Confucius](#), and also more modern educational philosophers such as John Dewey and Ivan Illich, have written extensively about the purpose and functions of education and schools in society. Likewise, the founding fathers of sociology, namely, Marx, Weber and Durkheim, and more recent sociologists and philosophers of education, such as Everett Reiner, Postman and Weingartner, Ivan Illich and Paulo Freire, have identified and analysed what they regarded to be the functions of schools in society (Easthope et al. 1990; Hughes 2006).

Each of these scholars has sought to answer the question: what is the purpose of education and schooling? While some emphasize that a key aim of education is to prepare individuals for gainful employment, others focus on the intellectual purposes of education and the development of reading, writing and arithmetic. What is clear from such discussions is that education and schooling do not have a single purpose,

R. Maclean (✉)

Office of Applied Research and Innovation, College of the North Atlantic–Qatar,
PO Box 24449, 68 Al Tarafa, Duhail North, Doha, Qatar
e-mail: rupert.maclean@cna-qatar.edu.qa

but serve multiple purposes with the relative importance of objectives sometimes being very specific to the society in question. However, although these thinkers vary in their areas of emphasis regarding the purposes and functions of schools in society, over time there has been developed a general agreement that the following are the main goals of education and schooling:

- To cultivate a skilled workforce with the necessary knowledge, skills and understanding required in the society and economy in question.
- To help students become critical thinkers who are able to explore new ideas, think independently, make evidence-based decisions and develop social and moral responsibility.
- To teach cultural history and develop cultural literacy.
- To help learners, teachers and the education system as a whole cope with the major emerging tensions in societies as they modernize, such as the relationship between competition and cooperation, between the needs of individuals and those of the group and between modernization and change.
- To prepare learners for effective citizenship, including assisting with the assimilation of immigrants.
- To help students compete in both the local and the global marketplace.

While these are interrelated goals, they demonstrate the diversity of expectations and the prioritization that societies and its educators must manage. The emphasis varies somewhat according to different levels of the school system, the age group being taught (ECE, primary or secondary) and the cultural and economic characteristics of the society in question.

Sociologists, whether they be functionalists, symbolic interactionists or phenomenologists in their theoretical orientation, seek to analyse and understand how schools and classrooms function to impact on the knowledge, skills, understandings and in particular the behaviour of learners.

Schools are one of the major agents of socialization in society along with the family, community, mass media and peer group. Schools must strike a suitable balance between preserving the past, by passing it onto each new generation, and being an agent of social change to assist learners to adapt to an ever-changing society and economy. At the same time, school systems themselves are in a constant process of change, as they seek to most effectively adapt to the changing needs of the society in which they are located. In cases where the changes are profound, reference is made to 're-engineering education for change'. At the micro level, it is what transpires in individual classrooms that is at the cutting edge of such change, with the interface between teachers and learners being particularly important and complex. What occurs in individual classrooms is intended to be an expression at the micro level of the purposes and functions of education. Through the curriculum that is taught, the choice of teaching and learning materials, the ways in which a classroom is organized in terms of the architecture of furnishings and the teaching pedagogy and methods used to assess student progress are all an attempt to achieve the aims of schooling (Andy Hargreaves 1994; Bob Connell 1985). What happens in class-

rooms (and, indeed, what does not happen in classrooms) is therefore of profound importance in affecting learning outcomes.

The aim of this edited volume is to explore the interface linking the broad purposes of education with various aspects of life in classrooms. The book consists of 54 contributors in 40 chapters, which have been organized into 6 sections and 12 subsections which examine:

1. Introduction (overview of life in classrooms and the research and writing of Professor Maurice Galton; the context of schooling concerning historical and international and perspectives).
2. Looking in Classrooms (how have the ways of studying classrooms changed; have classrooms changed and what are the key issues of debate).
3. Changing Teaching (social leadership and teachers' professional development; school-based professional development; sustaining communities of practice).
4. Understanding Students and Pupils (psychological and social aspects of pupils and young persons' development; assessing student learning; coping with children's special education needs and disabilities).
5. The Impact of Technology on Teachers and Students (new technologies – new relationships).
6. Summing Up (life in schools and classrooms in the twenty-first century).

The volume mainly presents evidence-based findings which draw on the main researchers, policymakers and practitioners working in this field. In some cases it also presents the micro, classroom level social construction of reality of classroom teachers. The book draws on different theoretical perspectives in the sociology of education, including those of structuralists, functionalists and phenomenologists. Although many of the chapters are written about schools and classrooms in the Asia-Pacific region, there are also chapters that examine the situation in the United States of America and Europe.

In addition to seeking to make a contribution to the field of study in its own right, this book is also a Festschrift, a tribute book to celebrate the research and publications of Professor Maurice Galton. As reflected in his numerous publications (e.g. Galton et al. 2014; Gay et al. 2011; Galton and Macbeath 2008; Galton and Moon 1983), Maurice Galton has spent a professional lifetime as researcher and writer studying aspects of teaching and learning as it manifests itself in classroom activity. He has examined how and why some classrooms are effectively organized so they achieve their aims successfully, often in what appears to be an effortless way, while others are not; why some classrooms are happy and productive places where there is an effective interaction between teachers and learners, and between learners themselves, while others do not possess such desirable and well-functioning characteristics. One of the truly praiseworthy features of Galton's important work, over so many years, is that he is not just a theoretical or armchair observer of such matters. Instead, he 'rolls up his sleeves', having spent a significant time in actual classrooms, observing and analysing the dynamic between teachers and learners, and between learners themselves, at first hand. As such he does not just observe, but has also often taken on the role of teacher, to experience at first hand what it means to

be a teacher in the twentieth and twenty-first centuries. This is why, in many different parts of the world and over many years, Galton's research and publications are so widely appreciated and respected internationally. Insights gained from this work have proven to be very helpful worldwide, as researchers, policymakers and practitioners explore the pros and cons, for example, of moving to models of small class teaching (Galton et al. 2015) finding ways of easing the transition from the elementary to the secondary phase of education (Galton and Willcocks 1983; Hargreaves and Galton 2012) or improving the quality of group work (Galton and Williamson 1992; Galton et al. 2009) to give but several instances. More recently, he has turned his attention to the contribution of artists, and the arts in general, in bringing about improvements in the wellbeing of young adults in school settings, particularly for the demotivated students who have 'switched-off' learning in many of today's schools (Galton 2015).

For nearly three decades, Galton has worked regularly as a consultant and adviser within various countries in East Asia, particularly Hong Kong. Throughout this period policymakers in the West have sought to understand and imitate the classroom practices of those East Asian countries that regularly top the international league tables of achievement, while at the same time policymakers in the East seek to change existing classroom practices and create a curriculum for the twenty-first century that offers greater pupil choice and more active learning approaches, including building the capacity for students to engage in self-regulation. The book, therefore, because many of its authors are from both East and West have either collaborated at one time or another with Maurice Galton or have worked in related research areas, can hopefully make a valuable contribution to the above debate to the benefit of all students worldwide.

References

- Connell, R. (1985). *Teachers' work*. Sydney: Allen and Unwin.
- Easthope, C., Maclean, R., & Easthope, G. (1990). *The practice of teaching: A sociological perspective*. Sydney: Allen and Unwin.
- Galton, M. (2015). 'It's a real journey—a life changing experience.' A comparison case study of Creative Partnerships and other primary schools, Education 3–13: *International Journal of Primary, Elementary and Early Years Education*, 43(4), 433–444.
- Galton, M., & Macbeath, J. (2008). *Teachers under pressure: The impact of Government reform*. London: Sage.
- Galton, M., & Moon, B. (Eds.). (1983). *Changing schools. Changing curriculum*. London: Harper and Row.
- Galton, M., & Willcocks, J. (Eds.). (1983). *Moving from the primary school*. London: Routledge.
- Galton, M., & Williamson, J. (1992). *Group work in the primary classroom*. London: Routledge.
- Galton, M., Steward, S., Hargreaves, L., Page, C., & Pell, A. (2009). *Motivating your secondary class*. London: Sage.
- Galton, M., Lai, K. C., & Chan, P. (2014). *Teaching small classes*. London/Singapore: Routledge.
- Galton, M., Lai, K. C., & Chan, K. W. (2015). *Learning to teach small classes: lessons from East Asia*. London: Routledge.

- Gray, J., Galton, M., McLaughlin, C., Clarke, B., & Symonds, J. (2011). *The supportive school: Wellbeing and the young adolescent*. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Hargreaves, A. (1994). *Changing teachers, changing times*. New York: Teachers College Press.
- Hargreaves, L., & Galton, M. (2012). *Moving from the primary classroom: 20 years on*. London: Routledge.
- Hughes, P. (Ed.). (2006). *Secondary education at the crossroads*. Dordrecht: Springer.
- Muthen, L. K., & Muthen, B. O. (1998-2015). *MPLUS statistical analysis with latent variables: User's guide* (7th Ed.). Los Angeles, CA: Muthen & Muthen.

Chapter 2

The Research and Writing of Professor Maurice Galton: His Contribution to the Field

John Williamson

Abstract This chapter provides an overview of the influential contribution of Professor Maurice Galton to knowledge about life in schools and classrooms, through his research and numerous publications over some five decades. It identifies the various themes examined by Galton in his research studies, many of which have had a major impact on educational policy and practice, and other researchers, not only in the United Kingdom but also in other countries worldwide. The chapter goes on to place Galton's work in context by examining the various changes in attitudes to teaching and learning which have taken place over the past five decades during which time he has investigated life in classrooms principally in England and Hong Kong.

Keywords Pedagogy • Classroom practice • Teaching styles • Pupils' attitudes and attainment

Introduction

Maurice Galton's research and publications have made a significant contribution to our understanding in a number of educational areas and influenced other researchers in their investigations. As reported in this volume, Galton's investigations into Nuffield Science (Eggleston et al. 1975) not only led to the methodological development of the first UK home-grown systematic observation system, the Science Teacher Observation Schedule (STOS), but also the ability to look more deeply and objectively into classrooms (in this case Science) to see what teachers were actually doing in their lessons. One of the clear findings was that in the implementation of the Nuffield curriculum, the teachers' classroom actions as observed and recorded were often different from what they reported they had done. From this emerged the notion of a *perception gap in teaching*. Later in his account of returning to teach in a primary school, he relates his own experience of this phenomenon (Galton 1989)

J. Williamson (✉)

Faculty of Education, University of Tasmania, Locked Bag 1307, Launceston 7250, Australia
e-mail: John.Williamson@utas.edu.au

when frustrated by the failure to recover a set of large darning needles, a task the teacher had repeatedly emphasised was a priority before leaving him to it, he shouts at the children that he will cancel their play unless the needles are found. Yet on writing up his daily diary, he had no recollection of the incident until the next morning when the teacher with the class next door teased him about his behaviour. It is a feature of all his writing that 'he tells it as it is', even if this sometimes reflects critically on his own practice, and this has been a recurring feature of his work which explains why it tends to resonate with teachers.

This early classroom-based study was followed by another at the University of Leicester which Galton co-directed with Brian Simon. The Observational Research and Classroom Learning Evaluation (ORACLE) programme had its genesis in Simon's concern for how *disadvantaged* students would be engaged and perform in primary classrooms once streaming was discontinued and mixed ability grouping became the norm as the comprehensive education movement gained strength. The ORACLE study resulted in five data-rich volumes which were presented in a manner that made them accessible to practitioners, policymakers and researchers (Galton et al. 1980; Galton and Simon 1980; Galton and Willcocks 1983; Simon and Willcocks 1981; Delamont and Galton 1986).

Even today, the ORACLE study remains one of the most cited in contemporary educational research, and the first volume, *Inside the Primary Classroom*, was recently selected by the British Educational Research Association as the outstanding publication of its decade. ORACLE again showed clearly that teachers' classroom behaviour was not always congruent with how they recalled or talked about it. For example, teachers reported the use of working groups but the observational data described it as pupils seated together, but with very little constructive engagement as a group. The line of research into group work fitted with both the then existing national policy guidelines and the observed practice of children sitting either around tables or at desks pushed together to allow shared participation. The investigation led to a publication that not only described the group work in the primary classroom but also aimed 'to provide teachers with a set of principles which should enable them to increase the effectiveness of collaborative group work in the primary classroom' (Galton and Williamson 1992).

The utility of observational techniques was shown in subsequent studies in small rural schools (Galton and Patrick 1990). In the context of the introduction of the new National Curriculum, the authors showed how the sharing of teacher expertise through clustering meant many small schools, previously thought to be inadequate in curriculum provision, were in fact able to adjust and benefit from the curriculum changes which were predicated on the sharing of teacher expertise.

The ORACLE methodology was again used in replication studies, often in the same schools, in the 1990s. The findings were contrary to what was being reported in the popular media at that time, which was asserting there was a general movement in classroom pedagogy to more student-centred or 'progressive' teaching styles and that this was contributing to the United Kingdom's poor showing in international league tables of attainment. The observation data showed, in fact, that the classroom practice, two decades after the original ORACLE, was very similar to

that in the initial study. For example, teachers were typically using similar proportions of closed and open questions and increased instructional statements, and this demonstrated a narrowing of pedagogy across all curriculum areas. In reporting their classroom behaviour, teachers' perception once more conflicted with the observers' accounts (Galton et al. 1999b). Hargreaves and Galton (2002) also demonstrated improvements in the process of transition from primary to secondary school since the original ORACLE research.

An important addition in Galton's research interests occurred with a move to Cambridge University in 1999 where after completing further studies of transfer (Galton et al. 1999a, 2003) he began his collaboration with John MacBeath looking initially at teachers' work lives. This shift in research focus occurred as Prime Minister Blair's Government introduced changes that impacted markedly on teachers' workloads and on their morale as statutory decisions about the curriculum and teaching methods appeared to de-professionalise teachers and imply that they were not to be trusted to work professionally in their classroom (Galton and MacBeath 2008).

Research into teachers' work lives was also being conducted in countries including Australia (Gardner and Williamson 2004; Williamson and Myhill 2008), and they also reported increased workloads and the changing nature of the work. The common strands of externally imposed curricula, work from reform agendas and so together resulted in work *intensification* that it was argued would be likely to have an impact on the quality of teachers' work and on retention rates.

In seeking to understand how teachers as professionals went about their work, Galton revisited a number of issues that were raised in his work as a consultant for the Council of Europe in the 1980s and 1990s, namely, how to prepare primary teachers through a developmental framework (Galton and Blyth 1989). The consultancy provided numerous opportunities for visiting schools and other educational institutions to appreciate that pedagogy was given greater priority across the various continental European members of the council compared to the situation in England and, in addition, to explore the different approaches to teacher preparation and continuing professional development (Galton and Moon 1994).

The drawing together of several of the themes from the research into teachers' work lives with earlier research into the patterns of classroom processes and interaction added greatly to our understanding of these matters in the contemporary context (Galton et al. 2003, 2009). Other classroom research-based studies have involved students' intrinsic motivation, their liking for school and their enthusiasm for particular curriculum subjects, such as mathematics (Pell et al. 2007). Typically, there has been a decline in these areas in England, but the most notable falls have been among the most able. Galton's recent research on the impact of class size reductions in Hong Kong has shown a similar negative result in learning disposition, a combination of motivation and subject attitude (Galton and Pell 2012; Galton et al. 2015) and the broad themes of engagement, motivation and commitment in a cross-cultural comparative context have aided our understanding of student disengagement, a prominent feature of contemporary western classrooms. Again, there are also important implications for teachers as they attempt to adopt new policies

and cope with shifting curricula foci and the use of ICT and increased record keeping, etc., all of which have had a significant impact on their work lives.

In his more recent work, Galton has begun to examine ways in which disengaged pupils can be remotivated by providing more creative opportunities that allow students to pursue their own interests and thereby exercise a degree of control over their learning. His recent research has focused on the use of artists (or creative practitioners to include film-makers, photographers, etc., besides visual and literary artists) to change teachers' classroom practice in ways that increase pupils' intrinsic motivation and engagement. This initiative, part of the UK government-funded Creative Partnership programme, brought ten practising artists into schools to work with disaffected learners during the course of an academic year. Galton (2010) reported that the artists did not respond to student classroom misbehaviour as might a typical teacher with a critical comment or a reprimand, but rather they were more likely to cite an example from their own lives to share a personal understanding in a way that teachers did not. In this way these creative practitioners demonstrated that while not condoning unacceptable behaviour they demonstrated that they understood the motives which caused it to take place. Thus, talking out of turn was not always a deliberate attempt to disrupt the flow of the teacher's conversation but was sometimes the result of overenthusiasm. Galton sees this sharing of more personal understanding, attitudes and experience – of being one's authentic self in enhancing the classroom relationship – as a way of fostering and promoting relationships and changing the classroom climate to one more conducive to learning. More recent work in collaboration with another Cambridge colleague, Ros McLellan, has extended these studies of the impact of creative practitioners on pupils' wellbeing (McLellan et al. 2012). Based on the work of Deci and Ryan (1985) and their self-determination theory (SDT), Galton and his colleagues have shown that if teachers model the kinds of practice exhibited by their artistic mentors, then pupils will develop functioning (eudaemonic) forms of wellbeing which foster a climate of cooperation or 'school connectedness' (McNeely et al. 2002). This in turn reduces the need for 'assertive discipline' approaches which are currently so popular and enables schools to establish a 'noncontrolling' climate which Deci and Ryan (2005) argue is essential to the pursuit of creative learning.

The sample of work cited above, covering almost five decades, indicates that Galton's oeuvre is both wide, in covering important educational domains, and deep in terms of the contributions he has made to our understanding in these areas. While there are many important conclusions and themes in his work, just several, such as the need for schools to utilise the professional dispositions and skills of teachers, the use of classroom observation, allied to informal pupil conversations as a mechanism for understanding and, where desirable, changing teacher and pupil behaviour, and the consistent effort to strive for better understanding of the different perspectives that exist in a school, are major contributions which, as the chapters in this volume demonstrate, have clearly influenced other researchers. The key to all this work has been a firm empirical base grounded in observation, both systematic and participant. Less successful as a prophet in his own country, he has exercised considerable influence in the Special Administrative Region of Hong Kong where he has worked

since the time of the millennium on the Education Department's attempts to create more active pupil participation in primary classrooms. His 'six principles' of teaching [presenting lesson objectives in terms of success criteria, increasing levels of classroom discourse, use of cooperative learning, replacement of 'corrective' kinds of feedback by 'evaluative' forms designed to teach pupils to identify, correct/improve their work, replacement of assessment as learning (AaL) by greater use of assessment for learning (AfL) and, whenever possible, situating learning activities in meaningful and relevant contexts] have become a necessary requirement for Hong Kong primary schools and training institutions in their bids to the education department for funding professional development courses.

The Context of Research on Teaching 1960–2015

Maurice Galton completed his teacher training in the late 1960s. At that time none of the texts on educational psychology made the slightest reference to pedagogy. In the UK Galton studied at Leeds University under Professor Kenneth Lovell, a noted Piagetian, whose standard work on educational psychology made no reference to teaching, even in the index. The current view was that teaching was an art and not a science and therefore not a proper subject of study for psychologists. In promulgating this view, the American classicist scholar, Gilbert Highet (1951) author of the book *The Art of Teaching*, was essential reading on courses for entrants to the profession, justified the title in the following terms:

Teaching is an art and not a science....Teaching involves emotions, which cannot be systematically appraised and human values which are quite outside the grasp of science. A 'scientifically' brought up child would be a pitiable monster.

Although refugees escaping Nazi tyranny in the 1930s introduced continental Europe's notions of *didactics* to North America, the United Kingdom remained aloof from these initiatives, as Galton's co-director of the ORACLE programme, Brian Simon, contended in his seminal article, *Why no Pedagogy in England?* (Simon 1981). For Simon there were two main reasons for this state of affairs. The first was the influence of the public (private) schools which during the latter part of the eighteenth and early nineteenth centuries saw as their main task the education of an elite group of Christian gentlemen who would in the future have the responsibility of running the far-flung outposts of the Empire and inculcating 'British' values wherever the Union Jack flew. Thus, a moral rather than an educational imperative dominated schooling in these fee-paying institutions and teaching students to 'fear God, honour the monarch and love their country' was, it was hoped, sufficient to prevent them from fraternising with the locals, particularly the women, since 'going native' and indulging in mixed-race relationships were deemed to undermine their authority and were often sufficient to warrant being sent back to England in disgrace. The climate of opinion which operated at that time and the lifestyle that ensued in isolated Asian outposts are well illustrated in E.M. Foster's novel, *Passage*

to *India*, and in George Orwell's *Burmese Days*, the latter being a thinly disguised account of the author's time in the Burma division of the Imperial Police Force.

By far the more important determinant for the lack of interest in teaching was, however, in Simon's view, the extension of education beyond the elementary level for a select number of children at the age of 11. In this initial period of universal education, it was customary for 'virtuous persons' (mostly females) to be selected by the local clergyman to work in the village elementary school, since many of these were the responsibility of the established Church of England. Once installed, these apprentice teachers would learn on the job but spend their Saturdays at the local training institution. While at college, besides taking courses in arithmetic, English, Art, Religious Education and so forth, these novices would also share their triumphs and failures of the previous week with their tutors and colleagues, with the aim of identifying plausible, practical reasons to account for successful practice. Thus, students accumulated pedagogic wisdom alongside increased subject knowledge.

Once it became the norm for a limited number of pupils to continue education beyond age 11, mainly on the grounds of academic performance, then alternative explanations for a student's failure to learn, other than the use of an inappropriate teaching method, came into use. Now, a student's lack of certain intellectual qualities could be blamed for his or her lack of success. This viewpoint was strengthened by the introduction of the psychological construct of 'intelligence', the development of tests to measure it and the attribution of its general component to nature rather than nurture. Added to this the idea of *readiness*, allied to Piaget's stages of development, reinforced such attributions, since the pupil's failure to grasp certain concepts might best be explained on the grounds that the child had yet to reach the stage of formal reasoning. With such paradigms firmly established, it became feasible to search for alternative reasons, other than the use of an inappropriate pedagogy, to account for the failure of an individual to learn, such as their social class or ethnicity. This then was the dominant educational climate in England when first with James (Jim) Eggleston, and then with Brian Simon, Galton began in the 1970s to study by means of direct observation teachers and teaching.

In the United States and among scholars from Australia and New Zealand, who had studied for their doctorates at American Universities, the study of teaching was not completely neglected as was the case in the United Kingdom, although the first educational psychological textbook to contain a substantial section on teaching was not published until 1975 by Gage and Berliner. Previously, work by Anderson (1939) and its development by Flanders (1970) had raised the possibility of a 'law of teaching', since the analysis of practitioners' observed classroom behaviour appeared to result in a constant ratio between *indirect* (asking) and *direct* (telling) types of interactions, and these studies gave rise to the first meta-analysis in the *Study of Teaching* by Dunkin and Biddle (1974). These authors reviewed over 100 studies, 60 of which made use of the Flanders' Interaction Analysis Categories (FIAC) to determine *i/d* ratios of one kind or another. The results were somewhat equivocal. While naturalistic FIAC studies tended to suggest that students whose teachers had high *i/d* ratios (i.e. asked more questions) did better on tests of

attainment and improved their motivation and attitudes, experimental studies where teachers were randomly assigned to use high levels of either indirect or direct teaching showed little or no difference. The situation was further complicated by the fact that one of the FIAC categories, *accepts feelings*, could be included in the indirect section of the ratio implying that it was not possible for a teacher who was lecturing to do so in a warm, friendly manner. Not all studies, however, included the *accepts feelings* category in their i/d calculations, and this made Flanders' claim that asking was a preferred form of teaching to telling less plausible. From the English perspective, however, FIAC was never in great demand, because following the growth of mixed ability classes at primary level in the late 1960s and the use of individualised and group forms of instruction as a means of coping with this move away from streaming, FIAC's use was somewhat limited, since it was rare for teachers in England to instruct the class as a whole. In the case of ORACLE, the two observation systems, *The Teacher Record* and *The Pupil Record* (Boydell 1974, 1975), were designed 'in-house' at Leicester University's School of Education, although the latter was highly reflective of Medley and Mitzel's (1958) *Observation Schedule and Record Instrument* (OScAR).

Meanwhile, Gage (1978) had attempted to resolve the debate as to whether teaching was a science or an art. His definition of pedagogy as the *science* of the *art* of teaching suggested as did Simon (1981) that teaching had to be based on firm principles, mostly drawn from psychological theory (the science) but that in implementing these precepts teachers had to take account of the particular contexts in which they operated. The makeup of the class, the school environment and even the odd incident such as a wet lunchtime, when pupils couldn't 'let off steam' in the playground, were all factors which could determine whether, for example, the class was likely to engage in a profitable working arrangement in groups. Accepting this definition there are still formidable difficulties in putting pedagogic theory into practice, largely because as Desforges (1995) argues researchers find it difficult to express their ideas in terms that are meaningful in the context of an individual teacher's classroom and teachers find it difficult to generalise from their individual experiences. It is here that Galton has perhaps made his most important contribution for whenever he speaks to teachers he has often been able to create a feeling on the part of the audience that he has been in each of their classrooms and understands the problems they face in their particular circumstance. Sitting in classrooms for over four decades has provided an array of anecdotes about pupils which he uses with great effect to illustrate his ideas.

Unlike in Hong Kong, Galton's influence on educational policy has been limited in his native England where apart from his work on transition from primary to secondary school, around the time of the millennium during Tony Blair's Labour Government, few of his ideas have been incorporated into educational policy. Appointed to the National Curriculum's short-lived Primary Committee, shortly after the election of Mrs. Thatcher as prime minister in 1979, he was dismissed along with other members because the draft report's recommendations for the integration of core subjects into humanities topic went against the then Secretary of

State for Education, Kenneth Baker's strongly held view that subjects such as History (his own special interest) should have a separate slot on the curriculum.

However, his experience was not unique as can be seen in the treatment of his later colleague, Robin Alexander, under Baker's successor, Ken Clarke. Alexander was appointed in 1991 to make recommendations on the appropriate use of different teaching methods and their relative effectiveness (Alexander et al. 1992). Alexander's contributions to this so-called *Three Wise Men's* report (he was responsible for most of the drafting) as discussed in Alexander (1997) were continually undermined by one of his two colleagues, the chief inspector of schools, and often edited to provide interpretations and inferences which were almost the opposite to the originally intended meanings. Neither was Alexander better served by the 2008 Labour Administration under Gordon Brown where the Department of Children, Schools and Families (DCSF) attempted to undermine his well-researched Cambridge *Primary Review* of the curriculum by hurriedly setting up their own internal rival study because Alexander's wide ranging inquiry was seen as 'a potential threat' according to one senior member of the Qualifications and Curriculum Authority (QCA), part of the internal review 'expert' team, who was interviewed by Bangs et al. (2011: 82). Following the replacement of Labour by the Coalition Government during 2010–2015 and the appointment of Michael Gove as secretary of state for education, matters deteriorated further in that the two other distinguished academics, Professors James and Pollard, who were appointed to conduct yet another curriculum review, felt the need to resign because their advice was ignored in the final report. In short, the history of educational policymaking in England is one where governments of all persuasion have rarely been influenced by research evidence unless that evidence was in accord with their own preferred ideology. No wonder one ex-chief inspector, another interviewee in Bangs et al. (2011:145), gave as his opinion that in England, 'there was nothing rational about decision making' in any of the governments under which he served.

Against this background, therefore, many of the problems, which attracted the likes of Galton into classroom research, still remain unresolved. There is still no consensus as to what to teach and how best to teach it. Neither are there accepted models of how teachers acquire expertise over time such that they cease to use 'maxims' to solve problems and instead become 'improvisational' thinkers (Berliner 2002). Without such models, the organisation and delivery of initial teacher training and of further professional development programmes are often dependent on the personal predilections (and sometimes prejudices) of the tutors at a particular institution. Systematic of this lack of pedagogical underpinning is the failure of the UK's TLRP (Teaching and Learning Research Programme), one of the biggest research initiatives, to fund any serious study on models of teaching or the development of teacher expertise, it being left to the programme directors to attempt a retrospective interpretation based on the numerous idiosyncratic studies. Consequently, many of the themes addressed by Galton and his colleagues over the past decades are reoccurring ones and are addressed in many of this book's chapters. It can be reasonably expected, therefore, that his work will continue to be cited by future generations of researchers for the foreseeable future.

References

- Alexander, R. (1997). *Policy and practice in primary education: Local initiative, national agenda*. London: Routledge.
- Alexander, R., Rose, J., & Woodhead, C. (1992). *Curriculum organisation and classroom practice in primary schools*. London: Department of Education and Science.
- Anderson, H. (1939). The measurement of domination and of socially integrative behaviour in teachers' contacts with children. *Child Development*, 10, 73–89.
- Bangs, J., MacBeath, J., & Galton, M. (2011). *Reinventing schools, reforming teaching: From political visions to classroom reality*. London: Routledge.
- Berliner, D. (2002). Learning about learning from expert teachers. *International Journal of Educational Research*, 37(6), 463–482.
- Boydell, D. (1974). Teacher-pupil contact in junior classrooms. *British Journal of Educational Psychology*, 44, 313–318.
- Boydell, D. (1975). Pupil behaviour in junior classrooms. *British Journal of Educational Psychology*, 45, 122–129.
- Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behaviour.
- Delamont, S., & Galton, M. (1986). *Inside the secondary classroom*. London: Routledge.
- Desforges, C. (1995). *An introduction to teaching*. Oxford: Blackwells.
- Dunkin, M., & Biddle, B. (1974). *The study of teaching*. New York: Holt, Rinehart and Winston.
- Eggleston, J., Galton, M., & Jones, M. E. (1975). *Processes and products in science education*. London: MacMillan.
- Flanders, N. (1970). *Analysing teacher behaviour*. Reading MA: Addison-Wesley.
- Gage, N. (1978). *The scientific basis of the art of teaching*. New York: Teachers' College Press.
- Gage, N., & Berliner, D. (1975). *Educational psychology* (1st ed.). Boston: Houghton Mifflin.
- Galton, M. (1989). *Teaching in the primary school*. London: David Fulton Publishers.
- Galton, M. (2010). Going with the flow: The pedagogy of artists working in schools. *Research Papers in Education*, 25(4), 355–375.
- Galton, M., & Blyth, A. (1989). *Handbook of primary education in Europe*. London: David Fulton Publishers.
- Galton, M., & MacBeath, J. (2008). *Teachers under pressure*. London: Sage/NUT.
- Galton, M., & Moon, R. (Eds.). (1994). *Handbook of teacher education in Europe*. London: David Fulton for the Council of Europe.
- Galton, M., & Patrick, H. (1990). *Curriculum provision in the small primary school (PRISMS)*. London: Routledge & Kegan Paul.
- Galton, M., & Pell, T. (2012). Longitudinal effects of class size reductions on attainment: Results from Hong Kong primary classrooms. *International Journal of Educational Research*, 53, 360–369.
- Galton, M., & Simon, B. (Eds.). (1980). *Progress and performance in the primary classroom*. Routledge & Kegan Paul.
- Galton, M., & Willcocks, J. (Eds.). (1983). *Moving from the primary classroom*. London: Routledge & Kegan Paul.
- Galton, M., & Williamson, J. (1992). *Group work in the primary classroom*. London: Routledge.
- Galton, M., Simon, B., & Croll, P. (1980). *Inside the primary classroom*. London: Routledge & Kegan Paul.
- Galton, M., Gray, J., & Rudduck, J. (1999a). *The impact of school transitions and transfers on pupil progress and attainment, Research Report 113*. London: Department for Education and Employment.
- Galton, M., Hargreaves, L., Comber, C., & Wall, D., with Pell, A. (1999b). *Inside the primary classroom 20 years on*. London: Routledge.

- Galton, M., Gray, J., & Rudduck, J. (2003). *Transfer and transitions in the middle years of schooling (7–14): Continuities and discontinuities in learning, Research Report 443*. Annesley, Nottingham: Department for Education and Skills (DfES) Publications.
- Galton, M., Steward, S., Hargreaves, L., Pell, A., & Page, C. (2009). *Motivating pupils in the lower secondary school*. London: Sage.
- Galton, M., Lai, K. C., & Chan, K. W. (2015). *Learning to teach small classes: Lessons from East Asia*. London: Routledge.
- Gardner, C., & Williamson, J. (2004). *Workloads of Government school teachers and allied educators in Tasmania*. Report Commissioned by the AEU (Tasmania), Launceston.
- Hargreaves, L., & Galton, M. (Eds.). (2002). *Transfer from the primary classroom 20 years on*. London: Routledge.
- Highet, G. (1951). *The art of teaching*. London: Methuen & Co. Ltd..
- McLellan, R., Galton, M., Steward, S., & Page, C. (2012). *The impact of creative partnerships on the wellbeing of children and young people, Final Report to Creativity, Culture & Education*. Cambridge: Faculty of Education, University of Cambridge.
- McNeely, C., Nonnemaber, J., & Blum, R. (2002). Promoting school connectedness: Evidence from a national longitudinal study of adolescent health. *Journal of School Health, 72*(5), 138–146.
- Medley, D., & Mitzel, H. (1958). A technique for measuring classroom behaviour. *Journal of Educational Psychology, 49*, 86–92.
- Pell, A., Galton, M., Steward, S., Page, C., & Hargreaves, L. (2007). Promoting group work at key stage 3: Solving an attitudinal crisis among young adolescents? *Research Papers in Education, 22*(3), 309–332.
- Simon, B. (1981). Why no pedagogy in England? In B. Simon & W. Taylor (Eds.), *Education in the eighties, the central issues* (pp. 124–145). London: Batsford.
- Simon, B., & Willcocks, J. (Eds.). (1981). *Research and practice in the primary classroom*. London: Routledge & Kegan Paul.
- Williamson, J., & Myhill, M. (2008). Under ‘constant bombardment’: Work intensification and the teachers’ role. In D. Johnson & R. Maclean (Eds.), *Teaching: Professionalization, development and leadership*. Dordrecht: Springer.

Part II
Historical, International and Policy
Perspectives

Chapter 3

Social Learning Norwegian Classrooms and Schools: Educational Research in Perspective

Rune Kvalsund

Abstract In this chapter, social learning and the changes over time are described and analysed as seen from several perspectives and strategies which impact on Norwegian educational theory and practice. Social learning is analysed by combining two dimensions – the level of educational practice (classroom – community) on the one hand and the degree of change (minor adjustments – new solutions) on the other. Social learning in different versions is discussed pointing to the challenge of balancing two main perspectives of social learning and teaching, namely, knowledge acquisition in classrooms and knowledge learnt by participation in community. Several strategies for social learning in Norwegian single-grade and multigrade classes, classrooms and schools are identified, compared, discussed and exemplified. The analysis points to a closing discussion of research on social learning and the several challenges to its successful implementation – ‘evidence-based’ teaching, teachers’ use of certain pedagogic strategies, the weak voice of children, ‘peer society’ and ‘ageism’ and the approach to social learning in the more abstract (theory-based) school subjects.

Keywords Formal and informal social learning • Strategies of social learning • Learning by acquisition in classrooms • Learning by participation in community • Life course transitions • Social networks • Social integration and segregation • Ageism • Multigrade learning • Abstract school subjects • Teacher role • Children’s voice

R. Kvalsund (✉)
Department of Social Science & History, Volda University College,
Postboks/post Office Box 500, N-6101 Volda, Norway
e-mail: runekvalsund@gmail.com

Introduction

It has become commonplace to encounter the proposition that school plays an increasingly more important role in a knowledge-dependent, contest-driven international economy. Schools are facing expectations based on the ideas of mass production, accountability and effectiveness. We can observe an increasing emphasis on external education governance procedures to assess schools. International systems of learning, focusing on outcomes controlled and compared by testing (e.g. PISA), are increasingly institutionalised as a global mode of education governance. This happens at national level even without discussion of the founding historical, cultural and ideological presumptions on which the particular school system is based (Meyer and Benavot 2013). In Norway, PISA testing is practised as if the tests are covering the content of the national and local curriculum plans, which they definitely do not, and therefore seriously challenge the content of schooling and the teachers' competence and independence. In using 'evidence-based' knowledge to legitimate certain practices, evidence acquired by means of the 'gold standard' of experimental design, involving randomised treatment and control groups, researchers seem to ignore the complexities of teaching contexts and threaten the teacher's professional educational authority and judgement. This clearly represents a powerful external and instrumental perspective on schooling having consequences for the practice of social learning of pupils and teachers at school and classroom level. Against this background, we can ask how the broader culturally grounded aspect of social learning that takes place in school is influenced. How, for example, are the roles of pupils, parents, teachers and local communities as living places affected? To answer such questions, we need to clarify the concept of social learning and review research that describes the various educational strategies used to promote social learning. I will refer to English, British and American studies in cases where they have been influential on Norwegian educational research, but Nordic research will also be highlighted as well.

Social Learning: Central Dimensions

The concept of social learning has several dimensions and a core meaning mirroring fundamental aspects of education. In processes of 'man-making' (i.e. development of the child into an adult), the concept is seen as fundamentally relational and social (Wenger 1998) following basic mechanisms of taking the role of 'the other' (Mead 1934). However, social learning might be conceived from several different perspectives.

The first perspective of social learning is accordingly the *routinised interaction* between similar, equivalent persons situated in social and cultural contexts. Jackson (1968) studied life in classrooms identifying 'hidden curriculum' and 'the daily grind' as the more effective routinised mechanisms of social learning. They are part

of ‘lived life’, the organisational norms and culture of the school, which tend to be invisible until they are broken. Within this interpretation, pupils take the perspective of the ‘other’ and use their ability to judge their actions as seen from the position of this ‘other’ or from the position of the collective (Mead 1934; Blumer 1969; Wenger 1998). This interaction is the core of social learning.

Edvardsen (1981, 1983) has demonstrated that qualities of this kind are embedded in *real-life work situations*. This is the *cultural perspective* of social learning and can tell us something about the individual’s position and the degree of social and cultural integration or isolation in the classroom, school and work place and in the local community. In collective concrete work situations, the knowledge, skills and meaning of contributing acts are learnt simultaneously. The individual actions are not to be understood by taking into consideration ‘motor development’ but are rather given a *social and cultural interpretation and meaning*. In partaking in joint activities, where the involvement requires a person to contribute the well-developed or the right acts, adapted to meet the particular situation, the individual effort is subsumed within the collective contributions – all for one and one for all (Edvardsen 1983, p. 97). Learning activities are in this meaning *situated* within the community’s core concrete participation (see, e.g., Wenger 1998; Rogoff et al. 2003) and therefore culturally and collectively interpreted. This means that social learning covers the practice in handling situations among equals as well as in asymmetrical relationships within a broad range of settings. This gives the young person opportunities to understand the nature and meaning of knowledge learnt at school and how this knowledge can be applied. On the other hand, such knowledge might by its content induce them to leave school. This can be interpreted as an unintended consequence of the concept of social learning, where school’s mission is not developed as part of the local community, but rather understood in global economic terms.

A second perspective sees *social learning as skill training* – control-based behaviour forming and adaptation. It includes ‘social training’ or practising rather restricted basic skills necessary for a person to function in the community. *Skill training* involves teaching pupils to conform rather than developing insights into the presumptions which underpin the various activities. Within the Norwegian school, based on the principle of inclusion, this is adaptation to given structures. Social learning is thus an instrumental, objectifying process where pupils are learning to follow rules without knowing or understanding the presumptions on which these are based (Hellesnes 1974). This form of learning can often be observed in, for example, the psychological and psychiatric treatment afforded to certain categories of pupils at school. The formal incremental activities of social training (learning to sit at a desk, remaining quiet for longer periods of time, working individually, asking for permission to do things) can also add and develop into unintended informal processes and results whereby these forms of *passive adaptation* are contrary to expressed goals about independence, individual agency and collective action.

These are then the central dimensions of the analysis of social learning in the classroom, school and community. Is it possible, therefore, to identify a pattern of research and practice of social learning? In the following part of the chapter, I will

give an overview of Norwegian and Nordic research on social learning in the form of a typology and then present some specific research projects as a foundation for a concluding discussion of social learning.

Analysing Research on Social Learning: A Typology

Research on strategies of social learning has a wider time horizon than single instances and daily activities in the classroom. In Nordic countries, for example, the strategies have several dimensions as well as a research-based knowledge foundation with which the strategies of social learning are associated. A recent special issue of the journal *Education up North* presents empirical accounts of academic research ‘in situ’, aimed at supporting and developing awareness of people’s individual and collective actions in relation to the context and environment. Thus, learning strategies and the associated analysis can be directed towards framing conditions and processes at different levels and might involve a class, the general learning environment in a school, the school as a community of practice, the role of the school in the local community and, in reverse, the role of the local community in school reflecting the fact that contextual differences in urban and rural places matter.

The learning strategies will as a consequence be different depending on the extent of the network of persons involved and the cultural meaning and content. This dimension of the typology below is described as the *strategic and analytical level* – extending from internal acquisition of knowledge in classrooms to external community participation in learning (Edvardsen 1981, 1983; Rogoff et al. 2003). The second dimension is the *direction* of analysis and strategy and would accordingly be directed towards *improvement of established practice* or towards *identifying new solutions* at the different strategic and analytical levels.

Combining the two dimensions results in a typology that facilitates a systematic discussion of research on social learning related to analysis of strategies in four different fields:

1. Improvement strategies at class and school level.
2. Improvement strategies at school and local community level.
3. New strategies at class and school level.
4. New strategies at school and local community level.

The categories of the typology – as in most typologies – are not mutually exclusive. Cases of analysis might be located in the borderland between categories. Some strategies include aspects from more than one category. However, the organisation of the typology is sufficient to give an overview of the analysis and discussion in the present text of the more detailed accounts of the fields of the typology (Fig. 3.1).

		Strategic level	
		Classroom/school	School/local community
Analytical and strategic direction	Improvement of established practice	1. Differentiation strategies & Integration strategies	2. Network strategies & Knowledge strategies
	New Solutions	3. School development strategies	4. Recruitment strategies

Fig. 3.1 Strategies of social learning – a typology

Differentiation Strategies and Integration Strategies

Traditionally, classes are constructed on the principle of age segregation. In the later Norwegian national curriculum guidelines from 2006, we can observe an individualistic turn.¹ The signal to teachers is the shift from references to a ‘relational, educated man with a basic social attitude’ (Vetlesen 2004, 2009 and Nafstad 2004) and its replacement by the ‘strategically choosing individual’ (as suggested by, e.g., Giddens 1984, 1991). Empirical research shows that the typical school lesson, involving little social learning, still seems to have a strong position in Norwegian primary schools as well as in lower secondary schools (Klette et al. 2003) particularly in combination with PISA testing, a central component in Norwegian schools for several years. Improvement strategies at classroom and school level are therefore of two subcategories – *strategies of differentiation* and *strategies of integration*.

Strategies of integration are grounded in the concept of a stable working group or community of practice. In most cases, this means the class having most of the learning time together, with common learning assignments and a common collective system of cooperative rules, a team of few teachers and a strong class teacher function which, while investing in the informal solidarity, nevertheless maintains a strong internal group structure within her own class. The Norwegian researcher Foros (1989, p. 67) formulates arguments for this arrangement and suggests ways to organise the classes of the primary school as socially dense communities of practice with internally developed reasons for solidarity and community. The strategies of social learning directed towards integration and on training of social cooperation between pupils have age-homogenous classes as base groups.²

¹The concepts of ‘school class’ and ‘group’ have been replaced by guidelines directed towards learning for the individual pupil. Little is said about the social collective and substantial aspects, the learning content in schools. Equity seems to be at risk. Content can be decided locally by teachers, parents and pupils – being co-responsible for documented learning results.

²Formerly well known and practised in many Norwegian and Swedish schools at this time is Johnson and Johnson (1987) *Learning Together and Alone*. Confluent education played a parallel role emphasising collective class meetings discussing the values behind daily practice in school, expressed by the title *Aktivt Verdivalg* (Active Choice of Values), promoted by Steinberg (1980), or

Learning programmes and strategies associated with *pupil responsibility for their own learning* tell us indirectly about social learning in Norwegian schools during the 1990s with the teacher as initiator of learning processes, tutor and supporting professional. Research on the Norwegian Reform 97 by Klette (2007) has studied the learning activities and cooperation in 30 Norwegian classrooms. Teaching the whole class dominated in most classrooms with variations in sequence and amount of question and answer exchanges (most often teacher directed), teacher instructions and individual work with teacher assignments. Programmes based on individual work plans dominated at both primary level and lower secondary level in Norwegian classrooms as a kind of accommodation of learning conditions to support the pupil's opportunity to rationally choose what to be engaged in as learner. The classroom is the frame for this paradoxical learning process: pupils are disciplined by adults controlling that which children learn to choose 'individually and freely' – i.e. kind of 'enforced freedom'. The class acts as a dialogical learning collective, and the social cooperative learning is reduced accordingly.³ This also seems to be the situation in other Nordic countries (Österlind 2005; Carlgren et al. 2006).

Strategies of differentiation have, for the most part, involved educational measures based on the pupils' rights to adapted teaching⁴ which in Norwegian schools is claimed to be inclusive for all pupils. In contrast to the rhetoric, a common description of the reality that operates within Norwegian schools is of growing individualisation, cooperation within a subject teacher system with the organisation of groups involving two-teacher arrangements and a growing tendency for grouping by performance level. This is shown to be the situation in Norwegian upper secondary schools, where there is differentiation across eight groups, four 'special' classes and four ordinary classes (Kvalsund 1997, 2004a, b, c, d). This situation is replicated

Steinberg (1976), *Emotional Growth in the Classroom: Implementing Affective Education Through the Process of Confluency*. These *dialogical strategies of social learning* were based on contracts between pupils as an integrated collective and their teachers rather than reflecting the informal interplay between actors in school. Internationally strategies of cooperative learning have been developed for years, and many research studies have been completed. Slavin (1990, p. 241) summarised the research on cooperative learning methods supporting the usefulness of these strategies for improving such diverse outcomes as pupil achievement at a variety of age levels and in many subjects, intergroup relations, relationships between integrated and normal-progress pupils and pupil self-esteem. Slavin lists several conditions to be met for strategies of this kind to be successful. The decisive condition is that the programmes are strongly structured or instrumentally adult-controlled social learning reflecting the prevailing adult-centred professional of social learning as opposed to the central importance of agency, community and the relational qualities of children and young persons' experiences of social learning.

³Kvalsund (2009) has shown that comparative analysis of social learning variations in differing context and learning environments (i.e. the rural–urban divide) is an indisputable characteristic of the Norwegian Research Council (NRC) programme of research on Reform 97. Therefore, strategies for improving established practice in urban schools would lack relevant comparative data and results. This mechanism contributes heavily to the development of negative myths about social learning and teaching in smaller rural schools as socially restricted.

⁴For a review of Norwegian research on inclusive education, differentiation and adapted teaching, see Backmann and Haug (2006).

in Norwegian 'inclusive' primary schools as well. Many pupils are segregated into what is described as 'reinforced departments' (i.e. higher staff level) which means separate groups – special classes – for special educational teaching for pupils with special educational needs. The problem is that nobody – neither Norway's statisticians, GSI nor the central government – knows the number of groups or special classes (Jahnsen and Grini 2012). These are 'the pupils nobody speaks of'. They certainly experience segregated social learning. Their segregation implies that the mainstream pupils do not learn how to cooperate with persons different from themselves during their school years – an important goal of social learning in school.

Methods are developed, for example, CLASS (*Classroom Assessment Scoring System*), to observe and register what teachers do with the material they have at their disposal and their pupil interactions, i.e. emotional support, classroom organisation and instructional support (Pianta and Hamre 2009). The teacher can be observed by pupils as a dialogical model person to learn from.⁵ The CLASS system is designed to capture the interaction within classrooms of the school and can be used to monitor specially adapted teaching within the class, rather than in special classes and special schools. Thus, it offers opportunities for social learning by pupils about how to cope with persons that are quite different from themselves. However, pupils and teachers in these so-called 'enforced' departments have so far not been studied. This is internal social exclusion within a school system aimed at inclusion.

The differentiation strategies are based on analysis or studies of the learning situation for children having problems in adapting to the school situation within ordinary classrooms. Specific training programmes have been developed such as *Aggression Reduction Training* (ART) (Gundersen and Svartdal 2006) or PEACE4Kids, a programme for handling behaviour problems among children and young persons which are meant to develop their social, emotional and academic competence. This kind of analysis, programmes and strategies can be combined (see, e.g., Salmon and Salte 2008) under the umbrella of *psychotherapeutic educational programmes*. Judged against various alternative approaches, these programmes are claimed to be research or rather evidence based and well documented through practice. Nevertheless, they reduce the risk of breakdown of informal social cooperation and social learning among the pupils in the class.

In recent years, the perspective of social learning has been extended to general preventive work aimed at all pupils and the school as a whole. However, this research and the promotion of these educational strategies are creating doubts about the quality of the teacher's daily preventive work and their teaching in general. The argument is that we do not know the consequences of the teacher's educational measures. Research should therefore guide practice, producing evidence-based practice in

⁵In a recent study, Måseidvåg and Munthe (2013) investigate the quality of learning support, analysing video-recorded lessons from teachers in four lower secondary schools mapping dimensions of quality feedback interactions. Results show that lessons are characterised by a positive climate. Teachers emphasise encouragement in their dialogues with students. Feedback is found to be more encouraging than learning oriented.

schools (and kindergarten) conceived as ‘knowledge enterprises’ (Arnesen and Sørli 2010), following the logic of mass production.

Analysing these strategies – segregation into separate groups, psychotherapeutic programmes within the class and the use of pre-produced programmes – we observe that social learning is subordinated to adult-centred instrumental thinking, the results of which are segregation, an emphasis on pupil qualifications that focus on their learning knowledge in abstract school subjects and which is aimed at supporting flexibility and possibly migration of the work force.

Network Strategies and Knowledge Strategies

The strategies in this field or category are directed towards modest changes and improvements of established practice at school/community level, and, as their point of departure, they challenge the current emphasis of teaching abstract school subjects in age-differentiated classes. Instead they point beyond the borders of the classrooms and school when it comes to identifying *cooperating actors and interests* and suggesting *compensating strategies* for social learning. What goes on outside class and school level, e.g. taking part in activities of organisations in civil society, such as age-integrated local sport activities and scouting, points to the need of analysing knowledge and learning content in school beyond that of abstract school subjects. The school is also seen as part of the environment in which children grow up and construct their everyday lives. Networks of this kind are analysed in general by Degenne and Forsé (1999), Wassermann and Galaskiewicz (1994) and Scott (2009). Two subcategories for social learning are identified: *children’s social networks* and *analysis of knowledge* tracing the relationship between the knowledge content in school and the ‘real-life’ situations in which it is meant to be applied.

Network Strategies

The challenge here is to create, maintain and improve informal social networks and trace social learning in the borderland between school and local community. In a kind of personal social work, children and teachers judge actors’ motives and interests against contextual conditions such as admission to relevant arenas and possible activities and choose those that contribute to developing social networks. Network analytical strategies and relevant Norwegian studies are discussed by Bø (1993), Schiefloe (1982, 1992, 2003), Fyrand (1992, 2005), Bø and Schiefloe (2007) and Klefbeck and Ogden (1995). Thinking of the school context studies in this category can be conceived as contributions to the development of

compensating strategies for handling the problems institutionalisation of schooling creates for social learning as discussed in category 1.⁶

Some of these network strategies are generally focused on client groups and are therefore more collective than personally directed. However, Klefbeck and Ogden's (1995) reference to the concept of 'network diagnostics' is a Norwegian example of direct interventions into pupils' informal networks. Even if the intention is improvement, the interventions can be problematic in that the network is easily transformed into a *public treatment network with formal characteristics*. In this way, the grounding of social learning is transformed and given quite another direction. Again we can observe the influence of the prevailing adult-centred, *instrumental* concept of social learning based on adult control as opposed to the central importance of pupil agency and the relational and community qualities of children's and young people's experiences of social learning.⁷ An alternative is to apply network theory as an analytical tool in comparative research of social learning as in the research example below.

Knowledge Strategies

Social learning in this perspective can hardly be understood if it is dissociated from the pupils' understanding of the contexts of how what is taught and learned in school can be applied. Social learning is in this sense *culturally grounded* and is taking place in concrete settings and in contexts of place and time. In this way, these strategies can be conceived as compensating or reinforcing depending on whether they emphasise *texts or contexts*. The question then is how these understandings are balanced in the actual school. Is the main emphasis on *learning about* something (i.e.

⁶Network processes would be understood in different ways based on conflicting values: on the one hand, the perspective of rational choice calculating action's social exchange value by individual rational choices. On the other hand, social networks are embedded in routinised practices of everyday life in schools, work and communities based on intuitive knowledge of procedures and a fundamental value that man is a social being with an altruistic attitude not possible to reduce to individual calculation of social benefit. Social networks are formed by jumping into existing situations and activities, a practice in which altruistic acts are more important than calculating what you get in return – as in children's play activities.

⁷Tiller (1983) reported on local communities seen through children's eyes. He studied several very different 'places' as growing up environments for children – places representing extremes within a typology of in-migration, out-migration stability and turbulence using children as informants about their own environment, including their network patterns – a way of conserving valuable qualities of social learning in local community and become aware of conditions of negative social learning. Stangvik (1994) discusses network relations for disabled children and youth in local communities within what he describes as strategies of normalisation. Kvalsund and Hargreaves (2013) discuss the risk – dependent of theoretical perspective – of setting this kind of research 'footprint' in processes of educational research in rural settings studying 'linked lives'. It seems to be an effect of not asking about the actions of people in the field making explicit the presumptions of interventions – taking presumptions, prejudices or 'theory in advance' for granted, be it about research or social learning.

acquisition in classrooms) compared with *learning by taking part in* some life-relevant educational process learning, i.e. the consequences of actions in real-life situations? The implication of the latter knowledge strategies is to open the school to nature, culture, production and cultural activities of the local community – as an alternative to the prevailing perspective of abstract classroom learning. These are qualities that embed education in concrete social everyday life as principally discussed by Dewey (1966). In Norway, an influential educational analyst Edvardsen (1981, 1983) analyses and discusses ‘decontextualised’ school content as abstract, empty of meaning, a source of behaviour problems among pupils, because of its focus on knowledge without any reference to its application in future contexts – the school report or certificate giving the pupils only a paper relation to future, telling them little about the future relevance of learnt knowledge in the context of future work and living place.

This perspective of social learning has a tradition in rural Norway. The content of the national curriculum plan (supporting the arguments of equal opportunities for all children to have schooling where they grow up, independent of social class and living place) is clearly in conflict with local cultural content reflecting experiences in the everyday lives of local people (Solstad 1978; Råen and Ålvik 1987; Høgmo et al. 1981; Tiller 1993; Dalin and Skrindo 1983).⁸ From the latter perspective of education (‘bildung’) and based on research and theory, Jordet (2010) refers to ‘the outdoor classroom’. The meaning-dimension of school content extends the social learning by grounding it within community. One of the weaknesses of previous research on social learning in small rural schools has been to offer anecdotal description of small schools as examples of good practice without testing the results against analysis of comparative data of larger schools (Kvalsund and Hargreaves 2009a, b). Another weakness is the neglect of the children’s viewpoint when they are permitted a voice to describe their experiences. The following example of research attempted to remedy these omissions.

⁸Råen and Ålvik (1987) in their *Handbook of Local Curriculum Development* discussed the exemplar principle in didactic. Their improvement strategies were suggesting the importance of balance between (1) showing the exemplar value of school subject knowledge (the scientifically based acquisition) and at the same time (2) making explicit the local exemplar value of knowledge (participation). Aasen and Engen (1994) point to season variations in local production or local custom of food processing (time-defined content) or local ‘heroes’ (person-oriented content) in addition to the historical dimension as well as multicultural dimension as criteria for selecting learning content. In some cases – e.g. Lofoten project from the 1970s (Høgmo et al. 1981) – the strategy implied developing local learning material. However, Tiller (1993, p. 124) documented that much of the local curriculum work stopped because of restricted competence among teachers. Some strategies were later directly formulated in the national curriculum plans: PRYO (practical vocational experience and knowledge) and PRASOSKA (practical social and cultural work). Within the knowledge analytical perspective, teaching in certain periods of time would be organised as field-oriented learning projects outside school (e.g. Dalin and Skrindo 1983: *Learning by Participation, Tracing Historical and Cultural Traditions of Church Boats in Coastal Norway*) and have broader contact and cooperation with local people on their own terms.

Comparative Longitudinal Research on Social Learning Based on Children's Voices and Data: A Norwegian Example

The research reviewed in field I and II, improvement strategies at classroom and school level of the typology, does not study differentiation and integration strategies, network strategies or knowledge strategies by *comparing* social learning at schools with age-mixed classes⁹ in smaller rural schools with social learning in larger age-segregated urban classrooms and schools. Cross-sectional correlational studies dominate the picture. Changes in the patterns of social learning over time such as the transition between primary and lower secondary school are seldom studied. Important qualities of the balanced learning environment for teachers and pupils in multigrade classes are almost totally neglected, a fact reported in several research reviews (Bell and Sigsworth 1987; Vinterek 2003; Kvalsund 2004a, b; Solstad and Sigsworth 2005; Solstad and Theling 2006; Hargreaves et al. 2009; Hargreaves 2009; Berg-Olsen 2008, 2012; Johansen 2009; Solstad et al. 2012).

Despite all reforms, Cuban (1990, 2013) has shown that the lesson in its main characteristics remains as it has always been without the intended reforms being put into practise. This invites a closer look at the complementary arenas of social learning, i.e. multigrade school lessons, informal social learning in breaks and children's spare time pursuits. The programme of closing down of small rural schools has been accelerated in recent years (NDET 2013a) and is probably the largest school reform in Norway – a reform about which silence is a main characteristic at national level. The news is that larger rural schools – having more than 50 pupils – are being closed down as well¹⁰ reinforcing the changes of contexts for social learning from *participation* in community to lessons of *acquisition* in classrooms.¹¹

⁹The alteration between learning in large classes and small groups is a core feature in a study by J. I. Goodlad, *The Nongraded School*, from 1963 – organising the pupils in learning groups based on individual qualifications independent of age. Nissen og Egelund (1985) ('Undervisning på tvers av klassetrinn'/Teaching across age grades') is a Nordic example of the same kind of educational thinking. In Norway, these educational strategies have connection to the tradition of 'open education/open school' in England in the 1970s and 1980s, for example, the Norwegian Elementary School Council project Eleveltpassa Læringsmiljø – Integret Dag (ELMID) (Pupil-Adapted Learning Environment – Integrated Day), content that supported cooperation, subject integration, age-mixed groups and flexible organisation of time and space in social learning. Today the class is no longer a stable group of people. Open schools are introduced again under the name of 'base schools' – where pupils are congregated in large groups of several classes in some periods of the day and then divided into smaller groups in other periods – this is the principle of flexible organisation of pupils supposed to enhance individual learning at a lower cost.

¹⁰Questions of closing down small rural schools are exported from central government down to the local level of the municipalities. In this way, the politicians at national level avoid responsibility for what is happening. They point to local politicians at municipality level even when it is a fact that they decide the economic frames for the municipalities each year. Kvalsund (2009) has analysed this process and concludes that it is a process with double meaning – centralised decentralisation or decentralised centralisation – in avoiding the responsibility.

¹¹Emphasising abstract subject content supporting the process described by Corbett 'learning to leave' and increasing the chance of mobility is a change in Norwegian schools at all levels

How are these changes of contexts and conditions of social learning transmitted into local classrooms and schools? How are the indicators of the changes related to discipline and control from adults and teachers? What is the role of a centralised school structure and further increase in abstract subject content? Other possible explanatory factors of differences in patterns of social learning are school localisation, size of the school, multigrade organisation of teaching and learning, gender balance of classes and the learning environment of the school. In the account of research that follows, these contributing factors will be analysed with the relationship between school and the local community as a framing context.

To capture patterns of informal social learning activities, the class, the recesses between classes and spare time after the school day is ended are studied and compared as arenas of social learning covering almost 24 hours. What do pupils do, and how and about what do they interact? How do different educational regimes in school, e.g. individual learning in classrooms (*acquisition*), affect social learning compared with an extended social and collective understanding (*participation*) of learning? How does it affect their social identity? What are the changes in social learning following the pupils through the “life course” transition from primary school to lower secondary school? What is the pattern of social learning? Is it identical or different when comparing small rural and larger urban schools, and are they reinforced or compensating when different arenas or different contexts are compared over time?

Data for this study were collected from 19 schools, six larger urban-like schools with single-grade classes, between 90 and 370 pupils, a total of 617; three multigrade schools (two age levels in each class) between 30 and 40 pupils, a total of 105; and ten multigraded schools (three age levels in each class) between 12 and 27 pupils, a total of 184. *Extensive quantitative data*: complete network data from all classes except the first year pupils was gathered. Network data about social relations between individuals rather than about characteristics of the individual was more challenging to analyse. The grounding of the data is action, what people do and not about their opinions. By these data, we were able to identify groups of interacting individuals by ‘clique analysis’ (UCINET) identifying pupils that usually worked together in classes, stayed together during recesses and met after the school day ended. All in all, a high number of groups were analysed. The composition of 1321 groups in the larger schools were analysed with the following distribution: *lessons*, 487 groups; *recesses*, 311 groups; and *spare time*, 523 groups. In the small schools with multigrade class organisation, the composition of 459 groups were analysed – *lessons*, 87 groups; *recesses*, 221 groups; and *spare time*, 151 groups. Age and gender composition of the identified groups were determined manually by applying the categories of the typology in Fig. 3.2 below, for deciding the social profile of the group.

(Blichfeld 1996; Kvalsund 2009). The latest reform – ‘Reform 97’ – is increasing the level of abstraction in school content at primary and lower secondary level. Parallel to this change is observed considerable increase in the number of pupils with ‘special educational needs’ in the last 5–6 years: from 5000 pupils a year to 11,000 a year.

Fig. 3.2 Typology of pupil groups by age and gender

	Single age grade	Several age grades
One gender	<i>Segregated</i>	<i>Gender Segregated Age Integrated (GSAI)</i>
Both genders	<i>Gender Integrated Age Segregated (GIAS)</i>	<i>Integrated</i>

Intensive data were collected by doing 128 in-depth interviews with pupils selected from fifth and sixth grade – ‘the pupil historians’ of the school. One year later, 80 of them were interviewed again and complete network data collected for pupils in four receiving lower secondary schools.

The selection of case schools is theoretical, based on a hypothesis in advance that the contextual differences and similarities between these categories of schools have a potential power that is different enough and similar enough to be meaningfully compared on social learning. Schools are regarded as cases, and the pupils and classes identified as embedded cases. In addition, field observation and document analysis were part of collected data.

Group profile by age and gender (see typology of pupil groups) – core aspects of the settings of social learning – based on complete network data for each separate school was described for *classes, recesses and spare time* and then compared as cases. The number of school cases (19) does not invite the researcher to follow a sampling logic. The alternative is replication logic¹² doing literal replications and theoretical replications of case schools (Yin 1984) trying to falsify the pattern established so far in the process by comparing it with the pattern of the next case school studied. In this multiple instrumental case study (Stake 1995), a *compensation and a reinforcement hypothesis* is formulated for the analysis of network data. The pattern of group composition could be different for lessons and recesses between lessons and in spare time because, in these two last mentioned arenas, pupils are free to choose with whom they would usually play and interact. The small, multigraded rural schools (three age levels in each class) have an expressed integrated pattern of social interaction and learning.

¹²This is a logic for multiple case studies associated with natural experiment. Identify a pattern of one case in a category of cases similar – and different – enough to be meaningfully compared. Then test if another pattern is identified for the next case and eventually refuted before testing a third case and so on. These are literal replications. Having identified a difference in patterns of reasons we know – a theory about the differences between two categories of cases – we speak of theoretical replications. Testing this on a multiple case material without being able to refute the pattern difference, the results/knowledge is strengthened. We then can make generalisations to the theory about the relationship between variables in cases with similar conditions and processes.

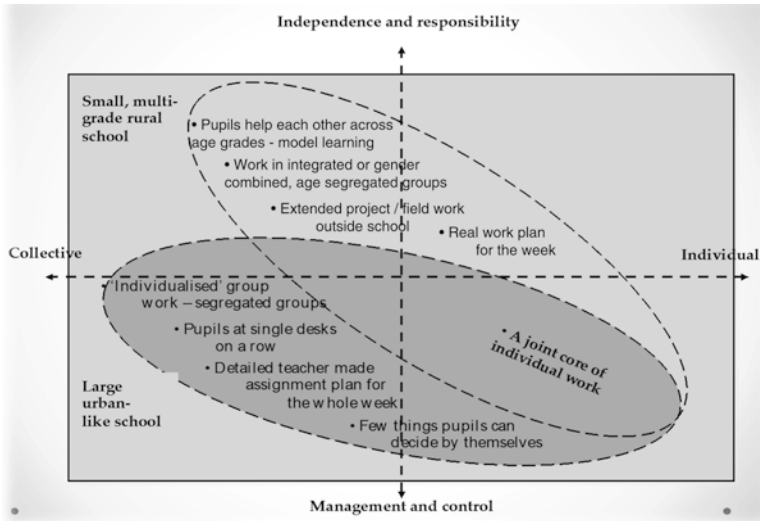


Fig. 3.3 The lesson as arena for social learning in larger urban-like schools and smaller rural schools

The large urban-like multigraded schools have a clearly segregated pattern of social learning. Schools with two age grades in each class represented a position between these two, with more groups in the categories of age-separated, gender-integrated groups and gender-separated, age-integrated groups. Comparing the patterns of the three arenas, lessons, breaks and spare time, the reinforcement hypothesis of social learning is supported – *social integration* at all arenas of social learning in smaller rural schools and communities and *social segregation* in larger urban-like schools and communities – also in the arenas where pupils can choose differently. Based on the analysis of network data, pupils obviously experience social learning of very different quality and direction.

Complementing patterns of extensive network data with *interview data* on what happened in these groups identify indicators of substantial differences in the direction of social learning (see Fig. 3.3). *Seatwork* groups, where pupils sat together but worked on individual assignments (children just located near each other doing individual work), were a feature of the larger schools compared with multigrade groups of help, support and cooperative learning in the smaller rural schools. Weekly assignment plans made by the teachers as a measure of discipline and control in larger urban-like schools contrasted with ‘authentic’ weekly work plans, the practicality of which was evaluated and adjusted by pupils themselves in small rural schools, so that the work timetable could also allow participation in sport, cultural or nature activities. These are differences between *acquisition* and *participation*. In sum, these differences in process and frame conditions of social learning show that small rural schools systematically gave the pupils experiences of collective pupil responsibility and trust and in this way fostered independence and responsibility.

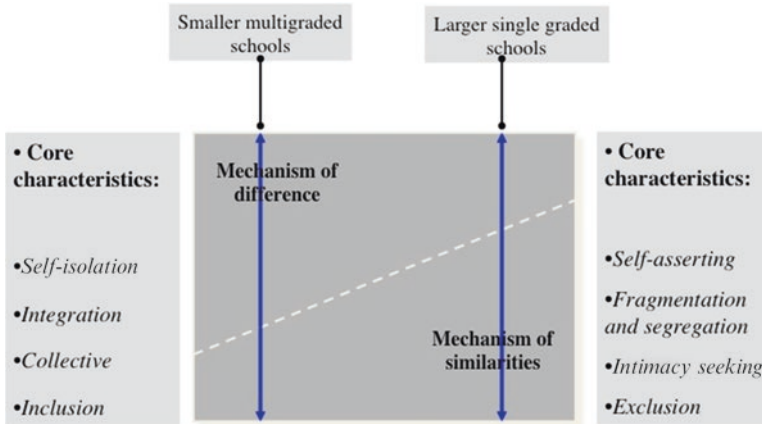


Fig. 3.4 Social learning in smaller rural and larger urban-like schools – attempts at understanding and explanation

The social learning in the larger urban-like schools gives pupils experiences in the direction of adult collective control and mistrust and an illusion of individual freedom of choice.

The social learning during breaks has the same substantial direction. Lack of outdoor playground space forces teachers to implement plans for rotation and adult-controlled use of the attractive parts of the playground such as the school handball and football pitch. This reinforces interaction in segregated groups during the recesses. In smaller rural schools, sufficient playground space ensured socially integrated play and games during the whole week.¹³ Two mechanisms of informal social learning can be formulated and identified:

1. *Mechanism of differences* (self-distance, social integration, collective orientation, inclusion among pupils – social interaction despite differences) that dominate in small rural schools.
2. *Mechanism of similarities* (self-assertion, social fragmentation, intimidation, exclusion among pupils – social interaction because of similarities) dominate in the larger urban-type schools. From this multiple comparative case study, the *theory* from which results were generalised emerged (Yin 1984), and in this way, it was possible to specify the conditions and processes or restrictions governing valid generalisations (as set out in Figs. 3.4 and 3.5).

¹³When choosing and composing, e.g., football teams – in larger schools minor skill differences among players were judged by pupils to be very important in their age-specific *sport of soccer* at school. In smaller rural schools, indisputable differences among players were accepted and compensated for by establishing rules of equivalence and compensation in team composition such as three second year girls are equal to the ‘soccer power’ of one sixth year boy, because football was a *play* integration across age and gender which is OK.

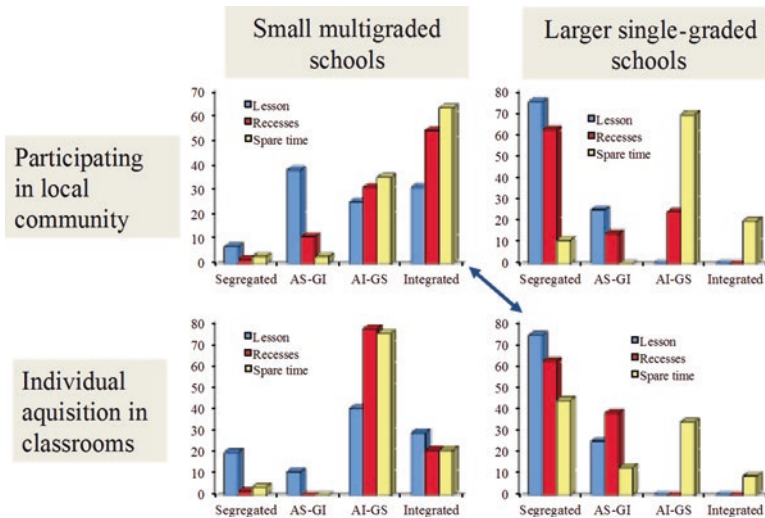


Fig. 3.5 Relational pattern during lessons, recesses and spare time by organising principle and educational regime of the school

In this study, schools were then grouped according to typology with small multigraded and larger single-graded schools as one dimension and schools with very different educational cultures or ‘regimes’ as the other dimension – i.e. (1) *network building and community participating social learning and integrated learning environment* versus schools giving priority to (2) *classroom-framed knowledge acquisition and an individually controlled and segregated learning environment*.

Comparing larger urban-like schools focusing on knowledge acquisition and smaller rural schools focusing on learning by community participation, 80% of pupils in the small rural schools had positive self-identity as measured by Susan Harter’s pupil self-report questionnaire on social self-conception compared with 54% of the pupils in larger urban-like schools with knowledge acquisition in classrooms as the main educational regime. The difference is clearly significant and can be seen as a result of tracing consequences of the different regimes of education and social learning in favour of the smaller rural schools which practise and exhibit conditions for social learning within a perspective of community participation.¹⁴

¹⁴In a study by Nordahl (2007), the indicator of social learning is ‘self-assertion’. He finds that social learning of pupils from small rural schools and multigrade classes is way below the pupils from larger urban schools in social learning, the explanation of which is that pupils in larger schools meet more demanding social challenges and therefore have better social learning, i.e. self-assertion. The study does not refer to or review other research studies on social learning. The study is unfortunately referred to in several cases of closing down small rural schools. It is however an example of how urban criteria of social learning are applied to small rural schools where social learning has a very different meaning (cf Fig. 5 above). However, the criteria for selecting the sample and the logic behind comparisons are not made explicit. The study would therefore not be judged as serious research on social learning. In a letter written 16.10.07, from NESH, the national

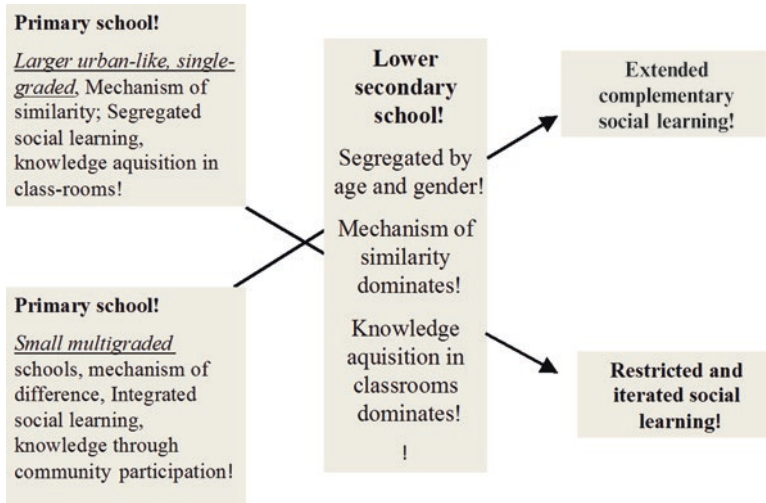


Fig. 3.6 Consequences of the transition to lower secondary school

Following the life course transition of students from primary to lower secondary school, interviewing them and collecting complete network data 1 year later, we conclude that lower secondary school is clearly a segregated learning environment. Connecting the patterns of social learning from primary school and lower secondary produces an interesting effect: Pupils from small rural schools extend their social competence – integrated and then segregated. Pupils from bigger urban-like schools experience a restricted social competence – segregated and then segregated again¹⁵ (Fig. 3.6).

Schooling conceived as classroom activity and shielded from the world outside has frame conditions restricting the possibilities for social learning to conditions of segregation. Analysing pupil interaction in classes, during recesses and during spare time indicates rather strongly that small rural schools support social learning in a collective, altruistic direction compared with an individual, strategic direction in larger urban-like schools. Being shut out from the external social and cultural world, wider and more meaningful social integration cannot be accomplished by unilateral declarations from teachers and schools. The complementary dimension – how local

research ethical committee, the research study received heavy criticism – comments which have not been refuted by Nordahl.

¹⁵ Subsequently this research design was extended well beyond the primary school, to examine the influence of earlier experience on the children's later lives in the project *Vulnerable youth – transition to adult life* (Kvalsund and Bele 2010a, 2010b, Bele and Kvalsund (2013). Again the conditions and processes of long-time social learning – here in special classes (groups of four pupils) – have profound consequences for social integration of vulnerable pupils in adult life. Logistic regression analysis shows 3–5 times greater chance of being in a marginalised social network in early adult life if the pupil condition of social learning was regularly attending special classes, with other factors equal.

communities conceive the role of local schools, the formulation of their interests and ways of using schools – is not incorporated into the strategic thinking and research design for these types of school. *The community active school has to be complemented by the school active community.* I will return to this theme in the fourth strategic field of the typology.

School Development Strategies

Examples of research on this category of strategies are the ones on *school development*, based on a general theory of organisations (Scott 2002; Schein 2004), rational management thinking and the creation of a specific school culture. The alternative perspective conceives organisations as ‘lived life’, the perspective in which schools are seen as organisations characterised by the ‘lived lives’ of its members (e.g. organisations as ‘sense-making systems’; Weick 1995), a perspective in which educational decisions are superior to organisational decisions. Other dimensions concern the attempts to adopt ‘educational’ strategies that are research or ‘evidence’ based and the roles of teachers and external researchers in this process.

School development is in many cases initiated by the schools themselves. The whole school community is engaged in a critical evaluation of how the school is functioning with the intention of developing some new practice. The strategies are developed on the basis of a systematic collection of information grounded in what the actors of the school usually do. The teacher, as researcher, or the external researcher’s role is to give an account of the general learning situation at school.¹⁶ Schmuck (2006) by means of ‘action research’ has developed this work of attempting to make sense of teachers’ and other categories of professional actors’ roles when engaged in this change process. This is very much in the perspective of strategies of social learning based on the *teacher as researcher* paradigm, as formulated by Stenhouse (1975, p. 142–165). Stenhouse advocated this approach as a way of developing curriculum research and viewed the classroom as a ‘laboratory’ in which the teacher explored her own teaching as an ‘extended professional’, in context-oriented open classrooms. This would be what is called *small-scale research* for teachers and schools and could address specific as well as broader themes referred to in the above fields of the typology.¹⁷ Social learning might be one possible

¹⁶A book by Schmuck and Scmuck (1992a) (*Livet i Klasserommet* or *The Life in Classroom*) was well known and referred to in several schools in Norway in the early 1990s. These two researchers have in addition analysed rural classrooms, schools and districts as well and again from the perspective of potential differences because of the size of schools and communities, between urban and rural social learning and cooperation (Schmuck and Scmuck 1992b). However relevant, this rural perspective and challenge of social learning was not implemented in Norway.

¹⁷According to Bell et al. (2010), examples of relevant themes in the British context have been an assessment for learning, including self and peer assessment; using the web as a learning tool; improving social skills through the use of cooperative learning strategies; making group work effective; increasing student motivation; professional development in behaviour management;

research theme. This research could be *researcher led* which has been the British tradition (Reynolds 1988) or *practitioner led* which seems to be the contemporary preferred way (Bell et al. 2010) and in line with the original ideas of Stenhouse. Special books have been developed to support teachers in doing small-scale research.¹⁸ A contemporary Norwegian example is Brekke and Tiller (2013) on teachers as researchers and how to qualify them for this kind of work. An alternative is school development by action research, a process in which the researchers have a leading role resulting in action learning which involves changes in teachers' learning strategies. This approach also has consequences for pupils' learning (Postholm 2011). Being a teacher–researcher has led to changes in the teacher's role as a professional educational leader.

A new trend in Norway is based on a special model for school development – developing a school's learning environment – the LP model.¹⁹ The developer of the model (see, e.g., Nordahl 2011) refers to Hattie's (2009) book on his synthesis of over 800 meta-analyses relating to achievement or learning outcomes as evidence base for the model.²⁰ There have been major critiques (see footnotes) of this

teaching literacy, mathematics and social sciences; inquiry-based learning in science; and creativity in the curriculum.

¹⁸One example is a series of this kind of books published by the Scottish Council of Research in Education: Dreyer (1995) on interviews surveys and case studies, Munn and Dreyer (1995) on the use of questionnaires, Simson and Tuson (1995) on observation and on how to develop and formulate research questions – all books specially adapted for small-scale research with practical advice to teachers.

¹⁹This strategy – teacher as researcher – is a general approach grounding changes of teaching practice on research data. However, in Norway, we experience a standardising turn: see, e.g., the LP model on learning environment and educational analysis (<http://lpmodelen.wordpress.com/english/>), the development of which receives support from central school authorities as well. 'Competence centres' offer pre- and post-studies mapping schools. Predefined questionnaires are administered on teachers' evaluation (e.g. school culture, own teaching, pupils' motivation and efforts, behaviour problems and special needs teaching), pupils' experiences (e.g. teaching, relations, well-being and school behaviour) and teachers' judgement of pupils (e.g. social competence, motivation, academic results, absence from school). This represents a risk of standardisation of school evaluation and development work, moving it away from the Stenhouse idea of professional teachers in open classrooms into the hands of school leaders – as a kind of educational consumption of standardised evaluation services. A further move in this direction would be to expect evidence-based mapping studies empowering the researchers rather than the practising teachers even more.

²⁰However, Topphol (2011) has published a fundamental critique of Hattie's understanding of methods of significance testing and shown that his calculations of *Cohen's d* (Cohen's *d* is a calculated standardised measure of effect differences between the achievement means of the test group compared with the control group) are misunderstood and mathematically directly incorrect, a fact which Hattie in an e-mail exchange has admitted. In addition, Hattie's work is not just a meta-analysis. It is meta-analysis of meta-analysis making this review of research very abstract. As a consequence, the problem of comparisons across contexts and nation borders, comparing schools of very different sizes and pupils' differences of age, is hardly addressed in Hattie's study of smaller and bigger effects on learning outcomes. (This was also a major critique of the earlier meta-analysis made by the economist Hanushek (1983, 1989) concluding about the question of impact of differential expenditures on school performance that we should stop throwing money at

meta-analysis of meta-analyses, where multigrade teaching, open schools/base schools and reduced class size to mention a few variables – still referring to Hattie (2009) – are factors described as having little or no separate effect on measured pupil achievement or learning outcomes. The social learning dimension is neglected as unimportant in itself.²¹ The teacher role is under pressure from this kind of research as it has been used to criticise teachers and their teaching so that the risk of weakening the teacher voice increases accordingly. However, Karlberg-Granlund (2004, 2009) presents quite a different perspective of school development and of the role of researchers and teachers in an analysis of teachers fighting the closure of Finnish village schools.

The more restrictive perspective of school as arena of *acquisition in classrooms* rather than *participation in community* is more often based on the understanding of school as an organisation with more emphasis on internal qualities than on external context as a source of learning content.²² In both cases, they represent differences in understanding of frame conditions for social learning. General analyses of place, local community, school, learning and teaching are presented by Gruenewald and Smith (2008) and Scahfft and Jackson (2010).

schools.) However, a little effect does not mean that pupils do not learn; it expresses rather that there is no difference in learning outcomes between test group and control group. In addition, Hattie's meta-analysis focuses on single factor impact, the consequence of which is that the relative effects of interacting factors are neglected. In Hattie's research results on achievement, tests are the ultimate indicators of what pupils learn in school. This constitutes an industrialised production model of schooling which ignores the wider aims of a liberal education. Hattie's review of research is taken to be essential for school development by NDET or the Norwegian Directorate of Education and Training.

²¹ This is an understanding of learning processes very close to the prespecified behavioural objectives logic of Bobbit (1918), Tyler (1949) and Bloom (1956), which was heavily criticised by, for example, Eisner (1985) and Stenhouse (1975). Under the heading of New Public Management, the logic of the taxonomic prespecified behavioural objectives – especially objectives from the cognitive domain – has been reintroduced by politicians and school bureaucrats in Norwegian schools. The objectives can be found in work plans for the pupils. We can find examples of close to 400 specific learning objectives structuring their learning period of say 3 weeks. Teachers under this behavioural objectives regime are changed into functionaries using their time for making abstract individual work plans and reports on pupil achievements and attainment. Again teaching is misunderstood as a prescribed activity similar to the industrial production process neglecting the fact that teaching and learning are fundamentally communicative activities.

²² The perspective can also be strategies addressing the school as an organisation. Early Norwegian examples of analysis from an organisational perspective are Grøterud and Nielsen (1990) and Åalvik (1990) and Tiller (1986, 1993). Several contemporary Norwegian researchers apply the organisational perspective in research and discussion of strategies for change in the frames of social and relational learning at school level – e.g. Fuglestad et al. (1999), Dalin (2005), Bjørnsrud (2009), Lillejord (2003) and Roald (2010). Research studies in these cases are most often researcher led and based on data from several schools. The intention is to analyse professional teaching and learning, the frame condition also relevant for social learning and what characterise, for example, leadership and management (Karseth et al. 2013), class leadership and learning environment (Ogden 2012) conceiving school as a system and organisation.

Recruitment Strategies

The point of departure in clarifying the strategies for new solutions at school/community level is how to develop schooling, educational content and school structure in order to strengthen the *local communities as places to live*. Local mobilisation and cooperative and communicative planning and development work (Healy 1997, 2003; Hart 1997) are based on the analytical perspective of children and adolescents not just solely in terms of classroom learning, but encompassing the impact of the local environment during the 'growing up' life phase, which includes the active role of peers, teachers, school and community in these processes (Befring 2004; Edvarsen 2004a, b; Bruner 1997; Rogoff 1995, 2003; Rogoff et al. 2003). Local communities provide all variations of how we manage materially, socially and culturally, experiencing variations in the sense of being safe and belonging – in a global context. The place in which a person grows up represents the world in miniature – and also affords opportunities and contexts for social learning. An early spokesman for this kind of learning in Norway is Christie (1971) with the telling title *If school did not exist* which challenges the false picture of school as existing for the sake of the children.

The understanding behind new solutions for social learning on such grounds is discussed earlier in this text referring to *learning by participation*. However, we have to add the concept of time. A key question is how pupil experiences of schooling and everyday life in the local community mutually affect the sense of belonging to a local place and community, future migration, family establishment and choice of occupation – over time. This concept of learning goes beyond psychology and refers to *participation in real-life settings* that have historical, sociological as well as anthropological and ecological dimensions. These are strategies which ensure people growing up will have experiences that make them aware of their growing up environment in a local community with qualities and a potential future. This necessitates studying social learning longitudinally, the role of schools and local places and the communities' contributions to recruitment processes. Recruitment analysis therefore has to be grounded in a perspective of mutual school/community relations and life course transitions. Social learning takes time as do change and renewal – of values, norms, skills practice and structures. For strategies in this field of the typology, I therefore choose to describe them as *recruitment strategies* of which the initial, underpinning analysis is often developed by researchers from several disciplines, e.g. education, social geography, anthropology, sociology and demography, in analysing structural aspects of the socialisation and enculturation of children growing up over time in local communities. See, for example, Aadlandsvik (2005). The school and community have an equal and mutual or complementary role of cooperation. Pupils and teachers would have assignments formulated and decided by the local community, e.g. towards the elderly by 'adoption' or elderly people adopting young persons after they have committed their first criminal act.

This way of thinking represents an extended concept of social learning in some cases practised in small rural schools in Norway. Melheim (2011) and Solstad (2012) present and discuss a new strategy of establishing 'growing up centres', i.e.

localisation of school and kindergarten in the same building and as one organisation – in some cases in co-localisation with other community institutions as well, developing a socially broad joint arena where most of the people of the community meet and communicate. A particular example of a growing up centre is also discussed by Rønning et al. (2003), who refers to a case study of a Norwegian rural community where the title of the research report, *A whole community is needed to raise a child*, is an indicator of this way of thinking: the classroom is as a consequence extended to ‘the local community room’ for learning, a counterstrategy to meet an increasing pressure to close down small rural schools – one of the fields of centralisation. Other fields are changes in the scale and structure of primary and secondary production and demographical changes transforming communities into ‘thinning out societies’ with an increasing proportion of elderly people, partly as a consequence of patterns of selective migration of girls from rural to urban areas (Myklebust 1994; Sørli 1993, 2003), changes in legislation for economic frame conditions in municipalities and redefinition of national curriculum plans (Solstad 1994), changes in the centralisation-decentralisation balance in the field of schooling and changes in school structure (Solstad and Theling 2006; Solstad 2009; Kvalsund and Hargreaves 2009a; Kvalsund 2009; Kucerova 2012).

Hovdenak (1993, 1994), as part of a recruitment analysis of the Norwegian county of Finnmark (Edvardsen et al. 1994), found that some of the youth substitute knowledge about local production in a fishery municipality by knowledge from the urban global world of youth culture. The abstract, less relevant school content seems to give an important contribution to this explanation.²³ The value of their school and community is indirectly devalued by the abstract irrelevant learning content – indirectly implying that they have one option – move away! Corbett (2007) analyses this role of schooling in a Canadian coastal community and Gillies (2012) in a Scottish isle community. Both studies, based on longitudinal data, describe and explain the role of the school as an agent in the process of encouraging inhabitants to leave their community. Corbett discusses counterstrategies to this pattern. An important point of the recruitment strategies is to abolish the divide between institutional school learning and learning in local and regional life contexts and in this way contributing to an extended meaning of social learning.

Birkeland (2014) discusses – from the perspective of action research – the consequences of the threats to the basis of human existence from global climate change. This perspective has to be the basis for social and cultural learning in school in general and more specifically in a Norwegian rural industrial community. What does climate change (e.g. preventing damage from flood and precipitation in vulnerable places) mean to people? What are people’s roles in climate change? How does

²³ Hovdenak reports on experiences with the school subject (three lessons a week in eighth grade) ‘local studies’ the content of which is about local community past, present and future including the registering of local work places. A student makes a research visit as a first step and then real work experience at self-selected work place for 15 weeks organised as 6 school hours a week every second week of the school year based on bilateral agreements between schools and employers making this school subject more authentic.

climate change affect our self-understanding, our home environment and the global world? How do people face necessary deindustrialisation and climate change? What are we going to live for? How do we justify our lives creating a sustainable future – economically, socially, environmentally and not least culturally? A focus on culture is to be understood as maintaining the importance of social and cultural learning associated with climate change and schooling for sustainable development in *the inhabitants' own lives and living environment*. These perspectives are almost non-existent in Norwegian educational policy and everyday life in Norwegian schools – and in educational research.

Discussion: Social Learning, Norwegian Patterns in Perspective

This present review, based on the above research typology, shows that social learning is conceived from two separate perspectives that are reflecting quite different *values* in judging conditions and processes of social learning – acquisition and participation as well as adult control, children's agency and the role of researchers. This implies a meeting between the restricted and the extended perspective of social learning indicating some embedded challenges for adult instrumental versions of this construct.

Social Learning and 'Evidence-Based' Teaching

In reviewing research on differentiation strategies, researchers recommend 'evidence-based', standardised teaching supplemented by specific programmes on psychotherapeutic practice in the classroom apparently to keep mainstream, acquisitive pupil learning on track. However, the presumptions of 'evidence-based' teaching are not made explicit. Teaching seems to be misunderstood as a linear process with preformulated objectives as targets (i.e. the realisation of a specified outcome is determined largely by the pupils' achievement on an attainment test of the outcome). Slavin (2008) recommends commercial production of teaching methods which are evidence based. The metaphor is the bullet moving along a straight line though the air on its way to hit the target. Internationally this is associated with developing teaching procedures with demonstrated quality – 'what works' – referring to the research 'gold standard' of evidence-based teaching methods based on randomised controlled trials (RCT) in the development of *standardised teaching procedures* which are independent of the person practising them. A problem here is that effective teaching in this sense seems to depend only on *what* is done. In reality, teaching and learning is more complex and dynamic, depending heavily on the *specific persons* it involves, *how* it is done, *when* and *where* – i.e. *its interaction and*

communication. The metaphor here is the butterfly journeying through the air, where goals are not targets to hit but rather turning points giving ‘the flight’ new direction, as when teacher and pupils communicate and redirect content and procedures in real learning situations, e.g. community participation. Therefore, one cannot logically describe the pedagogic procedures in ways that Slavin (2008) and others like him advocate – they always have to mirror ‘thick descriptions’ (Geertz 1973) of local conditions and processes, which might very well point in a different direction. Direction which reflects the *normative dimension* of teaching and presumes teacher and pupils judge, choose and redirect the teaching and learning process depending on what kind of individuals and society are considered worthwhile for the youth of future generations involves choosing what should be, rather than describing what is. When the chosen direction results from consideration of the *present* as well as the *future*, the dynamic quality of teaching that emerges is especially obvious when teachers are practising learning by community participation. Therefore, only a restricted part of teaching and social learning can be based on research evidence.²⁴

Social Learning When Teachers Are Considered to Be the Educational Challenge

Referring to classroom and school development strategies as a field in the typology on social learning, the view of the teacher as constituting an educational challenge is clearly stated. However, Arnesen and Sørli’s (2010) critique of Hattie’s (2009) use of meta-analysis seriously challenges the view that this statistical approach marks a new contribution to the hegemonic perspective of social learning in which tested learning outcomes in abstract school subjects are regarded as the essential evidence that learning has taken place. Hattie (2009) is explicit when stating that the main challenge for school leaders is the ordinary teacher, who too often concentrates on covering the syllabus and who devotes much of the lesson to managing pupil behaviour while endeavouring to maintain a warm friendly relationship with the class. Hattie argues that educational research should develop standardised teaching recipes for the classrooms telling all teachers *how to do it in the same way* – a scientific *standardisation of teaching* based on results from abstract school subjects. This is to transform teachers into mere ‘functionaries’ whose practise is largely defined by the acquisition of research knowledge of classrooms obtained from these meta-analyses – a very restricted version of the teacher as an adult and cultural model person for social learning. The argument is that we cannot know the consequences of each teacher’s individual educational measures. Within this perspective, research which is evidence based should therefore guide practise in schools (and kindergarten) and the core of this evidence should be conceived as ‘knowledge

²⁴This seems to be a general discussion involving most fields of professional practice (Grimen and Terum 2009; Thosmas and Pring 2004).

enterprises' which give rise to standardised teaching procedures or tested educational recipes that deliver learning content of context-free school subjects. This approach, it is claimed, will produce a flexible work force that is able to compete in aspects of the global economy in which the country participates.

In addition to the critique discussed in the paragraph above, such research also implies that teachers should *abdicate* from their task as knowledgeable educational leaders and, instead, presumes a new role as administrators of pre-produced teaching manuals or standardised kits, the latter option signalling mistrust of the teachers and their qualifications. In this way, teachers have been 'disempowered' by educational researchers. Headmasters of Norwegian schools are according to this way of management thinking described as 'unit leaders' of knowledge enterprises. Stenhouse's (1975) concept of *the knowledgeable teacher-researcher* who strives to develop 'a classroom of quality' is no longer deemed relevant under this horizon of schooling. The proposition that teachers are the educational challenge (Slavin 2008) also favours the development of commercially produced standardised teaching packages which are applicable to educational markets worldwide. Clearly this would *reinforce the centralised abstract quality of schooling* opening it further for global instrumental interests to the detriment of local and place-based social learning. The voice of the teacher as a 'knowledgeable practitioner' would be silenced. In Norway, this seems to be part of a general trend where actors outside the practical situation of teaching and learning – politicians and in some cases even educational researchers – want to manage and control the teacher's practical daily activities. Norwegian politicians are most often interested in getting schools and pupil achievement to reach the same level as that which exists, for example, in Finnish schools, resulting in reiterated propositions that teachers should have further education and thereby indirectly signalling mistrust of teacher competence – i.e. teachers are not sufficiently qualified. The paradox is that in Finland politicians have traditionally produced school policy based on their confidence in having a well-educated teaching profession rather than engaging in political interference and management at the level of everyday practise in the classroom. The premises of social learning are left for the teachers to decide. Segregation of pupils with special educational needs is also part of the Finnish picture.

Social Learning and the Voice of Children

Children's social learning extends the aims of education and schooling beyond their adaptation of an adult controlled 'instrument' approach, premised on the importance of producing a qualified, flexible work force with the capacity to cope with a competitive international economy. In contrast to this instrumental perspective, there are differentiation strategies, *psycho-educational programmes*, focusing on children's emotional well-being. Within this alternative framework, social learning can be said to *transform classrooms and schools into psychotherapeutic*

environments where children's challenging behaviour and mental health are systematically targeted and their well-being nurtured.

Within the instrumental approach, the identification of children's social networks in school with the intention of intervening and reforming these networks, thereby transforming them into adult instrumental controlled directed networks, is associated with an *instrumental and functionalist understanding of educational practise* derived from a kind of toolkit for control-directed learning and teaching and to a substantial degree neglecting the voices of children. Such programmes are premised on an individualised, positivistic model that assumes that its building blocks are easily measureable and capable of being handled through externally developed manuals and toolkits – regarding the consequences of applying these educational measures as nearly universal. Children in such programmes are objectified and seem to be (mis-)understood as unknowing, passive human '*becomings*' to be acted upon by adult experts, rather than viewed as active '*beings*', capable of negotiating complex social and cultural situations. This concept discusses the principles of children's agency ('being') and its limitation, under varying settings and contexts within the social learning process, by structures and structuration ('becoming'). Objectifying pupils in these ways may transform them into the most important pupils in the schools by treating them as deviant cases and thus underscoring what is normal. A similar analysis could also be said to apply in the case of the disempowered teacher.

On the other hand, we risk exaggerating and can overdo expectations for children's capacity to make 'individual choices': Norwegian and Nordic researchers (cf category 1 in the typology) show that teaching the whole class combined with individual work plans dominates the learning situation for mainstream pupils in most classrooms at primary level as well as lower secondary level, inviting pupils to rationally choose what to be engaged in as learners. However, compulsory school attendance and the exercise of adult educational power (deciding on whole class teaching and individual work plans) transform the classroom into a frame of paradoxical social learning, inviting pupils to choose 'individually and freely', but on hidden adult terms. Vetlesen (2004, 2009) and Nafstad (2004) discuss the challenges presented by this paradox. The teaching process becomes one of 'enforced freedom' where, superficially, it appears that all children have the capacity to choose and that the school functions in ways that are mainly governed by the children's interests.

Within the above paradigm, the children's voice is weak compared with that of the adult actors, reflecting an adult-empowered instrumental perspective of social and cultural learning. As such, it fails to provide opportunities for future generations to experience and appreciate the duality of balancing agency and freedom to choose, on the one hand, with, on the other hand, the need to accept certain objectified and subordinated social structures within the learning situation – the combination of which support social learning mediated by the teacher's communicative educational action. However, schools seem to be overloaded by 'rule-following' actions, defined by adults to foster adaptation and routine action. In this situation, we are challenged by the question of whether school is sufficiently sensitive to pupils' risk-taking

opportunities in open situations. ‘Outdoor school’ and ‘learning by participation’ can be understood from this perspective of social learning. Christie’s (1971) question – *If school did not exist?* – may turn out to be more relevant now than in the 1970s, when it was introduced to challenge the then strong adult-defined instrumentalism of schooling in Norway.

Social Learning, ‘Peer Society’ and Ageism

The abstract urban school focusing on classroom-acquired knowledge, pre-produced research-based learning content and teaching methods, where knowledgeable, independent teachers are considered to be a challenge and the main obstacle to learning – an approach consequent upon Hattie’s (2009) heavily criticised meta-analysis – would probably not undertake learning projects with community participation and extended interaction between pupils and other working persons within the community. In *Peer Society* (Frønes 1994) different age groups are supposed to live in age-segregated and age-homogenous arenas during the course of life – this is obviously the situation not only in kindergarten and school but also in work places without young and older people and in welfare centres for the elderly. In many cases the administration of Norwegian municipalities are organised according to this principle of age segregation. The phenomenon is also supported by certain words and phrases in the language, for example, the term ‘youth culture’. Age-segregated classes in school are an important part of this differentiating process because it extends over so many years for children and youth all over the country. The process prepares children and youth to become the target groups for age-segregated commercial activity, the negative consequences of which seem to invade school as competing learning content in the next phase.

Edvardsen (1981, 1983), Coleman (1982) and Rogoff et al. (2003) all regard learning as a process that involves broad, socially intended participation and analyse the consequences of children not having first-hand experiences of cooperating with adults in productive activities. In the latter case, both young and old grow up having very restricted mutual contact, which paves the way for the mechanism of stereotyping and conceptions of each other as deviants. From the reviewed research, the failure to fully acknowledge the importance of learning through community participation seems to be a consequence of a lack of the necessary concepts among researchers and the results of social structures and mechanisms that create *barriers* to age integration. These are indicators of what Hagestad and Uhlenberg (2005) refer to as segregation which produced *ageism*, i.e. taking age-related characteristics of a group to be the valid characteristics of a distinctive person within the group. There is a strong possibility that learning by participation could provide solutions to important learning problems generated by ‘closed’, abstract classrooms supporting age segregation and probably ageism. The problem is that the schools with the best potential for learning by participation – the smaller rural schools – continue to be closed down for purely economic reasons, although Norwegian society is very rich.

Social Learning in Abstract Schools

Typically, schools seem to be conceived as large urban institutions. As a consequence, the smaller rural schools become negative deviants from the urban school norm. Small rural schools become schools of deficiency. This is a special framing of social learning – *institutionalised, decontextualised and abstract on urban presumptions*. This ‘mythical’, non-grounded understanding of school as an urban institution is a presumption of research in several fields within the typology review presented in the earlier paragraphs. In a recent book on research methodology, it is strongly argued that ‘place’ and context do make a difference (White and Corbett 2013; Kvalsund and Hargreaves 2013). However, research documenting the integrating patterns of social learning in small rural schools, and in schools based on the perspective of community participation, has largely been ignored. The closing down of small schools continues, despite the documented evidence regarding the quality of small rural schools.

The external, instrumental perspective of *acquisition*, i.e. studying context-free, abstract school subjects in classrooms with the aim of producing a mobile, flexible work force for a competitive global economy, is hegemonic in Norway, as indicated by the government’s devotion to international PISA testing. On the other hand, the broader perspective of community *participation*, i.e. educating more knowledgeable individuals with the local community as the ‘classroom’, is clearly under-researched, and the voices of the actors to which it pertains are hardly heard. Judged as an arena within a conception of social learning as *acquisition*, school represents a far-reaching *institutionalisation of learning*. The intended goal is to qualify children and youth for life in society by placing them at desks in classrooms for the majority of months each year over a 12–13-year period – mainly separated from their everyday life in which they can interact with and reflect on nature, culture and the communities in which they are meant to live. *This is paradoxical social learning*, which restricts what social learning should be about – and certainly neglects what is most important for further social learning – the concept of *place-based* social learning, devoted to a perspective of sustainability and meeting the challenge of global climate change.

References

- Aadlandsvik, R. (Eds.). (2005). *Læring gjennom livsløpet* (Learning through the life course). Oslo: Universitetsforlaget.
- Aalvik, T. (1990). *Vurdering av skolens arbeid – en kortfattet oversikt og noen problemer. Forsøk på å skissere et teorigrunnlag for prosjektet ‘Ledelse, evaluering og utvikling i utdanningsinstitusjoner’* (Evaluation of school’s work – a short review and some problems). Lillehammer: Oppland Distriktshøyskole.
- Aasen, J., & Engen, T. O. (Eds.). (1994). *Didaktikk og læreplanarbeid i barnehage og skole* (Didactic and curriculum planning in kindergarten and school). Hamar: Opplandsk.

- Arnesen, A., & Sørli, M. -A. (2010). Forebyggende arbeid i skolen (Preventive work in school). In Befring, E., Frønes, & Sørli, M. A. (Eds.), *Sårbare unge. Nye perspektiver og tilnæringsmåter* (Vulnerable young. New perspectives and approaches.) (pp. 86–102). Oslo: Gyldendal akademisk.
- Backmann, K., & Haug, P. (2006). *Forskning om tilpassa opplæring, Forskningsrapport 62* (Research on adapted teaching. Research report 62) Volda: Møreforskning Volda, Høgskulen I Volda.
- Befring, E. (2004). *Skolen for barnas beste. Oppvekst i eit pedagogisk perspektiv* (School for Childrens best. 'Growing up' as seen from an Educational Perspective). Oslo: Samlaget.
- Bele, I., & Kvalsund, R. (2013). On your own within a network? Vulnerable youths' social networks in transition from school to adult life. *Scandinavian Journal of Disability Research* 1–26. doi:[10.1080/15017419.2013.847860](https://doi.org/10.1080/15017419.2013.847860).
- Bell, A., & Sigsworth, A. (1987). *The Small Rural Primary School*. London: Falmer Press.
- Bell, M., Cordingley, P., Isham, C., & Davis, R. (2010). *Report of Professional Practitioner Use of Research Review: Practitioner engagement in and/or with research*. Coventry: CUREE, GTCE, LSIS & NTRP.
- Berg-Olsen, A. (2008). *Omsorg eller formal. Rasjonalitet og dilemmaer i fådelt skolen* (Care or instrumental action. Rationality and dilemmas in small rural schools). PhD-avhandling, Universitetet i Trømsø, Tromsø.
- Berg-Olsen, A. (2012). Aldersblanding som læringssystem (Multigrading as learning system). *I Norsk pedagogisk tidsskrift*, Nr 5, 2012.
- Birkeland, I. (2014). *Kulturelle hjørnesteiner. Hva kan vi lære av ensidige industristeder for klimaomstilling?* Oslo: Cappelen Damm.
- Bjørnsrud, H. (2009). *Skoleutvikling – tre reformer for en lærende skole* (School development – three reforms for a learning school). Oslo: Gyldendal akademisk forlag.
- Blichfeld, J. F. et al. (1996). *Utdanning for alle? Evaluering av Reform 94* (Education for all. Evaluation of Reform 1994 of upper secondary school). Oslo: Tano Aschehough.
- Bloom, B. S. (Ed.). (1956). *Taxonomy of Educational Objectives, the classification of educational goals – Handbook I: Cognitive Domain*. New York: McKay.
- Blumer, H. (1969). *Symbolic Interactionism – Perspective and Method*. Englewood Cliffs: Prentice Hall.
- Bø, I. (1993). *Folks sosiale landskaper* (People's social landscapes). Oslo: Tano.
- Bø, I., & Schiefloe, P. M. (2007). *Sosiale landskap og sosial kapital: innføring i nettverkstenkning*. Oslo: Universitetsforlaget.
- Bobbit, F. D. (1918). *The curriculum*. New York: Houghton and Mifflin.
- Brekke, M., & Tiller, T. (2013). *Læreren som forsker* (The teacher as researcher). Oslo: Universitetsforlaget.
- Bruner, J. (1997). *Utdanningskultur og læring* (Educational culture and learning). Oslo: Ad Notam Gyldendal.
- Carlgrén, I., Klette, K., Myrdal, S., Schnack, C., & Simola, H. (2006). Changes in Nordic teaching practices: From individualised teaching to teaching of individuals. *Scandinavian Journal of Educational Research*, 50(3), 301–306.
- Christie, N. (1971). *Hvis skolen ikke fantes* (If school did not exist). Oslo: Universitetsforlaget
- Coleman, J. (1982). *The asymmetric society*. Syracuse: Syracuse University Press.
- Corbett, M. (2007). *Learning to leave. The Irony of Schooling in Coastal Community*. Halifax: Fernwood Publishing.
- Cuban, L. (1990). Reforming again, again and again. *In Educational Researcher*, 19(1), 3–13.
- Cuban, L. (2013). *Inside the Black Box of Classroom Research. Change without Reform in American Education*. Cambridge, MA: Harvard Education Press.
- Dalín, P. (2005). *School development: theories and strategies: An international handbook*. London: Continuum.

- Dalin, P., & Skrindo, M. (1983). *Læring ved deltaking*. Oslo: Universitetsforlaget.
- Degenne, A., & Forsé, M. (1999). *Introducing social networks*. London: Sage.
- Dewey, J. (1966). *Democracy and Education*. New York: The Free Press.
- Dreyer, E. (1995). *Using Semi-structured Interviews in Small Scale Research. A Teachers Guide*. Edinburgh: Scottish Council for Research in Education.
- Edvardsen, E. (1981). *Skolen som parentes i samfunnet* (School as parenthesis in society). Norsk Pedagogisk Tidsskrift, 1981 (7).
- Edvardsen, E. (1983). Kateteret og det anonyme levebrød (The position of teacher's desk and the anonymous livelyhood). In K. Skagen & T. Tiller (Eds.), *Perspektiv på lærerarbeid* (Perspectives on teacher work) (pp. 104–119). Oslo: Aschehoug.
- Edvardsen, E., Eikeland, S., & Haavelsrud, M. (1994). *Evaluering av Finnmark som egen utdanningsregion*. Sluttrapport. Universitetet i Tromsø.
- Edvardsen, E. (2004a). Ein påle i verdstraffikken. In J. I. Nergaard & S. Nesset (Eds.), *Det gjenstridige. Edmund Edvardsen 60 år*. Tromsø: Opplandske forlag.
- Edvardsen, E. (2004b). *Samfunnsaktiv skole. En skole rik på handling* (Community active school. A school rich in action). Tromsø: Opplandske bokforlag.
- Eisner, E. (1985). *The art of educational evaluation a personal view*. London: Falmer Press. Cambridge University Press.
- Foros, P. B. (1989). *Læring av ansvar. Fra handling til holdning*. Oslo: Universitetsforlaget.
- Frønes, I. (1994). *De likeverdige* (The equals). Oslo: Universitetsforlaget.
- Fuglestad, O. L., Lillejord, S., & Tobiassen, J. (1999). *Reformperspektiv på skole- og elevvurdering*. Bergen: Fagbokforlaget.
- Fyrand, L. (1992). *Perspektiver på sosiale nettverk*. Oslo: Universitetsforlaget.
- Fyrand, L. (2005). *Sosialt nettverk. Teori og praksis*. Oslo: Universitetsforlaget.
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Giddens, A. (1984). *The Constitution of Society*. London: Sage.
- Giddens, A. (1991). *Modernity and Self-Identity. Self and Society in Late Modern Age*. Cambridge: Polity Press.
- Gillies, D. (2012). Learning and leaving: education and depopulation in an island community. *Paper presented at ECER Cadiz 2012, Network14, SES 04A. Schooling in urban and rural contexts*.
- Goodlad, J. I. (1963). *The non-graded school*. New York.
- Grimen, H., & Terum, L. I. (Eds.). (2009). *Evidensbasert profesjonsutøvelse* (Evidence-based professional practice). Oslo: Abstrakt forlag.
- Grøterud, M., & Nielsen, B. S. (1990). *Skolevurdering som ledd i den enkelte skoles utvikling* (School evaluation as school development). Stensil: Trondheim.
- Gruenewald, D. A., & Smith, G. A. (Eds.). (2008). *Place-based Education in the Global Age. Local Diversity*. New York: Routeledge.
- Gundersen, K., & Svartdal, F. (2006). Aggression Replacement Training in Norway. Outcome evaluation of 11 Norwegian student projects. *Scandinavian Journal of Educational Research*, 50(1), 63–81.
- Hagestad, G., & Uhlenberg, P. (2005). The social separation of young and old: a root of ageism. *Journal of Social Issues*, 61(2), 341–358.
- Hanushek, E. A. (1983). Throwing money at schools? *Journal of Policy Analysis and Management*, 1, 19–41.
- Hanushek, E. A. (1989). The impact of differential expenditures on school performance. *Educational Researcher*, 18, 45–65.

- Hargreaves, L. (2009). Respect and responsibility: Review of research on small rural schools in England. *International Journal of Educational Research*, 48(2), 117–128.
- Hargreaves, L., Kvalsund, R., & Galton, M. (2009). Reviews of research on rural schools and their communities in British and Nordic countries: Analytical perspectives and cultural meaning. *International Journal of Educational Research*, 48(2), 80–88.
- Hart, R. A. (1997). *Children's Participation: The Theory and Practice of Involving Young Citizens in Community Development and Environmental Care*. London: UNICEF.
- Hattie, J. (2009). *Visible learning. A Synthesis of Over 800 Meta-Analyses Relating to Achievement*. London: Routledge.
- Healy, P. (1997). *Collaborative Planning: Shaping Places in Fragmented Societies*. London: MacMillan.
- Healy, P. (2003). *Collaborative Planning in perspective*. London: Sage.
- Hellesnes, J. (1974). *Sosialisering og teknokrati: ein sosialfilosofisk studie med særleg vekt på pedagogikkens problem*. Oslo: Gyldendal.
- Høgmo, A., Solstad, K. J., & Tiller, T. (1981) *Skolen og den lokale utfordring. En sluttrapport fra Lofotprosjektet* (School and the challenge of the local community Final report from the Lofoten project). Tromsø, Norway: Institutt for samfunnsvitenskap, Universitetet i Tromsø.
- Hovdenak, S. S. (1993). *Samarbeid skole-næringsliv: Hvorfor og hvordan? En studie fra et lokalsamfunn i kyst-Finnmark*. Stensil. Tromsø: SUFUR og Tromsø lærerhøgskole.
- Hovdenak, S. S. (1994). *Skolen som identitetsdanner i moderne lokalsamfunn. En analyse av faget lokallære i en kystkommune*. Stensil. Tromsø: Tromsø Lærerhøgskole.
- Jackson, P. W. (1968). *Life in classrooms*. New York: Holt, Rinehart and Winston.
- Jahnsen, H., & Grini, N. (2012). Er alle med? Smågruppetiltak for elever som viser problematferd på barnetrinnet. i *Spesialpedagogikk nr, 08*, 4–17.
- Johansen, J. B. (2009). *Sosialt utviklende prosesser i små og større læringsmiljøer: sosial kompetanse i fådelt skole*. Vallset: Oplandske bokforlag.
- Johnson, D. W., & Johnson, R. T. (1987). *Learning together and alone*. Englewood Cliffs/New Jersey: Prentice-Hall.
- Jordet, A. N. (2010). *Klasserommet utenfor: Tilpasset opplæring i et utvidet læringsrom* (The outdoor classroom. Adapted teaching in an extended room of learning). Oslo: Cappelen Akademisk.
- Karlberg-Granlund, G. (2004). Byskolan I en brytningstid – lärarröster om skolans inndragningsshot (Village schools in times of conflict – teacher voices about the threats of school closure). In A. L. Östern & Heila Yllikallio (Eds.), *Språk som kultur – brytningar i tid och rum* (Language as culture – conflicts in space and time). Vasa: Åbo Akademi Pedagogiska fakulteten.
- Karlberg-Granlund, G. (2009). *Att förstå det stora i det lilla. Byskolan som pedagogik, kultur och struktur* (Understanding the big in the small. Village schools as education, culture and structure). PhD-thesis, Åbo Akademi, Åbo.
- Karseth, B., Møller, J., & Aasen, P. (Eds.). (2013). *Reformtakter. Om fornyelse og stabilitet grunnotplæringen* (Reform tendencies. On Renewal and Stability in Basic Education). Oslo: Universitetsforlaget.
- Klefbeck, J., & Ogden, T. (1995). *Nettverk og økologi. Problemløsende arbeid med barn og unge* (Networks and social ecology. Problem-solving practice with vulnerable children and youth). Oslo: TANO.
- Klette, K. (2007). *Bruk av arbeidsplaner i skolen – et hovedverktøy for å realisere tilpasset opplæring?* (Pupils written work plans (pupils 'own work') – a main tool in implementing adapted teaching?) Norsk Pedagogisk Tidsskrift, (91): 344–358.
- Klette, K., Aukrust, V., Hagrtvedt, B., & Hertzberg, F. (2003). *Klasserommets praksisformer etter Reform 97. Synteserapport* (The Reform 97 ways of classroom practice. Synthesis report) Oslo: University of Oslo.
- Kucerova, S. (2012). *Changes in Territorial Structure of Primary Education in Czechia*. Prague: CESKA GEOGRAFICKA SPOLECNOST.
- Kvalsund, R. (1997). Særvilkårselevar i ordinærklasse. Differensiering – kompetanse eller verdsettning? (Pupils on special terms in ordinary classes. Differentiation – competence or valuation?).

- In B. Lødding & K. Tornes. (1997). *Aspekter ved gjennomføringen av Reform 94* (Aspects of the implementation of Reform 94) (pp 217–238). Oslo: Tano Aschehoug.
- Kvalsund, R. (2004a). Inclusion – in disabling schools. Research from the national evaluation of the 1994 reform of upper secondary education in Norway. *Scandinavian Journal of Disability Research*, 6(2), 151–181.
- Kvalsund, R. (2004b). Schools as environments for social learning – Shaping mechanisms? Comparisons of smaller and larger rural schools in Norway. *Scandinavian Journal of Educational Research*, 48(4), 347–371.
- Kvalsund, R. (2004c). *School and local community – dimensions of change. A review of Norwegian research*. Research Report no. 58, Møre Research Volda. Volda: Volda University College (Høgskulen i Volda).
- Kvalsund, R. (2004d). *Særtilkårslevar i ordinærklasse. Differensiering – kompetanse eller verdsetting?* (Pupils on special conditions in ordinary classes. Differentiation – competence or valuation?). In B. Lødding & K. Tornes (Eds.). (1997). *Idealer og paradokser. Aspekter ved gjennomføringen av Reform 94* (Ideals and paradoxes. Aspects of the implementation of Reform 1994 of upper secondary school) (pp. 217–238). Oslo: Tano Aschehoug.
- Kvalsund, R. (2009). Centralised decentralisation or Decentralized Centralization? A review of Newer Norwegian Research on Schools and Their Communities. In L. Hargreaves & R. Kvalsund (Guest editors). *International Journal of Educational Research*, 48(2): 89–99.
- Kvalsund, R., & Bele, I. (2010a). Adaptive situations and social marginalization in early adult life: students with special educational needs. *Scandinavian Journal of Disability Research*, 12(1), 59–76.
- Kvalsund, R., & Bele, I. (2010b). Students with Special Educational Needs – Social Inclusion or Marginalisation? Factors of Risk and Resilience in the Transition between School and Early Adult Life. *Scandinavian Journal of Educational Research*, 54(1), 15–35.
- Kvalsund, R., & Hargreaves, L. (Eds.). (2009a). Reviews of research on rural schools and their communities in British and Nordic countries. *International Journal of Educational Research*, 48(2), 79–150.
- Kvalsund, R., & Hargreaves, L. (2009b). Reviews of research in rural schools and their communities: analytical perspectives and a new agenda. *International Journal of Educational Research*, 48(2), 140–149.
- Kvalsund, R., & Hargreaves, L. (2013). Theory as the source of ‘research footprint’ in rural settings. In S. White & M. Corbett (Eds.), *Doing educational research in rural settings: Methodological issues. International Perspectives and Practical Solutions*. London: Routledge. In press.
- Lillejord, S. (2003). *Ledelse i en lærende skole* (Leadership in a learning school). Oslo: Universitetsforlaget.
- Måseidvåg, S, & Munthe, E. (2013). Mapping the quality of feedback to support students’ learning in lower secondary classrooms. Accepted: 3.10.2013 in *Cambridge Journal of Education*, doi: [10.1080/0305764X.2013.855171](https://doi.org/10.1080/0305764X.2013.855171).
- Mead, G. H. (1934). *Mind, self and society*. Chicago: University of Chicago Press.
- Melheim, K. (Ed.). (2011). *Oppvekstsenter – barnehage og skule hand i hand* (Growing up –centers. School and kindergarten hand in hand). Sogndal: Landslaget for nærmiljøskulen (LUFS).
- Meyer, H. D., & Benavot, A. (Eds.). (2013). *PISA, power and policy. The emergence of global educational governance. Series: Oxford studies in Comparative Education*. Oxford: Symposium Books.
- Munn, P., & Dreyer, E. (1995). Using questionnaires in Small Scale research. In *A Teachers guide*. Edinburgh: Scottish Council for Research in Education.
- Myklebust, J. O. (1994). *Kohortar på marsj. Flytting og etablering hos ungdom i etterkrigstida* (Marching cohorts. Youth migration and settlement after Second World War). (PhD thesis) Doktoravhandling. Trondheim: Institutt for sosiologi og statsvitenskap, UNIT, AVH.
- Nafstad, H. E. (Ed.). (2004). *Det omsorgsfulle mennesket. Et psykologisk alternativ* (Caring man. A psychological alternative). Oslo: Gyldendal Akademiske.

- Nissen, P., & Egelund, N. (1985). *Undervisning på tvers av klassetrin* (Teaching across age grades). København: Pedagogisk psykologisk forlag.
- Nordahl, T. (2007). *Elever i og fra store og små skoler. Presentasjon av kartleggingsresultater i en kommune* (Pupils in and from larger and smaller schools. Presentation of results from a mapping study in a municipality). Elverum: Høgskolen in Hedmark. Repr nr 4, 2007.
- Nordahl, T. (2011). *Læringsmiljøets betydning og bruk av veiledningsmaterieill. PP-presentasjon*, Tromsø 22.09.2013. Hedmark University College and the Norwegian Directorate for Education and Training. <http://www.slideshare.net/udir/bedre-lringsmilj-lringsmiljets-betydning-thomas-nordahl>
- Norwegian Direktorat of Education and Training (NDET). (2013a). Skolestruktur: Endringer i landskapet de siste ti årene (School structure: Changes in the landscape last ten years). *Statistikknotat* 02, 2013.
- Ogden, T. (2012). *Klasseledelse. Praksis, teori og forskning* (Class leadership. Practice, theory, and research). Oslo: Gyldendal Akademisk.
- Österlind, E. (Ed.). (2005). *Eget arbete – en kameleon i klassrummet* (Individual work – chameleon in the classroom). Lund: Studentlitteratur.
- Pianta, R. C., & Hamre, B. K. (2009). Conceptualization, measurement, and improvement of classroom processes: Standardized observation can leverage capacity. *Educational Researcher*, 38(2), 109–119.
- Postholm, M. B. (2011). A completed research and development work project school: The teacher's learning and possibilities, premises and challenges for further development. *Teaching and Teacher Education*, 27(3), 560–568.
- Råen, F. D., & Ålvik, T. (1987). *Håndbok i lokalt læreplanarbeid*. Oslo: Gyldendal.
- Reynolds, D. (1988). *Forskning på britisk skoleutvikling – Bidraget fra kvalitative studier*. (Research on British school development – The contribution from qualitative studies. First published in *Qualitative Studies in Education*, Vol 1(2). 143–154.). In L. Monsen & T. Tiller (1991): 'Effektive skoler' – skoleutvikling eller mer byråkrati? Oslo: Ad Notam.
- Roald, K. (2010). *Kvalitetsvurdering av organisasjonslæring mellom skole og skoleeigar*. Avhandling for graden philosophiae doctor (PhD). Bergen: Universitetet i Bergen.
- Rogoff, B. (1995). Observing social-cultural activity on three planes: participatory appropriation, guided participation, and apprenticeship. In J. Wertsch (Ed.), *Sociocultural Studies of Mind*. New York: Cambridge University Press.
- Rogoff, B. (2003). *The cultural nature of human development*. Oxford: Oxford University Press.
- Rogoff, B., Paradise, R., Aruz, R. M., Correa-Chavez, M., & Angelillo, C. (2003). First Hand Learning Through intent participation. *Annual Review of Psychology*, 54, 175–203.
- Rønning, W., Solstad, K. J. & Øines, T. (2003). *Det trengs ei hel bygd for å oppdra et barn*. (A whole community is needed to raise a child). Bodø: Nordlandsforskning. (NF-rapport 3/2003).
- Salmon, S., & Salte, R. Å. (2008). *PEACE4KIDS – ART. Trening av sosial kompetanse med barn*. Sandnes: Diakonhjemmets høgskole i Rogaland.
- Scahfft, K. A., & Jackson, A. Y. (Eds.). (2010). *Rural Education for the 21 century. Identity, place and community in a global world*. University Park, Pennsylvania: Pennsylvania State University.
- Schein, E. (2004). *Organisational culture and leadership*. San Francisco: Jossey-Bass.
- Schieffloe, P.M. (1982). *Sosiale nettverk – miljøfaktorer og planleggingsmål*. I: Veggeland, N. (red) Planleggingens muligheter. I. Teori for handling. Oslo: Universitetsforlaget.
- Schieffloe, P.M. (1992). *Sosiale nettverk*. I: Fyrand, L (red) *Perspektiver på sosiale nettverk*. Oslo: Universitetsforlaget.
- Schieffloe, P. (2003). *Mennesker og samfunn. Innføring i sosiologisk forståelse* (Human beings and society. Introduction to sociological thinking). Oslo: Fagbokforlaget.
- Schmuck, R. A. (2006). *Practical action research for change* (2nd ed.). Thousand Oaks: Corwin.
- Schmuck, R. A., & Schmuck, P. A. (1992a). *Livet i klasserommet*. (The life in classroom.) Oslo: Cappelen.

- Scmuck, R. A., & Scmuck, P. A. (1992b). *Small Districts. Big Problems. Making School Everybody's House*. London: Sage, Corwin Press.
- Scott, W. R. (2002). *Organisations: Rational, Natural, and Open Systems*. London: Prentice Hall.
- Scott, J. (2009). *Social Network Analysis. A handbook*. London: Sage.
- Simson, M., & Tuson, J. (1995). Using Observations in Small Scale Research. In *A beginner's guide*. Edinburgh: Schottish Council for Research in Education.
- Slavin, R. E. (1990). Co-operative learning. I: Rogers, C. og Kutnick, P. (red). *The social psychology of the primary school*. London: Routledge.
- Slavin, R. (2008). Evidence-Based Reform in Education: what will it take? In *European Educational Research Journal*, Volume 7, Number 1, 2008 (www.wwords.eu/EERJ)
- Solstad, K. J. (1978). *Riksskole i utkantstrok*. Oslo: Universitetsforlaget.
- Solstad, K. J. (1994). *Equity at risk. Schooling and change in Norway. PhD thesis*. Oslo: University of Oslo.
- Solstad, K. J. (2009). *Bygdeskolen i velstandsnorge*. (The rural school in affluent Norway). Vallset: Opplandske bokforlag
- Solstad, K. J. (2012). *Ekstern gjennomgang av oppvekst- og kulturetaten i Leirfjord kommune*. (External analysis of the 'growing up'- and culture department in Leirfjord municipality, Nordland, Norway). NF-notat 1007/2012. Bodø: Nordlandsforskning.
- Solstad, K. J., & Sigsworth, A. (2005). *Small rural schools. A small Inquiry*. Nesna, Norway. Report 64. Nesna University College.
- Solstad, K. J., & Theling, A. A. (2006). *Skolen og distrikta. Sampel eller konflikt?* (School and the districts. Cooperation or conflict?). Bergen: Fagbokforlaget.
- Solstad, K. J., Leka, W., & Sigsworth, A. (2012). *Reaching out. The place of small Multi-grade Schools in Developing Countries*. Bodø/Nesna: The Case of Ethiopia.
- Sørli, K. (1993). *Bofasthet, flytting og utdanningsnivå i kommunene*. Åtte årskull fulgt gjennom aldersfasen 15–35 år. Del I: Østlandet. Del II: Sørlandet og Vestlandet. Del III: Trøndelag og Nord-Norge. Oslo: Statistisk sentralbyrå. Rapporter 93/28–30.
- Sørli, K. (2003). *Bosetting, flytting og regional utvikling, i Frønes, I and (Eds) (2003). Det norske samfunn, 4. Utgave*. Oslo: Gyldendal Akademisk.
- Stake, R. (1995). *The art of case study research*. London: Sage.
- Stangvik, G. (1994). *Funksjonshemmede inn i lokalsamfunnetsamfunnet. Prinsipper og arbeidsmåter*. Oslo: Universitetsforlaget.
- Steinberg. (1976). *Emotional growth in the classroom: Implementing affective education through the process of confluency*. Stockholm: Almqvist & Wiksell.
- Steinberg, J. M. (1980) *Aktivt verdivalg*. (Active choice of values). Oslo: Dreyer.
- Stenhouse, L. (1975). *An introduction to Curriculum Research and Development*. London: Heinemann.
- Thosmas, G., & Pring, R. (Eds.). (2004). *Evidence-based Practice in Education*. London: Open University Press.
- Tiller, P. O. (1983). *Å vokse opp i Norge* (Growing up in Norway). Oslo: Universitetsforlaget.
- Tiller, T. (1986). *Den tenkende skolen. Om organisasjonsutvikling og aksjonslæring på skolens egne premisser*. Oslo: Universitetsforlaget.
- Tiller, T. (1993). *Vurder selv*. Oslo: Universitetsforlaget.
- Tophol, A. K. (2011). Kan vi stole på statistikken i utdanningsforskninga (Can we trust statistical analysis in Educational Research?). *Norsk Pedagogisk Tidsskrift*, 95(6), 461–470.
- Tyler, R. F. (1949). *Basic principles of curriculum and instruction*. Chicago: University of Chiicago, Press and Falmer Press.
- Vetlesen, A. J. (2004). Det frie mennesket? Et sosialfilosofisk blick på patologiene i opsjonssamfunnet (Liberty to choose? A social philosophical perspective on pathologies of the option society). In H. E. Nafstad (Ed.), *Det omsorgsfulle mennesket. Et psykologisk alternative*. (Caring man. A psychological alternative). (pp. 17–54) Oslo: Gyldendal Akademiske.

- Vetlesen, A. J. (2009). Community in times of individualism. In H. E. Nafstad & R. M. Blakar (Eds.), *Felleskap og individualism*. (Community and Individualism) (pp. 19–54) Oslo: Gyldendal Akademisk.
- Vinterek, M. (2003). *Åldersblandade klasser. Lärares föreställningar och elevers erfarenheter* (Age mixed classes. Teachers conceptions and pupils experiences). Lund, Sweden: Studentlitteratur.
- Wassermann, S., & Galaskiewics, J. (Eds.). (1994). *Advances in social network analysis. Research in the social and behavioral sciences*. London: Sage.
- Weick, C. (1995). *Sensemaking in organisations*. London: Sage Publications.
- Wenger, E. (1998). *Communities of practice. Learning, meaning and identity*. Cambridge: Cambridge University Press.
- White, S., & Corbett, M. (Eds.). (2013). *Doing Educational Research in Rural Settings: Methodological issues, International Perspectives and Practical Solutions*. London: Routledge.
- Yin, R. K. (1984). *Case study research*. London: Sage.

Chapter 4

How Research Messages Get Sidetracked by Governments

David Berliner

Abstract Politicians and governments have agenda, sometimes at odds with the facts associated with educational phenomena. Further, educational research is hard to do and leaves room for ambiguity in creating policy out of research, allowing newspapers, in general, and politicians, in particular, to misinterpret educational phenomena. This often leads to inappropriate policies. For example, interpretations of the results of PISA tests (The Program for International Student Assessment) are highly political, often not trustworthy, and commonly misleading. Four examples of problems with PISA interpretations by government are given: the misunderstanding of the relationship between PISA and a nation's economic performance; the data hidden when only the mean scores of nations are reported; the meaning of variance accounted for in interpreting PISA test scores; and the conclusion that better standards for educational achievement will improve America's performance on the PISA tests. Discussed as well is the fact that political expediency and government policy often affect such issues as the field testing of instructional programs and their assessment; the setting of goals for achievement on commonly used assessments; the overuse of simple main effects to interpret data, along with a lack of understanding of interactions; a failure to understand the effects of context on the implementation of policy; inadequate estimates of the costs associated with policy implementation; inadequate understanding of the effects of tax credits on education; an overconcern with educational outcomes and a corresponding lack of concern for educational inputs; and an overreliance on standardization.

Keywords Policy • Politics • Government • Interpretation • PISA • Goals • Data • Teachers • Symbols • Outcomes

D. Berliner (✉)
Arizona State University, 120 E. Rio Salado Parkway, Unit 205 Tempe,
Tempe, AZ 85281-9116, USA
e-mail: berliner@asu.edu

Introduction

Politicians have belief systems, often strong ones, congruent with and backed up by the ideology of their political parties, whether they are the parties in power or the ones seeking power. This makes it easy for politicians to fit certain ideas into those beliefs, and to reject others, regardless of whether those ideas are backed by research or not. Rational politicians, of whom there seem to be too few, think scientific findings can sway political opinion. For example, a very powerful politician, the late US Senator Daniel Patrick Moynihan, an academic with a PhD degree, said to someone testifying at a congressional committee hearing “Everyone is entitled to his own opinion, sir, but not to his own facts.” The writer Aldous Huxley held a compatible opinion, saying: “Facts do not cease to exist because they are ignored.” Facts, these rationalists believed, were stubborn things, not easy to deny at all. But they are wrong.

Global warming, evolution, the moon landing, and other near certainties are denied by many individuals. Ignaz Semmelweis discovered how to stop the vast majority of deaths that occurred in childbirth, and was ignored for decades by the physicians of the world (Semmelweis 2014). Sure that they knew best, the medical profession held to its false beliefs and literally killed hundreds of thousands of patients that need not have died. Poor Semmelweis died tragically in a mental institution, apparently driven crazy, in part, by his failure to convince physicians that his research was solid. One person’s surety, no matter how well supported by science, is often doubted by others because of their social, religious, political, or personal beliefs, despite what most fair-minded people would call reasonable evidence. One seasoned politician put it to me this way: “In the legislatures of the world, facts are negotiable, but opinions are rock solid!”

This vein of irrationality flows through much political policy making. This results in our not getting rational policy making by governments, a failure to get decisions based on solid, though imperfect social science research, of which educational research is a part.

The Quality of Social Science Research

Part of the problem in getting research to guide government legislation is that social science evidence is not believed to be “hard.” Rather, such research is seen as “soft,” with the “facts” quite open for the kinds of negotiation my political colleague described (Berliner and Biddle 1995). Physics is the model used to dismiss the research from the social sciences because gravity is gravity in England and Australia, and light and sound travel at the same speed in Europe and the USA. In the social sciences in general, and in education, in particular, findings in one country or a region of a country, cannot always be easily replicated in another setting in or out of that country. Contexts vary so much in the social world. This is because a plethora

of unexamined variables interact in odd ways, such that educational findings never have the surety as do findings that come from the physical sciences (see Berliner 2002; Berliner et al. 2014). Some of that faith in the surety of scientific findings, however, begins to fail in the biological sciences. Many drugs taken by many of the world's legislators have no effect, or negative effects on them, and in a large number of cases, the treatments for many of their ailments are totally ineffective. But still politicians marvel at the research in the biological science. They ordinarily fund that research at relatively high levels because when such research works as intended important effects, literally lifesaving effects, do occur. Then there is research in the social and behavioral sciences, and the most difficult of the subfields in this category is educational research.

Compared to educational research, physics is easy-to-do research, while we in education have hard-to-do research (Berliner 2002). We simply have no scientific projects that impress like space flight and moon landings, bridges, dams, and linear accelerators. And we have nothing to compare to what we commonly call "miracle" drugs and the new medical technology. We simply have no miracle cures for low student performance on the standardized tests so commonly used to judge our students. Politicians around the world are notoriously impatient and want big payoffs, confusing the difficulties of doing science in the social realm with doing science in the physical or biological realms.

What politicians in the USA and elsewhere do not realize, however, is that some areas of our research are almost rock solid, like the research on the effects of early childhood education on later school performance and attainment in life, particularly for a nation's poorest children. But if that research does not fit a politician's beliefs, or costs a considerable amount of money to implement, it may be ignored or attacked and even lied about (Berliner et al. 2014). Many politicians do not recognize the almost rock solid research on the deleterious effects of leaving a child back a grade, and in the USA, despite the research, states are recommending that schools do this at increasing rates. The research in this area is not only ignored, but the clear bias that such a decision entails, targeting boys and minorities, is also ignored (Berliner et al. 2014). Many politicians deny the consensus reached in the research community about the effectiveness of private and charter schools. It is convincingly demonstrated that, in general, they are not as good as, or just equal to public schools, as soon as family social class is taken into account (Lubienski and Lubienski 2013; Wenglinsky 2007). Governments and parents will not accept the research on the effects of homework, or how being off from school in summer affects middle class and lower class children differently, and so forth. Researchers in education do have consistent research, and ignoring that body of research is as mistaken as ignoring Semmelweis's research, though not nearly as costly and dramatic.

Government Misinterpretations of PISA

An example of how governmental irrationality, impatience, and political interests come together is the focus in the USA (and many other nations) on PISA (The Program for International Student Assessment) and other international tests. Our President and Secretary of Education lament America's poor showing on international tests and thus worry about our economic competitiveness. But both these leaders and the newspapers that report (and support) their views fail to understand a great number of things; four of those misunderstandings follow.

First, they do not understand that in developed nations, PISA and the other international tests of educational achievement have almost no power to predict economic growth. So they are just using the modest mean performance of students on these tests to show they can be tough on teachers. They actually know that economic competitiveness is function of many other factors that are more important to economic health than is education. It is politics, not reliable data, that motivates them to pick on teachers.

Second, mean scores hide variation. But even then, US mean scores on international tests are not awful, merely often about average, which is not something that politicians can live with. Politicians always seek to be number one in every metric used, at least while they are in office. In the more developed nations, they all expect that their country will be the best in education, even though the results of the tests of national educational systems resemble a horse race or an Olympic game. So no matter how good the educational system, the horse, or the athlete is, some educational systems, some horses, and some athletes will come in fourth or sixth or fifteenth. When they are not number one or close to number one in ranking, regardless of the reasons, too many of these politicians turn on their educators.

But more important, and what politicians usually fail to grasp, is what is hidden by the mean scores that determine a nation's placement in the educational race for the number one position in educational achievement. What is hidden is great variation among the subpopulations that make up the mean. For example, in PISA, American students are among the highest scoring students in the world in science, reading, and even in mathematics, often the weakest subject for US students *if* they attend schools where fewer than 25% of the families served by the school are in poverty. In TIMSS ([Trends in International Mathematics and Science Study](#)), the same pattern emerged. The 15 million or so students in the public schools that serve the middle and upper classes do remarkably well, and even the students in schools where family poverty rates were between 25% and 50% scored well, recently beating the much envied Finnish educational system (Berliner et al. 2014). These public school students, all in schools where poverty rates are under 50%, total somewhere about half of all public schools students in the USA and they do just fine on the achievement tests.

The mean score on these international tests is lower than many other nations because students in schools where poverty rates are higher than 50%, particularly in schools where over 75% of the families served by the school are in poverty, do

terribly on these tests. These facts, hidden when only the mean score and ranking is examined, strongly suggest that it is not a problem of teachers and curriculum, but a problem of poverty, that most affects America's scores on international tests. This same pattern shows up in PIRLS (Progress in International Reading Literacy). On that test, the approximately 15 million American students attending public schools where fewer than 25% of the families were impoverished had a mean score higher than the mean score of every other country in the world. And on that test, Asian-Americans also beat the mean for every other country in the world, indicating that American Asians in American public schools can outperform Asian Asians in their own nations' schools. This could not happen with a nation that is filled with bad teachers, working for inadequate administrators, using an out-of-date curriculum, and forced to negotiate with obstinate unions, as is so often claimed by government officials working for both former presidents Bush and Obama. Our government officials are deliberately ignoring what appear to be causal factors in determining the unexceptional overall performance of American students on international tests.

Despite the nonsense spouted by politicians as they interpret the mean scores on the international achievement tests, sure in their belief that that the USA does poorly; and despite the problem of American newspapers reporting such nonsense uncritically, convincing many tax payers that such nonsense is true, it simply is not a true statement to say that our American students do poorly. What is true is that *some* American students do poorly. That is a big difference in both the statement of the problem and, therefore, in how we might address that problem. We now know beyond any doubt that the distinguishing characteristic of those that do poorly in America's public schools is their poverty, and therefore the kinds of neighborhoods they grow up in, often neighborhoods highly segregated by race as well as by income (Biddle 2014).

From decades of scholarship, yielding highly reliable data whose implications are often ignored by governments, we have learned that the major predictor of success and failure in our public schools is family social class, particularly family income and its correlates and sequelae (Berliner 2013a; Biddle 2014; Perry and McConney 2010) In fact, in one international study where Finland beat the USA handily, the childhood poverty rates for the two countries were statistically swapped. That is, Finland with a low poverty rate for children was assigned the high poverty rate for children in the USA, and vice versa (Condron 2011). The result is completely ignored but showed clearly that if Finland had the same poverty rate for children as the USA did its scores would drop precipitously, and if the USA had the same rate of childhood poverty as Finland, its scores on PISA would rise dramatically. Reducing poverty requires complex and expensive action. Blaming teachers is easy and cheap. Thus teachers are frequently blamed for problems over which they have no control.

Third, our politicians have no clue how to interpret the notion of variance accounted for in either domestic or international testing. When aggregate test results are analyzed, say mean scores, for classrooms, schools, districts, states, and nations, we can partition the variance in the test scores by simple, common, statistical

techniques. When we do that, a typical finding is that schools account for about 20% of the variation we see in test scores of students on national tests in the USA, and outside-of-school factors account for about 60% of the variation in the scores we see (Haertel 2013). Any person with basic arithmetic skills can see that the outside-of-school factors are three times more powerful in influencing school performance than are the inside-the-school factors. Thus government policies toward school improvement might better be aimed *not* at the schools, but at other factors that more powerfully influence school achievement. But governments do not know that their policies are even more off the mark given another fact. That is, while schools account for 20% of the variation we see in test scores, teachers are a part of the schools' effect. Perhaps teachers are even the most important part of a school's influence on its students, affecting, perhaps, half of the variance that we attribute to school effects. Thus, teachers probably account for about 10% of the variance we see in students' test scores, while outside-of-school factors appear to account for 60% of that variance, making the outside-of-school factors 6 times more powerful than teachers in affecting classroom, school, district, state, and national test scores. It appears to be much less likely that we can improve achievement test scores through school reform, than we could through social reforms.

What politicians and the general public fail to understand is that teachers do dramatically affect the lives of their individual students, often influencing their attainments and many other aspects of their later lives (Barone 2001). But teachers rarely have that powerful an influence on classroom mean scores, and even more rarely do they influence school or district mean scores. And it turns out that teachers have virtually no effect on state or national aggregate mean scores. Teachers have no discernable effect on national scores, despite many governments interpreting PISA scores in ways that give credit to, or blame for, those scores to their teachers. Such an inference is quite inappropriate, though it is made all the time.

Most governments avoid facing this quite solid research about the powerful difference that teachers can make in the lives of their individual students and their weak effect on the aggregate test scores obtained from their students. The strong effect on individuals and the weak effect on aggregate scores is a paradox, of sorts. And human beings, especially those who staff government bureaucracies, do not deal well with paradoxical policy. The validity of research demonstrating weak effects by teachers on aggregate test scores was recently confirmed by the American Statistical Association (2014). What we now know is that classroom mean scores are ordinarily more strongly determined by peers in the class (Harris 2010; Berliner 2013a) and not influenced in a major way by the classroom teacher. Grade level mean scores are ordinarily more strongly determined by the cohort of students at the grade level, than they are by the classroom teachers of that grade level. School district mean scores are almost always a function of the social class and income distribution of the neighborhood from which that school draws. Of course exceptions exist. Teachers do, *occasionally*, affect the test scores, even the lives, of everyone in a class (Pedersen et al. 1978; Barone 2001), and teachers can make a school or a district a great success (Casanova 2010; Kirp 2013). But exceptions do not negate the rule. Exceptions to the evidence that cigarette smoking causes lung cancer exist.

So it is not hard to find an 80-year-old lifelong smoker. But that doesn't change the rule that smoking is harmful, any more than does a highly successful teacher, school, or district change the rule that classroom peers, grade level cohorts, and neighborhood composition are more frequently the most influential of the effects on the mean scores of classrooms, grades, and schools. Exceptions should never be used to make policy. But in the USA, in particular, politicians praise and blame teachers for their influence on classroom or school test scores, when their power is really through their influence over individual student lives and on individual student test scores. Only rarely do teachers have a large effect on aggregate scores such as class, grade level, or district scores.

Fourth, in the USA our politicians have demanded that all states seeking federal dollars follow common rigorous standards. This is intended to eliminate much of the nation's variability in what is taught, when it is taught, and to make sure that America's children give up their childhood ways in order to study only what is preparatory for the high-stakes tests that accompany the new standards. This policy, it is thought, will help our nation be first in the world in international tests—we'll have the winning horse; we'll take Olympic gold.

But the common standards have attached to them a common test, a part of the two decade long demand by politicians and the business community of the USA for greater accountability by teachers and schools, despite the research cited in the previous paragraphs showing that the effects of teachers and schools on mean test scores is so much smaller than imagined by almost everyone in authority. The testing advocated is high-stakes testing. That is, consequences of importance follow from the testing. Teachers and administrators can be fired or rewarded, and children may be left back, on the basis of test performance. Yet research, history, and anecdote show that invariably, whenever testing is made high-stakes, corruption of the test scores and corruption of the people involved with the testing occurs. Cheating scandals are now a commonplace in the USA and in other nations with high-stakes tests. Cheating on China's high-stakes tests goes back well over 1000 years (Suen and Yu 2006) and is still common (Moore 2013). The effects of the high-stakes tests to accompany the new US standards are predictable from the research: they will result in cheating and gaming the system so that students and their teachers get high scores; they will narrow the curriculum that is taught; and they will narrow our conceptions of what constitutes a smart child, ignoring all evidence of talent except in those areas that are tested. These ill effects are well documented (Nichols and Berliner 2007), and all are predicted by a well-validated social science law, Campbell's law (Campbell 1975). But both the documentation of the deleterious effects of high-stakes testing and the validity of the scientific law are ignored by most government designers of educational policy. It is frustrating.

Additional Problems with Politicians, Governments, and Their Relationship to Educational Research

In industry, new ideas are piloted. Tryouts occur before major investments are made. Extensive field testing is often done before settling on a final design. In education this is often *not* the case. The new Common Core State Standards¹ (CCSS), noted above, were developed by non-teachers and never field tested. But adoption of those standards was forced on every state by the federal government without field testing. In their haste to appear to be doing something, anything, this common mistake is made by governments. Field testing is important. But in addition to reasonable evidence that a policy might work as intended, as field testing would reveal, it would also be nice to be sure that the policy is even needed! Many US schools are doing fine in international competitions without using the CCSS, for example, Massachusetts schools and schools in high-income neighborhoods. Since their success is well documented, why would a government require those schools to change?

The No Child Left Behind act² (NCLB), pushed through congress by former president George Bush, did not work as intended. It was rushed into all states without a comprehensive evaluation of its effects in the State of Texas where it was first used. The effects claimed for NCLB in Texas were eventually discovered to be totally false, but it had already been rushed from a state law to a national law, and it has failed again (Nichols and Berliner 2007; Ravitch 2010). Slower implementation of some educational policies are recommended: field testing and exemptions for some schools may be more rational when designing national policy than what was done in implementing NCLB.

But the biggest fault of the NCLB law was something else: it set patently impossible goals to be reached. Politicians had signed into law the requirement that all American children—100% of them—be *proficient* on tests by 2014, the year in which this chapter is being written. One hundred percent above average would be ridiculous enough, but this law went even further—100% of our students were to be proficient, achieving at some level well above average. This insane law was passed with great bipartisan support by America's congress. This law, promoted by the

¹Developed by the Council of Chief State School Officers (CCSSO), it set down what each pupil should be able to do by the end of each grade level in mathematics and English and claimed to be evidenced based.

²The No Child Left Behind Act (NCLB) was passed by Congress in 2001, but in 2015 it was replaced by the Every Student Succeeds Act. The NCLB act required each state to develop assessments in basic skills. To obtain Federal funding, a state had to assess all its students at selected grade levels. Over the years the act came in for criticism from both liberal and conservative opinions for its stringent demand that all students should achieve “above average” results, and for the emphasis, it placed on the use of standardized tests in mathematics and literacy, which resulted in teachers “teaching to the test” and giving a disproportionate amount of instructional time to these core subjects at the expense of the arts and humanities. The history of NCLB has parallels in England where standardized tests at 7 (Key Stage 1), 11 (Key Stage 2), and 13 (Key Stage 3) were introduced, but have now been replaced by a single end of primary school series of assessments as a result of similar criticisms.

younger President Bush, had echoes of his father's equally ridiculous goal. The older President Bush, in the 1990s, demanded that the USA be number one in the world in math and science by the year 2000. That year also that has come and gone without a hint of a US triumph in assessments of achievement in those fields. It was seen as ridiculous then, and nothing since then has changed researchers' minds.

The point for governments is to set expectations, and sign into law, that which is possible. Instead, governments too often set impossible goals, and then blame the teachers of America for not reaching them. This is both bad and unfair policy. It is also related to terms in office. Politicians too often set impossible goals because they look forceful when they do so. But sadly they know full well that they will not be in office when those goals are to be met. Blame for the failure to reach those goals is not then attributed to failure in the political system, but easily assigned to others, often teachers and administrators.

Another problem with government and educational policy is that policy makers in all countries favor policies that appear to have simple main effects. They tend to think that if they promote policy A, then effect B will occur. They are ignorant of, or ignore, the complexity of the real world, a world where interactions among a myriad of variables abound. It might be that "If A then B" holds only when X is present. For example, a policy might be designed to let minority students into college, even with lower grade point averages than others, so the college can graduate more minority students. Thus "A" (letting minority students into college), then "B" (more minority college graduates), appears to be a sensible, proactive, and progressive educational policy.

But the college might only graduate more minorities if "X" is present, say the formation of study groups, or the provision of counselors from the same cultural group, or the provision of remedial classes. Policies often work only under some conditions and do not work under other conditions, and that is often overlooked. When that happens, which is frequent, the cost estimates associated with a policy may mushroom. Still another example of this unrealistic "main effect" thinking is that "A" may not produce "B" under circumstances where Y is present. If it is desirable to increase student proficiency in mathematics, currently a concern in the USA, than many policy options are open. But with the vast majority of elementary school teachers having minimum training in mathematics, all such policies are likely to fail. To get mathematically trained teachers into the profession may require much higher starting salaries. Under current employment practices, policy "A" about improving mathematics may never result in the achievement of "B," higher mathematics test performance, as long as "Y" is present, inadequate mathematics preparation by elementary school teachers. Simple policies for a complex world rarely succeed: extensive modifications are often needed.

A related problem is this: politicians appear to have no idea how hard it is to have what works in one place, work in another place. Because the real world is so complex, with the number of variables interacting so huge, what appear to be similarities in communities may be illusion. In reality, vast differences in local communities exist, and this frequently is the cause of policy failure. For example, politicians may hear stories of someone or something "working" some place, and thus they want to

see it transferred to a site over which they have some responsibility. They may even allocate money for a new program or pay a high salary to a new school leader. But it is difficult to transfer successful programs and successful people as easily as it seems. The evidence is overwhelming that many apparently successful reading, science, math, or even sex education programs simply do not replicate at other sites. And highly successful school leaders often fail in new settings too. The impatience of legislators, new boards of education, or new superintendents to put into place a seemingly successful program needs to be tempered by the fact that local sensibilities need to be taken into account, and local adaptations of the program or policy are likely to be needed. In the real world, social and educational findings do not transfer as easily as do physical science findings. Leadership is also very dependent on context and culture, so it too is not easily transferable.

Still another policy problem, often ignored or greatly underestimated by governments, are the costs associated with certain policies. For example, the quality, appropriateness, and philosophy behind the CCSS, and the assessments that accompany them, may be argued about forever. But what is not arguable is that the cost of implementing the CCSS and the associated testing program is huge. Even small states will need to spend hundreds of millions of dollars for computer infrastructure to implement the standards and the accompanying tests, and large districts and states will spend billions of dollars. This is money that will end up in corporate hands, and thus not used for the repair of aging school buildings, or the reemployment of school nurses and librarians, nor the rebuilding of music and art programs, all programs decimated during the recent economic recession. The magnitude of these costs was not mentioned in the initial policies put forth by the US Department of Education.

An additional problem associated with policy costs occurs because many state governments in the USA have also supported vouchers for private schools. In this relatively new educational policy, support is usually in the form of a tax credit, whereby the tuition that is paid to a private school by a particular family is deducted from that family's taxes that are due to their state. States, therefore, lose revenue. This leads to cuts in all the social programs of the state, including police and fire protection, road construction and public transportation, as well as education. Further, and particularly in the poorer school districts of a state, vouchers reduce the money schools need to support quality education. This is because fewer children attend the public schools, but the loss of a few children in each grade level to a private school results in virtually no cost savings for a public school. Thus, with almost the same expenses, they receive a lower allocation of funds from their state. Furthermore, although many neoliberal state legislators do not care, the evidence is that voucher systems are both corrupt and hurting public schools. In addition, voucher schools are usually not any better than the public schools, even though they appear to be biased racially, by social class and by the quality of the students they accept (Berliner et al. 2014; Welner 2008).

Over time politicians and governments have learned to demand summative evaluations. They rightly want to know if a program or a policy is working as intended. But that demand could also be a problem. Programs and policies take time to root.

So it would often be smarter to demand formative evaluations of policies and programs for a year or even three, before a summative evaluation is attempted and judgements made about a program's success or failure.

But even then, after formative assessments and a summative judgment is made, we now know that the likelihood of ever obtaining unambiguous data from our research is quite small. Even if we used a randomized clinical trial (RCT) to assess a program or a policy's effects, ambiguity in social science findings is common. Politicians want surety. But educational research (the social world) and medicine (the biological world) never really produce the surety that politicians hunger for, such as that which characterizes the physical world. For example, findings from some of the RCTs promoted by the federal government showed statistically significant effects for treatment A over treatment B. But those differences, though statistically significant, were usually remarkably small. So in the hands of a talented or a highly committed teacher, the program or policy that was implemented and found to be ineffective, is likely to be working fine. And in the hands of a skeptical or less talented teacher, the treatment or policy supported by the statistics from the RCT may not work as expected. The social sciences cannot provide legislators making policy with the surety that they seek.

Related to a number of issues raised above is the unrelenting focus by politicians and governments on outcomes, and their frequent lack of concern for the inputs needed to make programs and policies successful. For politicians and governments to be focused on high school graduation, college attendance, job readiness, test scores, and the like is not wrong. But each of these outputs of the education system is strongly related to inputs to the education system, for example, the poverty rates of the families and the neighborhood the school serves. Each of the valued outputs is also empirically related to preschool attendance rates, food insecurity, medical coverage for families, neighborhood drug use, teacher experience, teacher turnover at the school, funding for counselors and librarians and nurses at the school, and so forth. The past 20 years have seen us move almost exclusively to policies related to the outputs of the schools (the achievement gap) and to ignore many of the inputs to the schools (pursuing equal educational opportunities for children). Outcome-oriented policies make it easier to blame teachers and administrators for purported student failures, and these policies are often cheaper to fund than would be the many input variables that are known to affect school achievement. But if the problems of many students and schools are related to inputs, then almost all the proffered output-oriented remedies will fail. If we set policies that increase the rigor and breadth of the outputs of our educational system, which we have recently done, without concern for an increase in the quality of the lives led by the students who come into our educational system, we have the certain makings of a policy failure.

Finally, citizens of a democracy should worry when government policy imposes overly standardized approaches on teachers. Schools are not factories, and teachers are not robots, turning out standardized products. Yet standardization of educational processes and outcomes is often the goal of educational policies such as the CCSS and the many new systems for evaluating teachers. Suppose that a teacher is quite good at teaching, say, *Moby Dick* as an example of a great nineteenth-century

American novel. But suppose also that the standards adopted and the curriculum associated with the standards end up recommending *The Red Badge of Courage*, or *Treasure Island*, or *The Adventures of Tom Sawyer*, or *The Adventures of Huckleberry Finn*, or *The Scarlett Letter*, or a dozen other American novels thought to be grade level appropriate. If we force any teacher to teach something they do not care deeply about, and in which they have no great interest, we lose something potentially wonderful. Perhaps teachers should have the right to meet the intent of a policy, say to teach about American nineteenth-century life and beliefs, without being obliged to teach what some distant policy maker or curriculum committee has recommended. It might be better for teachers and the students they instruct if governments treated teachers like professionals who are capable of making their own intelligent choices about curriculum. But government agencies and the politicians who supervise them often treat policy for teachers much like these people and agencies make law: “you will do this, and not that, or penalties will be imposed!” This is a common and career deadening mistake. Education policies ought instead to promote having teachers present things they know well and love to teach, rather than policies that force teachers to accommodate the wishes of a distant bureaucrat or curriculum developer (Berliner 2013b).

Conclusion

We now understand that politicians and the governments they represent hold their positions of influence through the manipulation of symbols. It has become commonplace, therefore, to discover that many of the acts of high-placed policy makers are mere symbolism. Laws and policies are too often put in place not as serious attempts to solve problems, but to placate constituents or gain political backing. This explains the vigor with which new policies are announced, research evidence ignored, and the lack of interest in assessing their eventual consequences. We too often squander opportunity, time, and money on what is merely symbolic politics. We need the courage to face reality, assess what needs to be done, and accept genuine responsibility for improving our world when it does not work as we wish it to. In a better world, the first role of governments and the first responsibility of the politicians and bureaucrats that staff them would be the welfare of the people who they serve. In education, this is clearly not often the case. More openness and realism in setting educational priorities, in monitoring educational programs, and in evaluating their effects would make educational improvement in each nation much more likely.

References

American Statistical Association. (2014). *ASA statement on using value-added models for educational assessment*. Alexandria: Author.

- Barone, T. (2001). *Touching eternity: The enduring outcomes of teaching*. New York: Teachers College Press.
- Berliner, D. C. (2002). Educational research: The hardest science of them all. *Educational Researcher*, 31(8), 18–20.
- Berliner, D. C. (2013a). Effects of inequality and poverty vs. teachers and schooling on America's youth. *Teachers College Record*, 115(12), 8.
- Berliner, D. C. (2013b). Opportunity to teach: The joy of teaching what you know deeply, find fascinating, and want to share. In K. Egan, A. Cant, & G. Judson (Eds.), *Wonder-full education: The centrality of wonder to educating in science, mathematics, the arts and humanities*. New York: Routledge.
- Berliner, D. C., & Biddle, B. J. (1995). *The manufactured crisis: Myth, fraud, and the attack on America's public schools*. Reading, MA: Addison-Wesley (Republished by Harper-Collins).
- Berliner, D. C., Glass, G. V., & Associates. (2014). *50 myths and lies that threaten America's public schools*. New York: Teachers College Press.
- Biddle, B. J. (2014). *The unacknowledged disaster: Youth poverty and educational failure in America*. Rotterdam: Sense Publishing.
- Campbell, D. T. (1975). Assessing the impact of planned social change. In G. Lyons (Ed.), *Social research and public policies: The Dartmouth/OECD Conference* (Chapter 1, pp. 3–45). Hanover: Dartmouth College, The Public Affairs Center.
- Casanova, U. (2010). *Si se puede!: Learning from a school that beats the odds*. New York: Teachers College Press.
- Condron, D. J. (2011). Egalitarianism and educational outcomes: Compatible goals for affluent societies. *Educational Researcher*, 40(2), 47–55.
- Haertel, E. H. (2013). *Reliability and validity of inferences about teachers based on student test scores, The 14th annual William Angoff lecture*. Princeton: Educational Testing Service.
- Harris, D. N. (2010). How do school peers influence student educational outcomes? Theory and evidence from economics and other social sciences. *Teachers College Record*, 112(4), 1163–1197.
- Kirp, D. L. (2013). *Improbable scholars: The rebirth of a great American school system, a strategy for America's schools*. New York: Oxford University Press.
- Lubienski, C., & Lubienski, S. T. (2013). *The public school advantage: Why public schools outperform private schools*. Chicago: University of Chicago Press.
- Moore, M. (2013, June 20). *Riot after Chinese teachers try to stop pupils cheating*. London: The Daily Telegraph.
- Nichols, S. L., & Berliner, D. C. (2007). *Collateral damage: How high-stakes testing corrupts America's schools*. Cambridge, MA: Harvard Education Press.
- Perry, L. B., & McConney, A. (2010). Does the SES of the school matter? An examination of socioeconomic status and student achievement using PISA 2003. *Teachers College Record*, 112(4), 1137–1162.
- Pedersen, E., Faucher, T. A., & Eaton, W. W. (1978). A new perspective on the effects of first-grade teachers on children's subsequent adult status. *Harvard Educational Review*, 48(1), 1–31.
- Ravitch, D. (2010). *The death and life of the great American school system: How testing and choice are undermining education*. New York: Basic Books.
- Semmelweis, I. (2014). Wikipedia. Retrieved May 20, 2014, from http://en.wikipedia.org/w/index.php?title=Ignaz_Semmelweis&oldid=611235900
- Suen, H. K., & Yu, L. (2006). Chronic consequences of high-stakes testing? Lessons from the Chinese civil service exam. *Comparative Education Review*, 50(1), 46–65.
- Wenglinsky, H. (2007). Are private high schools better academically than public high schools? Washington, DC: Center on Education Policy. Retrieved July 13, 2013 from <http://www.edline.com/uploads/pdf/PrivateSchoolsReport.pdf>
- Welner, K. G. (2008). *NeoVouchers: The Emergence of Tuition Tax Credits for Private Schooling*. New York: Rowman & Littlefield.

Chapter 5

The Development of Research on Small Class Teaching in China

Beifei Dong and Lianghuan Lv

Abstract Small class teaching forms a part of the national curriculum and instruction reform system and is a bottom-up educational reform. It can help enrich the achievements of instruction reform and accumulate the experience of how to promote equity of education. For more than 16 years, small class education has been developing in the cities of the Yangtze River Delta Region, such as Shanghai, Hangzhou, and Nanjing then spreading into the other coastal cities and economically developed areas and eventually into the less developed areas. Education policies, the population birth rate, the rapid development of urbanization, and other factors lead to pressure on existing educational resources. Paying attention to the “natural” small class in rural areas and giving support to the “active” small class in developed cities are two of the most important measures for the sustainable development of small class education. Home-based theoretical research on these developments is an important priority.

Keywords Small class teaching/education • Development • Solutions • China

Introduction

“Small class teaching” (SCT) or “class size reduction” (CSR) as it is called in European countries and the United States is referred to as “small class education” (SCE) in China. In 1997 the campaign for “class size reduction” was first introduced into Shanghai and then spread into the other coastal cities and economically developed areas. In 2010, the Ministry of Education of the People’s Republic of China issued the National Outline for Medium- and Long-Term Educational Reform and Development (2010–2020), which stated that SCE was one of the most effective ways to improve the quality of education. As a result, the pros and cons of small

B. Dong (✉) • L. Lv
East China Normal University, North Zhongshan Road Campus, 3663 N. Zhongshan Rd.,
Shanghai 200062, China
e-mail: bfdong@kcx.ecnu.edu.cn; lhlv@kcx.ecnu.edu.cn

classes entered the public domain. However, nowadays, further development in SCE faces delays due to other pressures on educational resources caused by government policies, increased population, and urbanization.

The Effectiveness of Developments During the Past 16 Years

In 1996, rapid economic developments in Shanghai coincided with a decline in enrollments in the primary schools from their peak. The Shanghai Education Committee organized some schools into research groups to explore the feasibility and effectiveness of SCE. In September 1997, ten primary schools (class size: 19–28 students) in Shanghai began with the first round of pilot research. They were joined by Beijing (in 1997), Hangzhou (in 1998), Taiwan (in 1998), Anhui Province (in 2000), Nanjing (in 2001), Guangzhou (in 2005), and Dalian and Hong Kong (in 2009) although Hong Kong had conducted a pilot evaluation from 2004 to 2008.

Developments at Different Stages

Between 1997 and 2013, the developments of SCE in China were initially centered around the cities of the Yangtze River Delta Region, such as Shanghai, Hangzhou, and Nanjing, before spreading into the other coastal cities and economically developed areas and then into the less developed areas. A systematic examination of the SCE developments in the coastal cities and economically developed areas would suggest that the research has passed through three stages: a pilot or trial stage, a promotion stage, and more recently a stagnant stage.

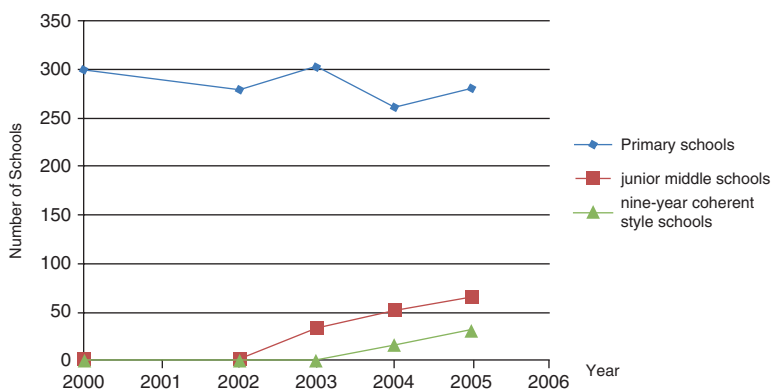
In the case of Shanghai, for example, the determination of the research focus has moved from the Municipal Department of Education to the District Department of Education and then to the primary and middle schools at the basic level. However, the research has gradually explored various themes in greater depth.

At the beginning of the trial stage, that is in 1997, only ten primary schools in Shanghai participated in the research program, constituting 1.6% of the total number of primary schools. By 2000, that is, during the promotion period, there were 300 primary schools involved in the research, constituting 35.2% of the total number of primary schools. Eleven districts issued a set of standards governing the formation of small classes and provided funding and facilities in support of these experimental schools. By 2005, however, the number of experimental primary schools had reduced to 281, as a result of closures and mergers, but they still constituted 44% of the total number of primary schools. In the same period, the number of experimental junior middle schools rose to 66, however, constituting 19% of the total number of such schools. The number of nine-year coherent style schools was 31, constituting 24% of this type of arrangement. Thus the SCE development reached its peak around this time both in the number of the experimental schools

Table 5.1 The characteristics of Shanghai SCE developments at different stages

Stages	Time	Research subjects	Research topics ^a
Trial stage	1997 ~ 1999	Shanghai Municipal Education Commission, Municipal Pilot Schools	Defining SCE, exploring class arrangements, classroom settings, and evaluating teaching.
Promotion stage	2000 ~ 2005	District education bureaus County education bureaus Experimental schools	Relating SCE to various teaching approaches, regional promotion policies, school management strategies and monitoring the implementation of SCE in junior middle schools.
Stagnant stage	2006~	Experimental schools Some district education bureaus Some county education bureaus	School-based curriculum initiatives, cooperative teaching strategies, professional development of teachers.

^aIn this present context, the use of the word “research” indicates that these “experimental” schools engaged in joint activities with a view to developing common organizational and pedagogic strategies, many based on shared craft knowledge, but some which were evidenced based. Thus in Hong Kong a small class could only be formed if it contained at least 20 pupils and no more than 25. Various teaching strategies designed to reduce the amount of teacher talk and direction, such as group work and pair work were employed. [Editor]

**Fig. 5.1** Number of Shanghai Primary Schools completing SCE in Grade 1

and in the amount of research. By 2006, however, the implementation of SCE had moved to the stagnant stage, and by 2012, only one district in Shanghai had, despite difficulties, succeeded in maintaining the previous research focus. The SCE development in Shanghai thus experienced ups and downs, which were typically representative of what was happening across the whole country. SCE development in the other cities, such as Beijing, Hangzhou, and Nanjing, which also operated a research focus in their small schools, all followed a similar pattern (Table 5.1 and Fig. 5.1).

The Results of Practical Exploration

During the 16 years in which SCE has operated in China, much has been achieved. A platform for exchanging and sharing ideas has been established, the equipment in SCE classroom has been enriched, and innovative teaching strategies and techniques have been employed.

Platform for Exchanging and Sharing Ideas

The main platform for exchanging and sharing ideas has consisted of regularly organized seminars, such as the “SCE Seminar of Primary and Middle Schools in the Yangtze River Delta Region” and the “SCE Teaching Conference in the Greater China Region.” Permanent research institutions have been established, such as the “Small Class Centre” at The Education University of Hong Kong, the “Small Class Education Research Institute” in Nanjing, and the “Small Class Education Research and Promotion Centre” in Dalian. Examples of the communication of ideas across various media include the “Nanjing Small Class Education Network” and the magazine *Small Class Education* in Dalian.

Classroom Setting

At the early stage of the SCE development, classrooms were typically equipped with cabinets along the walls of the corridor or along the walls of the classroom. In the classroom there were four functional areas, which were “the book corner” for reading (students brought their own books from home to the classroom to lend to their classmates, so that they could read after class), “the teacher’s corner” (usually at the back of the classroom, where teachers could check students’ assignments, make preparations for their classes, or sit in on pupils when in conversation), “the corner for storing cleaning tools” (usually at the back of the classroom, where brooms, waste baskets, etc., were stored), and “the equipment corner” (for storing the equipment needed for sports activities) (Figs. 5.2 and 5.3).

More recently teachers have paid greater attention to the classroom setting and the use of resources and equipment. For example, the arrangement of desks and chairs is now viewed as teaching resources: students’ seating is flexible and can be changed according to the type of teaching approach employed (e.g., group work/class discussion). Shanghai Yangpu Primary School cooperates with East China Normal University to do research on the SCE classroom setting based on Howard Gardner’s (1983) theory of multi-intelligence. Classrooms have been rearranged into different areas according to their functions. The front part in the classroom is used for whole class teaching and the middle part for group study and cooperation.

Fig. 5.2 The teacher's corner



Fig. 5.3 The corner for storing cleaning tools



One corner is used for individual instruction, and the aisles are used both for passageways and reserved spaces for individual learning. The area for group study and cooperation is the biggest, which is further divided into six sections in order to implement the school-based curriculum, with sections for writing, for performance, for visual arts, for discovery, for reading, and for media (Fig. 5.4).

Teaching Strategies and Methods

Cooperative learning and teaching according to students' individual differences have become the most frequently used teaching strategies in SCE. Teachers have been developing common teaching strategies to match the teaching content with the characteristics of students, and they have constructed a repertoire of "body language" to reinforce the desired learning and behavior outcomes. For example, a teacher might bend over the table when listening to students' conversations. He or she might touch a student on the head or pat a student on the shoulder to offer comfort and encouragement or give them the thumbs-up sign of approval. Teachers will often use encouraging phrases such as "You are great. How observant you are! You have made much more progress. I will learn from you," when seeking to motivate a particular student. These innovations in classroom settings and teaching strategies distinguished SCE from the typical teacher that dominated whole class lesson; that

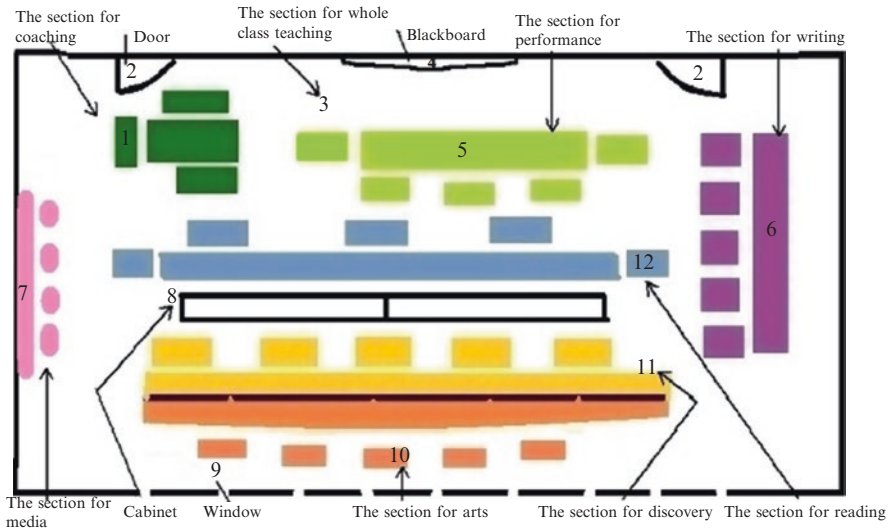


Fig. 5.4 Design plan for SCE classroom

is to say, teachers go out of their way to encourage greater student participation in the learning.

Theoretical Research

We have reviewed the relevant Chinese papers which have been published in the past 10 years regarding small class teaching. The majority of these articles concern the use of SCT, mainly in western countries, especially in the United States involving the Tennessee “STAR” project (Finn and Achilles 1999). Other papers mainly focus on the definitions, distinctions, and connotations of various SCE concepts. Some research has been concerned with investigating the behaviors of teachers and students in the SCE environment in order to reflect and improve on the present situation with regard to teaching and learning. One strand in this body of work has been the impact on teachers’ workloads as a result of the switch to more active forms of pupil participation.

A second approach consists of largely descriptive studies which chart the development of SCE in the different regions of Mainland China. In the early stages of SCE development, the Department of Education in some cities formulated different regulations governing the nature and use of class size in SCE. In 2011, however, the maximum number of pupils constituting a small class, as specified in the local Medium- and Long-term Programs for Education Reform and Development, was increased a little, as a consequence of various pressures such as the drift of the population to the larger cities. Table 5.2 summarizes the latest position and shows that

Table 5.2 The contrast between the SCE class size at the initial stage and that stated in the medium- and long-term programs for education reform and development in the economically developed cities

Cities	Class size at the initial stage	The relevant statements in the Medium- and Long-term Programs for Education Reform and Development in the economically developed cities
Shanghai^a	From 1997 onward, less than 30 students in a class in primary schools	To create conditions to promote SCE (see Part 2 On Important Tasks).
Beijing^b	From 1997 onward, in primary schools the average number of students: 25	To implement SCT and create a good learning environment (see Chap. 2 On Elementary Education).
Hangzhou^c	From 1998 onward, less than 32 students in a class in primary schools	By 2015, 50% of primary schools and 45% of junior middle schools will implement SCE. By 2020, almost all the schools in the stage of compulsory education will implement SCE, with the class size of less than 35 students in primary schools and 40 in junior middle schools. By 2020, most of the senior middle schools will implement SCE (see Part 3 On the Task of Development).
Nanjing^d	From 2001 onward, in primary schools the average number of students: 24	By 2015, in the stage of compulsory education, the number of students will be limited to less than 40 in junior middle schools and 35 in primary schools. By 2020, the number of students will be limited to less than 35 in junior middle schools and 30 in primary schools, and almost all the schools in the stage of compulsory education will implement SCE. The number of students will be limited to less than 40 in senior middle schools and they will gradually implement SCE (see Part 2 On the Development of Education).
Dalian^e	From 2009 onward, in primary schools the average number of students: 25	To implement SCE gradually, with 35 students in each class in primary schools and 40 in junior middle schools. The number of students will be limited to less than 45 in senior middle schools and some schools will implement SCE (see Part 2 On the Task of Development).

^aShanghai Medium- and Long-term Programs for Education Reform and Development Work Office. 2010. Shanghai Medium- and Long-term Programs for Education Reform and Development (2010–2020). <http://www.shedunews.com/web/template/ZCQGH201002/note.html>

^bBeijing Municipal Education Commission. 2010. Beijing Medium- and Long-term Programs for Education Reform and Development (2010–2020). <http://www.bjedu.gov.cn/publish/portal0/tab103/info8680.htm>

^cHangzhou Education Bureau 2010. Hangzhou Medium- and Long-term Programs for Education Reform and Development (2010–2020). <http://www.docin.com/p-551705455.html>

^dProgram Office 2010. Nanjing Medium- and Long-term Programs for Education Reform and Development (2010–2020). <http://wenku.baidu.com/view/900506f5f90f76c661371ad3.html>

^eDalian Municipal Education Commission. Dalian Medium- and Long-term Programs for Education Reform and Development (2010–2020). <http://www.docin.com/p-657260252.html>

there are no current proposals or measures to decrease or maintain the SCE class size in the Medium- and Long-term Programs for Education Reform and Development as promulgated by Beijing and Shanghai municipal governments. These programs only propose “to implement SCT” in general terms, which indicates that there are no specific plans for either city to decrease class size further within the next 10 years. The other cities, such as Hangzhou, Nanjing, and Dalian, plan to decrease class size gradually, but the planned class size for 2020 will be larger than that at the beginning stage of SCE. For example, in Hangzhou the planned class size was 35 students in 2012, but in 1998, there were only 32 students in a small class. In Nanjing the planned class size was 30 (but in 2001, there were only 24 students in a small class) and in Dalian the planned class size was 35 (but in 2009, there were only 25 students in a small class).

In June, 2002, the Ministry of Education issued the following categorization of class size in primary and middle schools:

- Small class size: 25 or fewer students
- Comparatively small class size: 26 to 35 students
- Usual class size: 36 to 45 students
- Comparatively large class size: 46 to 55 students
- Large class size: 56 to 65 students
- Super large class size: more than 66 students (Li 2011)

The class size in the cities mentioned in the table therefore belongs to the category of comparatively small class size (26 to 35 students per class) and is larger than that stipulated by the Ministry of Education definition of “small.” This indicates that these economically developed regions now face a severe challenge in maintaining SCE development. Various policies, an increase in birth rates, and urbanization all contribute to the shortage of educational resources available for developing SCE in these economically developed areas and result in this increase in the numbers of students within small classes.

The Bottleneck Resulting in Educational Policy Reform

In 2003 the General Office of the State Council required the local education committees to introduce 9-year compulsory education for the children of migrant workers who had moved from rural areas to the cities. In order to implement this policy of a balanced development in compulsory education, the local education departments enlarged the range for the minimum and maximum size of classes within the above definitions of class types in order to allow these children of migrant families to attend school. This made it difficult for the SCE in the economically developed areas to continue in the same fashion as previously. The development of SCE in those areas therefore encountered problems as a consequence of these bottlenecks resulting from the change in state policy.

High-Speed Development in Urbanization

As a result of the above policy, linked to the rapid growth in economic development, China experienced an “acceleration” period of urbanization around the time of the millennium. In 1990, the urbanization rate was 26.2%, but by 2005, the rate had risen to 43%. A large number of peasant workers went to look for job opportunities in cities, which formed the population migration routes – from the countryside to cities, from towns to cities, and from small cities to big cities. The end result was a massive increase in the population in the economically well-developed cities, leading to increased pressure on existing educational resources as a result.

The Rebound in Birth Rate

Since 2006, the birth rate in China has been increasing year by year, and in 2009, alone, more than 16 million babies were born. During this period the natural growth rate of population rose to 5.0%, but a feature of this expansion has been that the highest growth rates have occurred in the bigger cities. Thus, the natural growth rate of population in super large cities, such as Beijing, Shanghai, and Tianjin, rose to 5.3%. The economically developed cities therefore had to cope with the peak of student enrollment.

All three factors mentioned above (policy initiatives, urbanization, and population increases) have led to increasing pressure on the available educational resources and made it more and more difficult to implement SCE in these economically developed areas. In the final part of the chapter, we look at possible strategies and solutions for overcoming these problems.

Strategies and Solutions to Present Difficulties

In the process of SCE development, there have always existed two kinds of small classes in China. One is the so-called “natural” small class, which is formed because of naturally occurring factors such as the decline of birth rate and population migration; the other is the so-called “subjective” small class, which is formed when schools or local authorities divide a large class into smaller ones.

Teachers in the former type of class tended to implement SCE passively, because this kind of small class was a consequence of external factors outside of the control of the school. This type of small class was characteristic of the beginning phase of SCE and, at present, exists mainly in the countryside. Its typical features are the continual decline of student enrollment and the shrinking scale of schools. According to the Blue Paper on Education – *China Education Development Report (2011)*, the

number of students in the countryside has been falling markedly, so that the number of small classes in many rural schools has been gradually rising.

The teachers with “subjective” small classes have implemented SCE actively; that is to say, this kind of small class, which exists mainly in some coastal economically developed cities, is driven by internal motivation in pursuit of high education quality. Paying close attention to the natural small classes, especially those rural schools where the number of small classes has been rising, and supporting the active small classes in urban areas are important considerations for China in any future development of SCE.

The Value Consensus of SCE

No matter whether it is the passive small class or the active small class, the SCE development is of unique and irreplaceable value to basic educational reform in China because as Galton et al. (Galton et al. 2015) in the case of Hong Kong argue:

Putting into practice the principles associated with SCT will ensure that the barriers which prevent pupils from flexing their thinking wings will be removed. This will allow them to be happier, and more informed citizens of the future and will over time produce a more creative, independent, socially responsible generation. (p159)

SCE is a part of the national curriculum and instruction reform system. Because of its reduced numbers, SCE has two advantages that large class teaching lacks, that is, the allocation of teaching time and the utilization of classroom space resources. These advantages provide opportunities for SCE in China to refer to the advanced educational theories and teaching strategies from western countries. For example, students can be organized to carry out cooperative learning and autonomous learning. In smaller classes teachers can more easily engage in cooperative learning and team teaching and attempt to put the theory which advocates integration, making full use of individual differences, team and collective teaching into practice, whereas it is difficult to engage in such activities in a class with an average number of 50 or 60 students. From this perspective, SCE provides a platform for researchers to explore the recent advances in educational theory and put these theories into practice. Although such reforms focus mainly on the classroom, in fact, they have wider implications for the comprehensive reform of the whole educational system as the above quote from Galton et al. (2015) suggests.

From the philosophical perspective, the notion of equity should operate both inside and outside the educational system. SCE facilitates the exploration of equity inside the educational system, particularly the even distribution of interactions between a teacher and all the students in the class. This can influence each person present, based on their individual traits and styles, and can ultimately make a student become the person he wants to be (Su 2008). For the basic education in contemporary China, the research on SCE theory and practice can not only enrich the current curriculum reform movement but also accumulate experience in the promotion of equity of education.

The Implications of International Research

Research on the reduction of class size to improve teaching quality in western countries has been a source of reference and the focus of Chinese studies for more than 10 years, but the findings are not always relevant in the context of the problems faced by the SCE in today's China.

The international research on the reduction of class size to improve teaching quality can be divided into two aspects. One is the study of the relationship between SCT and students' achievements, and the other is the study of the relationship between SCT and students' emotional attitudes. As for the former, there exists considerable disagreement over the magnitude of the achievement effect, but greater agreement that belonging to a small class improves students' emotional attitudes.

It should be understood, however, that the contexts governing the implementation of SCT in the eastern and western countries are quite different. The United States and the United Kingdom introduced SCT because of the increase of birth rate and the public's dissatisfaction with the quality of education (Blatchford 2003). SCT in the western countries, to a great extent, is a kind of reaction to the needs of society and a subjective change to achieve equity of education and therefore seeks to build up a solid foundation in knowledge and materials, whereas, as has been argued earlier in this chapter, the implementation of SCE in China is, to a large degree, based on objective factors, an imitative education reform germinated by the decline of birth rate. Most of the schools that took the lead in the implementation of SCE were weak ones, which faced the crisis of closure because they could not enroll sufficient new students. The decline of birth rate is therefore a root cause of the implementation of SCE in China, but gives rise to the hidden problems of SCE development as well. Obviously, the research in the western countries cannot provide a ready-made recipe to cope with these particular circumstances.

Even the mature ideas concerning the creation of classroom settings and the adoption of certain teaching principles, as proposed in western countries, cannot be transplanted directly into the Chinese SCE classrooms due to the differences in political systems, social cultures, and economic foundations. In the late 1990s, when China began to implement SCE, quite a few schools attempted to imitate and transplanted American and British practice into the local classrooms. This simple "transplantation" model was gradually abandoned as schools encountered many "real-life" problems of implementation, and those involved began to reflect on how to implement SCE according to the local situation. For example, the American and British system employed a "class teacher" who was responsible for teaching most of the curriculum including language and mathematics. In this "packet class" system, the teachers who were responsible for teaching both Chinese language and mathematics, as well as managing the class, met with the problem that they were only trained to teach one of the two subjects and did not feel competent to teach the other. The packet class system was therefore changed so that a teacher taught his or her specialist subject to two classes (one teacher responsible for teaching either Chinese language or mathematics and managing one class, while the partner teacher

taught the other subject and managed the other class). The typical four-corner design of the SCE classroom setting was also gradually modified and replaced by a design plan which was more practical and allowed for individuality.

In practice, western ideas in developing and implementing SCT therefore provide a useful “backcloth” in the creation of a small class pedagogy to suit Chinese teachers and students, but they cannot become a ready-made panacea for solving the problems faced by SCE in China.

A Local Theoretical Construction for China

Research seeking to develop adequate theories and practices which are appropriate to SCE in China must meet a number of conditions. First of all, research should be done on the construction of SCE theory, and it should be a theory that can be put into practice to teach effectively in comparatively small classes. SCE aims to promote equity of education and tries to teach in a democratic, equal, and fair way, and therefore its need for the construction of a classroom culture and an appropriate teaching theory surpasses that of the other educational reforms as a whole. The construction of SCE theory must stand at a higher level with critical spirits and cultural innovation consciousness.

Secondly, the accumulation of practical experience in Chinese SCE development and the rich and vivid reality need to be regarded as the source of theoretical creation. The problems existing in the practice of SCE should be observed and examined from the perspectives of sociology, psychology, and cultural studies and be coped with in a way based on the local context. The Chinese cultural characteristics and the features of the times should be analyzed, and the nature, the value orientation, the classroom culture, and the teaching principles of SCE should be interpreted.

Thirdly, with the development and improvement of the research on SCE theory, it's necessary to introduce the teaching principles of SCE theory into preservice teacher education and in-service teacher training in order to improve teachers' teaching quality.

SCE has been developing for more than 16 years in China. The track of development shows that the implementation of SCE is a bottom-up educational reform, and it builds upon a platform for exploring and putting into practice the advanced educational theory of western countries. SCE can not only enrich the achievements of curriculum reform in China but also accumulate experience to promote equity of education. The current dilemma, that is, the shortage of educational resources, is an inevitable wave of pain to promote equal access to education during the period of social transition in China. And at the moment, top priority should therefore be given to what is immediately achievable: the construction of an appropriate SCE theory and the training of teachers.

References

- Basic Education Department of Shanghai Municipal Education Commission. (2001). *The summary of the basic education reform during the ninth five-year-plan period*. Shanghai Education 3. http://www.shmec.gov.cn/web/concept/show_article.php?article_id
- Beijing Municipal Education Commission. (2010). *Beijing Medium- and Long-term Programs for Education Reform and Development (2010–2020)*. <http://www.bjedu.gov.cn/publish/portal0/tab103/info8680.htm>
- Blatchford, P. (2003). *The class size debate: Is small better?* Buckingham: Open University Press.
- Dalian Municipal Education Commission. *Dalian Medium- and Long-term Programs for Education Reform and Development (2010–2020)*. <http://www.docin.com/p-657260252.html>
- Finn, J., & Achilles, C. (1999). Tennessee's class size study: Findings, implications, misconceptions. *Education Evaluation & Policy Analysis*, 21(2), 97–109.
- Galton, M. L., Chan, K., & Chan, K. W. (2015). *Learning to teach small classes: Lessons from East Asia*. London/New York: Routledge.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Hangzhou Education Bureau. (2010). *Hangzhou Medium- and Long-term Programs for Education Reform and Development (2010–2020)*. <http://www.docin.com/p-551705455.html>. Accessed 29 Sept 2013.
- Li, X. (2011, March 18). The huge class size in primary and middle schools in the central and western regions. *China Youth Daily*.
- Ministry of Education of People's Republic of China. (2010). *National outline for Medium- and Long-Term Educational Reform and Development (2010–2020)*. http://www.gov.cn/jrzg/2010-07/29/content_1667143.htm. Accessed 29 Sept 2013.
- Program Office. (2010). *Nanjing Medium- and Long-term Programs for Education Reform and Development (2010–2020)*. <http://wenku.baidu.com/view/900506f5f90f76c661371ad3.html>
- Shanghai Medium- and Long-term Programs for Education Reform and Development Work Office. (2010). *Shanghai Medium- and Long-term Programs for Education Reform and Development (2010–2020)*. <http://www.shedunews.com/web/template/ZCQGH201002/note.html>
- Su, J. (2008). *Justice and education*. Beijing: Beijing Normal University Press, 74.

Chapter 6

Teacher Education and the University: The Global Reform Imperative

Bob Moon

Abstract This chapter looks globally at the role of the university in teacher education. Over the last hundred years, it is suggested, universities have become the main provider and accreditor of teacher education programmes. This has significantly improved the professional standing of teachers. Yet, paradoxically, the analysis suggests, in many countries, public and political opinion has become highly critical of the quality of the education and training provided. The reasons for this are discussed, and it is suggested that this is a consequence of underlying social pressures that need to be understood if confidence in teacher education is to be regained. Five directions for change are proposed: making the research role of the university stronger and more explicit in teacher education, giving increased emphasis to the social mission of teaching, ensuring that the teacher educator is to the fore in monitoring the impact of social and economic change, radically reforming the content of teacher education and positioning the university to act as a hub around which a regenerated network model of teacher development can prosper.

Keywords Teacher education • Teacher professional development • University role in teacher education • Teacher social mission • Professional network • New communication technologies

In an important sense, the history of teacher education is a success story. Over the last three centuries, and especially in the twentieth century, institutions of teacher education, increasingly university based, expanded in all parts of the world. Recognition of the importance of educating teachers has become a part of the policy agenda for most national governments. The need to ‘qualify’ teachers is now widely recognised and is an unquestioned assumption in most countries.¹ Teachers have

¹ There are some exceptions. In England, for example, government policy to establish ‘free’ unregulated schools in the period 2010–2015 also embraced rhetoric of freeing teachers from the need for regulatory qualification.

B. Moon (✉)
Faculty of Education and Language Studies, The Open University,
12 Cofferdge Close, Milton Keynes MK11 1BY, UK
e-mail: bob.moon@open.ac.uk

played an important role in the remarkable improvements in the range and quality of schooling in many countries, South Korea, Singapore and the Shanghai region of China providing three examples.²

Yet, despite the record over what the French would term ‘*la longue durée*’, teacher education in the first decades of the twenty-first century has experienced unrelenting criticism.

Arne Duncan, President Obama’s long-serving Secretary of Education, one of the leading critics, has said:

By almost any standard, many if not most of the nation’s 1450 schools, colleges and departments of education are doing a mediocre job of preparing teachers for the realities of the 21st century classroom.

And *Time* magazine, one of the journals reporting the speech, was equally forthright:

It was a damning but not unprecedented assessment of teacher colleges, which have long been the stepchildren of the American university system and a frequent target of education reformer’s scorn over the last quarter of a century. (*Time*, October 23, 2009)

In England, similar, perhaps even more strident political attacks have characterised debate over the last two decades. In 1990, Conservative government proposals to give schools rather than universities the major say in teacher training were warmly supported in *The Times* (June 11th):

Current teacher training courses lack rigour and are not up to university standards.

New regulations were put in place to require that four fifths of all teacher training courses took place in schools, a move that was strongly supported by some right wing think tanks (Lawler 1990). This debate has rumbled on for more than 20 years. In 2013 the current minister argued strongly that ‘the best people to teach teachers are teachers’, rather than, as he saw it, the prejudiced community of education professors (reported in *The Telegraph* March 21st).

Concern about the quality of teacher education, however, goes well beyond the developed world. Successive UNESCO global reports monitoring the progress to secure a school place for every child by 2015 have called for the reform of a teacher education and training system perceived as outdated, insufficiently practical and failing to prepare teachers who, in developing countries, can be effective in the classroom (UNESCO 2004, 2014).

In this chapter, I want to look more closely at the dichotomy between the world of university-based teacher education and the public and political scrutiny it has and is now undergoing. I want to suggest that we look beyond the politicisation of teacher education and examine the deeper social pressures that are often overlooked in the debates and controversies around teacher preparation and support. The teacher

²A major programme to raise the quality of London secondary schools, in the first decade of this century, developed a ‘Chartered Teacher’ programme to give greater legitimacy to improvement through professional development. Although successful in terms of the aims of the overall programme (Brighouse 2007), the Charter approach has not been sustained.

education community, now almost wholly based in universities, needs, I believe, to be responsive to these pressures and map out a reform strategy that takes account of social, political and professional unease. I will suggest the directions that these need to take.

In doing this, it is important to stress that I am not thinking of any one national system. There is now a strong global discourse around the education and training of teachers. There are many interesting, usually localised, examples of new and innovative practice that do address the issue of public confidence, and some of these I will refer to. My main concern is with systemic change and at scale. To achieve this, I think we need to rethink some of the ideas and assumptions that underpin present practice. I want to look at general concepts, and to do this, I need to look first in more detail at what I have termed the ‘success story’ of teacher education and the problems that have arisen subsequently.

Formal provision for educating teachers, in Europe, goes back some way. Jean-Baptiste de La Salle established the first French ‘*école normale*’ in Reims at the end of the seventeenth century (Johnson 1968) and the first German seminary for teachers was set up in Gotha in 1698 (Neather 1993). In England the first teacher training college was established in Southwark, London, in 1798. Nearly 40 years later, the first teacher training ‘normal school’ in the USA was set up by Cyrus Peirce in Lexington (Provenso 2011).

These institutions focused almost wholly on preparing teachers for the elementary or primary phases of schooling. As primary education expanded, becoming universal in most parts of Europe by the end of the nineteenth century, so the institutions of teacher education proliferated. These were single-purpose institutions with, in some countries, strong links to the church. By the early years of the twentieth century, such institutions were educating very large numbers of teachers for the rapidly newly created mass education systems.

The origins of teacher education are, therefore, unlike professions such as medicine or law, outside the academy or university. This was to change through the twentieth century. What one commentator (Neave 1992) has termed the ‘universitisation’ of teacher education began to take hold.

The incorporation of teacher training into the university sector proceeded at different rates from country to country. In the USA the move took place primarily in the 1930s, in England in the 1970s, in France in the 1990s and in South Africa in the first decade of the present century. Other countries moved at varied time scales, but in most parts of the world today, teacher education is either provided by universities or accredited by universities as primary teacher education became incorporated, so the pressure to provide teacher education for secondary teachers increased, and it became increasingly recognised that a subject degree was insufficient for entry into teaching. One, sometimes two, year of pedagogic preparation for pre-service courses quickly became the norm.

The involvement of the university in teacher education has had important consequences. The increasing number of primary teachers educated to degree level contributed to the rising status of the primary sector. The universities, for the most part, guarded closely an academic freedom and autonomy that, initially at least, protected

teacher education from government intervention or regulation. Good primary and secondary teachers could aspire to a university lectureship, something unheard of before.

Over the last 25 years, however, the role of the university and the practices of the university in teacher education and training have come under relentless scrutiny. I have referred to the concerns in the USA and England and in the developing world. The examples proliferate.

In France the Sarkozy government in the first decade of this century set about abolishing the equivalent of university departments of education (the Institut Universitaire de Formation des Maîtres-IUFM) and moving teacher education into the subject departments of the universities (Lapostolle and Chevallier 2011). A study for UNESCO found that the vast majority of European countries had introduced regulatory or legislative reform to improve the quality of teachers (Moon 2003). In Australia there have been numerous governmental and state reviews of teacher education. The Ramsey Report for New South Wales (Ramsey 2000) pressed the need:

To align teacher education with the needs of our times: in too many current instances this seemed not to be the case. (p.24)

And suggested that:

The current way of conceptualising teacher education reflects a traditional adherence to discipline areas, and precludes the involvement of multi skilled educators in the school environment...the current paradigm for thinking about teacher preparation programs is outdated and has been over-taken by changes to work patterns and practices. (p.24)

The report looked at the position of teacher education within the university:

Teacher education is less connected to the other disciplines in universities than it has ever been. In the very period when the university disciplines should have engaged with teacher education, they have distanced themselves from it as much as teacher education has from them. Equally, teacher education in the State's (New South Wales) universities does not generally operate within models that make strong connections with schools. (p. 25)

If we are to understand the situation of teacher education today and if we are to set out proposals for repositioning and reform, then it is necessary to examine the origins of this sort of disquiet. How did a system of teacher education that, for most of the twentieth century had gone unchallenged, gain such critical political attention and, in some countries, acquire such notoriety?

It is important to remember that criticism has come from across the political spectrum, Democrats as well as Republicans and Socialist as well as Conservative parties. The concern represents something more than party politics.

I believe that the worry about teacher education is part of a wider social unease about the quality and effectiveness of schools generally. In Europe, North America and Australasia, and increasingly in developing countries, concern about achievement in schools is a major political issue. It is not only a national achievement overall, as judged, for example, by international tables such as PISA but also the inequalities of achievement within countries that is creating unease. These doubts are expressed across the political spectrum.

I think that the concern about teacher education is, in no small measure, a consequence of the progress made in education. Over the last 50 years, larger proportions of the populations than ever before, in most developed countries, are achieving educational success. In the UK, over 40% of the population go on to higher education compared to less than 10% in the middle of the last century. In South Korea, the proportion of young people entering the university has just topped 80%. In France the same proportion pass the secondary school leaving baccalaureate.

These improvements have led to many more educated parents who, implicitly or explicitly, know the social and economic importance of education for their children. It is unsurprising, therefore, that a less deferential more abrasive approach to the quality of schooling has come to characterise our social institutions. Parents are prepared to be critical of schools and teachers. Where politicians take up the standards issue, they are plugging into a deep source of parental worry. This is not confined to the richer nations. A report by The Nelson Mandela Foundation in South Africa, aptly titled 'Emerging Voices' (Nelson Mandela Foundation 2005), provides vivid testimony of the disquiet of parents about the quality of teachers. And on YouTube, you can watch demonstrations by parents and children about the quality of their teachers in places as far apart as India and Mexico. Is it any wonder that teacher education becomes a central feature in this broader picture?

Political scrutiny and attacks on teacher education also reflect the ambiguous status of teacher education within the university. One perceptive commentator in England (Hencke 1978) has part of the explanation for this:

Teacher training began in 1798 in Southwark, a slum district of London. That Southwark rather than Oxford or Cambridge was the home of teacher training explains many of the problems facing teacher educators' today...unlike theology, medicine or law it has no historic claim to a university tradition of academic excellence or respectability. It has more in common with medieval craft guilds, whose apprenticeship system preceded modern technical education. (p. 13)

I have already referred to Arne Duncan's views on teacher education and training in the USA. Critiques go back some way. The much quoted report of the Holmes Group (Holmes Group 1995) on Schools of Education in the USA presents a damning indictment of teacher educators who, in the unsuccessful quest for status and legitimacy in the academic community, became cut-off from their central mission, the world of schools and the work of teachers.

I think it is worth dwelling on the teacher educators' 'quest for legitimacy' because I believe this to be one of the major fault lines of the present structure of teacher education. As teacher education institutions became part of the universities, the staff who made the transition had to adjust to new systems of status and reward. Research and scholarship had much higher visibility than in the teacher training colleges or colleges of education that existed formerly. The 'practical' work of preparing teachers for the classroom sat uneasily with prevailing norms. Although doctors, lawyers and architects embraced 'the practical', there was less of a perception that this was necessary in teaching.

Given this context, teacher educator legitimacy was sought more easily in the social sciences, particularly sociology. The burgeoning development of the sociology of education followed the influx of teacher educators into the universities. The social sciences, to which many teacher educators were drawn, were not primarily focused on practical and professional work. I say this with no criticism but it did mean that teacher education began to acquire a reputation for overly theoretical courses unrelated to the real world of teaching.

There are consequences from this. The quest for legitimacy has only been partially successful. Teacher education has remained the poor relation in many parts of higher education. The practice of teaching has struggled to gain legitimacy. In England tutoring on the Postgraduate Certificate of Education (PGCE) programmes is often outsourced to temporary lecturers on short-term contracts. In the USA, most of the Schools of Education in the leading universities do no teacher preparation. It is unsurprising, therefore that, as many teacher educators move away from the 'practical', so they expose themselves to the criticism of being out of touch or too concerned with theory. The practical component of teacher education has repeatedly come under criticism for lacking articulation with other course components (a situation unthinkable in medicine), and in many education courses across the world, the practicum takes up only a small component of time.

The gap between teacher educators and schools continues to be significant. In many countries, teacher educators, as the Australian review suggests, have failed to establish a support base either within the schools or within the wider university academic community. Into this vacuum, governments have been regulating and legislating independent of the teacher education community within the university. For the most part, these interventions have championed practical skills, competences and performance-orientated modes of teacher education and training. The universities, often outside this discourse, have been unable to establish an alternative capable of convincing political opinion.

In some contexts, it is true, the teacher educator community has sought to mediate between the governmental and university perception of the teacher education curriculum. In England,³ for example, where the stand differences between government and teacher educator have been especially acute, some universities sought to anticipate concern with a more practically focused approach to education and training. As a young head teacher in Oxford, I was involved in the school-based model developed by Harry Judge and colleagues at the University Department of Education, the Oxford internship scheme, modelled, as the name implies, on approaches to medical education. Few universities followed this approach until required to do so by government regulation. And regulation in turn created an ideological battlefield between those advocating craft skills and competence (governments) and others (teacher educators) advocating a more rounded education embracing a grounding in theory as well as practice (and sometimes incongruously appearing to oppose the idea of competence).

³The UK has four education systems, England, Northern Ireland, Scotland and Wales. The fierce political debates about teacher education have been almost wholly confined to England.

Let me, therefore, summarise this discussion before moving to suggest how contemporary problems could be addressed.

First, the universities have played a pivotal role in raising the status and ambitions of teacher education. This has been especially true for primary teachers and for secondary teachers who had previously been trained outside the university (e.g., physical education teachers). In most countries, the university maintains a strong involvement in the teacher education process.

Many departments of education in universities have, however, become increasingly isolated from schools. And the links with other disciplines within the universities are weak. The curriculum of teacher education has been strongly influenced by ideas and concepts from the social sciences, and this has laid university departments open to the criticism of being overly theoretical and lacking in engagement with the practice of teachers. As a consequence, often quite instrumental skill-based and competence-/performance-orientated regulatory frameworks have been prescribed by governments and government agencies.

So what to do?

System change can be a slow process. More than one commentator has pointed to the conservatism around teacher education (Hargreaves 1990). In this chapter, I am seeking to identify directions for change at a systemic level where inbuilt resistance to change is often very apparent. I think in most, if not all, countries there is an urgent need for reform, but despite the setting up of interesting projects and experimentation, systems have been slow to evolve.

It follows from my analysis that, I believe, it is necessary to reform the attitudes and positioning of the teacher education community. The public concerns about teacher quality will not disappear. There is validity in these perceptions, present in many countries that cannot be ignored. Inequalities of learner achievement must be addressed and teacher educators have a key role in this. Overall levels of achievement, particularly in developing world countries, are a concern, and teacher education again ought to be in the forefront of meeting this challenge. Improving the quality of teaching through better education must be, in these contexts, a key strategic objective. I think the teacher educator community needs to be more cognisant of this.

In the UK, there is now an attempt at accommodation between the different, often competing, stakeholders led by the British Educational Research Association (BERA 2014). BERA launched a major inquiry into teacher education in 2012. The preliminary findings take a critical, but non-partisan approach:

There is strong evidence that teachers and teacher educators need to engage with research, in the sense of keeping up to date with the latest development in their academic subjects and on effective instructional techniques to inform their pedagogical content knowledge... Looking across the UK, it is evident that although there are pockets of excellent practice in teacher education, there is as not yet a coherent and systematic approach from the beginning of teacher training (see footnotes) that is sustained throughout a teachers working lives... It follows that there is an urgent need for all stakeholders (Government, national agencies, schools, universities and teacher organisations) to work together to create a national strategy for teacher education and professional learning. (p 8)

There are many countries around the world where the rebuilding of trust will require processes such as this. That may take some time. Teacher educators within the university do, however, retain significant room for manoeuvre. I want to identify five areas where I believe a change of positioning could work in favour of building greater confidence in the teacher education process.

The first draws on ideas from the BERA inquiry. Teacher education needs to promote and profit from the findings of research. It is not clear to me that the public perception of teaching includes such a research dimension. It should. I think it is important to make evidence and research more explicit in teacher preparation and development programmes. And there is a need for research, which, whilst having strong foundations in conceptual and theoretical ideas, also has strong relevance to practice. Lawrence Stenhouse's concept of the teacher as researcher (Stenhouse 1983) remains powerful through action and activity-based research networks, but few teachers engage in these. If we think of the teacher, and trainee teacher, as the 'consumer' of research, with a much stronger role for the teacher educator as the mediator between research and practice, then I believe the relevance of research in professional life will become more apparent.

The idea of the teacher educator as 'research champion' could also help lengthen teacher and institutional memory around research findings. The teaching profession can too easily forget some rather important evidence. As I wrote this chapter, I heard on the radio a government minister talking about the problems of children transitioning from primary to secondary schools and falling back in some subjects. It was presented as a new finding. Nearly 40 years ago, Maurice Galton, to whom this book is dedicated, made this finding very clear through the ORACLE research programme (Galton and Hargreaves 2002). How has that been forgotten? Why does the research need to be carried out all over again? Is there not a need to develop a progression in research that is shared by teachers? It seems to me that medicine is much more cumulative in the way research moves forward. And in law 'case law' is a building block of professional practice.

The second direction of reform relates to values. I use the term values in a general sense wary of the scrutiny of the philosophers of education. A concern with values might be seen as something of a hostage to fortune, particularly in those countries where the polarisation of theory and practice has acquired a political dimension, but for me, this is arguably my most important point.

Teaching, from the earliest times, has been understood as a vocation with a strong sense of social mission. This was true in missionary schools, and it was equally true of the reformers who introduced universal primary education to Europe at the end of the nineteenth century. Today, however, in the developed and developing world, the sense of social mission is more muted. I have just been reading a fascinating and rigorous analysis of the role of teachers in South Africa (James 2014) that demonstrates just how ambiguously teachers perceive their role in relation to social purposes such as combating disadvantage.

Yet, by almost any definition of the purposes of education and schooling, the role of the teacher, the process of pedagogy, must be social as well as educational (Leach

and Moon 2008). Creating the means for children to learn is a process that enfranchises the individual within our complex social structures. Pedagogy is emancipatory. Those children, who for one reason or another are disadvantaged in being able to seek such capabilities and thus personal autonomy and freedoms, are even more dependent on the school and teacher's sense of social mission. In the large scale state education systems of the world and even in some small scale private ones, providing equitable teaching and learning opportunities is at the core of the teacher's task.

I would like to see a more public articulation of the social role of the teacher placed at the core of teacher education. This would have to be done fairly and with a sense of humble enquiry rather than ideological determinism. In fulfilling their social mission, teachers need to become expert in the learning process, they need to acquire the latest evidence about barriers to learning, and they need at all times to be seeking to change pedagogy (and all the systems that support good pedagogic practice) to better address the social challenges faced by most schools.

In 2013 Vicky Colbert won the World Innovation Summit for Education (WISE) prize for an outstanding contribution to education. She founded and directs the Escuela Nueva schools movement in Colombia. The schools that espouse child-centred active learning and educate five million children have spread across Latin America and other parts of the world. On receiving the award, in a question and answer session, she was asked about how Escuela Nueva teachers were educated, and what professional development they received? In a rather apologetic way, she said that in no country had they found the existing systems of teacher education able to respond to Escuela Nueva needs. They had, therefore, established their own independent structures for teacher education. The Escuela Nueva schools are clearly inspirational. They make up a school system that is built on the traditions of Montessori, Freire and others but is unable to source inspiration from the teacher education communities in which they work.

Economic and social structures in the developed and developing world appear to be creating fault lines that continue, sometimes in ways more extreme than previously, to render even more important the social mission of teaching. This ought to be at the core of teacher education and the university could have a vital role in establishing such a universal principle.

My third point follows from the first. If teachers are to engage with the notion of social mission, they will need to understand the processes of social change. The university is well placed to be monitoring the processes of social and economic change and mediating these to inform the work that teachers do. I suspect this rarely happens in current teacher education programmes.

Will Hutton a journalist and chairman of the Work Foundation sees technological change as having immediate and profound effects on work and social life:

As the battle for the shape of society unfolds over the next five years, the work force will change irrevocably. The importance of hard and soft skills will become even more obvious, as will the rise of cognitive and geographic inequality. (for a fuller discussion see www.futurehistorynow.org)

A view that the Australian review (Ramsey 2000) gave some consideration to:

Teacher education needs to equip future and current teachers with much greater awareness about and knowledge of the rapidly changing nature of work and the expectations which employers now have of education systems and schools...the traditional approach to teacher education no doubt provides teachers with the necessary skills to facilitate and manage the learning process in the classroom ...however, it does little to provide teachers with any practical knowledge of the modern and changing society they are preparing students for. (p.21)

Teachers and schools always seem to be playing catch up to changes such as these. I am not sure it features on the agenda of teacher education. Teacher educators, for example, have been slow to embrace the new information and communication technologies (Bingimlas 2009). Positioning teacher education to be aware of, and monitoring, the sorts of changes Hutton refers to, especially the concept of cognitive inequality, would be part of the attitudinal change that needs to be brought to teacher education.

My fourth point relates to the content of teacher education programmes. Here I want to be rather bold in saying that too much of teacher education is, to put it frankly, far too boring. Educating someone to become a teacher, the noble profession as I recently heard it called by a Congolese educator in Kinshasa, is a fascinating and almost sacred task. How do we manage to make it so uninteresting? I recently sat in on a lecture on active learning where, for an hour, the only person talking was the lecturer. That might be rather extreme but it is not unique.

I think part of the problem is the way too much teacher education is separated from practice. I remember a teacher education upgrading programme at the University of Fort Hare in the eastern province of South Africa where the course director insisted that no content would be 'admitted' unless there was a clear and explicit link to show the relevance to practice. This seems a powerful strategy and one that could be used in all contexts. If the relevance to practice can be made explicit, then the political impatience with theory could be obviated. New teachers should be experts in learning theory but rarely are. New teachers should understand the latest ideas about brain science and be able to debunk some of the myths around intelligence that have pervaded teaching and learning cultures. The fascinating story of our minds and learning should be a lifetime interest for all teachers (Leach and Moon 2008).

Content also extends to teacher professional development. In most parts of the world, the university has a weak presence in this crucial area. In part this is because the structures and mechanisms to facilitate this are not in place (see my fifth point below), but it also reflects the attitudinal divide between schools and universities. In general terms, the evidence suggests that most programmes of teacher professional development are uncoordinated and lacking coherence and intellectual rigour. These findings are consistent across the developed and developing world (McCormick 2010a; Westbrook et al. 2012). Yet we also have good knowledge about what makes for good professional development (Cordingley 2013), namely:

- The deployment of specialist advisers and experts to support teachers.
- Ensuring peer support and a collaborative approach.
- Respecting the evidence of what works.
- Ensuring that prevailing assumptions and practices are challenged.
- The regular observation of practice in all aspects of professional development.

The university teacher educator should have expertise in respect of all these processes. If teacher educators could conceive of a role that embraces ongoing school improvement linked to professional development, then the status of teacher education would be enhanced within and outside the university. There are examples of this. The British Curriculum Association, for example, working with BERA gives an annual prize for university-school collaboration, which, in 2013, was won by The University of Glasgow and a cluster of local Scottish schools.

The university could also take a role, perhaps the lead role, in capturing teacher professional development experience through the application of portfolios or profiles. Other professions have been able to do this. Despite innumerable projects and pilots, it is difficult for teacher education to identify anywhere in the world such an approach has been sustained and adopted at system level.⁴

There is significant potential within the universities for enriching the content of teacher professional development. Most subject academics, for example, have little contact with schools. As more and more young people move from school to university, the links between teachers and subject academics need strengthening. Subject specialists in secondary schools or colleges could spend some time in a university academic as a visiting teacher. We make much of the need to ensure a smooth transition between primary and secondary schools but give little, if any, attention to the school to university transition.

The teacher educator could have an important role as the broker in such a process. There is now good evidence, I think of the influence of people like Lee Shulman in the USA, that good subject knowledge is crucial to effective teaching in all phases of education. We need teachers who are motivated or even ‘fired up’ by new understandings of subject knowledge and the ways this knowledge is transposed through pedagogy into effective learning and teaching (Shulman 2004).

My research team has explored the nature of teacher professional knowledge and the role of subject knowledge in some detail (Banks et al. 1999; Leach and Moon 2008)). In our work with teachers, in many different parts of the world, we have seen how motivated and engaged teachers become in making the links between subject knowledge and pedagogic practices.

⁴It is interesting in using the phrase ‘teacher training’ in the conclusions of the BERA report. The English language, unlike some other languages, makes this distinction, which has sometimes defined the debates around teacher preparation with the ‘trainers’ on one side and the ‘educators’, the other. The Conservative government in the early 1990s set up a Teacher Training Agency to oversee the universities much to the irritation of some teacher educators. However, the two words are defined it would seem to me that both have a role to play in developing programmes, as the BERA document recognises.

One leading primary school head addressed this issue more than 20 years ago. He asked the question ‘how far we can trust teacher – trainers.... in the important task of managing change in pedagogical theory and practice?’ And he went on to argue that the successful adoption of new methods would create trust and a ‘growing professional status’ for teachers (Winckley 1989). Twenty-five years on these assertions continues to be pertinent for teacher education.

My fifth direction for change would be in rethinking the relationship between the university, university departments of education and schools. In initial training, this would involve significantly extending the practicum and making it central to the education and training experience. In a few countries, Finland, for example, there is a long tradition of school involvement in the pre-service phase, but in many contexts, the practicum is a ‘bolt on’ to the curriculum of initial education and training. In recent years, I have spent a great deal of time working across sub-Saharan Africa where, in many countries, the undervaluing of the practical component in courses is particularly acute (UNESCO 2004, 2014), but this is a systemic issue in all parts of the world. It is inconceivable in other professions that trainee students would sit for years in lecture rooms without any observational and practical experience. Why should teacher education be any different?

The rethinking around the practicum of the pre-service phase should extend to teacher continuing professional development. The university today is hardly visible to the teacher in school or college. I think, as I suggested in my fourth point, that we should be forging much stronger links that legitimate the teacher’s intimate relationship with the academy. We need to think about extending higher-level postgraduate qualifications to a much greater proportion of the teaching profession than is the case today. In many countries, the numbers of teachers enrolling on master level degrees are dropping (Ramsey 2000). It will be impossible to achieve this through the traditional route of seconding teachers out of the school ‘to’ the university. We need solutions at scale through new forms of school-based teacher education (Moon 2013). The communication technologies now available offer radical opportunities for creative and innovative approaches, and some universities are beginning to exploit the potential. The Harvard WIDE World is one example and can be viewed at www.learnweb.harvard.edu.

Most important for me in the rethinking process is, as I suggested above, the need to develop much stronger links between the wider academy and teachers. Networks bringing together university academics and teachers are few and far between. They should become the norm. There has been a growing interest in the power of networks in the research discourse around education (McCormick 2010b) with little practical applications to show for it. The university department of education has the position and potential to provide the brokerage to achieve this. It would be a significant way of ending teacher education isolation within the academy. We have the technology to link teachers to cutting edge work in all the subject disciplines and to those other disciplines that can inform educational practice.

The university, especially the Department of Education, should be the hub around which networks of cooperation and advancement could be built. Networks involve

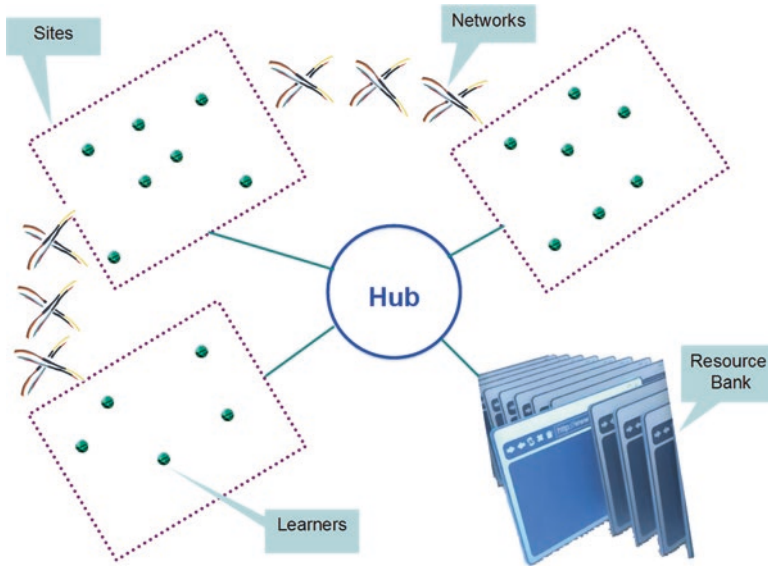


Fig. 6.1 The university as the hub of teacher education

two ways, multiway processes and the linkage of universities with teachers representing a fascinating structural and content challenge.

Figure 6.1 illustrates diagrammatically how this might look. In moving towards a more extensive, school-based programme of teacher education, I am not suggesting a diminution of the role of the university, rather the reverse. The university becomes the resource centre, the animator of a range of teacher education opportunities more varied, richer and relevant than anything teachers have had available before.

I would envisage clusters of local schools and teachers acting as sites, as I term it in the diagram, of professional learning. Each site would be networked within itself, with other sites and with the university, providing the hub through which the networks are sustained and nurtured. Some of these might be physical resources, experts, for example, but many would be sourced through the sorts of networks now afforded by communication technologies. Many people now know that in visiting a doctor or specialist, there might well be reference to online resources and advice. A few years back, I remember this as disconcerting. Surely he or she should have such knowledge at their fingertips? Today it is commonplace. Teachers now make extensive use of the web in their work, but usually in a private way. I think much would be gained by creating the networks that would make this a more public and collaborative experience. Such networks are beginning to appear although rarely with any part of the university at the centre of the activity.

The aim of this chapter has been to raise questions against which teacher educators, working in different countries and contexts, could examine their own policies

and practices. Let me, in conclusion, suggest and select just five that could be asked in any university.

To what extent does the research of this university, and our knowledge of research elsewhere, feature explicitly in our teacher preparation and teacher professional development programmes? Do we address the idea of the teacher's social mission through these programmes? Are we, as teacher educators, aware of the changing social and economic forces that are, and will, be impacted on the task of the teachers we work alongside? How motivating is the content of our programmes, and are we inspiring a lifelong interest in this content amongst teachers? And finally, how networked into local schools are we and how accessible is the wider academic community of the university to teachers?

There are other questions that my analysis raises. I believe strongly that schools and colleges gain greatly by working closely with universities. But I also believe that the standing of teacher education within the university and in public and political perception will be greatly enhanced where deep-rooted forms of partnership and cooperation can be created.

Acknowledgement I would like to acknowledge the help of Tim Brighouse, Martine Moon and David Winckley in the preparation of this chapter.

References

- Banks, F., Leach, J., & Moon, B. (1999). New understandings of teacher's pedagogic knowledge. In J. Leach & B. Moon (Eds.), *Learners and pedagogy*. London: Paul Chapman.
- BERA. (2014). *The role of research in teacher education: Reviewing the evidence*. London: BERA.
- Bingimlas, K. A. (2009). Barriers to the successful integration of ICT in teaching and learning environments: A review of the literature. *Eurasia Journal of Mathematics, Science and Technology Education*, 5(3), 235–245.
- Brighouse, T. (2007). *The London challenge: A personal view in Brighouse T and Fullick L education in a Global City*. London: Bedford Way papers Institute of Education.
- Cordingley, P. (2013). The role of professional learning in determining the future of the teaching profession. In C. McLaughlin (Ed.), *Teacher learning; professional development and education*. Cambridge: Cambridge University Press.
- Galton, M., & Hargreaves, L. (2002). *Transfer from the primary school: 20 years on*. London: Routledge.
- Hargreaves, D. (1990). Another radical approach to the reform of initial teacher training. *Westminster Studies in Education*, 13, 5–11.
- Hencke, D. (1978). *Colleges in crisis; the reorganisation of teacher training 1971–77*. Harmondsworth: Penguin.
- Holmes Group. (1995). *Tomorrow's schools of education: A report of the Holmes group*. East Lansing: Lansing MI Holmes Group Inc.
- James, S. (2014). *Teachers' experiences of change: A case study analysis of a school-based intervention in Rural Kwazulu-Natal*. Unpublished PhD thesis. Rhodes University, South Africa.
- Johnson, J. (1968). *A brief history of student teaching, creative educational materials*. De Kalb: Illinois University Press.

- Lapostolle, G., & Chevaillier, T. (2011). Teacher training in France in the early 2010s'. *Journal of Education for Teaching*, 37(4), 451–459.
- Lawler, S. (1990). *Teachers mistaught: Training in theories or education in subjects?* London: Centre for Policy Studies.
- Leach, J., & Moon, B. (2008). *The power of pedagogy*. London: Sage.
- McCormick, R. (2010a). The state of the nation in CPD; a literature review. *The Curriculum Journal*, 21(4), 395–412.
- McCormick, R. (2010b). *Researching and understanding educational networks*. London: Taylor and Francis.
- Moon, B. (2003). *Institutional approaches to teacher education within higher education in Europe: Current models and new developments*. Bucharest: United Nations Educational, Scientific and Cultural Organisation.
- Moon, B. (2013). *Teacher education and the challenge of development*. London: Routledge.
- Neather, E. J. (1993). Teacher education and the role of the University: European perspectives. *Research Papers in Education*, 8(1), 33–46.
- Neave, G. (1992). *The teaching nation. Prospects for teachers in the European community*. Oxford: Pergamon.
- Nelson Mandela Foundation. (2005). *Emerging voices*. Johannesburg: Mandela Foundation.
- Provenso, E. F. (2011). Teacher preparation and staffing in US schools. In F. W. English (Ed.), *The Sage handbook of educational leadership*. London: Sage.
- Ramsey, G. (2000). *Quality matters: Revitalising teaching: Critical times: Critical choices Sydney state of New South Wales*. Sydney: NSW Department of Education and Training.
- Shulman, L. S. (2004). *The wisdom of practice*. San Francisco: Jossey-Bass.
- Stenhouse, L. (1983). *Authority, education and emancipation*. London: Heinemann Educational Books.
- United Nations Educational, Scientific and Cultural Organisation. (2004). *The quality imperative, 2005 global monitoring report*. Paris: United Nations Educational, Scientific and Cultural Organisation.
- United Nations Educational, Scientific and Cultural Organisation. (2014). *Teaching and learning: Achieving quality for all 2013–14 global monitoring report*. Paris: United Nations Educational, Scientific and Cultural Organisation.
- Westbrook, J., et al. (2012). Rethinking teacher professional development in Africa: An analysis of the curriculum of teacher education in the teaching of early reading and mathematics. *The Curriculum Journal*, 23(4), 409–502.
- Winckley, D. (1989). Primary teacher training in Europe. In M. Galton & A. Blyth (Eds.), *Handbook of primary education in Europe*. London: David Fulton in association with The Council of Europe.

Chapter 7

What Type of Pedagogy Is Required in Schools and Classrooms to Support Sustainable Green Growth? A Case Study of Hong Kong Within the International Context

Rupert Maclean and Margarita Pavlova

Abstract Schools are one of the major agents of socialisation in society along with the family, community, mass media and peer group. One of the important functions or purpose of education and schooling is to equip learners to live and work effectively in an ever-changing and evolving society. As new and growing challenges emerge which need to be met, such as concerns about environmental issues including destruction of the environment, global warming and an expanding carbon footprint, schools are one of the key agents of socialisation in society which seek to bring about changes in behaviour into more desirable directions.

This chapter reports on the results of a research study that examined whether the schooling provided in Hong Kong has been successful in actually getting learners to modify their behaviour in ways and directions which are likely to successfully promote improvements to the environment and sustainable development. The results show that although there was a perceived increase in knowledge of the selected environmental issues, with regard to behaviour changes, 29.4–50.6% of students believed that their environmental behaviour had not changed. The chapter then examines pedagogies that can be successful in changing students' behaviour and argues that to increase effectiveness of environmental studies, particular types of learning should occur, including discovery learning, systems thinking-based learning, critical thinking-based learning, interdisciplinary learning, problem-based learning and participatory/collaborative learning. Teachers should provide an opportunity to engage students in pro-environmental activities and address values that are going beyond an economic imperative.

R. Maclean (✉)

Office of Applied Research and Innovation, College of the North Atlantic–Qatar,
PO Box 24449, 68 Al Tarafa, Duhail North, Doha, Qatar
e-mail: rupert.maclean@cna-qatar.edu.qa

M. Pavlova

Department of International Education and Lifelong Learning, The Education University of
Hong Kong, 11 Lo Ping Road, Tai Po, New Territories, Hong Kong, SAR China
e-mail: mpavlova@eduhk.hk

Keywords Role of education • Environmental knowledge • Environmental behaviour • Behaviour change • Effective pedagogies • Intention and action in pro-environmental behaviour

Introduction: The Purpose of Schools

An important purpose of schooling is that of nurturing knowledge, skills and understandings which develop appropriate behaviour in students with regard to citizenship and employment and helping to sustain their society so that it is sustainable in directions which are regarded as desirable, such as being an inclusive society which is peaceful and supports law and order and justice, equity and fairness in social, economic and political life and a society which is open-minded and kind. Education and schooling also seek to equip individuals to effectively address the main issues and concerns of its time. One such area concerns addressing environmental problems which help make life on planet Earth possible and sustainable over the long term.

One of the main problems faced by countries worldwide is that of environmental degradation, or the continuing pollution and destruction of the natural environment, as economic development continues to contribute to an increasing carbon footprint, global warming and the destruction of forests and other aspects of the environment which have a direct impact on the quality and functionality of the environment, where schools seek to help address and correct these problems to change the behaviour of learners through environmental education and education for sustainable development (Fien et al. 2002, 2009).

Schools are a part of a government's repertoire of policy initiatives to address the major education reforms and changes of the day. For example, schooling is a key aspect of achieving the Millennium Development Goals, reducing problems associated with youth unemployment, and can be a vehicle to help build a more just, equitable and fair society. At the international level, countries have joined together to support global initiatives in areas where there is a common belief that action in schools (and classrooms) is of great importance in helping to improve the ways in which societies operate, in order to promote equity, fairness, justice and a better life for all.

By 2015, four major global initiatives in development and education will be wrapped up and evaluated. They include:

- The Millennium Development Goals (MDGs) provide a set of clear development goals that can be measured, education being a significant input and indicator as to the achievement of these goals.
- Education for All (EFA) which focuses on identifying and implementing effective ways of ensuring that everyone has an opportunity to have a high-quality and relevant basic education.

- United Nations Literacy Decade (UNLD) which concentrates on promoting literacy as a key tool for all kinds of learning.
- Decade of Education for Sustainable Development (DESD), which promotes a set of basic values, processes and behaviours which should be part of learning in all circumstances.

These four major initiatives are targeted and focused; however, they share a number of concerns, such as the improvement of quality of life, promotion of human rights, participation of everyone in education and development and commitment to education and lifelong learning in all its forms, whether it be through formal, informal or non-formal means. All these initiatives highlight the role of education and schooling as a key to development, as a way of enabling people to fulfil their potential and take increasing control over decisions that affect them.

Although only one MDG, goal 7 is specifically aimed at achieving environmental sustainability; education for sustainable development provides learning goals for the MDGs; seeks to develop actions, competencies, values and behaviour necessary to address MDG issues; and develops critical thinking for evaluating MDG issues. By supporting ESD agenda, many countries introduced subjects or modules into school curriculum to address environmental issues. In Hong Kong environmental/sustainability module was introduced in the Liberal Studies curriculum in 2009. This chapter focuses on the results of this innovation as perceived by school graduates.

Case Study of Hong Kong: Does Teaching in Hong Kong Classrooms Help Change the Attitudes, Understandings and Behaviour of Learners in Ways That Are Compatible with Caring for the Environment?

As we have already noted, one of the important functions or purposes of education and schooling is to equip learners to live and work effectively in an ever-changing and evolving society. As new and growing challenges emerge which need to be met, such as concerns about environmental issues including destruction of the environment, global warming and an expanding carbon footprint, schools are one of the key agents of socialisation in society which seek to bring about changes in behaviour into more desirable directions.

The importance of behaviour change has been highlighted by the World Bank (2010) study that found huge discrepancies between intention and action in terms of pro-environmental behaviour. Figure 7.1 illustrates responses of 10733 individuals from 22 developed and emerging economies.

This section of the chapter reports and draws heavily on a recent research study “Effects of Liberal Studies on Hong Kong Students’ Environmental Knowledge and

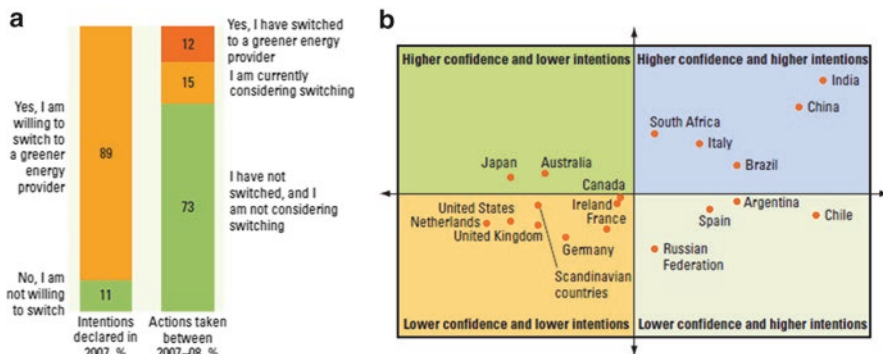


Fig. 7.1 Importance of Behavior Change shows that individuals' willingness to respond to climate change differs across countries and does not always translate into concrete actions. **(a)** Globally, individual intentions to act do not yet translate into concrete action. **(b)** In emerging markets people are more confident that climate change will be solved have higher intentions to act (Source: Accenture 2009 (Note: The 2009 Accenture Climate Change Survey was conducted with a sample of 10733 individuals in 22 developed and emerging economies. The sample was representative of the general population in developed countries and urban populations in developing countries. Panel a: Respondents were asked about their willingness to switch to a greener energy provider if the provider offered services that help reduce carbon emissions. Intentions did not translate into action, with most respondents staying with their old energy provider. Panel b: Based on the questionnaire, countries were ranked on two criteria – confidence and intention. Confidence measured the individual's optimism about the ability of individuals, politicians and energy providers to find a solution. Respondents in emerging economies generally were more optimistic about humankind's ability to take action to solve global climate change) taken from the World Bank (2010), p. 324

Behaviour" conducted in Hong Kong (Zhu et al. 2014)¹ which sought to ascertain whether schooling has been effective in enhancing the knowledge and understanding of learners in Hong Kong concerning major environmental problems being confronted at the current time. It examines whether the schooling provided in Hong Kong has been successful in actually getting learners to modify their behaviour in ways and directions which are likely to successfully promote improvements to the environment and sustainable development.

The study followed up on recent curricular reforms in Hong Kong schools and classrooms, which introduced a new compulsory environmental/sustainability module into the Secondary Liberal Arts curriculum in 2009.

The purpose of the research was to help Hong Kong policymakers and educators gain hard evidence regarding the possible effects of the reforms on student

¹This research study was funded from resources provided by the Department of International Education and Lifelong Learning (IELL) in the Hong Kong Institute of Education to Rupert Maclean as the Director of the Centre for Lifelong Learning Research and Development in the Hong Kong Institute of Education. Will Douglas was largely responsible for designing and administering the questionnaire, Mr. Zhu undertook the statistical analysis, and Tamara Savelyeva, Zhu and Will Douglas undertook the overall analysis, interpretation and write-up of the results. This chapter draws heavily on the write-up of the results of that study, with due acknowledgement to Savelyeva, Zhu and Douglas.

perceptions, after 3 years of implementation of the new curriculum in secondary schools. Another aim was to connect Hong Kong secondary education with a global curricular movement, which promotes sustainable development in diverse educational systems, and is concerned with enriching students' knowledge, skills and understandings regarding addressing environmental concerns and to also change their behaviour in this regard.

Evidence exists from other parts of the world as to the extent to which learning in schools and classrooms about environmental matters impacts on students' knowledge and concrete behaviour regarding environmental matters. For instance, in the USA, a study of middle school students has shown that environmental education in classrooms in relation to climate change improved students' knowledge and actions, although significant misconceptions remained (Bofferding and Kloser 2014). In Canada, the results of two case studies showed that students believed that environmental study programmes can affect environmental change but with "real-world" constraints in terms of enacting this change (Breunig et al. 2014). In Israel, an experimental study showed similarly that the environmental education programmes influenced students' behavioural intentions and personal norms.

Studies in Greece have shown that only a few students believed that environmental education actually influenced their environmental behaviour (Liarakou et al. 2011). Additionally, no significant differences were found in pro-environmental behaviour (Gottlieb et al. 2013). However, a cross-national (UK, Australia, Brunei, Greece, India, Korea, Oman, Singapore, Spain, Turkey and the USA) study showed that sociocultural characteristics might influence students' pro-environmental actions (Boyes et al. 2014). The effect of environmental education programmes on Hong Kong students' environmental knowledge and behaviour remains unclear, and so this pilot study sought to shed light on this matter.

The HK study also elaborates on the findings of another local research study (Cheung et al. 2014), which suggests that both traditional and digital media – websites and digital social network – might play an important role in disseminating environmental knowledge.

Research Method

First year students at EdUHK, who took the Hong Kong Diploma of Secondary Education (HKDSE), were invited to complete an anonymous questionnaire regarding their attitudes and actions on environmental issues. The questionnaires were completed on paper, with the data input manually and being independently checked for errors.

Four hundred and fifteen students answered the questionnaire; three returns were excluded because the respondents had not taken the HKDSE. In the sample, there were 293 (71.1%) female students, 116 (28.2%) male students and 3 (0.7%) students who did not indicate their gender (Table 7.1).

Table 7.1 Sample distribution by gender

	Frequency	Percent (%)
Female	293	71.1
Male	116	28.2
Not specified	3	0.7

The questionnaire included five scales and a background question on gender. Three scales were designed to measure students' perceptions of the effect of the Liberal Studies programme on their environmental knowledge (eight items; the Cronbach's alpha = 0.939), environmental behaviour (nine items; the Cronbach's alpha = 0.937) and active participation in environmental group activities as a result of the LS (three items; the Cronbach's alpha = 0.949). Another scale measured students' participation (three items; the Cronbach's alpha = 0.668), and the last scale measured students' perceptions of other influences that might affect their understanding of environmental issues (six items; the Cronbach's alpha = 0.749).

Descriptive analyses using SPSS (version 21) were conducted to illustrate students' ratings on each item of each scale. Confirmatory factor analyses (CFA) with covariate (gender) were conducted using Mplus software (Muthén and Muthén 2012) to examine any gender differences in the variables for this study.

Results

Students' Perceptions of the Effect of Liberal Studies Programme on Environmental Knowledge

The perceived level of students' knowledge of environmental issues has increased as a result of the Liberal Studies programme. This knowledge increase scale (KIS) was measured using eight items. These items were "Climate change", "Air quality", "Waste disposal", "Biodiversity", "Nature conservation", "Industrial pollution", "Renewable energy" and "Ozone layer depletion". There were four response categories to indicate an increase in knowledge: "No change", "Slightly more", "More" and "Much more". The average rating and percentage distribution for these items are presented in Table 7.2, and the cumulative percent bar charts are presented in Fig. 7.2.

Students considered their knowledge increased most on three environmental issues: Renewable energy (q17, mean 2.60, "More" or "Much more" to 60.6%), Waste disposal (q13, mean 2.43, "More" or "Much more" to 54.5%) and Nature conservation (q15, mean 2.36, "More" or "Much more" to 49.1%). The three issues on which students considered their knowledge increase least were Ozone layer depletion (q18, mean 2.17, "More" or "Much more" to 39.1%), Biodiversity (q14, mean 2.19, "More" or "Much more" to 39.8%) and Air quality (q12, mean 2.31, "More" or "Much more" to 47.0%). All items in the knowledge increase scale had

Table 7.2 Percent distribution and means of knowledge increase scale

Item	No change (%)	Slightly more (%)	More (%)	Much more (%)	Mean (%)	S.D. (%)
Q18 Ozone depletion	26.2	34.7	34.5	4.6	2.17	0.873
Q14 Biodiversity	26.2	34.0	34.5	5.3	2.19	0.887
Q12 Air quality	21.4	31.6	41.7	5.3	2.31	0.866
Q11 Climate change	20.9	30.1	42.2	6.8	2.35	0.885
Q16 Industrial pollution	19.7	33.7	38.3	8.3	2.35	0.888
Q15 Nature conservation	19.2	31.8	42.5	6.6	2.36	0.865
Q13 Waste disposal	18.2	27.3	47.4	7.1	2.43	0.868
Q17 Renewable energy	15.5	23.8	45.6	15.0	2.60	0.924

Note: Response scale was coded as 1 = No change, 2 = Slightly more, 3 = More and 4 = Much more. *Ozone* ozone layer depletion, *S.D.* standard deviation. Percentage within each item might not add to 100% because of rounding error

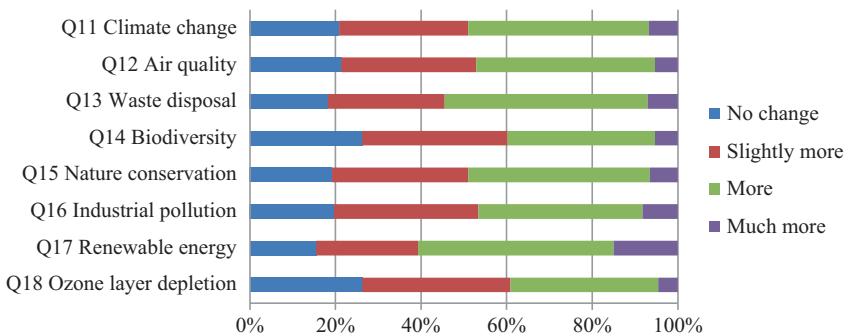


Fig. 7.2 Cumulative percent bar chart of knowledge increase scale

39% or more of students indicating “More” or “Much more”. In addition, 26.2% or fewer students considered their knowledge on the items had not changed.

Students’ Perceptions of the Effect of Liberal Studies Programme on Environmental Behaviour

The change in students’ environmental behaviour as a result of the Liberal Studies programme (behaviour change scale (BCS)) was measured using two sets of items. The “Recycle” set has three items with a common theme of “As a result of what you learnt in the Liberal Studies Programme, do you recycle more”. The items are “Recycle paper”, “Recycle metals” and “Recycle plastic”. There were four response categories: “No change”, “Slightly more”, “More” and “Much more”.

Table 7.3 Percent distribution and means of behaviour change scale

Behaviour change scale	No change (%)	Slightly more/less (%)	More/less (%)	Much more/less (%)	Mean (%)	S.D. (%)
Q35 Spend on clothes	50.6	28.4	18.1	2.9	1.73	0.857
Q22 Recycle metals	47.3	30.9	19.4	2.5	1.77	0.845
Q36 Spend on electronics	49.9	26.2	20.5	3.4	1.78	0.890
Q31 Use air conditioning	43.8	30.6	22.0	3.7	1.86	0.886
Q32 Use water	39.0	33.3	23.8	3.9	1.93	0.884
Q23 Recycle plastic	40.9	28.4	26.7	3.9	1.94	0.912
Q21 Recycle paper	38.4	27.9	27.9	5.9	2.01	0.948
Q33 Waste food	34.3	26.0	30.9	8.8	2.14	0.994
Q34 Use plastic bags	29.4	28.7	28.9	13.0	2.25	1.020

Note: Response scale was coded as 1 = No change, 2 = Slightly more/less, 3 = More/Less and 4 = Much more/less. S.D. standard deviation, *Spend on clothes* spend money on clothes, *Spend on electronics* spend money on electronic goods. Percentage within each item might not add to 100% because of rounding error

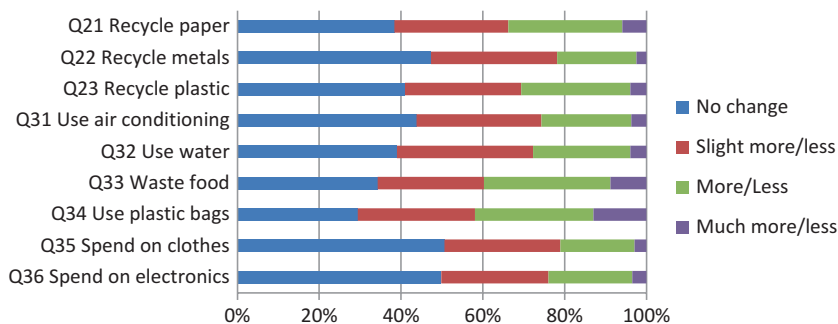


Fig. 7.3 Cumulative percent bar chart of behaviour change scale

The “Protection” set has six items with a common theme of “As a result of what you learnt in the Liberal Studies Programme, do you do less of the following:”. The items are “Use air conditioning”, “Use water”, “Waste food”, “Use plastic bags”, “Spend money on clothes” and “Spend money on electronic goods”. The four response categories were “No change”, “Slightly less”, “Less” and “Much less”. Therefore, the same coding method was used for these two parts, that is, No change was coded as 1, and Much less or Much more was coded as 4. The average rating and percentage distribution for the items of behaviour change scale are presented in Table 7.3, and the cumulative percent bar charts are presented in Fig. 7.3.

Table 7.4 Percent distribution and means of group participation scale

Group participation scale	No (%)	Yes (%)
Q43 Worked in an environmental organisation	76.0	24.0
Q41 Donated money	75.8	24.2
Q42 Joined an environmental group	74.6	25.4

Note: *Donated money* donated money to an environmental group

Students considered their behaviour changed most on three environmental activities: Use plastic bags (Q34, mean 2.25, Less or Much less to 41.9%), Waste food (Q33, mean 2.14, Less or Much less to 39.7%) and Recycle paper (Q21, mean 2.01, More or Much more to 33.8%). The three issues on which students considered they changed least were Spend money on clothes (Q35, mean 1.73, Less or Much less to 21.0%), Recycle metals (Q22, mean 1.77, More or Much more to 21.9%) and Spend money on electronic goods (Q36, mean 1.78, More or Much more to 23.9%). All items in the behaviour change scale had over 21% of students indicating “More/less” or “Much more/less”. In addition, 50.6% or fewer students considered their environmental behaviour had not changed.

Students’ Environmental Group Activity Participation

Students’ environmental group activity participation (group participation scale) was measured by three items with a common theme of “Have you done any of the following?”. The items were “Donated money to an environmental group? (e.g. Friends of the Earth, Green Power, etc.)”, “Joined an environmental group?” and “Volunteered or been paid for work in an environmental organisation”. There were two response categories: “Yes” and “No”. The average rating and percentage distribution for the items of group participation scale are presented in Table 7.4. Around 25% of students had participated in environmental group activities in some form.

A follow-up question to each item of the group participation decision scale was asked whether the Liberal Studies programme had influenced students’ environmental group activity participation (group participation decision scale). The common theme for these questions was “If ‘yes’ to any of the above, was this decision as a result of the Liberal Studies programme you studied at school?” There were two response categories: “Yes” and “No”. The average rating and percentage distribution for the items of group participation decision scale are presented in Table 7.5. Among the students who participated in environmental group’s activities, 38.4–45.2% had made the decisions as a result of the Liberal Studies programme.

Based on the data from group participation scale and follow-up questions, students can be classified into three groups for each listed activity: have not partici-

Table 7.5 Percent distribution and means of effects of Liberal Studies on group activity participation

Group participation decision scale	No (%)	Yes (%)
Q51 Donated money	61.6	38.4
Q53 Worked in an environmental organisation	59.8	40.2
Q52 Joined an environmental group	54.8	45.2

Note: *Donated money* donated money to an environmental group

Table 7.6 Percent distribution of students’ group activity participation

Activities	Not participated (%)	Participated (NLSP) (%)	Participated (LSP) (%)
1. Donated money	75.8	14.9	9.3
2. Joined an environmental group	74.6	13.9	11.5
3. Worked in an environmental organisation	76.2	14.2	9.6

Note: *Donated money* donated money to an environmental group, *Participated (NLSP)* participated not as a result of Liberal Studies programme, *Participated (LSP)* participated as a result of Liberal Studies programme

pated, participated not as a result of Liberal Studies programme and participated as a result of Liberal Studies programme. Table 7.6 illustrates the results. From 9.3 to 11.5% of students participated in the listed activities because of the Liberal Studies programme they study at school.

Students’ Perceptions of Other Influences on Their Environmental Understanding

Students’ perceptions of other influences that had increased their understanding of environmental issues (other influence scale) were measured by six items with a common theme of “Have other influences increased your understanding of environmental issues?” The items are “Other school lessons or activities”, “TV”, “Newspapers/magazines”, “Internet”, “Family” and “Friends”. There were two response categories: “Yes” and “No”. The average rating and percentage distribution for these items are presented in Table 7.7.

The three influences that students considered most to increase their understanding of environmental issues were TV (Q62, 82.3%), Internet (Q64, 81.9%) and Newspapers/magazines (Q15, 74.9%). The three influences that students considered least to increase their understanding of environmental issues were Family (Q65,

Table 7.7 Percent distribution and means of other influence scale

Other influence scale	No (%)	Yes (%)
Q65 Family	55.3	44.7
Q66 Friends	54.1	45.9
Q61 Other school lessons or activities	34.0	66.0
Q63 Newspapers/magazines	25.1	74.9
Q64 Internet	18.1	81.9
Q62 TV	17.7	82.3

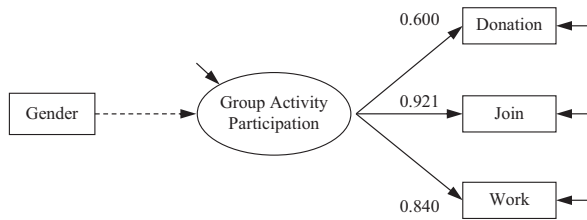


Fig. 7.4 CFA for students’ environmental group activity participation (Note: All estimated parameters were standardised (STDYX). Significant effects were shown as an *arrow with a solid line*; non-significant effect was shown as *arrow with dotted line*. Female was coded as 0 and male as 1. *Donation* donated money to an environmental group, *Join* joined an environmental group, *Work* volunteered or been paid for work in an environmental organisation)

44.7%), Friends (Q66, 45.9%) and Other school lessons or activities (Q61, 66.0%). All items in the other influence scale had a positive response from 44% of students. In addition, 55.3% or fewer students considered their understanding of environmental issues was not increased by the listed influences.

Gender Differences in Students’ Environmental Group Activity Participation

Confirmatory factor analysis (CFA) with gender as covariate for students’ environmental group activity participation fits the sample data well: CFI = 1.000, TLI = 1.000 and RMSEA = 0.000 (90% C.I.: 0.000–0.086, P value of RMSEA ≤0.05 = 0.774); chi-square value for the finale model was 1.284 (d.f. = 2, P = 0.5262). Figure 7.4 depicts the result of final CFA; there is no significant gender difference in students’ environmental group activity participation (R-squared of group activity is 0.001).

Gender Differences in Students' Perceptions of the Influences on Environmental Knowledge, Behaviour and Decisions to Participate

Confirmatory factor analysis (CFA) with gender as covariate for students' perceptions of the effects of the influences on their environmental knowledge, environmental behaviour and decision of environmental group activity participation fits the sample data well: CFI = 0.988, TLI = 0.987 and RMSEA = 0.051 (90% C.I.: 0.045–0.056, P value of RMSEA $\leq 0.05 = 0.420$); chi-square value for the finale model was 630.847 (d.f. = 308, P = 0.000). Although the chi-square values for the final model remained statistically significant, it was substantially lower than that for the baseline mode (28301.812, d.f. = 351); given the sensitivity of chi-square to sample size (N = 409 in this study, three cases were excluded because of not indicating their gender), the model-data discrepancies are acceptable (Byrne 2012). Figure 7.5 depicts the result of final CFA.

As shown in Fig. 7.5, there is no significant gender difference in students' perceptions of the effect of the Liberal Studies programme on their environmental knowledge or environmental behaviour. Significant gender differences in students' perceptions of the effect the Liberal Studies programme on their environmental group activity participation and students' perceptions of the effect of other influences on their understanding of environmental issues were found.

As mentioned above, only students who participated in the listed environmental group activities answer the follow-up questions on whether they thought the Liberal Studies programme affect their environmental group activities. Results of these studies showed significant differences between the perceptions of these students. Male students were found to agree more (standardised coefficient = 0.263, with female students coded as 0, male students coded as 1) that their decisions of the participation were results of Liberal Studies programme that effect; however, female students were found to agree more that (standardised coefficient = -0.129 , with female students coded as 0, male students coded as 1) other influences increased their understanding of environmental issues (R-squared of Knowledge Increase, Behaviour Change, Group Participation and Other Influences are 0.000, 0.005, 0.069 and 0.017, respectively).

The correlation between students' perceptions of the effect of Liberal Studies on their environmental knowledge, environmental behaviour and decision to participate in environmental group activities is all significant, with the correlation coefficient ranging from 0.335 to 0.686.

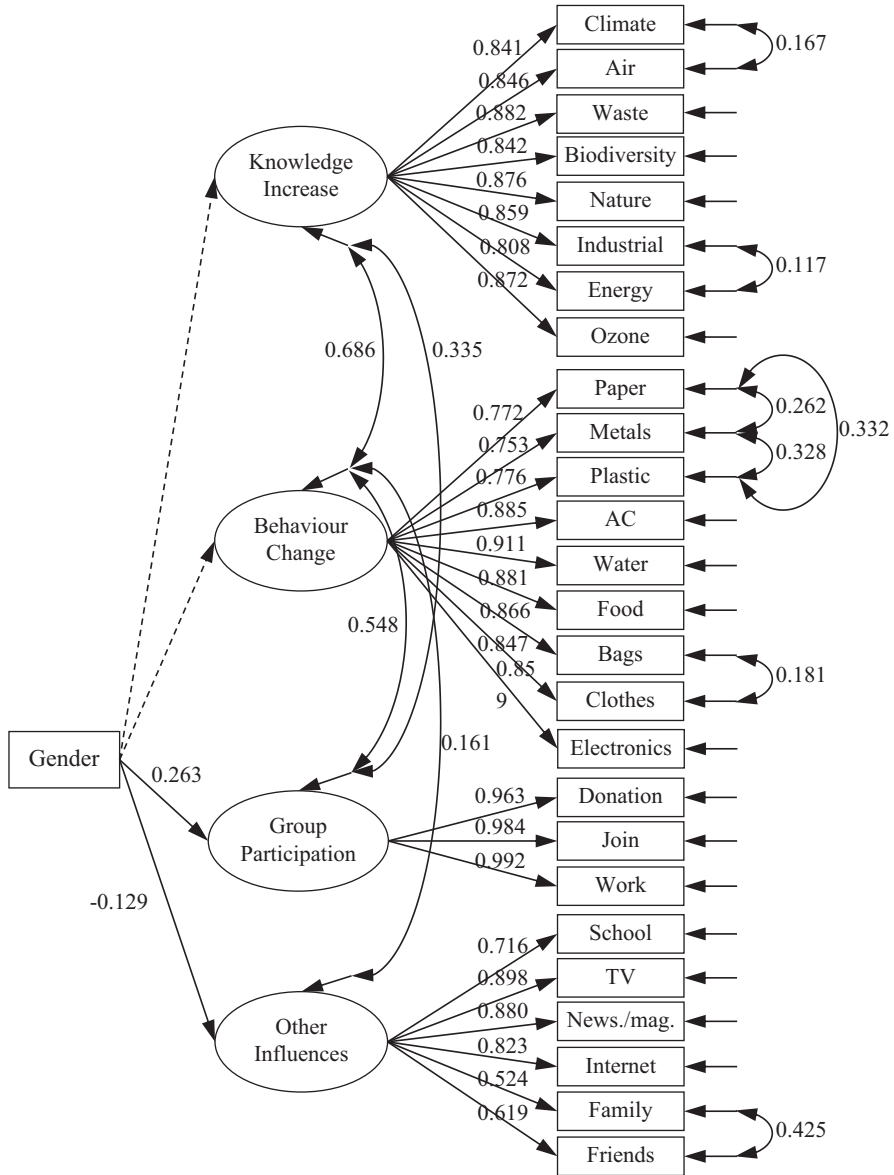


Fig. 7.5 Confirmatory factor analysis (CFA) for students' environmental group activity participation (Note: All estimated parameters were standardised (STDYX). Significant effects were shown as arrow with solid line; non-significant effect was shown as arrow with dotted line. Non-significant correlation coefficients for the latent variables were not shown. Female was coded as 0 and male as 1. AC use air conditioning, Donation donated money to an environmental group, Join joined an environmental group, Work volunteered or been paid for work in an environmental organisation, School other school lessons or activities, News/Mag. newspapers/magazines)

Discussion

As we noted in the introductory part of this chapter, one of the important roles of schools (and classrooms) is to effectively prepare learners to participate fully and appropriately in sustainable development of their societies. Part of this preparation involves assisting them to gain the knowledge, skills, understandings and behaviour appropriate to their particular society and to learn how to cope with contemporary problems confronting their particular society and the world.

The Hong Kong study reported in this chapter sought to illustrate the effects and impact of compulsory environmental education as a result of the introduction of the new senior secondary curriculum in Hong Kong. The results of the study show that there was a perceived increase in knowledge of the selected environmental issues, with over 39% of students reporting “More” or “Much more” knowledge and 26% or fewer students reporting “No Change” in their knowledge.

With regard to behaviour changes, 21% of students indicated “Less” or “Much less” in terms of positive changes to recycling or resource wastage. 29.4–50.6% of students considered their environmental behaviour had not changed. Moreover, around 75% students have not participated in environmental group activities, such as donating money, joining an environmental group or working in an environmental organisation. Over 38.4% (i.e. 9.3% of the sample) of students who participated in these activities agreed that their decision was a result of the Liberal Studies programme. These results indicate that the effect of Liberal Studies on students’ perceived environmental knowledge is greater than the effect on their actual behaviour. The correlation between students’ perceptions of the effect of Liberal Studies on their environmental knowledge, environmental behaviour and decision of environmental group activity participation was all significant (over 0.335), and this is consistent with finding of the study conducted in the USA (Levy and Marans 2012), which might suggest the effect of students’ environmental knowledge on students’ environmental behaviour.

In addition to the Liberal Studies programme, it is clear that other “agents of socialisation” outside the school and classroom also influence the knowledge and understanding of students with regard to environmental matters and influences such as TV, Internet, newspapers/magazines, family and friends. In addition other school lessons or activities apart from the compulsory environmental education as a result of the introduction of the new senior secondary curriculum in Hong Kong might also affect students’ environmental understanding. This was indicated to be the case by over 44.7% students. More than 74% students reported that media, including TV, Internet and newspapers/magazines, increased their understanding of environmental issues.

Gender differences were only found in students’ perceptions of the effect of Liberal Studies on their decision to participate in environmental group activities and

other influences affect their understanding of environmental issues. Further work in this area is recommended.²

To increase the probability of behaviour change, classroom-based learning and pedagogies that are employed are particularly important to consider, and international practice of implementing education for sustainable development could provide some guidelines.

Impact of Schools and Classrooms on Student Knowledge and Behaviour Regarding Sustainable Development Issues: Overview of International Perspectives

With regard to changing classroom practice (UNESCO 2012), a noteworthy pedagogical shift seems to be occurring in ESD, as the DESD has unfolded, as has been noted during the recent end of Education for Sustainable Decade in Nagoya (UNESCO 2014). It is marked by a rise in alternative/innovative forms of teaching and learning. Literature review of publications on teaching and learning within the framework of education for sustainable development identified four key processes underpinning ESD (Tilbury 2011):

- Processes which stimulate innovation within curricula as well as through teaching and learning experiences.
- Processes of active and participatory learning.
- Processes which engage the “whole system.”
- Processes of collaboration and dialogue (including multi-stakeholder and intercultural dialogue).

These processes should be mainly facilitated at the school level. At the classroom level, the global monitoring and evaluation survey (GMES) distinguished nine types or forms of learning associated with ESD. Some can be considered conventional (e.g. transmissive learning and disciplinary learning) and some more cutting edge (e.g. multi-stakeholder social learning and systems thinking-based learning). They are described briefly below:

- *Discovery learning* – learners are immersed in a rich context where they encounter some element of mystery; they become curious and begin to make sense of their experience through their own exploration.

²One note of caution needs to be mentioned when interpreting these findings. This concerns the fact that students are self-reporting on their own knowledge, understandings and behaviours regarding environmental matters, and so we cannot be sure that their perceptions are accurate and so whether their perceptions coincide with actual realities. In addition, the research reported here is very much a case study involving just 400 learners, and so it cannot be assumed that these findings are generalisable to senior secondary school students in Hong Kong as a whole.

- *Transmissive learning* – using didactic skills (e.g. presenting, lecturing, storytelling) and supporting materials (e.g. workbooks, instruction or code of conduct) is transferred to the learners.
- *Participatory/collaborative learning* – although not identical, both emphasise working together with others and active, not passive, participation in the learning process, which tends to focus on resolving a joint issue or task.
- *Problem-based learning* – focused on solving real or simulated problems, to better understand the issue or find ways to make real-life improvements. Issues are either identified by the learners or predetermined (e.g. by teachers, experts, commissioning bodies).
- *Disciplinary learning* – taking questions of a disciplinary nature (e.g. geographical and biological) as a starting point, to better understand underlying principles and expand the knowledge base of that discipline.
- *Interdisciplinary learning* – taking issues or problems as a starting point, then exploring them from different disciplinary angles to arrive at an integrative perspective on possible solutions or improvement.
- *Multi-stakeholder social learning* – bringing together people with different backgrounds, values, perspectives, knowledge and experience, from both inside and outside the group initiating the learning process, to set out on a creative quest to solve problems that have no ready-made solutions.
- *Critical thinking-based learning* – exposing the assumptions and values that people, organisations and communities live by and challenging their merit from a normative point of view (e.g. animal well-being, ecocentrism, human dignity, sustainability) to encourage reflection, debate and rethinking.
- *Systems thinking-based learning* – looking for connections, relationships and interdependencies to see the whole system and recognise it as more than the sum of its parts and to understand an intervention in one part affects other parts and the entire system (pp. 25–26, UNESCO 2012).

Figure 7.6 shows the number of times GMES respondents ($n = 213$) from 102 countries ticked the forms of learning described above. Discovery learning, systems thinking-based learning, critical thinking-based learning, interdisciplinary learning, problem-based learning and participatory/collaborative learning were mentioned the most.

Discovery learning, systems thinking-based learning, critical thinking-based learning, interdisciplinary learning, problem-based learning and participatory/collaborative learning provide an opportunity to discuss environmental issues and engage students in pro-environmental activities. The classrooms that encourage these learning should be based on the principle that *ethical development is a core business of education* (Pavlova 2013a, b). The formulation of this principle is a result of global studies in education that aimed to establish consensus among experts across different regions, on a framework for curriculum development that is “multi-national in origin, perspective, and aim and that ... [is] responsive to a crisis-laden, interconnected world” (Parker et al. 1999, p. 120). These studies examined undesirable trends and forecasted social realities and the competencies that help citizens to

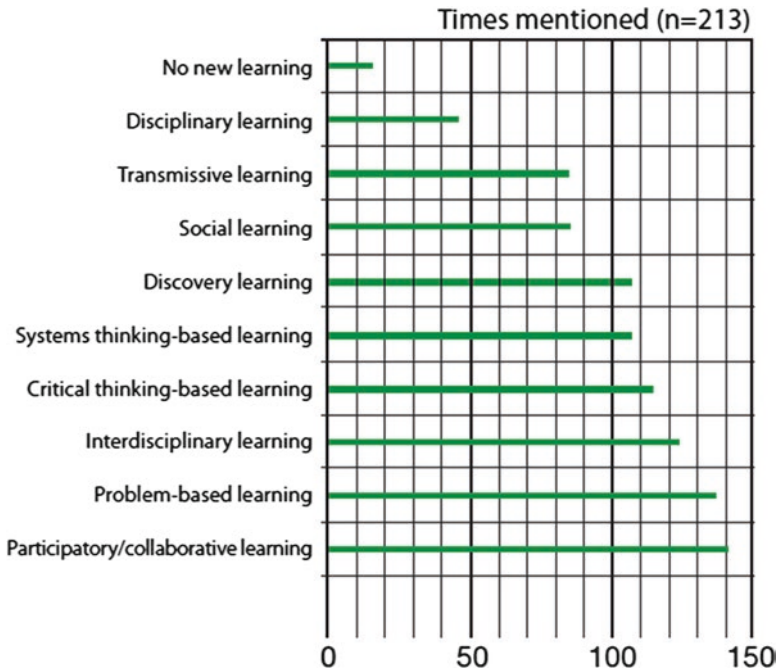


Fig. 7.6 Types of learning associated with ESD as identified through the GMES (Source: UNESCO (2012). *Shaping the Education of Tomorrow: 2012 Report on the UN Decade of Education for Sustainable Development*, Abridged. Paris: UNESCO. p.26)

deal with these trends and the pedagogical means that could help teachers to develop particular qualities in students. Participants of the Campbell et al. (1992) study argued that the results of education are “caring, just, morally responsible, compassionate and ecologically aware individuals” (p. 38). These individuals are committed members of society ready and willing to take part in collaborative action in order to achieve desirable futures. This education should make it possible to move towards “a planetary transition toward a humane, just and ecological future” (Raskin et al. 2002). It should help us to revise our ways of living together on this planet.

Conclusion

In this chapter we have examined the matter of environmental education and education for sustainable development and the extent to which senior secondary schools in Hong Kong have been successful in enhancing knowledge and changing behaviour with regard to key aspects of environmental education. The authors argue that to increase effectiveness of environmental studies, particular types of learning should occur, including discovery learning, systems thinking-based learning,

critical thinking-based learning, interdisciplinary learning, problem-based learning and participatory/collaborative learning. Teachers should provide an opportunity to engage students in pro-environmental activities. They also should emphasise the importance of particular values, ones that are related not to an economic rationalism imperative but to valuing of the other person, moral responsibility and establishing of a nonmechanistic relationship with nature.

References

- Bofferding, L., & Kloser, M. (2014, May). Middle and high school students' conceptions of climate change mitigation and adaptation strategies. *Environmental Education Research, 21*: 1–20. doi:[10.1080/13504622.2014.888401](https://doi.org/10.1080/13504622.2014.888401).
- Boyes, E., Stanisstreet, M., Skamp, K., Rodriguez, M., Malandrakis, G., Fortner, R. W., & Yoon, H.-G. (2014). An international study of the propensity of students to limit their use of private transport in light of their understanding of the causes of global warming. *International Research in Geographical and Environmental Education, 23*(2), 142–165. doi:[10.1080/10382046.2014.891425](https://doi.org/10.1080/10382046.2014.891425).
- Breunig, M., Murtell, J., Russell, C., & Howard, R. (2014). The impact of integrated environmental studies programs: are students motivated to act pro-environmentally? *Environmental Education Research, 20*(3), 372–386. doi:[10.1080/13504622.2013.807326](https://doi.org/10.1080/13504622.2013.807326).
- Byrne, B. M. (2012). *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. New York: Routledge Academic.
- Campbell, W. J., McMeniman, M. M., & Baikaloff, N. (1992). Visions of a desirable future for Australian society. *New Horizons in Education, 87*, 17–39.
- Cheung, L. T. O., Fok, L., Tsang, E. P. K., Fang, W., & Tsang, H. Y. (2014, May). Understanding residents' environmental knowledge in a metropolitan city of Hong Kong, SAR China. *Environmental Education Research, 21*, 1–18. doi:[10.1080/13504622.2014.898247](https://doi.org/10.1080/13504622.2014.898247).
- Fien, J., Yenchen, D., & Sykes, H. (Eds.). (2002). *Young people and the environment*. Dordrecht: Kluwer.
- Fien, J., Maclean, R., & Park, M. G. (Eds.). (2009). *Education for the world of work and sustainable development: Opportunities and challenges*. Dordrecht: Springer.
- Gottlieb, D., Vigoda-Gadot, E., & Haim, A. (2013). Encouraging ecological behaviors among students by using the ecological footprint as an educational tool: a quasi-experimental design in a public high school in the city of Haifa. *Environmental Education Research, 19*(6), 844–863. doi:[10.1080/13504622.2013.768602](https://doi.org/10.1080/13504622.2013.768602).
- Levy, B. L. M., & Marans, R. W. (2012). Towards a campus culture of environmental sustainability: Recommendations for a large university. *International Journal of Sustainability in Higher Education, 13*(4), 365–377. doi:[10.1108/14676371211262317](https://doi.org/10.1108/14676371211262317).
- Liarakou, G., Kostelou, E., & Gavrillakis, C. (2011). Environmental volunteers: Factors influencing their involvement in environmental action. *Environmental Education Research, 17*(5), 651–673. doi:[10.1080/13504622.2011.572159](https://doi.org/10.1080/13504622.2011.572159).
- Muthén, L. K., & Muthén, B. O. (2012). *Mplus 7.0 user's guide* (with software). Los Angeles: Muthén & Muthén.
- Parker, W. C., Ninomiya, A., & Cogan, J. (1999). Educating world citizens: Toward multinational curriculum development. *American Educational Research Journal, 36*(2), 117–145.
- Pavlova, M. (2013b). Towards using transformative education as a benchmark for clarifying differences and similarities between environmental education and education for sustainable development. *Environmental Education Research, 19*(5), 656–672.

- Pavlova, M. (2013a). Teaching and learning for sustainable development: ESD research in technology education. *International Journal of Technology and Design Education*, 23(3), 733–748.
- Raskin, P., Banuri, T., Gallopín, G., Gutman, P., Hammon, A., Kates, R., & Swart, R. (2002). *Great transition: the promise and lure of the times ahead*. Boston: Stockholm Environment Institute.
- The World Bank. (2010). *The world development report 2010*. Washington DC: The World Bank.
- Tilbury, D. (2011). Are we learning to change? Mapping global progress in education for sustainable development in the lead up to 'Rio Plus 20'. *Global Environmental Research*, 14(2), 101–107.
- United Nations Educational, Scientific and Cultural Organisation. (2012). *Shaping the education of tomorrow: 2012 report on the UN decade of education for sustainable development, abridged*. Paris: United Nations Educational, Scientific and Cultural Organisation.
- United Nations Educational, Scientific and Cultural Organisation. (2014). *Aichi-Nagoya declaration on education for sustainable development*. Paris: United Nations Educational, Scientific and Cultural Organisation.
- Zhu, J., Douglas, W., Savelyeva, T., & Maclean, R. (2014). Effects of liberal studies on Hong Kong students' environmental knowledge and behaviour. Research Report: Centre for Lifelong Learning Research and Development, the Education University of Hong Kong.

Part III
Looking in Classrooms: How Have the
Ways of Studying Classrooms Changed?

Chapter 8

Systematic Observation: Changes and Continuities Over Time

Frank Hardman and Jan Hardman

Abstract Systematic observation of classrooms has a long and interesting history. This chapter presents a review of systematic observation that has been used as a research tool to study classrooms for the last 100 years. The methods of data collection and analysis used in the studies are described and discussed, with changes and continuities over time highlighted. The chapter argues that systematic observation of classroom practices has made an important contribution to our understanding of educational processes by enabling the study of pedagogic process in the naturalistic setting of the classroom. Such research has provided detailed and precise evidence about the extent to which educational innovations and policy reforms have resulted in changes in classroom practices and pupil learning outcomes. The chapter concludes with some comments on the current state of development in the field of systematic classroom observation and on ways in which it might usefully develop over the coming years.

Keywords Systematic observation • Classroom interaction • Classroom discourse • Mixed methods

Introduction

Systematic observation is a well-established type of research for studying classroom interaction that is said to date back a hundred years (Meehan et al. 2004). Essentially it involves allocating observed verbal and non-verbal behaviours to a set of previously specified categories and is generally used to collect quantitative data (Mercer 2010). The behaviours are usually quantified and they can be subjected to statistical analysis. For example, the observer may record the relative number of spoken interactions between teachers and students or measure the extent to which

F. Hardman (✉)

Institute of Effective Education, Berrack Saul Building, University of York,
York YO10 5DD, UK

e-mail: frank.hardman@york.ac.uk

J. Hardman

University of York, York YO10 5DD, UK

they produce types of utterance as defined by the researcher's categories, such as particular types of questions asked by teachers, who answered the question, and the type of follow-up given to the answer. The basic procedure for a systematic observation study is that researchers use their research questions and initial observations of classroom life to construct a set of categories into which all relevant verbal and non-verbal interactions can be classified. Observers are then trained to identify behaviours corresponding to each category and the reliability of their judgements checked so that they can sit in classrooms or work from video recordings and assign what they see and hear to the categories.

Many systematic observation studies of classroom interaction have used statistical techniques to analyse the coding of teacher behaviours and student learning outcomes to study whether there is any evidence of an association between the relative occurrence of particular features of classroom talk and students' success on task or learning gain. As well as allowing for an examination of any associations between aspects of and measures of outcome, the use of coding schemes for analysing classroom interaction also allows for a lot of data to be processed fairly quickly. This enables researchers to survey life in a large sample of classrooms without analysing it all in detail and to move fairly quickly and easily from observations to analysis. As will be argued throughout this chapter, systematic observation has undoubtedly provided interesting and useful insights into the patterning of classroom interaction in whole-class, group-based and one-to-one teaching and its impact on learning, and recent developments in the use of computerised systematic observation corpus data analysis software have ensured its continuing relevance and use/utility in educational research and evaluation.

The chapter starts with a discussion of how systematic observation has evolved over the last hundred years before going on to review recent developments in the use of systematic observation as a research tool. It concludes with a discussion of how systematic observation can be used in combination with other research approaches to inform and transform learning and teaching and learning outcomes in classrooms around the world.

A Brief History of Systematic Observation

The first published systematic observation study dates back to 1912 focusing on a study of teacher questioning (Stevens 1912). Two years later, observers noted students' participation in teacher-led recitations by marking a seating chart with small circles for each request to recite and small squares for each response to the request (Horn 1914). Similarly in 1928, Puckett used a series of symbols on a seating chart to record a range of teaching and student behaviours as 'pupil raised hand', 'was called on by the teacher' and 'made a fair response' (Engelhart 1972, p. 123). In the following year, a study of the relationship between teaching behaviour patterns of effective and ineffective teachers as determined by learning outcomes was reported by Barr (1931). Barr's observational data included counts of motivating behaviours

(e.g. nods approval) and types of questions asked by teachers (e.g. recall of facts, real judgements). Similarly in 1934, Wrightstone reported on a study in which teacher interactions with pupils were recorded on a class matrix to capture different teacher behaviours, such as ‘proposes a question’, ‘allows a pupil to make a voluntary contribution’ and discourages or prohibits a pupil contribution’ (cited in Engelhart 1972, p. 124).

The use of systematic observation in process-product research, in which counts of verbal and non-verbal behaviours were correlated with behaviour and outcome measures, rapidly developed in the mid-1940s. Working with kindergarten and primary school teachers, Anderson and his colleagues from the University of Chicago developed 26 categories of verbal and non-verbal teacher behaviours that were grouped into two main categories known as ‘dominative’ and ‘integrative’ behaviours relative to their influence on student behaviours (Anderson et al. 1946). Examples of integrative behaviours included questioning to help a student define, refine and solve a problem, approving, commending and accepting a student contribution and asking questions about a student’s expressed interests. Both sets of behaviours were observed and recorded in the system, as well as individual or group contacts of teachers with students. It was found that the teacher’s behaviour and personality influenced the students in their classrooms: teachers who were dominative in their classrooms tended to promote ‘aggressive and antagonistic behaviours in their students as expressed towards both the teacher and their classmates’, whereas teachers who used socially integrative behaviours tended to facilitate friendly, cooperative and self-directive behaviours in their pupils.

In 1949, following on from the work of Anderson, Withall, also a graduate student from the University of Chicago, published a landmark systematic observation study entitled ‘The Development of a Technique for the Measurement of Social-Emotional Climate in Classrooms’ (Withall and Lewis 1963). In his study, Withall argued that the social-emotional climate in the classroom was an outcome determined by the teacher’s verbal behaviour. Using an extensive analysis of audio recordings of daily classroom sessions in a sample of junior high school classes, seven categories of teacher verbal behaviours were eventually identified in Withall’s Social-Emotional Climate Index: (i) commended or approved the learner, (ii) conveyed understanding or acceptance of the learner, (iii) gave information to or asked questions of fact, (iv) comprised ‘chit-chat’ and routine administrative items, (v) limited or controlled the learner’s behaviour, (vi) deprecated or disapproved and (vii) defended or supported the teacher (p. 698). The first three categories were seen as ‘learner-centred’, the last three as ‘teacher-centred’ and the fourth category in the middle was seen neutral in terms of climate or tone. Users of the Social-Emotional Climate Index were instructed to listen carefully to determine the dominant intent of the teacher’s voice. If the intent was to sustain the learner more than the teacher, the statement was categorised into one of the first three categories, whereas if the intent of the teacher’s statement was to support the teacher more than the learner, then it was categorised into the last three categories.

Building on Withall’s categories, Flanders, also a graduate of the University of Chicago, developed his interaction analysis system by added three new items to the

original seven (Flanders 1970). Two of the new categories were for student verbalisations, and the third was for silence or confusion. A unique aspect of Flanders' system was the development of a matrix that allowed for multiple coding using the ten categories of behaviours to record the interaction sequences of a lesson. Whatever happened in a three-second interval was classed as an event and coded immediately. It was this sequencing of classroom interactions that made Flanders' system so popular in educational research so that systematic observation of classrooms investigating various aspects of classroom processes connected to student outcomes, known as process-product studies, flourished from the 1960s onwards. Out of Flanders' systematic observations of classroom work in the USA there developed the 'two-thirds' rule: about two-thirds of classroom time is devoted to talking; about two-thirds of this time, the person talking is the teacher; and two-thirds of teacher talk is made up of opinions, directing and criticising students.

The growing popularity of systematic observation in educational research was reflected in the publication of *Mirrors for Behaviour: An Anthology of Observation Systems* in 1967 (Simon and Boyer 1967). In the anthology 26 observation systems are presented, and this was followed by the publication of 66 more observation systems in an additional volume of *Mirrors for Behaviour* in 1970 (Simon and Boyer 1970). In both volumes, Simon and Boyer assigned the observation schedules to either the affective or cognitive domain or both. They argued that the affective observation systems deal with the emotional climate of the classroom by coding the teacher's behaviours to students, while the cognitive observation systems deal with the thought processes as expressed in the classroom through the coding of teacher statements, questions to students and student responses to the questions.

In the *Review of Educational Research*, Rosenshine (1970) conducted a review of systematic observation instruments and grouped them into two major divisions: category systems and rating systems. He argued that category systems were low-inference measures because they focused on specific, observable, objective behaviours that could be recorded as frequency counts. On the other hand, he classified rating systems as high inference because the observer had to infer the constructs to be rated, such as enthusiasm of the teacher, clarity of explanation or how supportive the teacher was of the students. In addition, rating systems required the observer to infer the frequency of such behaviours to arrive at ratings such as consistently, sometimes or always. Three years later, Rosenshine and Furst (1973) estimated well over 120 systematic systems had been developed at the time of writing. In addition to category and rating systems, they also introduced the sign system as a category in which an event is recorded only once regardless of how often it occurs within a given period. The 1970s also saw the development multiple coding schemes making use of more than one instrument (Stallings 1977).

By the end of the 1980s, many more multiple coding systems, in which a single behaviour or event is coded in two or more category systems, such as roles of the individual, gender and content of the interaction, had been developed in a number of different countries such as Israel, New Zealand and Australia (Anderson and Burns 1989). By the 1990s, more qualitative, ecological and ethnographic observation systems using participant observation and field notes to capture observations in

narrative form were being developed, emphasising the social context of learning and leading to a decline in process-product research (Stallings and Mohlman 1990).

Similarly in the UK, throughout the 1960s and 70s, process-product research was increasingly being used in British primary schools to study teaching styles and their impact on pupil behaviours and learning outcomes. In 1975 the Observational Research and Classroom Learning Evaluation (ORACLE) project was launched consisting of two main studies: a longitudinal process-product study over a period of 5 years of teaching and learning in the junior age (7–11) classrooms and a second study focusing on the use of collaborative group work (Eggleston et al. 1976). The study was designed to research the impact of the recommendations of the 1967 review of primary education in England, entitled *Children and their Primary Schools*, and unofficially known as the Plowden Report, on classroom practices. The report recommended that the child should be at the heart of the education process and was seen as the start of ‘child-centred’ education in England. The first study used the teacher record (Boydell 1974), and the second used the pupil record (Boydell 1975).

The research suggested that in a typical primary classroom, pupils usually interacted individually with the teacher. Either the teacher moved rapidly around the classroom helping children with difficulties or pupils queued at the teacher’s desk, waiting their turn for attention. Many of the interactions were brief (40% being over in under 5 seconds), and in an average class of 35 pupils, a teacher could manage on average could 6 minutes of individual interaction per child per day. The findings therefore suggested classroom interaction between teachers and pupils was largely asymmetrical, with teachers typically spending 78% of the time interacting with pupils, whereas a pupil, on average, spent 84% of the time working on his/her own without interacting with either the teacher or another pupil (Galton 1987).

The study found pupils received most attention from the teacher during the 15% of time they were part of whole-class teaching, and where it was found, there were higher levels of time on task and greater frequency in the use of open questions and statements of ideas. Group activity was rare: when children did talk to each other, over 60% of their conversations were to do with matters not connected to the task in hand. The findings were supported by other UK studies such as those by Mortimore et al. (1988) and Alexander et al. (1996). Taken together, the evidence suggested there was a need for a better balance in the use of class, group and class teaching according to ‘fitness for purpose’ (Alexander et al. 1992).

In order to study the impact of the national curriculum on teaching and learning practices in the English primary classroom, 20 years on Maurice Galton and his colleagues replicated the 1976 ORACLE study using the same observation instruments and the same classrooms so that the ambiguities arising from the use of different samples and different methods could be reduced (Galton et al. 1999). The follow-up study found there had been a decline in individual interactions with a corresponding increase in teacher interaction with both groups and the whole class. Compared with 1976, individual interactions had changed from 43.1% to 48.4%, group interactions from 14.6% to 16.4% and whole-class interactions from 31.3% to 35.2%. Whereas in 1976 the ORACLE findings loosely followed Flanders’ (1970) *two-thirds rule of*

classroom activity involving talk, in 1996 around *three-quarters* of all classroom activity involved talk, either questions or statements, the consequence of the 16% increase in the proportion of whole-class teacher-pupil interaction. However, the increase in whole-class teaching was largely made up of teachers talking *at* pupils through statements and not in talking *with* pupils by asking questions and building on their answers.

Teacher use of statements and questions remained remarkably stable across the two decades: in 1976 an ORACLE teacher typically made use of 3.7 times as many statements as questions, and in 1996 the ratio was 3.6. Similarly in studies conducted by Alexander over a 4-year period, most of the questions asked by teachers were of a low cognitive level, requiring one- or two-word responses, and many were rhetorical (Alexander et al. 1996). There were very few cases in which pupils initiated the questioning. Overall, despite the increase in whole-class teaching, the ORACLE findings suggest the pattern of teachers' discourse at the level of questions and statements has remained relatively stable across the two decades.

In terms of changes in teacher use of questions and statements over the 20-year period, while the shift to whole-class teaching meant there was a greater emphasis on teachers instructing and asking questions, factual and closed questions were still dominant. They accounted for the greatest part of the increased proportion of questioning, and teachers devoted more time to telling pupils facts and ideas and giving directions than their counterparts of 20 years ago. However, while there has been an increase in the overall proportion of time spent on whole-class teaching, there has not been a radical shift in the pattern of teacher-pupil interaction, largely made up of teacher explanation and closed questioning, with little in the way of authentic questions, suggesting a considerable degree of consistency in the underlying pedagogy across the two decades.

Broadening the Focus of Systematic Observation

As discussed in the previous section, the popularity of systematic observation in researching classrooms started to decline from the 1990s onwards. This was largely due to the growing popularity of sociocultural research and linguistic ethnography approaches to researching classroom practices. Such approaches were also assisted by the development of computer-based software for observing classrooms and for conducting quantitative corpus data analysis of spoken and written texts. It was increasingly being recognised that studying and understanding classroom processes presented considerable theoretical and practical challenges and that categorical coding schemes by themselves often ignored the historical, institutional and cultural context within which a lesson is located. To address these concerns, many sociocultural studies used observational, interventional and/or quasi-experimental designs incorporating the collection of quantitative and qualitative data to capture the fluid process of classroom interaction, whereby teachers and students build relationships and shared understandings over time (Mercer 2010).

Drawing on the fields of social and developmental psychology and pedagogical studies, sociocultural researchers emphasised the role of teachers and students as active participants in the construction of knowledge on the basis of ideas and experiences contributed by the students as well as the teacher. The sociocultural view of learning suggested that classroom discourse is not effective unless students play an active part in their learning. This view of learning suggested that learning does not take place through the addition of discrete facts to an existing store of knowledge but when new information, experiences and ways of understanding are related to an existing understanding of the matter in hand (Hardman 2008). One of the most important ways of working on this understanding was through talk, particularly where students are given the opportunity to assume greater control over their own learning by initiating ideas and responses. In this way, they can contribute to the shaping of the verbal agenda and introduce alternative frames of reference which are open to negotiation and where the criteria of relevance are not imposed.

Sociocultural theory therefore questioned the value of the linguistic and cognitive demands made on students within the traditional teacher-led question-answer recitation format where the students are mainly expected to be passive and to recall, when asked, what they have learned and to report other people's thinking. It led to the researching of alternative approaches to traditional transmission modes of teaching in whole-class teaching, including the use of cooperative group work. In an attempt to open up classroom discourse and encourage greater student participation, research focused on the promotion of 'higher-order' questioning techniques to promote reflection, self-examination and enquiry through the use of 'open' questions which invited students to speculate, hypothesise, reason, evaluate and consider a range of possible answers (Wragg 1999). It also led to the researching of a range of alternatives to teacher questions, including the use of provocative, open-ended statements, encouraging students to ask their own questions and maintaining silence so that students have thinking time before they respond (Dillon 1994). Such alternatives to teacher questions also led, as will be discussed later, to a shift in emphasis in the way teachers reacted in their feedback to student responses.

Sociocultural into classroom interaction and discourse has also been informed by work on the linguistic patterning of teacher-student interaction carried out in the UK and USA in the 1970s. Sinclair and Coulthard (1975) revealed the initiation-response-feedback (IRF) exchange as being central to teacher/pupil interaction. In its prototypical form, a teaching exchange consists of three moves: an *initiation*, usually in the form of a teacher question; a *response*, in which a pupil attempts to answer the question; and a *follow-up* move, in which the teacher provides some form of feedback (very often in the form of an evaluation) to the pupil's response. In a similar study in the USA, Mehan (1979) used 'evaluate' to designate the third move because it was found that this move in the exchange was often used to provide an evaluation of a student's answer.

International research into classroom interaction and discourse suggests the IRF structure is central to all classroom teaching (Alexander 2001; Hardman and Abd-Kadir 2010). It is particularly prevalent in directive forms of teaching and often consists of closed teacher questions, brief student answers which teachers do not

build upon, superficial praise rather than diagnostic feedback and an emphasis on recalling information rather than genuine exploration. This has led some researchers to call for the demise of the IRF exchange because of the cognitively limiting role it appears to afford to students where most of the questions asked by teachers are of a low cognitive level designed to funnel responses towards a required answer (Lemke 1990).

While accepting its pervasiveness, other researchers have argued that the IRF can be functionally effective, leading to very different levels of student engagement and participation. Mercer (1995), for example, argued that it can be an effective means of monitoring students' knowledge and understanding, guiding their learning and identifying knowledge and experience which is considered educationally significant, thereby promoting academic forms of discourse. Others suggest that the IRF structure can take on a variety of forms and functions leading to different levels of student participation and engagement, particularly through the use that is made of the feedback move. Nassaji and Wells (2000), for example, suggest that through feedback which goes beyond evaluation of the pupil's answer, the teacher can extend the answer to draw out its significance so as to create a greater equality of participation for the student.

Similarly, Nystrand et al. (1997) advocated that teachers pay more attention to the way in which they evaluate student responses so that there is more 'high-level evaluation' whereby teachers incorporate student answers into subsequent questions. In this process, which they termed *uptake*, they suggested that teacher's questions should be shaped by what immediately precedes them so that they are genuine questions. When such high-level evaluation occurs, the teacher ratifies the importance of a student's response and allows it to modify or affect the course of the discussion in some way, weaving it into the fabric of an unfolding exchange. Such high-level evaluation therefore chains together teacher questions and student responses so that the discourse gradually takes on a conversation-like quality, thereby encouraging more student participation.

Computer-Based Systematic Classroom Observation

The development of computer-based software for observing classrooms and for text analysis for analysing large databases of written and spoken language that can be subjected to statistical analysis has greatly facilitated the sociocultural research into classroom interaction and discourse practices. Such software is a powerful tool for sorting, storing and organising and systematically analysing a large set of classroom data. The computerised systems have enabled researchers to observe lessons in real time and are much quicker than traditional paper and pencil methods because the data is instantly stored and therefore available for immediate analysis.

For example, a computerised system developed by Smith and Hardman (2003) logged (for each teaching exchange): the actor, the discourse move and who the receiver was. The observation schedule primarily focused on the three-part, IRF

structure and gathered data on teachers' questions, whether questions were answered (and by whom) and the types of evaluation given in response to answers. It also recorded pupil initiations in the form of questions and statements. Within each discourse move, a range of *modifiers* were available. For example, the system recorded whether teacher questions were 'open' (i.e. as in Galton, Hargreaves, Comber, Wall and Pell's 1999, study, defined in terms of the teacher's reaction to the pupils' answer: only if the teacher will accept more than one answer to the question would it be judged as open) or 'closed' (i.e. calling for a single response or offering facts). Responses were coded according to whether a boy or girl answered or whether there was a choral reply.

Teacher feedback to a pupil's answer was coded according to whether it was praised, criticised, accepted or probed for further elaboration. The system also recorded teacher explanations, directions, refocusing of the class and reading and writing activities. In order to see whether teachers are using a range of discourse styles as suggested in the research literature, the system also captured a range of alternative strategies, for example, *uptake* questions (where the teacher incorporates a pupil's answer into a subsequent question). As well as logging the *frequency* of each discourse move as it happened, the system also gathered data on the *duration* of each discourse move. This allowed the researcher to gather valuable information about the pace of a lesson.

Studies of national strategies designed to improve the teaching of literacy and numeracy in England carried out by Hardman and his colleagues using macro and micro levels of analysis through the computer-based systematic observation and discourse analysis revealed the ubiquity of the IRF structure (Mroz et al. 2000; Hardman et al. 2003, 2005; Smith et al. 2004, 2006, 2007). Overall, it was found that in the whole-class section of literacy and numeracy lessons, teachers spent the majority of their time either explaining or using highly structured question and answer sequences. Compared to earlier studies of English primary classrooms, the findings suggested that traditional patterns of whole-class interaction had not been dramatically transformed by the national strategies designed to increase the amount of 'whole-class interactive teaching' (Reynolds and Farrell 1996).

The studies revealed that far from encouraging and extending pupil contributions to promote higher levels of interaction and cognitive engagement, most of the questions asked by teachers were of a low cognitive level designed to funnel pupil responses towards a required answer. Overall, it was found that open questions (designed to elicit more than one answer) made up 10% of the questioning exchanges and 15% of teachers did not ask any such questions. Probing by the teacher, where the teacher stayed with the same pupil to ask further questions to encourage sustained and extended dialogue, occurred in just over 11% of the questioning exchanges. Uptake questioning (building a pupil's answer into a subsequent question) occurred in only 4% of the teaching exchanges, and 43% of the teachers did not use any such moves. Only rarely were teachers' questions used to assist pupils to more complete or elaborated ideas. Most of the pupils' exchanges were very short, lasting on average 5 seconds, and were limited to three words or less for 70% of the time.

The findings are similar to a computerised analysis of teacher-pupil discourse moves of more than 200 eighth- and ninth-grade English and social studies classes in a variety of schools in the Midwest of America (Nystrand et al. 2003). One of the aims of the research was to identify changes over time in the patterning of the classroom discourse with a particular focus on the use of dialogic episodes leading to greater student participation in the classroom talk. Nystrand and his colleagues found that whole-class discussion in which there is an open exchange of ideas averaged less than 50 seconds in the eighth grade and less than 15 seconds in the ninth grade. Using markers of interactive discourse such as open-ended questions, uptake questions, pupil questions, cognitive level and level of evaluation, it was found that shifts from recitational to dialogic discourse patterns were rare: in 1151 instructional episodes that they observed (i.e. when a teacher moves on to a new topic), only 66 episodes (6.69%) could be described as dialogic in nature.

Research in primary classrooms in low-income countries also shows the domination of teacher-led recitation. For example, evidence from Burma (Hardman et al. 2014, Kenya (Ackers and Hardman 2001; Pontefract and Hardman 2005; Hardman et al. 2009), Nigeria (Abd-Kadir and Hardman 2007) and Tanzania (Hardman et al. 2012) shows that teacher-pupil interaction often takes the form of lengthy recitations of question (by the teacher) and answer (by individual pupils or the whole class) within an IRF structure. The practice of asking pupils to complete a sentence either through a direct repetition of the teacher's explanation or pupil's answer or through omitting the final word, or words, or a combination of both these strategies was very common.

Similar to sociocultural research, linguistic ethnographic and conversation analysis approaches emphasised that language and social life are mutually shaping. Everyday talk, including classroom, is always referential, interpersonal, emotive and evaluative, and socialisation is a never-ending process that is mediated through talk and interaction. The pedagogic implication is that children use talk in the classrooms to negotiate and explore their identities, and because such social situations are unique, generalisations of the kind made by quantitative researchers are of questionable validity. Conversation analysis emerged in the 1960s from the sociological field of ethnomethodology to study how the social world operates through people's actions, by focusing on how social interaction is achieved through everyday talk and how people perceive their social experiences. Research in conversation analysis over the past 30 years has shown how technical aspects of talk-in-interaction are structured, whereby participants perform and coordinate activities through talking together and build their social lives and construct their social relations with one another. It has been widely used in the analysis of talk in work-related settings (Drew and Heritage 2006) and in classroom research (Seedhouse 2005) exploring the relationship between pedagogy and interaction in English as a second language classrooms and between the pedagogical focus of the interaction and the organisation of turn-taking, sequence and repair.

Research by Lefstein and Snell (2011) in the UK integrating linguistic ethnographic approaches, using lesson transcription and microanalysis of selected episodes, with computer-assisted systematic classroom observation focusing on

whole-class teaching, has enabled a more nuanced interpretation of teacher pacing in lessons. They found teacher use of pace is rooted in the meaningful content of the conversation, including the extent to which this content is new and/or surprising to participants, if and how the conversation matters and how participants treat one another's contributions, so that at 'their extremes, objective and subjective pace may be inversely related: meaningful and important content requires us to slow down in order to attend and think; less consequential ideas require that we speed up, to get through the material as quickly as possible' (p.21). Lefstein and Snell's research into classroom practices demonstrates how systematic observation and micro-ethnographic approaches can be combined leading to the generation and testing of hypotheses and more generalisable findings while maintaining qualitative and ethnographic insights (Lefstein and Snell 2014).

Similarly, Molinari and colleagues used computerised corpus data software to analyse micro-transitions occurring within IRF exchanges in Italian primary school lessons (Molinari et al. 2012). The teachers' questions were coded according to two categories, function and form, and the pupils' answers were coded according to three categories: form, correctness and production. The teachers' follow-ups were coded into two categories, one concerning the teaching-learning processes and the second assessing the relational quality. The relational quality of the third turn was coded with reference to both content and non-verbal indicators (the teacher's voice tone, facial expressions, hand gestures, eye gazes). The coding of this last category was made possible by the convergence between the information coming from the transcripts and from the videos.

The study found that while IRF sequences are a pervasive linguistic feature of classroom discourse, and that in most cases teachers firmly control the interaction, the use of authentic questions often led to bound exchanges in which a more dialogic interaction between teachers and students was possible. The statistical sequential analysis of the links between teaching exchanges was used to explore whether the form of a question, either open or closed, triggers differently interactive sequences. It was found that authentic questions were significantly followed by complex answers and the reinitiation of the same question to different pupils. Teacher follow-up was also found to be important in extending the teaching exchanges. Where teachers accepted or rejected an answer, the sequence was often short, but in cases where the teacher followed up an incorrect answer to help the student reformulate it in a more correct way, the exchanges became more extended and dialogic in nature. At the third turn, the teacher might also elaborate on the response by reformulating it or adding details and information in order to improve the quality of the answer. They would also extend the turn with requests for clarification, use of examples and solicitation of reformulations or reflections to co-construct and guide the development of deduction skills, reasoning and thinking. These sequences were, therefore, fruitful occasions for co-constructing knowledge and encouraging student active participation in the discourse.

Such microanalysis of the transitions across teaching exchanges as used by Molinari and colleagues therefore makes it possible to verify under which circumstances classroom discourse can take on a more dialogic function. The results dem-

onstrate that teachers can open up the classroom discourse to students in several different ways through the use of a wider repertoire of initiations and follow-ups. The findings also point to the importance of training teachers in the use of open or authentic questions and following up student answers with probes, comments and questions which build on and scaffold the student answers.

Looking to the Future

The analysis of classroom processes brings with it many challenges for researchers as discussed throughout this chapter. No approach by itself, whether it uses qualitative or quantitative methods or an experimental design or naturalistic observation, will adequately capture the complexity of classroom life. As each will have its strengths and weaknesses, it makes sense to combine two or more methods that draw on both quantitative and qualitative analysis so that weaknesses are counter-balanced and evidence of more than one kind is generated to address concerns about validity and methodological consistency. There is also the need to conduct more rigorous research to investigate how different forms of classroom talk impact on learning outcomes. More large-scale, longitudinal studies which use systematic quantitative analysis and qualitative analysis to conduct impact and process evaluations to consolidate and extend the evidence base are needed.

It will also be important to involve teachers in the analysis of classroom talk and interaction to help in the transforming of beliefs, knowledge, understandings, skills and commitments, in what they know and able to do in their classroom practice with regard to teaching and learning. The school and classroom should be the focus of interventions for improving the quality of teaching and learning, involving the school head and all the teachers in creating a genuine teaching community through ownership of the process. School-based teacher development and research programmes building on existing systems and structures, and linked to study materials, coaching, observation and feedback by colleagues, can help teachers to explore their own beliefs and classroom practices as a way of bridging the gap between theories and pedagogical practice and to explore alternative classroom interaction and discourse approaches (Hardman 2011).

While the development of observational software has done much to enhance the researching of classroom practices by enabling the sorting, storing, organising and systematic analysis of large data sets, it works best when the coding systems are informed by a more nuanced understanding of classroom talk derived from linguistic and micro-ethnographic analysis. Similarly, such qualitative analysis of classroom talk will be complemented by systematic quantitative analysis when the large data sets are used to show the significance and generalisability of the findings derived from the microanalysis. Systematic observation software therefore has a key role to play in the future of educational research and evaluation.

References

- Abd-Kadir, J., & Hardman, F. (2007). The discourse of whole class teaching: A comparative study of Kenyan and Nigerian primary English lessons. *Language and Education, 21*(1), 1–15.
- Ackers, J., & Hardman, F. (2001). Classroom interaction in Kenyan primary schools. *Compare, 31*(2), 245–261.
- Alexander, R. (2001). *Culture and pedagogy: International comparisons in primary education*. Oxford: Blackwell.
- Alexander, R., Rose, J., & Woodhead, C. (1992). *Curriculum organisation and classroom practice in primary schools*. London: Department of Education and Science.
- Alexander, R., Willcocks, J., & Nelson, N. (1996). Discourse, pedagogy and the National Curriculum: Change and continuity in primary schools. *Research Papers in Education, 11*(1), 81–120.
- Anderson, L., & Burns, R. (1989). *Research in classrooms: The study of teachers, teaching and instruction*. New York: Pergamon.
- Anderson, H. H., Brewer, J. E., & Reed, M. F. (1946). ‘Studies of teachers’ classroom personalities. III. Follow-up studies of the effects of dominative and integrative contacts on children’s behavior’. (*Applied Psychology Monographs, 11*), Ann Arbor, University Microfilms.
- Barr, A. S. (1931). *An introduction to scientific study of classroom supervision*. New York: Appleton-Century-Crofts.
- Boydell, D. (1974). Teacher pupil contact in junior classrooms. *British Journal of Educational Psychology, 44*, 313–318.
- Boydell, D. (1975). Pupil behaviour in junior classrooms. *British Journal of Educational Psychology, 45*, 122–129.
- Dillon, J. (1994). *Using discussion in classrooms*. Milton Keynes: Open University Press.
- Drew, P., & Heritage, J. (2006). *Conversation analysis*. London: SAGE.
- Eggleston, J. F., Galton, M. J., & Jones, M. E. (1976). *Processes and products of science teaching, Schools council research studies*. London: Macmillan.
- Engelhart, M. D. (1972). *Methods of educational research*. Chicago: Rand McNally.
- Flanders, N. A. (1970). *Analyzing teaching behavior*. New York: Addison-Wesley.
- Galton, M. (1987). An ORACLE Chronical: A decade of classroom research. *Teaching and Teacher Education, 3*(4), 299–313.
- Galton, M., Hargreaves, L., Comber, C., Wall, D., & Pell, T. (1999). *Inside the primary classroom: 20 years on*. London: Routledge.
- Hardman, F. (2008). The guided co-construction of knowledge. In M. Martin-Jones, A. de Mejia, & N. Hornberger (Eds.), *Encyclopaedia of language and education* (pp. 253–264). New York: Springer.
- Hardman, F. (2011). *A review of save the children’s global teacher support and development strategy*. London: Save the Children.
- Hardman, F., & Abd-Kadir, J. (2010). Classroom discourse: Towards a dialogic pedagogy. In D. Wyse, R. Andrews, & J. Hoffman (Eds.), *The international handbook of English, language and literacy*. London: Routledge/Taylor and Francis.
- Hardman, F., Smith, F., & Wall, K. (2003). Interactive’ whole class teaching in the National Literacy Strategy. *Cambridge Journal of Education, 33*(2), 197–215.
- Hardman, F., Smith, F., & Wall, K. (2005). Teacher-pupil dialogue with pupils with special needs in the National Literacy Strategy. *Educational Review, 57*(3), 299–316.
- Hardman, F., Abd-Kadir, J., Agg, C., Migwi, J., Ndambuku, J., & Smith, F. (2009). Changing pedagogical practice in Kenyan primary schools: The impact of school-based training. *Comparative Education, 45*(1), 65–86.

- Hardman, F., Abd-Kadir, J., & Tibuhinda, A. (2012). Reforming teacher education in Tanzania. *International Journal of Educational Development*, 32, 826–834.
- Hardman, F., Stoff, C., Aung, W., & Elliot, L. (2014). Developing pedagogical practices in Myanmar primary schools: Possibilities and constraints. *Asia Pacific Journal of Education*, 36, 98–118.
- Horn, E. (1914). *Distribution of opportunity for participation among the various pupils in classroom recitations*, *Teacher college contributions to education*, 67. New York: Columbia University.
- Lefstein, A., & Snell, J. (2011). Classroom discourse: The promise and complexity of dialogic practice. In S. Ellis, E. McCartney, & J. Bourne (Eds.), *Insight and impact: Applied linguistics and the primary school*. Cambridge: Cambridge University Press.
- Lefstein, A., & Snell, J. (2014). *Better than best practice: Developing teaching and learning through dialogue*. London: Routledge/Taylor & Francis.
- Lemke, J. L. (1990). *Talking science: Language, learning and values*. Norwood: Ablex.
- Meehan, M., Cowley, K., Finch, N., Chadwick, K., Ermolov, L., & Riffle, M. (2004). *Special strategies observation system-revised: A useful tool for educational research and evaluation*. Charleston: AEL.
- Mehan, H. (1979). *Learning lessons*. Cambridge, MA: Harvard University Press.
- Mercer, N. (1995). *The guided construction of knowledge: Talk amongst teachers and learners*. Clevedon: Multilingual Matters.
- Mercer, N. (2010). The analysis of classroom talk: Methods and methodologies. *British Journal of Educational Psychology*, 80, 1–14.
- Molinari, L., Mameli, C., & Gnisci, A. (2012). A sequential analysis of classroom discourse in Italian primary schools. The many faces of the IRF pattern. *British Journal of Educational Psychology*, 83(3), 414–430.
- Mortimore, P., Sammons, P., Stoll, L., Lewis, D., & Ecob, R. (1988). *School matters: The junior years*. Wells: Open Books.
- Mroz, M., Smith, F., & Hardman, F. (2000). The discourse of the literacy hour. *Cambridge Journal of Education*, 30(3), 379–390.
- Nassaji, H., & Wells, G. (2000). What's the use of 'Triadic Dialogue'? An investigation of teacher-student interaction. *Applied Linguistics*, 21(3), 376–406.
- Nystrand, M., Gamoran, A., Kachur, R., & Prendergast, C. (1997). *Opening dialogue: Understanding the dynamics of language and learning in the English classroom*. New York: Teachers College, Columbia University.
- Nystrand, M., Wu, L. L., Gamoran, A., Zeiser, S., & Long, D. A. (2003). Questions in time: Investigating the structure and dynamics of unfolding classroom discourse. *Discourse Processes*, 35(2), 135–198.
- Pontefract, C., & Hardman, F. (2005). The discourse of classroom interaction in Kenyan primary schools. *Comparative Education*, 42(1), 87–106.
- Puckett, R. C. (1928). Making supervision objective. *School Review*, 36, 209–212.
- Reynolds, D., & Farrell, S. (1996). *Worlds apart? A review of international surveys of educational achievement involving England*, *Office for Standards in Education (OFSTED) reviews of research*. London: HMSO.
- Rosenshine, B. (1970). Evaluation of classroom instruction. *Review of Educational Research*, 40(2), 279–300.
- Rosenshine, B., & Furst, N. (1973). The use of direct observation to study teaching. In R. M. W. Travers (Ed.), *Second handbook of research on teaching* (pp. 122–183). Chicago: Rand McNally College Publishing.
- Seedhouse, P. (2005). *The interactional architecture of the language classroom: A conversation analysis perspective*. London: Wiley-Blackwell.
- Simon, A., & Boyer, E. G. (Eds.). (1967). *Mirrors for behavior: An anthology of classroom observation instruments*. Philadelphia: Research for Better Schools.

- Simon, A., & Boyer, E. G. (Eds.). (1970). *Mirrors for behavior: An anthology of classroom observation instruments*. Philadelphia: Research for Better Schools.
- Sinclair, J., & Coulthard, M. (1975). *Towards an analysis of discourse: The English used by teachers and pupils*. Oxford: Oxford University Press.
- Smith, F., & Hardman, F. (2003). Using computerised observation as a tool for capturing classroom interaction. *Educational Studies*, 29(1), 39–47.
- Smith, F., Hardman, F., Wall, K., & Mroz, M. (2004). Interactive whole class teaching in the national literacy and numeracy strategies. *British Educational Research Journal*, 30(3), 403–419.
- Smith, F., Hardman, F., & Higgins, S. (2006). The impact of Interactive Whiteboards on teacher-pupil interaction in the National Literacy and Numeracy Strategies. *British Educational Research Journal*, 32(3), 437–451.
- Smith, F., Hardman, F., & Higgins, S. (2007). Gender inequality in the primary classroom: Will interactive whiteboards help? *Gender and Education*, 19(4), 455–469.
- Stallings, J. A. (1977). *Learning to look: A handbook on classroom observation and teaching models*. Belmont: Wadsworth Publishing.
- Stallings, J. A., & Mohlman, G. G. (1990). Issues in qualitative evaluation research: Observation techniques. In H. J. Walberg & G. D. Haertel (Eds.), *The international encyclopaedia of educational evaluation* (pp. 639–644). New York: Pergamon Press.
- Stevens, R. (1912). The question as a measure of efficiency in teaching. In *Teacher College contributions to education*, 48. New York: Columbia University.
- Withall, J., & Lewis, W. W. (1963). Social interaction in the classroom. In N. L. Gage (Ed.), *Handbook of research on teaching* (pp. 683–714). New York: American Educational Research Association.
- Wragg, E. C. (1999). *An introduction to classroom observation* (2nd ed.). London: Routledge.

Chapter 9

Classroom Cultures and the Ethnographic Experience

Sara Delamont

Abstract This chapter explores how ethnographers study classrooms and schools to produce ‘peopled’ ethnographies written up into ‘luminous’ descriptions. The starting point is four incidents recorded by ethnographic observers in one school during the first (original) Oracle project. These four incidents are the basis for an exemplification of how an ethnographer could derive six working hypotheses with rich research potential, to move towards an ethnography of that school (or any school). The importance of fighting familiarity, writing detailed field notes, analysing the data and writing up into vivid accounts is all stressed. Gathering data on recurrent and persistent features of classroom interaction and school life, such as teacher control, lesson preparation, the timescapes of teacher careers, sexism, ethnocentricism or xenophobia and the ‘contemporary legends’ that pupils share about the next school they are due to attend is illustrated in the examples. Examples of published studies that an ethnographer could read to embed their research are included.

Keywords Ethnography • Field notes • Folklore • Foreshadowed problems • Classrooms • Staffrooms • Luminous description • Timekeeping • Control • Sexism

Preface

I have known Maurice Galton since 1969 when I was a PhD student, and I coedited a *Festschrift* for him in 2011 (Hargreaves et al. 2011). If anyone had said to me in 1969 that a volume celebrating Maurice Galton would *mention* ethnography, I would have been surprised. The idea of a whole chapter would have seemed highly unlikely because the research philosophy he then espoused was a positivist one, based on producing statistics from coding classroom behaviour using a schedule (Croll 1986). Yet 17 years later, we published an ethnographic monograph (Delamont and Galton 1986), and by then the idea of this chapter would not have been strange at all.

S. Delamont (✉)

School of Social Sciences, University of Cardiff, 2.32 Glamorgan Building,
King Edward VII Avenue, Cardiff CF10 3WT, UK
e-mail: Delamont@cardiff.ac.uk

Introduction

The chapter is structured so that it begins with real ethnographic data gathered by Maurice Galton, myself and other members of the first Oracle project in the 1970s (Galton and Willcocks 1983; Delamont and Galton 1986). It builds on the data to show the power and potential of ethnography to explore educational settings. The best way to introduce the ethnography of classrooms is to transport the reader into a classroom via vivid descriptions of the interaction patterns drawn from the field notes. So that is the thing that I have done. The writing of good field notes, their analysis and the subsequent written accounts are the basic foundational tools of the ethnographer. Now come with me to Guy Mannering (9–13) School in the town of Ashburton as it was in September 1977.

Ashburton 1977

Ashburton is the pseudonym we (the first Oracle project team) (see Delamont and Galton 1986) gave to a town in the English Midlands, when we did ethnographic research on the first month in the lives of a cohort of girls and boys, aged 9, entering two (9–13) comprehensive middle schools. The old town was growing rapidly, with new housing encouraging families to move there from Birmingham and London. The local education authority had moved from the old English system (established in 1944) of primary schools for 5–11-year-olds and then either grammar schools for 11–18-year-olds, with admission for about 30 per cent of the cohort based on an exam (the 11+) and secondary modern 11–16 schools for the remaining 70%, to a comprehensive system. They had reorganised to have lower schools for 5–8-year-olds, middle schools for 9–13-year-olds and then upper schools for those from 14 onwards. The middle schools were either newly built or were ‘converted’ secondary modern schools. The upper schools were in the premises of the former grammar schools, which had the best facilities (such as science laboratories) and graduate teachers used to preparing pupils for public exams at 16 and at 18. We studied Gryll Grange, one of the new built schools with a staff appointed specifically to teach 9–13-year-olds, and Guy Mannering, housed in what had been a girls’ secondary modern, which had kept many of the staff from its previous incarnation. Guy Mannering had ability grouping, and a ‘house’ system, where pupils across all 4 years were divided into four competing organisations to which it was hoped they would feel loyal and so wish to compete for good attendance, behaviour and academic achievement ‘merit’ points and in sport.

In September 1977, we joined Guy Mannering alongside a cohort of 9-year-olds (see Galton and Willcocks 1983; Delamont and Galton 1986). To introduce the ethnographic approach, and in the first Oracle project, there were many other research approaches used as well. I have focused on extracts from field notes taken by several members of the research team at Guy Mannering. The first month of the school year

is an excellent time to see the start of the construction of the social order between each teacher and each class. I have picked out here notes on two male teachers, Mr. Le Gard and Mr. Woolfe (these are both pseudonyms). Mr. Le Gard was in his last year of teaching; Mr. Woolfe had been redeployed to Guy Mannering and was very quickly labelled as incompetent by his new colleagues. Mr. Le Gard taught religious studies and ‘library’ (a sort of study skills course) in the school library. Mr. Woolfe taught art. In religious studies, Mr. Le Gard relied on putting passages of text up on his blackboard on Monday and having every class copy them out, amplified by lists from their bibles, across all the week’s lessons. I have focused here on two of his ‘library’ classes, the first of which was on how to read a timetable.

He hands them out some red books and says that they are going to do an exercise on time-tables, which ‘are always regarded as being complicated’ but ‘they are not once you find your way around’. They are to open the red textbooks at a page which has a timetable for a bus route from Eastbourne to Hastings.

These are two seaside towns on the south east coast of England. Mr. Le Gard explained

We have the page from the bus timetable, the first information you get is the number of the bus. That’s useful. Then it tells you where it goes from Eastbourne: Pevensey, Bexhill, and Hastings. That’s general, now we get to the timetable itself.

Mr. Le Gard then explained how to read a bus timetable and told the children to work through the ten questions on the schedule in the book. For example: ‘What time does the 8.20 bus reach Hastings?’ After 10 min, Mr. Le Gard read out the answers, so the children could mark their own books. He then asked ‘Who had ten right?’ and so on down to none. All the boys reported getting seven or more out of ten correct. Two girls, Mair and Leila, said they each got ten; some girls admitted only achieving two, three or four correct answers. Mr. Le Gard went on

Apart from Mair and Leila the old thing has come up again, that a man can use a timetable better than a woman.

On another occasion Mr. Le Gard was teaching the same class of 9-year-olds about ‘The Book’.

He tells them that on the title page there will be the author’s name, and that tells you something about the book. ‘You may recognise the author and therefore know he is a good one. If you got a chemistry book by a senior master at a big school he might know what he is talking about, but if it is by someone who is just a housewife, well!’

Most of the field notes the Oracle team collected about Mr. Le Gard describe largely quiet, uneventful lessons during which Mr. Le Gard read the paper at his desk while the children were copying notes from the board and their bibles. However these two extracts come from classes which stand out as among the most blatantly sexist, stereotyped teaching we heard or saw throughout the whole Oracle fieldwork over 2 years in six schools.

Mr. Woolfe was one of a team of seven art and craft teachers who had eight groups each of 20 pupils in a set of rooms grouped round a central area, in which the eighth ‘class’ were seated without a teacher doing ‘theory’ – actually practising

italic handwriting from workbooks – for 80 min. The washrooms in the area were kept locked in the first month of the school year, so these children could not wash their hands before or after cookery, craft, needlework or art unless a teacher made time for cleaning up and unlocked them for one group of children to use. Our observations of Mr. Woolfe's classes were, frankly, embarrassing. The field notes made by team members are replete with observations about Mr. Woolfe's shortcomings: quite unlike the majority of the notes which are much more dispassionate in tone. In one double lesson, he began by being late, apologising, saying he had a task to finish (he had to sort out his form's dinner money and get it into the office) but had no activity to occupy the class while he dealt with that. This meant the children had nothing to do and became restless and bored at the beginning of an 80-min lesson. Finally, the observer records:

He begins. He asks them why artists can see more than others. There is general puzzlement at this question, but Howard says it's because they are good at imagining. There are no other offerings so Mr. Woolfe says 'Well we must get on, so you will have to think about that question', and doesn't answer his own question at all.

The lesson involves drawing trees, but Mr. Woolfe does not take them out to look at the different species growing in the school's grounds.

He tells them that if they had time they could go out and look at trees and see what different shapes were like.

He apologises to the children for his lack of preparation.

As I say, I haven't had time to prepare this lesson, so I will need some help from you.

Mr. Woolfe was so unprepared that the whole of the first 40 min had elapsed before everyone was equipped with a brush, paper, a stick of charcoal, a painting board, a palette and a share of a water-pot.

The observer left, went to another craft class and returned near the end of the double lesson. Mr. Woolfe's timing was wrong, so he sent the children off late to math without washing their hands. Their math teacher Mrs. Forrest, who was also the form teacher of most of the children, was visibly shocked by their unwashed hands and, in a manner very unlike normal references by one teacher to another, said 'Well I had better come along next week and see what you are doing'. The following week, the class again overran, so Mr. Woolfe had to tidy the space after they had gone, and again they had no chance to wash their hands. Mr. Woolfe was also teaching art without providing any aprons or getting the children to bring something from home to protect their brand new, expensive, school uniforms from the paint. Mrs. Forrest commented to one girl that if she was her mother: 'I'd go mad at the state of your uniform' which would need to be washed that night because of the art lesson.

These are, of course, unusual extracts from our field notes about the lives of 9-year-olds at Guy Mannering in 1977. For every Mr. Le Gard offering pure prejudice as if it were scientific or biblical truth, there are pages and pages of field notes on 'ordinary' lessons in math, English, history, geography and science. For every Mr. Le Gard sitting, reading or marking while classes copied from the board, there

were detailed accounts of teachers energetically teaching their classes. When researchers read and analyse their field notes, the unusual teachers and lessons often stand out, precisely because they *are* unusual and make a more vivid text for publication. I have chosen these four classes taught by two men as a starting point to demonstrate the working methods of school ethnographers.

Making the Familiar Strange

All classroom ethnographers have to work very hard to focus productively on the many ‘uneventful’ lessons they see every day and draw out of them important insights into the interaction they capture. Howard Becker (1971) pointed out that classrooms were ‘familiar’, and watching them needed hard work to produce decent social science. It is precisely because educational researchers have to make the familiar strange that classroom observation with schedules or by ethnography is such hard work (Geer 1964). The history of the familiarity problem and strategies to fight familiarity can be found in Atkinson et al. (2010) and Delamont (2012a, b, c). Ethnographic field notes are analysed (today they are often coded and a software package such as NVIVO is used), and many hours of observation and many pages of notes are the basis from which to produce written accounts for papers and books. Ethnographers usually work hard to produce ‘interesting’ accounts of educational settings.

There is a large literature on how to conduct an ethnography, both general (such as Hammersley and Atkinson 2007) and specific to educational settings (Delamont 2002). There are large generic handbooks (e.g. Atkinson et al. 2001) and education-specific ones (Delamont 2012b) which have chapters on a variety of topics such as taking field notes, analysis or writing. A novice can find advice on all the stages of an ethnographic project via those citations. This chapter does not recapitulate basic information on ethnography methods per se but instead focuses upon the process that most puzzles ‘outsiders’, which is how an ethnographer follows up ‘leads’ and therefore decides what to look at, what conversations to have with the informants next and how to build up from an incident towards a more general picture of the wider social processes.

It is easier to write vividly about pupils or teachers whose behaviour is unusual, such as Mr. Le Gard, who not only offered a sexist view of the world but also refused to call a boy with the Italian family name of ‘Radice’ by its proper pronunciation of ‘Radiche’ and insisted despite the boy’s protests in calling him ‘Radish’ (We have used pseudonyms for this family who eventually gave up the struggle with Guy Mannering. The whole family changed their name to ‘Radley’ 6 months later). However the whole point of ethnographic work is to use the field notes on striking incidents like the ‘timetable’ exercise to focus upon what is being taught and what is being learnt, by real teachers and by real children in actual classrooms. It frequently transpires that the content and the processes of ‘education’ bear little rela-

tion to the national policies, or the school plans are done not according to the official syllabus but in the densely packed co-construction of the classroom *milieux*.

Particularly vivid material about unusual or even eccentric teachers, or especially deviant pupils, also has an important function in educational ethnography. It contrasts with the 'normal' behaviour of the majority of teachers and pupils and the routine mundanely of most lessons in most schools on most days. A 'failing' teacher like Mr. Woolfe is desperately embarrassing to observe, but his lack of competence is contrastive with the many lessons which begin and end promptly, and from which *nothing* emerges that fellow teachers can use to judge their colleague. In Mr. Woolfe's classes, we could see failure to plan or prepare entirely dysfunctional questions to pupils, a lack of organisational skills and very poor timekeeping.

The observer commented that Mr. Woolfe 'allows them to call out without putting up their hands, something that the more experienced teachers would never allow here at Guy Mannering'. That is exactly the type of insight into the social order of a school which forces the researcher to focus upon what the 'normal' classroom in that school is like and how it is achieved, rather than taking it for granted. Mr. Woolfe also allowed 'quite a lot of noise while they are organising their equipment' and that comment by the observer, too, is revealing about the norms in other classrooms at Guy Mannering.

From Oracle to General Strategies

In the rest of the chapter, the focus is on how ethnographers work, and the general principles are illustrated by reference to Mr. Le Gard and Mr. Woolfe. The first Oracle project was not primarily ethnographic: the data were intended to be illustrative and supplementary to the systematic coding, the test scores and the interviews. One of my frustrations with the first Oracle project was that I did not fully appreciate the difficulties of conducting a multisite team ethnography when several of the researchers in the team had not been trained. The research associates had been carefully trained to use the coding schedules, and their time learning the schedules was paid for, but they were not systematically prepared to write ethnographic field notes. Indeed all the team members who were going to use the coding schedules had training, so there was interobserver reliability. As the experienced ethnographer, I should have organised paid training, in field note writing for all the observers. In retrospect there should have been training in how to generate what Geertz (1973) called 'thick description'. In essence the rest of the chapter addresses what needed to be in the training of the Oracle research team (but was not), using the Oracle data to explore what might have been. So in this chapter, I have demonstrated the power of ethnographic research by building on the fragments of data on Mr. Le Gard and Mr. Woolfe already presented to explore what a fully formed ethnographic study of Guy Mannering School could have produced if ethnography had been the main research method, if it had lasted for 3–6 months, and been done by one or two experienced

field workers. In the rest of the chapter, I have explored what was and what might have been, after a little on the process of ethnography.

The Process of Ethnography

I have written about ethnographic methods elsewhere (Delamont 2002, 2012a, b, c) and have summarised the key points here. Good ethnography starts with reading, to develop foreshadowed problems that challenge familiarity. In ethnography, the foreshadowed problems are the equivalent of the hypotheses used in survey or quasi-experimental research but are not as constraining (Geer 1964). If the field setting turns out to make them irrelevant, they are reformulated and even replaced. The access negotiations in an ethnographic project are a vital source of insight and form part of the data gathering. They can reveal a great deal about the setting: what the actors in the setting regard as ‘too dull’ or ‘too sensitive’ is itself informative. The teacher who forbids the ethnographer to come into her room can be used as a source of data that are as revealing about the school as the one who makes the observer welcome.

Once in the classroom, the ethnographer has to write the most detailed field notes possible: the layout of the space, the items on the walls, the location(s) of the actors, the heat or cold, the smell(s), the noise or the silence. What people wear and what objects are used legitimately, misused and illicitly present all need to be meticulously noted in every lesson. In a classroom, the ethnographer or ethnographic team needs to learn how the teacher, or the teachers, of the class understand their job and its context and to make sense of the pupils’ or students’ perspectives. Some of these will be common; others will be shared by subgroups, or be individual or even idiosyncratic. The ethnographer operates by observing and then asking the participants about what is happening, why it happens, how they make sense of it, not usually in formal interviews but in casual conversations embedded in the setting.

The mission of ethnography is to understand how a culture, subculture or micro-culture like a classroom is socially co-constructed by the participants in it and how those people make sense of their lives. The seven principles of ‘peopled ethnography’ set out by Fine (2003) and Brown-Saracino et al. (2008) sum up the philosophy used in most educational projects, and Katz (2001, 2002) provides an inspiring account of how ethnographic data should be written up. Fine (2003) reflecting on the eight separate ethnographic projects he had completed (from mushroom hunters to high school debating teams) stressed that the term ‘peopled ethnography’ was a ‘happy’ label for his approach, which is to focus on three core concepts in the setting: culture, interaction and social structure. His seven pillars are:

1. That the ethnography is theoretical.
2. That it builds on other ethnographies.
3. That examines interacting small groups.
4. That it relies on multiple research sites.

5. That it depends on extensive, labour-intensive, observation.
6. That it is richly ethnographic.
7. That it distances researcher and researched.

Fine's sixth principle draws on Katz's (2001, 2002) arguments about the requirement that ethnographers should produce 'luminous' description.

If Oracle had been an ethnographic project, of the type valued by Fine and Katz, the observation team would have built on the initial observations of Mr. Le Gard and Mr. Woolfe to pursue further investigations of everyday classroom life at Guy Mannering, along the lines I have suggested in what follows, or others similarly envisaged.

In each example, references are provided to the sorts of study that ethnographers would read during the research to help them focus the project using these incidents with Mr. Le Gard and Mr. Woolfe as the triggers for the next set of observations and conversations. Some of the probable 'foreshadowed problems' or 'working hypotheses' that might have led to a well-rounded study of Guy Mannering are explored below. They are only examples, and many other lines of enquiry could be chosen to develop fine ethnographic research.

Working Hypothesis 1

The first working hypothesis is that teacher control, as commonly practiced at Guy Mannering, produces very different classroom interaction from that seen in Mr. Woolfe's classes. That is, the ethnographer sets out to explore if Mr. Woolfe's regime is an 'outlier', an exception to the norm. This is not straightforward to research because teachers who have control are rarely able to discuss how they achieve it as (Payne and Hustler 1980, p. 49) pointed out.

Experienced teachers may well manage their classes in such taken for granted ways that they are not consciously aware of the nature of their accomplishment.

The level of pupil noise and allowing pupils to call out without raising their hands were 'unusual' features of Mr. Woolfe's classes compared to all other Guy Mannering teachers and/or the other teachers of practical and craft subjects. An ethnographer who had comments to that effect should set out to look systematically whether those propositions are 'true' – focusing on what the 'tolerated' (by the teacher) noise levels are, in the heart of the lesson and at the ends, and on whether other staff did 'allow' pupils to call out answers, rather than regularly saying 'put your hand up, please' or something similar. The literature on noise and how it is treated by colleagues as a proxy for *wider* control issues (e.g. Denscombe 1984a, b; Beynon 1987) would be used to help the researcher's thinking. The issue would be raised with other teachers – 'Do you find you have to teach them to put up their hands before they answer a question?' or 'Do today's 9-year-olds seem very noisy or is it just I'm getting old?' might be ways to open the topic with Mr. Woolfe's col-

leagues – or more specifically ‘I notice *you’re* very clear that getting all the equipment out is to be done in silence’ or ‘I see lots of hands waving wanting to answer your questions’.

The main generalisation about the ethnographic method to be noted is that, as well as observation and reading, the researcher needs to talk (not do formal interviews) with the staff. Ethnography involves a lot of informal talk.

Working Hypothesis 2

The second working hypothesis is that the pupils, even aged only nine and in the first month at Guy Mannering, would have developed clear opinions about Mr. Woolfe’s classroom performance within a few days. These could also be researched, although access to schools is normally granted on the explicit agreement that pupils will not be asked to evaluate their teachers. Many researchers have actually been given implicit or explicit evaluations of teachers by pupils. Beynon (1985) and Beynon and Atkinson (1984), for example, had 11-year-old boys explaining how they set out to ‘test’ their new teachers and find out who could and could not keep order. Gannaway (1976) is a classic paper on how secondary school pupils judged the effectiveness of their teacher focused on how the ‘good’ teachers succeeded at keeping control, being interesting and being fair.

Good ethnographers use a variety of methods to learn how pupils see their schools and may not need to ask explicitly. One source of insight into pupils’ perceptions of teachers and teaching that ethnographers can utilise is the children’s ‘folklore’ or the contemporary legends that circulate in their ‘secret world’. There is, in the UK, a rich vein of contemporary folklore which circulates among children before they transfer to the next stage of their schooling. The pretransfer scary stories are one source of insight. To take two examples of stories told about teachers that children were going to meet after transfer, collected in 2002, the reader ‘meets’ a fierce male and a woman unable to keep order:

The Fierce: Before I went to Holmarket High School in 1996 I was told by my brother that the RE teacher (who was nicknamed RAMBO) threw bibles at pupils

And the Feeble: Before I went to Eckenham School in 1995 I was told by my brother they used to lock the RE teacher in the book cupboard until she cried!!!

These two contrasting transfer stories convey perfectly the two extremities of teacher’s hardest task, discipline, keeping order, getting social control. The first is a common stereotype from the transfer stories: the mythical teacher who is, himself (and it is usually a man), out of control, who abuses the teacher role with unacceptable levels of violence, and the victim, the teacher who is at the mercy of the whim of pupils. The stereotypes and caricatures in the contemporary legends can be explored with individual or small groups of children to ‘discover’ their understanding about the control regime(s) they are experiencing.

Working Hypothesis 3

A third lead to follow up would be the administrative tasks UK teachers are required to perform and how their competence is judged by colleagues and pupils. If the researcher thought that Mr. Woolfe was unusually poor at doing his administration as a form master, and at preparing for his lessons, that would also be a useful way to focus on how the other staff ‘managed’ these parts of their job. It would be easy to focus observations on other form teachers on the day dinner money was collected, seeing how they recorded it and delivered it to the school office. It would also be straightforward to hang out in the office, ‘help’ with the reception of the dinner money and see how many teachers were ‘late’. Casanova’s (1991) ethnography of secretarial staff in American elementary schools would provide a guide for that approach.

Working Hypothesis 4

A fourth aspect to explore could be a related but more teaching-centred topic; that of preparing lessons adequately. The ethnographer who found Mr. Woolfe woefully unprepared could decide to focus on how other staff (including Mr. Le Gard) were prepared or were more skilful at appearing to the children to be prepared. That would involve concentrating on the beginnings of lessons and on transitions between activities and responses to children who finished a task more quickly than the bulk of the class. Here Ball et al. (1984) would be a guide. In the Oracle research, we did focus on ‘speed merchants and slow coaches’ (pupils who worked ‘too fast’ or ‘too slowly’), and the same data can be read to explore how well prepared the staff were.

Working Hypothesis 5

Mr. Le Gard was not only prone to expressing sexist remarks, unlikely to encourage young women to work on spatial tasks or chemistry, but was also the least receptive to a pupil with an ‘unusual’ name. Mr. Le Gard was not the only teacher who refused to pronounce Gavin Radiche’s surname in the correct way – as an Italian name – but he was the most prominent refuser, insisting on calling Gavin ‘Mr. Radish’ in a scornful voice. An ethnographer who decided to investigate how far this refusal to recognise a ‘foreign’ name was indicative of xenophobic attitudes in the school, among teachers, pupils and others would have to proceed carefully but it could be done. Ashburton was changing rapidly in the 1970s, with many new families arriving, and a line of enquiry about the teachers’ response(s) to those changes would be a useful starting point. In the case of the Radiche family, the parents came to the school to request that Gavin’s name be correctly pronounced by staff (and therefore

by pupils). The response in the staffroom was, when we were present, hostile. The staff regarded the parents as ‘pretentious’ and over-refined, unwilling to recognise or accept that their name was, in English Ashburton, ‘Radish’. In the UK, a TV comedy show some years later includes a woman whose surname was spelled Bucket who insisted it be pronounced ‘Boo-Kay’ (as if spelt Bouquet), and a Yorkshire surname Sidebottom is the source of jokes about pretentious people who inside it be pronounced ‘Siddy-Bottome’. The staff’s response to the Radiches’ requests would have been a way into exploring more general attitudes to the parents of their pupils, who were overwhelmingly white English working and lower middle class.

Working Hypothesis 6

In the previous five proposed ways an ethnographer could follow up incidents from the four lessons presented earlier in the chapter, the possible directions are obvious from the data. The last example is based on knowledge public in the school but not mentioned to the children in any specific lesson we observed. It widens the focus to bigger issues such as time, career and status in the school.

Mr. Le Gard was due to retire at the end of the 1977–1978 year. An ethnographer might decide that, after watching Mr. Le Gard, it would be interesting to focus on the ages, the career cycle stage and the life cycle stage of teachers and how those had an impact on the pupils. Peterson’s (1964) classic study of women teachers in their 20s, 40s and 60s provides several working hypotheses that could be followed by an ethnographer in Guy Mannerling. Observing patterns of seating in the staff room(s), trade union membership, and participation in extracurricular activities and listening to the teachers’ talk in the classrooms with that topic in mind could produce a valuable ethnography of teachers. Reading for such a project would include Datnow (1998) who, for example, found a group of older male teachers with strong links to the powerful figures in the local community who shared an ideology about student ability and de-railed a de-streaming initiative because they believed pupil abilities were biologically fixed.

Conclusions

The chapter has demonstrated how classroom ethnographers go about their research, by suggesting six lines of enquiry that could follow from four short incidents recorded during the original Oracle project. Schools are remarkably stable at the classroom level, and there is no reason to believe that such strategies, sparked off by early encounters between pupils and their new teachers, would not be equally relevant in 2014. It is important to note that ethnographic work *on* classrooms is not confined *to* classrooms: the six possible lines of enquiry all involve focusing on

other actors and other locations in the school, such as the office staff. Obviously in a real ethnography of classroom cultures at Guy Mannering the researcher would also talk to Mr. Le Gard and Mr. Woolfe as much as possible, but this chapter concentrates on using the four incidents as contrastive with the normal patterns of teaching and learning there, which would be of more lasting importance. Good ethnographers read widely before and after as well as during data collection; try to make the familiar strange, write detailed field notes and aim to produce vivid descriptions of classroom life. The central concern of the classroom ethnographer is to grasp the ways in which the participants make sense of *their* co-construction, and some normal strategies to do that have been illustrated based on Galton's own work.

References

- Atkinson, P., Coffey, A., Delamont, S., Lofland, J., & Lofland, L. (2001). *Handbook of ethnography*. London: Sage.
- Atkinson, P. A., Delamont, S., & Pugsley, L. (2010). The concept smacks of magic. *Teaching and Teacher Education*, 26(1), 3–10.
- Ball, S., Hull, R., Skelton, M., & Tudor, R. (1984). The tyranny of the “devil’s mill”. In S. Delamont (Ed.), *Readings on interaction in the classroom* (pp. 41–57). London: Methuen.
- Becker, H. S. (1971). Footnote added to the paper by M. Wax and R. Wax (1971) ‘Great tradition, little tradition and formal education pp 3–27’. In M. Wax, S. Diamond, & F. Gearing (Eds.), *Anthropological perspectives on education*. New York: Basic Books.
- Beynon, J. (1985). *Initial encounters in the secondary school*. Lewes: Falmer.
- Beynon, J. (1987). Miss Floral mends her ways. In L. Tickle (Ed.), *The arts in education* (pp. 80–120). London: Croom Helm.
- Beynon, J., & Atkinson, P. (1984). Pupils as data gatherers. In S. Delamont (Ed.), *Readings on interaction in the classroom* (pp. 255–272). London: Methuen.
- Brown-Saracino, J., Thurk, J., & Fine, G. A. (2008). Beyond groups: Seven pillars of peopled ethnography in organisations and communities. *Qualitative Research*, 8(5), 547–567.
- Casanova, U. (1991). *Elementary school secretaries*. Newbury Park: Corwin Press.
- Croll, P. (1986). *Systematic classroom observation*. London: Falmer.
- Datnow, A. (1998). *The gender politics of educational change*. London: Falmer Press.
- Delamont, S. (2002). *Fieldwork in educational settings* (2nd ed.). London: Palmer.
- Delamont, S. (2012a). *Ethnographic methods in education* (4 Vol.). London: Sage.
- Delamont, S. (Ed.). (2012a). *Handbook of qualitative research in education*. Cheltenham: Edward Elgar.
- Delamont, S. (2012b). The parochial paradox. In K. Anderson-Levitt (Ed.), *Anthropologies of education* (pp. 49–70). New York: Berghahn.
- Delamont, S., & Galton, M. (1986). *Inside the secondary classroom*. London: Routledge.
- Denscombe, M. (1984a). Keeping ‘em quiet. In S. Delamont (Ed.), *Readings on interaction in the classroom* (pp. 134–159). London: Methuen.
- Denscombe, M. (1984b). *Classroom control*. London: Allen and Unwin.
- Fine, G. A. (2003). Towards a peopled ethnography. *Ethnography*, 4(1), 41–60.
- Galton, M., & Willcocks, J. (1983). *Moving from the primary classroom*. London: Routledge and Kegan Paul.
- Gannaway, H. (1976). Making sense of school. In M. Stubbs & S. Delamont (Eds.), *Explorations in classroom observation*. Chichester: Wiley.

- Geer, B. (1964). First days in the field. In P. Hammond (Ed) *Sociologists at Work* (pp. 372–398). New York: Basic Books. Reprinted in Delamont, S. (Ed.). (2012a). *Ethnographic methods in education* (4 Vols., Vol. I, pp. 243–262). London: Sage.
- Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.
- Hammersley, M., & Atkinson, P. (2007). *Ethnography* (3rd ed.). London: Routledge.
- Hargreaves, L., Delamont, S., & Williamson, J. (Eds.). (2011). Mirrors for research in classrooms. Special Issue of *Cambridge Journal of Education*, 41(3): 249–381.
- Katz, J. (2001). From how to why. *Ethnography*, 2(4), 443–474.
- Katz, J. (2002). From how to why: On luminous description Pt 2'. *Ethnography*, 3(1), 63–90.
- Payne, G., & Hustler, D. (1980). Teaching the class. *British Journal of Sociology of Education*, 1(1), 49–66.
- Peterson, W. A. (1964). Age, teacher's role and the institutional setting. In B. J. Biddle & W. Elena (Eds.), *Contemporary research on teacher effectiveness* (pp. 264–315). New York: Holt, Rinehart and Winston.

Chapter 10

Cultural-Historical Theory and Pedagogy: The Influence of Vygotsky on the Field

Anne Edwards

Abstract This chapter discusses in some detail Vygotsky's dialectical approach to human learning and its implications for teaching. Topics include how people may create their own social situations of development in which they propel themselves forward as learners, the role of teachers in creating learning environments which contain both demands on and support for learners, how concepts are used to work on the world and the implications for designing learning sequences and how important it is to recognise that learning, development and knowledge deserve equal consideration when considering pedagogy. The discussion recognises the extent to which Brian Simon's emphasis on the contribution that sound pedagogical understandings can make to social equality drew on early translations and interpretations of Vygotsky's work. It therefore attempts to deepen those understandings by paying close attention to Vygotsky's own ideas and ideas from those who have picked up his legacy in order to enhance student learning.

Keywords Learning • Learners • Teaching • Vygotsky • Simon

Introduction

When Black and Wiliam introduced their influential overview of the impact of formative assessment on achievement in schools, they used the metaphor of the 'black box' to refer to what happened in classrooms (Black and Wiliam 1998). Observing that education policies tended to focus on inputs, such as target setting, and outputs, such as pupil performance, they commented that what happened inside classrooms, while teachers worked with these inputs and achieved the outputs, remained largely unexamined. Consequently, practitioners were left without guidance and were sometimes burdened by input demands that were counter-productive to the expected achievement.

A. Edwards (✉)

Department of Education, University of Oxford, 15 Norham Gardens, Oxford OX2 6PY, UK
e-mail: anne.edwards@education.ox.ac.uk

One important exception to the mystification of what happened in classrooms was the ORACLE (Observational and Classroom Learning Evaluation) study of teaching processes in primary school classrooms led by Brian Simon and Maurice Galton in the 1970s (Galton and Simon 1980; Galton et al. 1980) and Galton's follow-up study two decades later (Galton et al. 1999a, b). Simon had long argued for increased attention to pedagogy (Simon 1980). His aim was not to prescribe what should be done, but to recognise how pedagogy can promote inclusion and equality. This analysis was in sharp contrast to how psychology had been used in the UK to segregate children into different academic programmes on the basis of an examination at 11. ORACLE took forward Simon's emphasis on pedagogy by placing a research lens on the practice of teaching, opening up the black box, analysing in detail what was happening there and raising some important questions for the teaching profession.

Galton's own fascination with what teachers do and how they might be helped continued through his studies of, for example, group work (Galton and Williamson 1992), the demands made on teachers (Galton 2008) and personalisation (Galton et al. 2007). Both Simon and Galton consistently saw teachers as crucial levers for social change through how they support learners' mastery of the knowledge that matters in society. Consequently both have argued unflinchingly for more attention to the conceptual tools teachers need to do this work. Simon particularly recognised the contribution of Vygotsky to that quest, and in inviting this chapter, the editors have encouraged me to examine that contribution.

Vygotsky's legacy, frequently referred to as cultural-historical theory, recognises how minds are formed culturally through a dialectic of person and culture. It is an optimistic legacy. It demonstrates how learners are both shaped by and shape the historically created practices they inhabit and emphasises the responsibilities of the teacher in helping learners to act on and influence those practices. Vygotskian pedagogy is therefore an inclusive one which aims at enabling every citizen to contribute to the shaping of society and its cultural goods. In this chapter I shall highlight some of the intellectual resources that Vygotsky's legacy has offered teachers who, like Galton and Simon, see education as the key to an inclusive society.

Vygotsky and Education

For Vygotsky, learning and development were always intertwined and education was central to both. Born in 1896 in Gomel, 400 miles south west of Moscow, his initial interests were in the Arts and Humanities. However, barred from becoming a teacher because of his Jewish origins, he read Law at university, turning to Psychology with his PhD on *The Psychology of Art* at the Moscow Institute of Psychology in 1925. The remaining 9 years of his life was spent in Moscow where his intellectual quest was to tackle what he saw as a crisis in the behaviourally oriented psychology of his day and to create a version of the discipline that could

underpin a form of human development that might create a sustainable and ethical society.

His concern with cognition in activity, how people learn and act in the world, meant that pedagogy was central to his work. He recognised how cultural expectations shape behaviour; but looked beyond behaviour to consider how mind was also culturally shaped. His focus on mind in activity in the world connected him intellectually with early psychologists such as Wundt, who had been working in Leipzig in the late nineteenth century, and with North American pragmatists such as Dewey and GH Mead. Dewey and Mead, like Vygotsky, influenced by German Liberal ideas on the improvability of society, similarly aimed at understanding and supporting human development within changing societies (Edwards 2007; Valsiner and van der Veer 2000). Yet Vygotsky's sustained focus on mind, individual sense making and collective meaning making marks his particular contribution to this broad area of enquiry and in particular to a developmental psychology which placed pedagogy at its core.

Between 1921 and 1923, he gave a series of lectures at the teacher training college in Gomel, now available as *Educational Psychology* (Vygotsky 1997a). His intention appeared to be to create an introductory psychology text for the teachers who would take forward the new post-revolution Russia. In laying out the purpose of the collection of lectures in the first chapter, he explained educational science as follows: '[p]edagogics rests upon auxiliary sciences, for example, social ethics, which define the overall goals and problems of education, and psychology together with physiology, which together define the tools for use in solving these problems' (Vygotsky 1997a, p. 2).

This short extract points to three features which were key to Vygotsky's quest. First, the development of mind has a social purpose; second, learning is not simply a matter of concept acquisition but also involves development; and finally pedagogy can be a tool for achieving the kind of learning and development that can benefit society. The statement also reflects the powerful dialectic that Vygotsky has revealed for us, that learning involves both internalisation and externalisation. Learning is a matter of taking in the ideas that are valued in a culture and using them to work on and shape that culture. Vygotsky's learner is therefore not simply swept along by the historical practices of the community she enters, but is agentic, using concepts while acting on and shaping those practices.

But as Charles Taylor later observed (Taylor 1991), attention needs to be paid to creating the socially responsible and ethical agent. This is where Vygotsky's emphasis on cultural mediation and consciousness becomes particularly important. If for no other reason, Vygotsky's status as genius is secured by his solution to the problem of consciousness. For decades psychologists had been grappling with how to access mind, to discover how people think. Solutions included the stream of consciousness approaches of William James and the psychoanalytic work of Jung and Freud, but perhaps only Peirce's linguistics, together with his interpretation of pragmatism, came close to Vygotsky's insights (Edwards 2007). Vygotsky's solution to accessing mind, to understanding how and what others were thinking, was to examine what people did in activities. For him the key was how they interpreted

tasks and used resources, both conceptual and material, to tackle the task. Their use of conceptual and material tools in their interpretations and responses gave access to how individuals were making sense for themselves. These analyses also showed how resources, both ideas and material artefacts, are cultural products, often fashioned by history and mediated by more expert others. As Bruner once put it so simply, 'Education is from the outside in' (Bruner 1966, p. 21).

Mediation, passing on cultural tools which carry what is already known and valued, is therefore a key idea in Vygotsky's work. His approach to accessing mind, his attention to the cultural origins of ideas and artefacts and his emphasis on their use suggest a version of pedagogy that is very different from the authoritarian delivery of curricula that marked Russian schooling in the early 1920s and indeed is frequently suggested as a way forward elsewhere almost 100 years later. Instead, learners are introduced to tools which enable them to first engage with the knowledge that is valued and in time master and use that knowledge in their actions on the world.

Vygotsky's learner is therefore active, constructing understandings and propelling herself forward making personal sense and connecting personal understandings with powerful publicly recognised meanings. In school she is helped in this process by teachers who understand pedagogy as well as the subjects they teach. The final chapter of *Educational Psychology* on 'psychology and the teacher' should be required reading for every Minister of Education, if only because it undercuts beliefs about teaching that don't recognise pedagogical expertise. Here are just two extracts:

The teacher... has to become the director of the social environment which, moreover, is the only educational factor. When he acts like a simple pump, filling up the students with knowledge, there he can be replaced with no trouble at all by a textbook, by a dictionary, by a map, by a nature walk...When he is simply setting forth ready-prepared bits and pieces of knowledge, there he has ceased being a teacher. (Vygotsky 1997a, p. 339)

Thus the first condition which we impose on the teacher is that he or she be a scientifically trained professional... (Vygotsky 1997a, p. 344)

The argument pursued in this chapter is that Vygotsky's legacy includes a way of thinking about learning which has considerable implications for how teachers help learners engage with what matters now and will matter in their futures. I shall therefore not be offering brief descriptions of, for example, the zone of proximal development (ZPD) (see Chaiklin 2003 for a scholarly account); but will instead attempt to delve a little deeper into what learning and teaching meant for Vygotsky and for those who have interpreted and built on his ideas.

Individual, Social and Collective

Galton and his colleagues wisely concluded their 1999 paper on the ORACLE follow-up study (Galton et al. 1999b) with the observation that attention to pedagogy needs to start from what it is that the child needs to learn, to be followed by ideas on how to assist the learning. These topics, knowledge and learning, are central to a

Vygotskian understanding of pedagogy. The ORACLE team's solution, to the problem of restricted notions of pedagogical support in schools in 1999, was increased attention to theories of learning in Teacher Training. Simon, interestingly, had earlier taken a slightly more nuanced view of the matter. Echoing Vygotsky, Simon's view spoke to a stronger dynamic between psychology and education through recognising the interplay of culture, represented in historical terms, with psychological analyses of language (Simon 1982). Simon's argument is mirrored in Vygotsky's enduring concern with the interplay of culturally valued knowledge and the conceptual tools, carried in language, which we employ when getting to grips with that knowledge.

Neither Simon nor Vygotsky emphasised culture to invoke a backward-looking education. Instead both recognised the importance of analysing culture and the knowledge valued within it, as part of the work of education which would sit alongside providing learners with the conceptual tools to work with and on that knowledge. Simon's perspective is very much in line with Vygotsky's view of the learner as active agent when he suggests that: '[e]ducation should be recognised as a mode of development proper to humanity in society...rather than something superimposed on creatures construed as a construct of heredity and environment' (Simon 1982, p. 94). Pedagogy in this formulation becomes the lever for social change that Vygotsky too had envisaged.

Vygotsky was also as scathing as Simon about the limitations of the objectivist and measurement-obsessed psychology that emerged from the 1920s onwards in the USA and much of Europe including the UK. He described two 'camps' of psychologist: one of which '...[h]as gone further and deeper into subjectivism than even Dilthey et al.....The other, ranging from America to Spain, is trying to create an objective psychology' (Vygotsky 1971, p.19). Both directions, he argued, were flawed; instead he suggested that attention should be paid to an examination of the social and collective aspects of psychology (Vygotsky 1971). The arguments are initially made in his PhD *The Psychology of Art* and relate there to how aesthetic judgements are made; but the relationships between the individual and the collective and the individual and the social are at the core of his thinking about learning and development and therefore his contribution to understandings of pedagogy.

So much of his legacy can be traduced to simplistic formulations such as active learning or learning through interaction or participation that it is worth going in some depth to what he was actually explaining to us. The effort spent is, I suggest, worthwhile helping us see just how learning and knowledge are tightly intertwined and with considerable implications for how we think about teaching.

Vygotsky made a distinction between sense and meaning, seeing them as dynamically connected. In brief, individuals are involved in sense making when they encounter, in social interactions which will include authored texts, the meanings that are valued within the collective. As Vygotsky put it, '...[s]ense is what enters into meaning' and '... [t]he formation of sense is the product of meaning' (Vygotsky 1997b, p. 136–7). This dialectic interplay between sense and meaning, between individual and collective, is central to his view of learning and is essentially social. He was adamant that learning does not arise through telling. His writing is some-

times in note form and therefore not always clear. But the following point is underlined and emphatic: ‘... [t]he sign [the word *my addition*] gives birth to meaning; meaning sprouts in consciousness. It is not like that. Meaning is determined...by the activity of consciousness’. Meaning is there for us to work with and on, it is made, and our sense making is part of that process of meaning making. This is a form of constructivism, but a version that emphasises public meaning alongside individual sense making and involves effort.

Accessing Meanings in the Space of Reasons

More recently Derry has discussed how Vygotsky envisaged the knowledge held and developed within culture and its implications for what he meant by learning. Again the social aspects of individual human learning run through her arguments. Her main point is that Vygotsky did not intend us to regard learning as simply an individual’s movement from everyday heavily situated and weakly formed understandings to more powerful abstractions, i.e. abstraction is not the end point. Instead, we should recognise that concepts are embedded in wide systems of inferences that are already there in the world. Learning involves gaining familiarity with these wider sets of inferences and thereby a deeper understanding of the concept (Derry 2008). In brief, we explore and examine these wider inferences and interconnections using the concepts we have available and so strengthen our grasp of these concepts. This example is mine not Derry’s: once I recognise the importance of sovereignty as a concept in history I can employ that concept to interpret and discuss the Norman conquest of England, Shakespeare’s Richard II and the rights and wrongs of the Allies’ invasion of Iraq, and in doing also come to see the potential and the limitations of the concept itself. This analysis has strong echoes of Simon’s recognition of the importance to education of the dynamic between culture and language.

Derry points to how concepts arise and are refined in the process of examining the wider systems of meaning and inference in which they are located. She argues, therefore, that: ‘The concept is a result of a complex process of development in which thought and the world are never categorically separated’ (Derry 2013, p. 132). The meanings are there in the world for us to work on and with; learners need to be able to access them in order to be able to draw on them, expand their grasp of their connections and contribute to them.

Learning and Development

Derry’s work warrants more attention than I can give it here. I’ll simply focus on her suggestion for how publicly validated meanings can be accessed. Derry, like Bruner (1960), is no advocate of discovery learning.

... [a] Vygotskian approach doesn't depend simply on individuals being placed in the required environment where they discover meaning for themselves. The learning environment must be designed and cannot rely on the spontaneous response to an environment which is not constructed according to, or involves, some clearly worked out conceptual framework. For Vygotsky concepts depend for their meaning on the system of judgements (inferences) within which they are disclosed. (Derry 2008, p. 60–1)

One element in the design is what she terms 'the space of reasons'. She draws on the American philosopher Brandom to argue that making claims and asking for reasons enables learners to access the meaning-making that is valued in the discourse in which they are participating. She quotes from Brandom to explain:

[t]o have conceptual content is just for it [a concept] to play a role in the inferential game of making claims and giving and asking for reasons. To grasp or understand such a concept is to have practical mastery over the inferences it is involved in—to know, in the practical sense of being able to distinguish, what follows from the applicability of a concept, and what it follows from. (Brandom 1994, p. 48) (Derry 2008, p. 17)

Her explanation of Vygotsky's concern with learning, as a growing understanding of the inferences that comprise currently accepted meaning, has strong implications for how pupils are engaged as learners. The space of reasons is not a version of the Socratic dialogue, led by the expert teacher, which in some hands can lead to an interaction where students' understandings are merely tested. The intention, instead, is to create a site where it is legitimate for all participants to ask for and be asked for reasons for the claims they make. In this way sense making is made visible and learners are encouraged to explore the implications of their current understandings and test their implications as they engage with public meanings.

Let us stay with the image of the learner engaging in increasingly informed ways with what is publicly valued and open to scrutiny. I have already described the Vygotskian learner as an active agent, engaging with and acting on the world, but not yet gone into the detail of his explanation of how that engagement leads to learning. Here his idea of the social situation of development is key. As Derry has argued, learning is not simply promoted by placing a learner in a rich environment. The social situation is therefore not a convivial assemblage of people who interact with each other.

Vygotsky instead used the term social situation of development to explain the developing child's changing relationship with his or her environment over time. He explained that these changes are marked by new structures of 'consciousness' (Vygotsky 1998, p. 199) which in turn alter the child's relationships with experienced reality. It is these relationships which make up the social situation of development. Therefore as fresh structures of consciousness emerge, defunct relationships fade away, and new are formed so that children become repositioned as agents within the discourses in which they are participating. In terms of Derry's analysis, new inferences are recognised and adjustments made. These adjustments include new ways of interpreting and responding to what is familiar but also changes in how one's relationship with the world is organised, such as the development of memory strategies, the capacity to synthesise understandings and so on. Development is a crucial component in the social situation of development and is intertwined with what is learnt.

From this account we can again see that Vygotsky's learner is intentional, creating networks of relationships with the world and finding as a consequence that '... [n]ew connections appear between experiences when they acquire a certain sense' (Vygotsky 1998, p. 291). Vygotsky's social situations of development are therefore not created by teachers, but by learners.

This notion of the learner propelling herself forward in attempts to make sense and engage with the meanings she encounters is, of course, only half the story. There is an interventionist role for teachers in this process. Derry's argument is crystallised in her proposal that reality or meaning is not represented in language, instead '...[i]ntervention prises reality into expressing itself in particular forms that do not exist without it' (Derry 2013, p. 133).

What kinds of interventions do this work? We again return to Vygotsky's emphasis on thoughtful engagement in order to help us.

... [t]he links, dependencies and relationships among things which are the content of our scientific knowledge are not the visible perceivable qualities of things: rather they come to life through thought. (Vygotsky 1993, p. 203)

Here scientific knowledge means strong and tested concepts. In this statement, Vygotsky suggests that the connections that comprise our scientific knowledge are activated by the use of concepts that have come into being historically and are worked with and refined as people engage with them in the world. His argument, with its emphasis on conceptual work in and on the world, reflects the extent to which he agreed with Marx's view that science, or conceptual enquiry, is necessary because of the gaps that need to be filled between current forms of representation and the essence of phenomena.

As Simon observed, Vygotsky reminds us that education needs to be oriented towards the future and not the past (Simon 1980). It is concerned with creating stronger representations of the world. Vygotsky's is therefore a very different view of learning from either the passive reception of received wisdom or versions of active discovery which downplay the emancipatory aspect of accessing and employing powerful knowledge. It calls for a particular kind of intervention, one which demands and sustains the use of concepts.

One weakness in many of the accounts of learning and development that have followed a Vygotskian line has been that writers have tended to emphasise either learning or development. Interestingly, Simon was careful to attend to both aspects in the case he made for a new emphasis on pedagogy in schooling (Simon 1980). More recently, however, strong emphases on curricula have meant that the 'D' for Development in ZPD has often been superseded by a focus on concept acquisition. Chaiklin in particular has criticised those who have ignored the 'D' in ZPD and so rendering it, in his view, a zone of proximal learning (Chaiklin 2003). Chaiklin reminds us that the notion of ZPD was also intended to direct attention to developments in mental functioning, such as improved memory and ability to organise our thinking.

But an emphasis on development alongside learning is not at all a matter of recognising an unfolding of innate individual attributes, the learning dialectic is cru-

cial. Writing from a developmentalist perspective, Hedegaard (2009, 2012) has been critical of psychologists who have focused too much on learners' progress and their needs and not enough on the learning demands they encounter. She reminds us that Vygotsky's account of learning centres on the dialectic of person and culture which is captured in his idea of the social situation of development (Vygotsky 1998).

Hedegaard's argument, with its attention to the demands in practices and how learners engage with them, has considerable implications for schools. In brief, drawing on her extensive research programme examining transitions between home and school (Hedegaard 2009), she suggests that when children engage with the learning demands that are embedded in practices at home and school, they develop what she calls '...[o]rientations to the demands in institutional practices' (Hedegaard 2012, p. 10) and these demands interact with their personal sense making to help explain why, for example, a child might be willing to do maths tasks in school, but not at home (Hedegaard 2014). Hedegaard is not drawing direct conclusions for schooling, but her argument, as it develops in her 2012 chapter, has considerable implications for how opportunities for learning are provided. She explains:

Through anchoring the child's social situation in activity settings in institutional practices [such as breakfast time at home or a maths task in school my addition], a double perspective can be put on the child's activity. From the perspective of the child's social situation of development, it is how the child experiences the activity emotionally and acts in the institution, whereas from the institution's perspective, it is how the activity takes place in recurrent activity settings. (Hedegaard 2012, p. 21)

She goes on to elaborate that this dialectic between person and practice is not simply something to be recognised by researchers, but is at the core of learning and development. She suggests that if we are to capture learning and development, the '...[p]ractice within which persons' activities take place has to be analysed as encompassing activity settings that contain demands for activities' (Hedegaard 2012, p. 21).

Pedagogical Implications

We now turn to Claxton for one proven way of analysing and enhancing the practices in which activity settings, such as a maths lesson, are created. His starting point is also Vygotskian understandings of learning, and like Hedegaard, he is concerned with learners' orientation to engage as well as with the demands and possibilities that teachers can create in their classrooms. He uses the term 'disposition' to signify elements of what Hedegaard has described as motive orientation. For Claxton, disposition is an ability that one might be disposed to make use of (Claxton 2007), a definition which has much in common with Derry's focus on learners' use of concepts as they explore meanings. He also offers a useful way of evaluating and creating environments which may or may not invoke a disposition to engage in such an exploration.

These environments may be prohibiting, affording, inviting or potentiating. He argues that even inviting students to operate as engaged learners is not enough. The practices of the classroom should expect students to learn through being challenged in 'potentiating' environments that stretch the learner.

Only the fourth kind of epistemic culture, potentiating milieu, make the exercise of learning muscles both appealing and challenging. In a potentiating environment, there are plenty of hard, interesting things to do, and it is accepted as normal that everyone regularly gets confused, frustrated and stuck. (Claxton 2007, p. 125)

Here there are strong echoes of Vygotsky's concern that effort is needed if personal sense making is to enter into public meaning making.

Claxton offers a list of ways of creating such an environment, all tested in his work with teachers, which he characterises as 'epistemic culture change programmes' aimed at answering the question 'What would it mean to organise your classroom and your pedagogy in such a way that every day, little by little, in the midst of the Literacy Hour, the Romans or an experiment on magnets, your students were learning to learn more robustly, more broadly, more skilfully and more flexibly?' (Claxton 2007, p. 121).

These adjustments are changing the language in classrooms to include building dispositions to engage, designing activities which focus on stretching the learner, selecting topics that excite and make demands on learners and building a sense of progression as a learner. These suggestions are neither entirely new nor radical; but Claxton offers one more lever for epistemic change, what he terms 'split-screen thinking' which is novel and extremely helpful. In brief, teachers and learners are asked to use a split screen when planning classroom activities. On one side of the screen are the concepts to be addressed and on the other are the learning strategies to be prioritised. These strategies can range from the practical such as setting out the page using subheadings to the personal such as organising revision time before the next assessment. Importantly teachers share both screens with students so that learning processes on the second screen are made visible, and students may also populate the second screen based on their own assessments of how they need to develop as learners. In one simple strategy, Claxton brings together both learning and development. The teachers I have worked with most recently have found split-screen thinking to be a crucial tool (Edwards, *in press*). It allows students to take control over their own actions as learners, while they undertake the risky work of creating their social situations of development, propelling themselves forward and repositioning themselves in relation to the knowledge they encounter.

Another tool that teacher colleagues have found useful is a way of planning student engagement which draws on Vygotskian ideas to create an architecture within which various learning sequences can be selected. Frequently referred to as the Quadrant Model, it owes a great deal to Harré's work on identity development within a Yvotskian framework (Harré 1983), has been tried and tested by teachers who have worked with me over the last 25 years and is written up in detail in Edwards (*in press*). Here I shall briefly outline its main features and indicate how it connects with the emphasis that Vygotsky, and more latterly Derry, place on seeing

4 Demonstration of grasp of key concepts and ways of enquiring	1 Introduction of key concepts and modelling of ways of engaging with key concepts
3 More open tasks which enable learners to apply key concepts and ways of enquiring	2 Tightly structured tasks which demand engagement with key concepts and ways of enquiring

Fig. 10.1 A model of task sequencing to promote learning

learning as enriching conceptual connections, Hedegaard's concern with motive orientation and demands and with Claxton's similar focus on disposition and potentiating environments.

The model is shown in outline in Fig. 10.1. Quadrants 1 and 4 are public arenas where knowledge is displayed: by the teacher or more expert learners in quadrant 1 as they model and instruct and by the students in quadrant 4 when they display their knowledge in some form of summatively assessed task. Poor teaching is frequently characterised as a direct move from 1 to 4 (see, e.g. the critique offered by Barnes 1976). When the move is from 1 to 4, there is no opportunity for a learner's sense making to connect with public meaning and make mistakes, get stuck and attempt an effort after meaning. Figure 10.1 therefore points to the advantages of taking time, through tasks presented in quadrants 2 and 3, to enable learners to both acquire and use the concepts that make up the subject-based curriculum while also taking control over their own learning.

Quadrants 2 and 3 offer semiprivate arenas where revealing misunderstandings is permissible and where help can be requested. Quadrant 2 is where learners undertake fairly structured tasks which are designed by teachers to help learners engage with concepts and ways of organising their thinking. Learners begin to take some control over the concepts and to explore what they can do with them in safe environments where options are limited. In quadrant 3, those concepts become resources learners can deploy and test in open-ended problem-solving activities. In doing so, students begin to grasp the potential and limitations of these ideas and more firmly connect them to their readjusted knowledge schema, connecting them to wider systems of inferences.

The demands that learners encounter in quadrants 2 and 3 are the teachers' contributions to learners' potential constructions of their social situations of development. The formative assessment and type of feedback students receive therefore crucially need to encourage their dispositions to engage. As well as guiding learners in their use of concepts and ways of organising, the feedback should also encourage them to be willing to approach, recognise and respond to task demands. Elsewhere

I have discussed the role of assessment and self-regulation in relation to this kind of student engagement (Edwards, [in press](#)). A major implication of Fig. 10.1 is that student agency needs to be developed and supported if they are to take advantage of learning opportunities in quadrants 2 and 3. Progress through the four quadrants can be read as increasing student agency and decreasing control by the teacher, nonetheless demands need to be sustained, and students need to be able to believe they can meet them.

The model is simply a way of structuring a learning sequence, which may last one lesson or several. In some cases, it may make sense to start the sequence of activities with some tasks in quadrant 3 rather than quadrant 1; and one frequently moves back from 3 to 2 to deal with misconceptions that arise in 3. In brief, it is a heuristic that points to the need to see learning as students' increasing control over the subject matter while also developing as learners and to help teachers identify the different kinds of task demand required in each quadrant, how their roles as teachers change in each quadrant and how formative assessment can help guide students' engagement.

Final Reflections

Some time ago I traced how 'pedagogue' had become a term of abuse in the UK political arena and gave one reason for that usage as the failure of UK and US educators to weave pedagogy into analyses of curricula. I then argued that as a result, front-stage performances of slick curriculum delivery were what are required of teachers and any backstage pedagogic work remained invisible (Edwards 2001). Little has changed. It is therefore important to recognise the contributions that both Galton and Simon have made in reminding us to attend to the backstage professional work of teachers.

Simon's paper *Why No Pedagogy in England?* (Simon 1980) needs to be reread, not as a late 1970s view of opportunities lost, but as a tract that has resonance in an English education system where public (i.e. private) schools are held up as models, where some subject knowledge is seen as a sufficient preparation for teaching and where university-based teacher education is being eroded. There are strong class-based injustices in all of these developments. I introduced Vygotsky by explaining that his pedagogy is an inclusive one aiming at enabling every citizen to contribute to the shaping of society and its cultural goods. His key message is that education is not simply about individual achievement; his attention to the collective and how education both draws on and feeds it has some urgency, and not only in England.

Galton has presented the teaching profession with tools they can use to enhance pedagogy and has undertaken projects that point to the need to sustain a pedagogic focus. His is an important legacy in its own right. It is also a legacy that receives strong support from the cultural-historical analyses of Vygotsky and those who are now taking that older legacy forward.

References

- Barnes, D. (1976). *From communication to curriculum*. Harmondsworth: Penguin.
- Black, P., & Wiliam, D. (1998). *Inside the Black Box: Raising standards through classroom assessment*. London: GL Assessment.
- Brandom, R. (1994). *Making it explicit: Reasoning, representing, and discursive commitment*. Cambridge, MA: Harvard University Press.
- Bruner, J. (1960). *The process of education*. Cambridge, MA: Harvard University Press.
- Bruner, J. (1966). *Towards a theory of instruction*. Cambridge, MA: Harvard University Press.
- Chaiklin, S. (2003). The zone of proximal development in Vygotsky's analyses of learning and instruction. In A. Kozulin, B. Gindis, V. Ageyev, & S. M. Miller (Eds.), *Vygotsky's educational theory in a cultural context* (pp. 39–64). Cambridge: Cambridge University Press.
- Claxton, G. (2007). Expanding young people's capacity to learn. *British Journal of Educational Studies*, 55(2), 115–134.
- Derry, J. (2008). Abstract rationality in education: From Vygotsky to Brandom. *Studies in Philosophy and Education*, 27, 49–62.
- Derry, J. (2013). *Vygotsky philosophy and education*. Chichester: Wiley.
- Edwards, A. (2001). Researching pedagogy: A sociocultural agenda. *Pedagogy Cultural Sociology*, 9(2), 161–186.
- Edwards, A. (2007). An interesting resemblance: Vygotsky, Mead and American pragmatism. In H. Daniels, M. Cole, & J. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 77–100). Cambridge: Cambridge University Press.
- Edwards, A. (in press). Designing tasks which engage learners with knowledge. In I. Thompson (Ed.), *Task design, subject pedagogy and student engagement*. London: Routledge.
- Galton, M. (2008). Teachers under pressure: The impact of government policies on teachers' working lives. *Education Review*, 21(1), 39–48.
- Galton, M., & Simon, B. (Eds.). (1980). *Progress and performance in the primary classroom*. London: Routledge and Kegan Paul.
- Galton, M., & Williamson, J. (1992). *Group work in the primary classroom*. London: Routledge.
- Galton, M., Simon, B., & Croll, P. (1980). *Inside the primary classroom*. London: Routledge/Kegan Paul.
- Galton, M., Hargreaves, L., Comber, C., Pell, T., & Wall, D. (1999a). *Inside the primary classroom: 20 Years on*. London: Routledge.
- Galton, M., Hargreaves, L., Comber, C., Pell, T., & Wall, D. (1999b). Changes in patterns of teacher interaction in primary classrooms: 1976–96. *British Educational Research Journal*, 25(1), 23–37.
- Galton, M., Sebba, J., Brown, N., et al. (2007). *An investigation of personalised learning approaches used by schools*. London: DfES.
- Harré, R. (1983). *Personal being*. Oxford: Blackwell.
- Hedegaard, M. (2009). Children's development from a cultural-historical approach: Children's activity in everyday local settings as foundation for their development. *Mind, Culture, and Activity*, 16, 64–81.
- Hedegaard, M. (2012). The dynamic aspects in children's learning and development. In M. Hedegaard, A. Edwards, & M. Fleer (Eds.), *Children's development of motives: A cultural-historical approach*. Cambridge: Cambridge University Press.
- Hedegaard, M. (2014). The significance of demands and motives across practices in children's learning and development: An analysis of learning in home and school. *Learning, Culture and Social Interaction*, 3, 188–194.
- Simon, B. (1980). 'Why is there no pedagogy in England?' Extracted from Simon, B. *Issues for the 80s*. In J. Leach, & B. Moon (Eds.) (1999), *Learners and pedagogy* (pp. 34–45). London: Paul Chapman.
- Simon, B. (1982). The history of education in the 1980s. *British Journal of Educational Studies*, 30(1), 85–96.

- Taylor, C. (1991). *The ethics of authenticity*. Cambridge: Cambridge University Press.
- Valsiner, J., & van der Veer, R. (2000). *The social mind*. Cambridge: Cambridge University Press.
- Vygotsky, L. S. (1971). *The psychology of art*. Cambridge, MA: The MIT Press.
- Vygotsky, L. S. (1993). *The collected works of L.S. Vygotsky, The Fundamentals of Defectology* (Vol. 2). New York: Plenum Press.
- Vygotsky, L. S. (1997a). *Educational psychology*. Boca Raton: St Lucie Press.
- Vygotsky, L. S. (1997b). *The collected works of L.S. Vygotsky, Problems of the theory and history of psychology* (Vol. 3). New York: Plenum Press.
- Vygotsky, L. S. (1998). *The collected works of L.S. Vygotsky, Child psychology* (Vol. 5). New York: Plenum Press.

Part IV
**Looking in Classrooms: Have Classrooms
Changed? Some Key Issues of Debate**

Chapter 11

ORACLE to MAST: 40 Years of Observation Studies in UK Junior School Classrooms

Peter Blatchford and Rob Webster

Abstract The ORACLE study, first published in 1980, provided much needed systematic descriptive information on the interactions and behaviour of pupils in the upper primary school in the UK, to set against the political rhetoric of the day. Since this pioneering study, there have been several other systematic observation studies of pupils at the same stage, but to date, these results have not been collated in order to provide an historical account of trends over time. This chapter uses data from six large-scale studies (ORACLEs 1 and 2, One in Five, PACE, DISS and MAST) to assess change over time in amounts of interactions with teachers, interactions with peers and independent activities. In addition it addresses two features of mainstream primary schools that have arisen since the ORACLE study: the increase in pupils with special educational needs (SEN) and the huge rise on the numbers of teaching assistants (TAs) working in classrooms. A main result was the doubling of interactions with teachers over the last 35 years, especially interactions as part of the whole class. As a result pupils had a more pronounced passive role. In contrast to pupils without SEN, we found that pupils with SEN had high levels of separation from their peers, either through adult support or because of time spent out of the class. But the main trend over time for pupils with SEN was for them to have far more interactions with TAs, often one-to-one. This has had profound consequences for such pupils' educational experience and progress.

Keywords Systematic observations • Teacher pupil interaction • Peer interaction • Paraprofessionals • Teaching assistants • Special educational needs • Group work

P. Blatchford (✉)

Department of Psychology & Human Development, Institute of Education, University of London, 25 Woburn Square, London WC1H 0AA, UK
e-mail: P.Blatchford@ioe.ac.uk

R. Webster

Institute of Education, University of London, 25 Woburn Square, London WC1H 0AA, UK
e-mail: robwebsterioe@yahoo.co.uk

Introduction

All research takes place in a particular context, with defining characteristics, conflicts and issues. It is the good fortune of some rare research projects to provide a seminal benchmark when addressing the situation at a given point in time, even though this may only become clear in retrospect. The publication of the ORACLE studies in 1980 provided such a benchmark.

The use of systematic observation in education took off in the USA in the 1960s and 1970s. Educational researchers had begun to recognise the limitations of previous efforts to understand what constituted effective teaching – in particular that there was too much emphasis on teacher’s personality characteristics rather than what they actually did in classrooms. An overriding concern was to capture the ongoing nature of teaching in an objective and quantifiable way and to then find ways of relating this to how well pupils were performing. This type of ‘process–product’ research was the earliest form of what we now call teacher effectiveness research. By the time of the publication of the book by Dunkin and Biddle (1974), there were a lot of observation systems. In the UK, Maurice Galton was a pioneer of this style of research and indeed published his own compendium of UK-based observation systems to complement the widely cited ‘Mirrors for Behaviour’ compendium in the USA (Simon and Boyer 1974).

But it was the first ORACLE book – *Inside the Primary Classroom* – which firmly established the use of systematic observation in education. Although the study had a number of different features and aims, it was the description of teacher and pupil behaviour in junior classrooms that was most impressive. The study built on the previous observation studies by Deanne Boydell in the 1970s. This comprised a ‘teacher record’ which comprised 27 mutually exclusive categories of teacher behaviour: statements, questions, silent interactions, etc., as well as categories denoting whether interactions were in a class, group or individual setting. For the ‘pupil record’, she adapted a USA system to construct a method of observing pupil behaviour with a carefully constructed list of categories to exhaustively record a pupil’s behaviour across interactions with the teacher, other pupils and when not interacting and engaged in independent work. The research used a form of time sampling involving a series of snap shots every 25 seconds (‘instantaneous time sampling’) at which points teacher and pupil behaviour was coded.

What resulted was a huge number of observations over a lot of classrooms, and when collated these provided insights into the main features of classroom life that would not be available to everyday experience (or received opinion). Even teachers, who can be expected to have a profoundly deep experience of classrooms, will typically only really know their own classroom and that of their nearest colleagues.

The study was conducted in the context of a backlash against the Plowden Report in the late 1960s and the supposed dominance of child-centred, progressive education in schools. A couple of schools (including William Tyndale Primary School in London) had collapsed in a clamour of right-wing recriminations about the state of public education. This movement led to the then Prime Minister James Callaghan’s

Ruskin Lecture, the right-wing ‘Black Papers’, and to the widely held view that progressive ideas had led to an overconcern with pupil freedoms, out-of-control children and ineffectual teaching, with little work on the basic subjects of literacy and mathematics. Such views are still heard today of course.

The first ORACLE book (Galton et al. 1980) showed that the premises of this view were almost entirely wrong. The researchers found that around three quarters of classroom time was spent on curriculum-related activities, lessons were dominated by basic skills of number and language, and there were very low levels of disruption. The value of the study is that the observations were so extensive and carefully collected that it was a damning verdict on the extreme portrayal of schools by some on the right.

In one of the most interesting findings, the ‘asymmetry’ of teacher–pupil contact was highlighted. That is, from the teacher’s point of view, she interacts with children a lot and often with individuals, but from an individual pupil’s point of view, they often work alone, interacting with the teacher in only one sixth of the lesson time and even then most often as but one pupil in the whole class. In general, there was a good deal of individual work, but little individual attention or instruction, and little cooperative group work.

The publication of the ORACLE studies was particularly significant for one of us (PB) because at the end of the 1970s, he was engaged in an observational study of children’s play for his PhD and also at the same time moving from developmental psychology to educational research. In 1980, he joined a research team led by Barbara Tizard at the Thomas Coram Research Unit (part of the Institute of Education in London) and had a main responsibility for the construction of an observation system to be used to study younger, infant school-aged children (5–7 years). Although the system developed by the TCRU team was different, the ORACLE study was a very useful reference point, as was a visit to Leicester in the 1980s to talk through the work with Maurice.

The TCRU study was a follow-up of children’s progress in London schools from school entry (Blatchford et al. 1987; Tizard et al. 1988). An observation system was devised which covered individual children’s behaviour in interaction with their teacher, with other children and when not interacting. Within each of these last three ‘social modes’, there were categories denoting whether work or play was on task, procedural, social or ‘task avoidance’. Each child was observed for six 5-minute periods each day, divided into consecutive 10-second time intervals. This kind of observation work, like the ORACLE study, is extremely time consuming to conduct and process. Some measure of this comes from the total number of observation points – nearly 200,000 10-second intervals!

In summary, this exhaustive observation study showed that for the bulk of their time, children, even at this tender age, were busy and involved mostly in individual work in the basics of language and mathematics. Interactions with their teachers are predominantly businesslike and concerned with the basic areas of reading, writing and maths. (See Blatchford et al. 1987 for a full description.)

This Paper

The 1980 ORACLE study is of course rather dated now (as is the TCRU study). Since the ORACLE studies, there have been several other large-scale observation studies in the UK – e.g. the PACE study – and also a follow-up ORACLE study conducted 20 years later by Maurice and his colleagues. Since his time at TCRU, Peter Blatchford has also directed several large-scale studies which involved extensive systematic observation components. Looking over the data from these various studies suggests a number of trends over time, but as far as we know, there have been no systematic attempts so far to put the results of these and other main observation studies side by side, as the basis for examining changes over the past 30–40 years. This paper therefore takes the opportunity to draw together empirical data collected between the school years 1976/1977 and 2011/2012. As described below, this paper concentrates on the upper years of primary education (7–11 years), which in England was referred to as ‘junior’ school but more recently as ‘Key Stage 2’. Given the need to compare across studies, we focus in this paper on relatively broad high-frequency categories relating to a pupil’s interactions in the classroom. We focus on three things: (1) pupils’ interactions with adults and whether these are in a class, group or one-to-one situation, (2) interactions with classmates, and (3) times when pupils were not interacting with anyone and no interaction took place.

We also add to the ORACLE results and those from previous earlier studies by capturing two recent changes to classroom staffing and pupil composition in the UK.

Pupils with SEN and Teaching Assistants

In the early 1980s, the English education system saw an extension in the range of children and young people identified as having special educational needs (SEN) educated in mainstream schools. A main catalyst was the recommendations from the Warnock committee report in 1978 into SEN (DES 1978), incorporated into the 1981 Education Act. The 1981 Act introduced a system of statutory assessment for pupils with the highest levels of need, leading to a ‘statement’ setting out a pupil’s SEN alongside the provision required that is additional to, or otherwise different from, that normally available to children in mainstream settings.

There has also been a steady increase in the number of pupils with SEN who do not require a statement. Since 2003, these pupils have been categorised as either School Action or School Action Plus; the latter grading is given to children whose needs require a greater level of provision than those on School Action, but fall short of requiring a statement. The proportion of pupils with a statement being educated in English primary schools constituted 1.4% (58,535 pupils) in 2012 (DfE 2012), whilst the proportion of pupils with SEN on School Action or School Action Plus was 17.1% in 2012 (721,120 pupils) (DfE 2012).

Most observation studies do not separate out pupils with SEN. Two exceptions are the One-in-Five study (Croll and Moses 1985) and the Making a Statement (MAST) project (Webster and Blatchford 2013). A key motivation for this paper is the publication of findings from the Making a Statement (MAST) project, which updates the valuable research from the One-in-Five study which took place 30 years earlier and provides the second time point needed to make a comparison of pupils with SEN over time.

The increase in the number of pupils with SEN being included in mainstream schools has, over the last 15 or so years, been accompanied by a massive increase in the numbers of support staff, known as teaching assistants (TAs), learning support assistants or some other term, which we refer to collectively as TAs¹. TAs presently comprise 32% of the primary school workforce. There are more than three times the number of full-time equivalent TAs working in primary schools compared with 1997: 42,000 vs. 134,000 (DfES 2007; DfE 2012).

Despite the profound nature of these changes, the current observation literature offers no clear sense of the trajectory of this change or how it fits with other observable changes in classroom pedagogy over time. This paper is therefore concerned with the way in which primary classrooms have been organised for classroom interaction over time and with the observable differences over time in the interactions of pupils with SEN, compared with pupils without SEN.

The specific research questions addressed in this paper are:

1. How have junior/KS2 classrooms been organised for teaching and learning over the last 35 years, in terms of the extent of interactions with adults (and whether in class, group or one to one)?
2. Do these experiences differ for pupils with and without SEN?

Methodology

Systematic Observation Studies

The method of data collection used the ORACLE study was systematic classroom observation. This approach has not been without its critics. Barrow (1984) specifically critiqued the methods used in the ORACLE study and sought to undermine the results by claiming they were obvious or logically necessary, missed important features of teaching, such as creativity, and important background pupil characteristics, such as home support. We are not aware that Maurice himself has argued against this critique though Croll (1986) certainly has.

¹In line with common usage, the term ‘teaching assistant’ is used to cover equivalent classroom-based paraprofessional roles, such as ‘learning support assistant’, ‘special needs assistant’ and ‘classroom assistant’. ‘Higher level teaching assistants’ are also included in this definition.

Another more general critique has come from those who favour a more qualitative, interpretative approach. Delamont and Hamilton (1986) provided a strong critique of systematic observation methods, this time focussing in particular on the Flander's FIAC observation system (a relatively easy target not the least because it only comprises ten categories). The two best rebuttals of these criticisms are probably still by Croll (1986) and McIntyre and MacLeod (1986).

Our general take on these critiques is that systematic observation methods are very useful for certain well-defined research purposes. To a large extent, it has been criticised for not providing what it was never designed to provide. In particular it clearly cannot provide the nuanced, personalised and contextualised account of teaching and learning, and classroom life, that some understandably strive for. It can be valuable where activities are straightforward to identify, behaviours under observation are limited to binary categories, and frequency measures are a meaningful expression of the behaviour. From a more technical, measurement point of view, there can also be problems when systematic observation is used to provide measures at the individual pupil level, e.g. in studies that then look for correlations with pupil attainment measures. This is connected to difficulties in obtaining a stable, reliable measure for a given pupil, given variability between observations within pupils, and it may therefore be more reliable, justifiable and interpretable, to use the data, as in this paper, at the group level.

Selection of Studies

To address the research questions, we draw on work done by one of us (RW) in collating results from selected observation studies of junior schools (KS2, 7–11 years) over the past 40 years (see Webster [in preparation](#)). Even though specific studies have their own particular focus and have designed their own schedules, there are often key categories that will be broadly similar across studies. It helps that in some cases, the design of the observation procedure has its origins in a schedule used in a previous study; for example, the system used in the 1981 One-in-Five study is very similar to that used in the 1976 ORACLE study.

For the purposes of producing reliable results, it was necessary to select studies that had a similar design, deployed similar data collection and sampling methods, studied pupils of a similar age and collected data on similar categories of behaviour. A thorough review of the peer-reviewed literature was conducted in order to identify suitable studies for inclusion.

To be included, data from the studies had to be:

- Collected on pupils in Key Stage 2 (aged 7–11) attending mainstream primary or junior schools in England.
- Collected in schools in at least two geographical areas.
- As representative as possible of a national sample of pupils in terms of background characteristics (e.g. gender, ethnicity, not just one area, e.g. London).

Table 11.1 Systematic observation studies included in the analysis

Name of study ^a and data source	Period conducted	Schools (<i>n</i>)	Year group	Classes (<i>n</i>)	Pupils (<i>n</i>)	Pupils with SEN (%)
ORACLE, Galton et al. (2002)	1976/77	19	3–6	58	489	–
One in Five, Croll and Moses (1985)	1981/82	20	4	32	280	19
PACE, Pollard et al. (2000)	1993–96	9	3–6	18	54	–
ORACLE 2, Galton et al. (2002)	1995/96	14	4–6	28	600	0
DISS, Blatchford et al. (2009)	2005/06	22	3	22	164	35 ^b
MAST, Webster and Blatchford (2013)	2011/12	45	5	48	199	24 ^c

^aORACLE Observational Research and Classroom Learning Environment, PACE Primary Assessment, Curriculum and Experience, DISS Deployment and Impact of Support Staff, MAST Making a Statement

^b20% School Action; 12% School Action Plus; 4% Statement of SEN

^c100% Statement of SEN

- Collected on pupils whose activities/behaviour were representative of the average pupil experience.
- Restricted to data collected within lessons in mainstream classrooms.
- Lesson length observations.
- Complete across the category coding variables (see below).
- Collected using a time-sampling method.

In addition, data were included from studies that also collected data on pupils identified as having SEN, as well as on ‘control’ pupils, who reflected the average pupil.²

Though the number of pupils and lessons observed differed for each of the six selected observation studies, each study had a substantive dataset. Details of the sample sizes of each study, and the sources from which data were drawn, are shown in Table 11.1. Access to the original DISS project data allowed the preparation of analyses for Year 3 pupils, by separating these data from results on a range of year groups reported in Blatchford et al. (2009).

²The ‘control’ pupil sample constructed for the analysis in this paper is composed of pupils who, by and large, had not been identified as having SEN. The control samples from the One in Five, ORACLE 2, DISS and MAST projects did not include pupils with SEN. The first ORACLE study did not distinguish between pupils with and without SEN, but collected data from a representative sample of pupils in each class. The sample for the PACE project was selected at random from each class list. SEN designation was not recorded, although teacher ratings classified pupils according to attainment: 7% low, 16% below average, 32% average, 29% above average and 15% high. Attainment is not a perfect proxy for SEN, but on this basis, PACE does appear to lean towards an attainment profile slightly above average.

Pupils with SEN

There were three studies that provided additional data on pupils with SEN. In the One-in-Five study, pupils with SEN were selected on the basis of teachers' identification of their needs. Only pupils with either learning difficulties or behavioural difficulties were included in the sample; pupils with only sensory or physical impairments were not included. The sample of pupils with SEN in the DISS project included pupils on the school's SEN register (e.g. those on School Action, School Action Plus and with statements) and was not restricted by SEN type. The SEN sample included in the MAST study, however, comprised only of pupils with statements for either moderate learning difficulties or behavioural, social and emotional difficulties. Although the MAST study sample is limited to pupils with the highest level of need, the categories of SEN are directly comparable with those from the One-in-Five study.

Category Variables for Comparison

The variables selected for comparison were common and consistent across all the observation schedules used in the chosen studies. Whilst each study captured data on different aspects of pupils' interactions and activities and contextual information about the classroom and/or lesson, all of them collected data on three 'social modes':

- Pupil interaction with adults (teachers and TAs) and the contexts in which interaction with adults occurred (i.e. as part of the class, group or one to one).
- Interactions with classmates.
- When no interaction took place.

These variables were used as the basis for a comparison of pupils' experiences over time and a comparison of the experiences of pupils with and without SEN.

Results

Data from the selected studies are shown in Table 11.2.

Pupil–Teacher Interaction

Results for pupils without SEN show that the overall proportion of time spent interacting with the teacher has more than doubled over the last 35 years (16–40%). Results from the most recent studies show that the main increase has been in

Table 11.2 Comparison of the classroom experiences of pupils with and without SEN

	Pupils without SEN					Pupils with SEN				
	Oracle	One in Five	PACE	Oracle 2	DISS	MAST	One in Five ^a	DISS	MAST	
	1976/19777	1981/19882	1993–1996	1995/1996	2005/2006	2011/2012	1981/1982	2005/2006	2011/2012	
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
Pupil and teacher										
Class	12	23	24	21	44	35	21	36	30	
Group	2	3	2	4	3	2	2	3	2	
One to one	2	2	4	3	4	3	3	7	4	
Teacher total	16	28	30	28	51	40	26	46	36	
Pupil and TA										
Class	–	–	<1	–	0	1	–	<1	3	
Group	–	–	<1	–	2	1	–	5	5	
One to one	–	–	<1	–	2	1	–	9	13	
TA total	–	–	<1	–	4	2	–	15	20	
Peer interaction	19	19	22	27	20	32	18	16	18	
No interaction	66	53	46	45	25	26	56	23	26	
Total interaction	100	100	100	100	100	100	100	100	100	

^aCroll and Moses (1985) present data for pupils with learning difficulties and behavioural difficulties separately. Here, these results are summed and the mean value given

interactions with the teacher as part of the whole class. Pupils spend three times as much time in class mode as they did in the late 1970s (35% vs. 12%). Although not shown in Table 11.2, we also know from the DISS study (and the earlier CSPAR study; see Blatchford 2003) that the vast majority of times pupils were in the whole class situation, their role was a passive one, listening to the teacher teach. In the DISS study, for example, we found that 87% of a pupil's interactions with a teacher were in 'audience' mode, i.e. listening to the teacher, and this would also include those times when pupils interacted with teachers in group and one-to-one situations (Blatchford et al. 2012).

The proportion of time pupils without SEN interacted with teachers in a group or one-to-one context has remained relatively unchanged over time.

Compared with pupils without SEN, those with SEN have experienced a less steep increase in the total amount of time spent in interactions with the teacher – from 26% in the One-in-Five project in 1981/1982 to 36% in the MAST project in 2011/2012. The proportions of time spent interacting with teachers in group contexts are broadly comparable with those observed over time for pupils without SEN. This also applies to the proportion of time spent in one-to-one interaction with teachers; though there are signs of an increase in the DISS study (7% of all interactions), this still constitutes a small proportion of total interactions with the teacher.

A comparison of results between the One-in-Five, DISS and MAST projects indicates that pupils with SEN now spend less time interacting with teachers as part of the class, compared with their non-SEN peers; in the One-in-Five study, interactions in the class were broadly the same for SEN and non-SEN pupils. However, the data from the MAST project in Table 11.2 actually understates just how much time pupils with the highest level of SEN spend in whole class contexts, as this table only reports observations made within the mainstream classroom. The study found that such pupils actually spent 25% of their time working outside the class (Webster and Blatchford 2013). As a proportion of all observations, whether made in or out of the classroom, we now find that interactions with the teacher in whole class contexts comprise just 22% of all observations. Not only is this markedly lower than pupils without SEN (35%), but it is proportionally similar to the 21% for pupils with SEN found in the One-in-Five study (21%).

The main message from the comparison of teacher–pupil interaction is therefore that the overall difference between the total amounts of teacher interaction experienced by pupils with and without SEN appears to be in terms of whole class interaction; compared with 30 years ago, pupils with SEN spend less time listening to the teacher teach than their peers. We return to this finding later in the discussion.

Pupil–TA Interaction

Since the late 1990s, the rapid rise in TAs in schools has increased the amount of adult interaction in primary classrooms. For pupils without SEN, interaction with TAs constitutes only a small part of their classroom experience (between 2% and

4% of all observations across the studies), with one-to-one and group interactions with teachers slightly outweighing interactions with TAs in similar contexts.

In contrast, interactions with TAs have become a much more significant part of the experiences of pupils with SEN. Results from the DISS and MAST studies show that interactions with TAs make up between 15% and 20% of all observations involving pupils with SEN. Importantly, more than half of these interactions occur on an individual basis. Overall, pupils with SEN, in contrast to their peers, have more interactions with TAs one to one and in group contexts and more than they do with teachers in the same contexts.

Peer Interaction

The results show that the amount of peer interaction involving pupils without SEN has increased over time, though this differs between studies. Between the One-in-Five and MAST projects, the proportion of peer interaction involving pupils without SEN has increased from around a fifth to a third. Interestingly there has been no change in the amount of peer interaction involving pupils with SEN over the same period and has resulted in a clear result: pupils with SEN in 2011/2012 experienced about half as many interactions with their classmates, compared to non-SEN pupils. We also return to this finding in the discussion.

No Interaction

Finally, Table 11.2 also includes results on when pupils did not interact and were engaged in independent activities. The trend over time is very marked. In the early studies, the pupils with and without SEN spent over half their time in the classroom not interacting, but over the mid-1990s, this had fallen to around 45–46%, and over the 2000s, it fell still further to around a quarter.

Discussion

Clearly we need to be very careful when drawing out conclusions based on data collected using different observation systems over time. However, the studies are broadly comparable and all comprised a large number of observations across a large number of classrooms and pupils. At the risk of overstating things, the results in Table 11.2 probably represent the most systematic picture available of the situation in primary classrooms in the UK at specific points in time over the past 35–40 years. An extra feature is that we have been able to identify differences in the classroom

interactions of pupils with SEN compared to those without SEN and interactions with teachers vs. teaching assistants.

Pupil–Teacher Interactions

So what have the results shown us? They show that time spent interacting with the teacher has more than doubled over the last 35 years and that this is attributable to an increase in interactions with the teacher as part of the whole class. This has also led to a much more passive role for the pupil, with much of their increased time with the teacher spent listening to them teach.

What might account for this change? As explained more fully in Webster ([in preparation](#)), a wider review of the research literature strongly suggests the changes are connected to the introduction of the National Curriculum in the 1988 Education Reform Act which despite many revisions continues to be taught in the vast majority of English schools. This conclusion was expressed in the second ORACLE study in the mid-1990s, where teaching delivered to the whole class had increased following the introduction of the National Curriculum, a finding echoed by the PACE project. McNess et al. ([2001](#)) also found that lessons at Key Stage 2 typically consisted of whole class teacher input followed by individual tasks; one-to-one interaction was rare.

The ORACLE and PACE study researchers were clear on the indirect effect of the National Curriculum on classroom pedagogy. Pollard et al. ([2000](#)) reported that teachers had ‘with reluctance’ adopted a different approach to pedagogy ‘because of the amount of subject content and standards of attainment that were now required’. And after the second ORACLE study, Maurice Galton and his colleagues concluded that fitting the new statutory requirements into the school day placed ‘too heavy an imperative on teachers to cut down the amount of pupil participation in order to ‘get through’ the curriculum content’ (Galton et al. [1999](#)). An additional influence, as found in the ORACLE and PACE studies, as well as others, is that the intense focus on national testing and examination results in core subjects has led to teachers in upper Key Stage 2 to devote more time to direct instruction and direct test preparation (Galton et al. [2002](#); Pollard et al. [2000](#); Harlen [2007](#); Tymms and Merrell [2007](#)).

The most recent data from the DISS and MAST projects indicate that if anything this trend towards more teacher–pupil interaction has increased still further and that teachers now spend much of this time addressing the class and about a quarter of the time working with individuals and small groups (Blatchford et al. [2012](#); Webster and Blatchford [2013](#)).

At the time of writing the Conservative-led coalition, government in the UK is predictably seeking to set in place heavily content-led curriculum reforms, along with a more ‘rigorous’ testing regime and a downgrading of course work and modular assignments. The earlier ORACLE study provides a salutary corrective to the changes demanded by Conservative politicians in the 1970s, based on careful observation of what was actually happening in schools. Interestingly, if anything, the first

ORACLE project showed a restricted, rather dull coverage of the curriculum, an over-reliance on unstimulating worksheets and, more impressionistically, an absence of flair in classroom interactions. It is difficult to gauge the influence of the first ORACLE study on policy at that time, but given the present government's well-known hostility towards educational research and the 'educational establishment', there are few reasons to feel hopeful that the trend towards pupil passivity will stop soon.

No Interaction

The results in Table 11.2 also suggest pupils overall now spend much less time on individual work. This general trend towards less time spent working independently might suggest that the primary classroom has become a more interactive, dialogue-rich environment, until we remember that much of the increase in interaction as we have seen involves passively listening to teachers talking.

Peer Interaction and Group Work

Peer interaction for typical pupils seems to have increased over time. However, observation studies conducted by Maurice Galton, and others, have shown that only a small number of these interactions involve truly collaborative peer group work activities (see also Baines et al. 2003). In contrast to pupils without SEN, we found that for pupils with SEN, the amount of interactions had not increased and that they now in fact far fewer interactions with peers.

These results indicate the degree to which pupils with SEN are now more likely to be separated from their peers, either through adult support or because of time spent out of the class. As discussed in our report on the MAST project (Webster and Blatchford 2013), this can result in something like a vicious cycle in that once a child is predominately assisted by an adult, it reduces opportunities for peer interaction, which in turn increases the dependence of the pupil on adult support, and the way other pupils perceive the willingness of the pupil with SEN to interact with them. Moreover, the potential interaction and group work pupils might engage in can be deliberately reduced because of a perception that the pupil with SEN has problems with peers and will not benefit from it.

Generally, what was striking in the MAST study was an absence of a systematic, deliberate, informed way of developing successful relationships between pupils, and this applied to non-SEN and pupils with SEN. Indeed, in the MAST study, we found that despite the fact that some pupils were specifically seen to be lacking social and interactive skills with peers, the main strategy adopted was for adults (often TAs) to conduct social skills interventions with such pupils. This seems to us a missed opportunity.

One of us (PB) had the great pleasure of codirecting with Maurice Galton (and Peter Kutnick) a large-scale study, funded by the UK Economic and Social Research Council (ESRC) Teaching and Learning Research Programme (TLRP), in which we developed with teachers across three sites (KS1, KS2 and KS3) a programme of collaborative group work activities and principles and then systematically evaluated its impact on pupil progress in English, mathematics and science, classroom interactions and pupil attitudes and motivation. Called the ‘SPRinG’ project, we found a clear positive impact in terms of both academic progress and productive classroom interactions with peers (see Baines et al. 2007; Blatchford et al. 2006; Kutnick and Blatchford 2013). The results presented in this paper suggest more still needs to be done to introduce this more interactive collaborative aspect, with proven benefits for learning, into UK classrooms today.

Teaching Assistants

The most up-to-date data from the DISS and MAST projects show the increased use of TAs has had a seismic effect on the pedagogical experiences of pupils with the highest levels of SEN. Up to a fifth of all experiences of pupils with SEN involved interaction with a TA, most of which occur on a one-to-one basis. Results from the MAST project suggest that this is particularly the case for pupils with statements of SEN, who are allocated TA support as part of the provision to meet their needs. These pupils had three times the amount of one-to-one interaction with a TA than with a teacher, whereas the reverse was true for pupils without SEN.

Compared with 30 years ago, when there were far fewer support staff in schools, the high amount of interaction pupils with SEN have with TAs in one-to-one and group contexts occurs at the expense of instances when pupils tended not to have any interaction at all. In other words, even allowing for any effects the National Curriculum appears to have had on classroom pedagogy, the opportunity for pupils with SEN to work independently (without interaction) has been significantly reduced over the last three decades.

Paul Croll (1996) worried that ‘pressures to concentrate on the whole class and the class average would disadvantage’ pupils with SEN. Such concerns have on the face of it been off set by the huge increase in the employment and deployment of TAs to give such pupils more attention. Hard-pressed teachers appreciate the arrangement, whereby the neediest pupils receive potentially valuable attention from TAs, whilst they focus on the rest of the class (Blatchford et al. 2012).

Another positive consequence of the extensive use of TAs can be seen by comparing results from the One-in-Five study and the later MAST study on off-task and on-task behaviour. The One-in-Five study found (not shown in Table 11.2) that pupils with SEN were twice as likely to be not interacting and off-task/distracted, compared with pupils without SEN (15% vs. 8% of all observations). Yet, results from the MAST project found that this was only slightly more likely to be the case: pupils with SEN were not interacting and off-task/distracted in 8% of all observations, compared with 5% pupils without SEN. This finding is consistent with more anecdotal

dotal evidence from the DISS project which suggested that the presence of TAs in the classroom reduced the amount of off-task behaviour (Blatchford et al. 2012).

But the DISS study also found a very important negative consequence of the way that TAs are currently deployed. Careful multilevel regression analyses showed that those pupils with most support from TAs make significantly less academic progress than similar pupils with less or no TA support, and this after was controlling for potentially confounding factors like prior attainment and level of SEN that might be expected to be related to end of year attainment and support given by TAs.

The reasons for this finding are explained in detail in Blatchford et al. (2012). The first main reason is the way that the least qualified staff have, in effect, been assigned an informal primary remedial role with the pupils with the highest levels of SEN (Blatchford et al. 2012; Webster and Blatchford 2013). It is then, perhaps, not surprising that these pupils tend to make less progress compared with their peers. The second problem is the lack of training for teachers and TAs (relating to SEN and how to work together productively) and the lack of time for and quality of pre-lesson preparation as key factors in explaining the negative attainment results (Webster et al. 2011). Further evidence from the DISS project identifies a third key explanatory factor: the quality of classroom talk and instruction that pupils with SEN receive from TAs. Despite systematic observations showing that pupils had longer and more active interactions with TAs, TAs were more likely to supply answers and give inaccurate or misleading explanations and demonstrated a greater concern with task completion than learning and understanding (Blatchford et al. 2012; Rubie-Davies et al. 2010; Radford et al. 2011).

If, as many agree (Alexander 2006; Bakhtin 1981; Jones 2007; Nystrand 2006; Wilkinson and Silliman 2000), teacher-to-pupil interaction is at the heart of effective teaching and learning, then these concerns about the quality of pedagogy are likely to have more significance for pupils with SEN who require a form of pedagogical interaction that allows them to firmly grasping the fundamentals of literacy and numeracy – the key areas in which they get left behind.

A key message from the DISS and MAST projects is therefore that schools need to fundamentally rethink their approach to the way they provide support to pupils with SEN, and, in particular, reconfiguring the role of the TAs so they do not routinely support pupils with SEN, ensuring that the teacher takes on the primary responsibility for the planning and teaching of pupils with SEN (especially those with high needs), ensuring that TAs and teachers get time for pre-lesson planning and ensuring that more attention is paid to the classroom talk of TAs (see Russell et al. 2012).

In the UK and elsewhere, politicians refer endlessly to the concept – but often not the detail – of effective teaching, as they strive to emulate the best education systems in the world, prompted by their reading of the OECD's PISA rankings and other international comparisons. The study of teaching and what makes it effective or ineffective is of course an enormous area, and since the ORACLE studies, there have been a wealth of research following sociocultural, dialogic teaching and subject-specific approaches (see Blatchford et al. *in press*). Obtaining an accurate and reliable measure of teacher effectiveness in a systematic way is an important but notoriously difficult task. For example, in the UK, ratings from school inspection

visits by government-funded agencies are often used. Yet these ratings are almost certainly flawed, as judgements are rarely consistent between schools and highly susceptible to the observer effect. Recent work has been helpful in further identifying sound measures of effective teaching (Cantrell and Kane 2013). A lot has changed in education over the past 40 years, but there is clearly still a main role for systematic observation data on teaching, all those years after Maurice's pioneering work in the ORACLE studies.

References

- Alexander, R. J. (2006). *Towards dialogic teaching* (3rd ed.). Cambridge: Cambridge University Press/Dialogos.
- Baines, E., Blatchford, P., & Kutnick, P. (2003). Changes in grouping practices over primary and secondary school. Special Edition of *International Journal of Educational Research*, 39, 9–34.
- Baines, E., Blatchford, P., & Chowne, A. (2007). Improving the effectiveness of collaborative group work in primary schools: Effects on science attainment. *British Educational Research Journal*, 33(5), 663–680.
- Bakhtin, M. (1981). *The dialogic imagination*. Texas: University of Texas Press.
- Barrow, R. (1984). *Giving teaching back to the teachers*. Brighton: Wheatsheaf.
- Blatchford, P. (2003). *The class size debate: Is small better?* Maidenhead: Open University Press.
- Blatchford, P., Burke, J., Farquhar, C., Plewis, I., & Tizard, B. (1987). A systematic observation study of children's behaviour at Infant school. *Research Papers in Education*, 2(1), 47–62.
- Blatchford, P., Baines, E., Rubie-Davies, C., Bassett, P., & Chowne, A. (2006). The effect of a new approach to group-work on pupil-pupil and teacher-pupil interaction. *Journal of Educational Psychology*, 98, 750–765.
- Blatchford, P., Bassett, P., Brown, P., Koutsoubou, M., Martin, P., Russell, A., & Webster, R. with Rubie-Davies, C. (2009). *The impact of support staff in schools. Results from the Deployment and Impact of Support Staff (DISS) project. Strand 2 Wave 2*. Department for Children Schools and Families (DCSF). <http://www.dcsf.gov.uk/research/data/uploadfiles/DCSF-RR148.pdf>
- Blatchford, P., Russell, A., & Webster, R. (2012). *Reassessing the impact of teaching assistants: How research challenges practice and policy*. Abingdon: Routledge.
- Blatchford, P., Pellegrini, A., & Baines, E. (in press). *The child at school: Interactions with peers and teachers* (2nd ed.). Abingdon: Routledge.
- Cantrell, S., & Kane, T. J. (2013). *Ensuring fair and reliable measures of effective teaching. Culminating findings from the MET (Measures of Effective Teaching) project's three-year study*. Phoenix: Bill and Melinda Gates Foundation. Available online: http://metproject.org/downloads/MET_Ensuring_Fair_and_Reliable_Measures_Practitioner_Brief.pdf. Accessed 24 Aug 2013.
- Croll, P. (1986). *Systematic classroom observation*. Lewes: Falmer Press.
- Croll, P. (1996). A curriculum for all? Special educational needs and the National Curriculum. In P. Croll (Ed.), *Teachers, pupils and primary schooling*. London: Cassell.
- Croll, P., & Moses, D. (1985). *One in five: The assessment and incidence of special education needs*. London: Routledge and Kegan Paul.
- Delamont, S., & Hamilton, D. (1986). Revisiting classroom research: A cautionary tale. In M. Hammersley (Ed.), *Controversies in classroom research*. Milton Keynes: Open University Press.
- Department for Education. (2012, January). *Statistical first release: Special educational needs in England*. London: Department for Education. Available on-line: <http://www.education.gov.uk/rsgateway/DB/SFR/s001075/index.shtml>. Accessed 22 Oct 2012.

- Department for Education and Skills. (2007). *Statistical first release: School workforce in England including pupil: Teacher ratios and pupil: Adult ratios* January 2007 (provisional) (SFR 15/2007). London: Department for Education and Skills.
- Department of Education and Science. (1978). *Special educational needs* (The Warnock Report). London: Her Majesty's Stationery Office.
- Dunkin, M. J., & Biddle, B. J. (1974). *The study of teaching*. Lanham: Holt, Rinehart and Winston.
- Galton, M., Simon, B., & Croll, P. (1980). *Inside the primary classroom*. London: Routledge.
- Galton, M., Hargreaves, L., Comber, C., Wall, D., & Pell, T. (1999). Changes in patterns of teacher interaction in primary classrooms 1976–1996. *British Educational Research Journal*, 25(1), 23–37.
- Galton, M., Hargreaves, L., Comber, C., Wall, D. with Pell, A. (2002). *Inside the primary classroom: 20 years on*. London: Routledge.
- Harlen, W. (2007). *The quality of learning: Assessment alternatives for primary education* (Primary Review Research Survey 3/4), Cambridge: University of Cambridge.
- Jones, D. (2007). Speaking, listening, planning and assessing: The teacher's role in developing metacognitive awareness. *Early Child Development and Care*, 177(6–7), 569–579.
- Kutnick, P., & Blatchford, P. (2013). *Effective group work in primary school classrooms: The SPRinG approach*. Dordrecht: Springer.
- McIntyre, D., & Macleod, G. (1986). The characteristics and uses of systematic observation. In M. Hammersley (Ed.), *Controversies in classroom research*. Milton Keynes: Open University Press.
- McNess, E., Triggs, P., Broadfoot, P., Osborn, M., & Pollard, A. (2001). 'The changing nature of assessment in English primary schools: Findings from the PACE Project' 1989–1997. *Education 3–13*, 29(3):9–16.
- Nystrand, M. (2006). Research on the role of classroom discourse as it affects reading comprehension. *Research in the Teaching of English*, 40(4), 392–412.
- Pollard, A., & Triggs, P., with Broadfoot, P., McNess, E., & Osborn, M. (2000). What pupils say: Changing policy and practice in primary education. *Findings from the PACE project*. London: Continuum.
- Radford, J., Blatchford, P., & Webster, R. (2011). Opening up and closing down: Comparing teacher and TA talk in mathematics lessons. *Learning and Instruction*, 21(5), 625–635.
- Rubie-Davies, C., Blatchford, P., Webster, R., Koutsoubou, M., & Bassett, P. (2010). Enhancing learning? A comparison of teacher and teaching assistant interactions with pupils. *School Effectiveness and School Improvement*, 21(4), 429–449.
- Russell, A., Webster, R., & Blatchford, P. (2012). *Maximising the impact of teaching assistants: Guidance for school leaders and teachers*. Abingdon: Routledge.
- Simon A, & Boyer, G. (1974). *Mirrors for behavior* (Vol. 1 and 11). Philadelphia: Research for Better Schools Inc.
- Tizard, B., Blatchford, P., Burke, J., Farquhar, C., & Plewis, I. (1988). *Young children at school in the Inner City*. Hove: Lawrence Erlbaum Associates.
- Tymms, P., & Merrell, C. (2007). *Standards and quality in English primary schools over time: The national evidence, Primary Review Research Survey 4/1*. Cambridge: University of Cambridge.
- Webster, R. (in preparation). *35 years in the primary classroom. What results from systematic observation studies reveal about the educational experiences of pupils*.
- Webster, R., & Blatchford, P. (2013). *The making a statement project final report: A study of the teaching and support experienced by pupils with a statement of special educational needs in mainstream primary schools*. Report for Nuffield Foundation. Available at: <http://www.school-supportstaff.net/mastsummary.pdf>
- Webster, R., Blatchford, P., Bassett, P., Brown, P., Martin, C., & Russell, A. (2011). The wider pedagogical role of teaching assistants. *School Leadership and Management*, 31(1), 3–20.
- Wilkinson, E. R., & Silliman, L. C. (2000). Classroom language and literacy learning. In M. Kamil, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 337–360). New Jersey: Erlbaum.

Chapter 12

Group Work in Primary Schools in Hong Kong

Peter Kutnick

Abstract Simply placing pupils in classroom groups and expecting that effective learning will take place has proved naïve – often to the frustration of teachers, pupils and parents. Examples of effective group work in classrooms have been found to positively affect cognitive and curriculum-based achievement and social behaviour of children. But development of interventions to support effective group work must account for a culturally relevant pedagogy, relational development of children, changes in the role of the teacher and flexible use of classroom furnishings and task assignment. This chapter considers the development of effective group work within the Confucian heritage context of Hong Kong primary schools, explains underlying theoretical assumptions and reviews substantive studies – including the introduction of two recent case studies of group work in Hong Kong.

Keywords Social pedagogy • Classroom mapping • Relational approach • Effective group work

Preface

I have worked with Maurice Galton in one capacity or another over the last 30 years. During this time, I have always found Maurice absolutely consistent in his desire to provide evidence-based understandings of primary school (and other) classrooms. The evidential base has accounted for authentic classroom life – understanding and describing the roles of pupils and teachers within classroom contexts, collaborative contexts, communities of learning and in response to (and often contrasting with) government policy. Throughout these years, Maurice always maintained a strong belief in the potential of pupils to learn with their teachers and peers within their classrooms. Maurice has been fundamental in the development of a theory of social pedagogy of classrooms (Blatchford et al. 2003) within which pupils’

P. Kutnick (✉)

Faculty of Education, University of Hong Kong, Hong Kong, SAR China

e-mail: pkutnick@hku.hk

© Springer Nature Singapore Pte Ltd. 2017

R. Maclean (ed.), *Life in Schools and Classrooms*, Education in the Asia-Pacific Region: Issues, Concerns and Prospects 38, DOI 10.1007/978-981-10-3654-5_12

187

potential for learning can be promoted or inhibited by the social context of their classrooms.

Introduction

In line with many themes being pursued in this volume, this chapter will describe and explain the potential for group work in classrooms, especially in the Confucian heritage culture (CHC) of Hong Kong. The chapter is in keeping with previous research by Galton (see especially Galton et al. 1980, 1999; Galton and Pell 2010); it will draw upon an authentic view of classrooms and an understanding that classroom actions and styles have developed over time in association with participants (teachers and pupils) and within perceptions of cultural heritage. Particularly with regard to cultural heritage, the background to this chapter acknowledges the existence of an ambiguous field of enquiry often dominated by government policy and interpretations of various pieces of ‘evidence’ of classroom structure and process.

Before considerations of CHC and authentic classrooms can begin, a brief deviation from the intended content of this chapter will be made to acknowledge the socio-political context of group work. In searching for previous research on the role and development of group work in Hong Kong classrooms, a series of critiques have come to light in the literature. The critiques concern the political context within which educational policies have developed in a number of Asian countries over the last three decades. Key terms drawn upon in this political context have been Confucian heritage culture, standards and comparisons in educational achievement, globalisation and colonialism. CHC has been described by numerous writers and researchers (see Biggs 1994; Flowerdew 1998; Oxford and Bury-Stoke 1995; Kennedy 2010) and provides an initially simplistic picture of Hong Kong learners as authority oriented, passive, face-saving and noncreative. This classic view of the CHC learner contrasts with the high levels of school-based achievement that characterise many Asian countries in international comparisons of mathematics, science and language achievement (OECD 2010; Mullis et al. 2012). When education policy and its development within Hong Kong (and other Asian countries) are taken into further consideration, the existence of a true CHC applied to classrooms is called into question. The policy-based literature has shown that government recommendations for teaching and learning practices in classrooms in Hong Kong are aware of Western-based pupil-centred recommendations, although these recommendations have been criticised for a perceived political imperative of ‘the West versus the Rest’, neocolonialism (Nguyen et al. 2006; Nguyen et al. 2009) and a ‘false universalism’ that one pedagogic size fits all (Whitty et al. 1998). In particular, this chapter’s focus on group work in Hong Kong needs to be read within a critical awareness that there cannot be a ‘simplistic transfer’ of Western group working practices of cooperative or collaborative learning to countries such as Hong Kong

(Elliott and Grigorenko 2007), while effective group work in Hong Kong classrooms must look to ‘culturally appropriate pedagogies’ (Nguyen et al. 2006).

Contexts for Group Work in Hong Kong Primary School Classrooms

Confucius background: Before initiating a general consideration of group work in classrooms, it is necessary to provide a background as to the meaning of Confucian heritage culture, how CHC may apply to Hong Kong classrooms, government policy in support of teaching and learning in Hong Kong classrooms and descriptions of authentic teaching and learning processes in Hong Kong classrooms. As identified in the introduction, CHC has been used to describe the classroom-based teaching and learning (social pedagogic) contexts in a number of Asian countries. CHC also provides a critical pedagogic basis upon which to challenge whether practices such as group work are culturally appropriate for teaching and learning in Hong Kong classrooms.

A review of the literature concerned with group work and CHC finds a number of assertions, stereotypes and a variety of realities, essentially stating that: (1) group work may not be possible in CHC classrooms; (2) group work is a natural application/explanation of CHC within classrooms; and (3) the descriptive realities of pedagogic processes within and outside of Hong Kong primary school classrooms. Assertions and stereotypes concerning group work and CHC classrooms have been evident in the literature since the 1990s. The traditional CHC learner has been described as: passive, reluctant to express opinions, and deeply respectful of the teacher and the teacher’s authoritative knowledge (Murphy 1987), preferring concrete (as opposed to abstract) knowledge and structured learning that does not require personal reflection (Oxford and Bury-Stoke 1995; Marton et al. 1996; Hofstede and Hofstede 2005), highly competitive with classmates (in an examination-driven system; Salili and Lai 2003), pursuing an individual approach to learning and not participating in discussions, asking questions or engaging in group work (Su 1995 as cited in Oxford and Anderson 1995; Tang and Williams 2000). Explanations for these learner characteristics have been laid to the foot of Confucius (Lao Tzo) and his descriptions for a harmonious Chinese society 26 centuries ago (Astorga 2002). Literature relating the resulting CHC to the possibility of group work in classrooms has described classroom practices of rote learning, reliance on memorisation, passivity among pupils and teacher ‘virtuosity’ (Mok and Morrison 2000; Kennedy 2010). These descriptions are based on three fundamental Confucian concerns: ‘respect’ for teachers and elders (Nguyen et al. 2005); maintaining ‘face’ of self and others (in creating a harmonious atmosphere in the classroom, where no one is challenged or may lose face in public, Liu 2002; Kennedy 2002); and ‘collective’ culture which combines respect with harmony – the realisation that life is maintained within a hierarchy with an equitable (as opposed to an

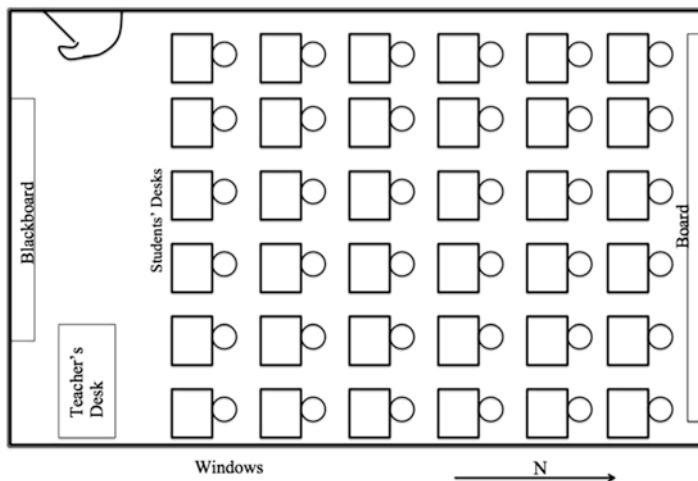


Fig. 12.1 Traditional Hong Kong primary school classroom layout (from Fung 2014)

equal) distribution of benefits (Chan 1999; Hofstede and Hofstede 2005; Nguyen et al. 2006). Perception of the teacher within this, seemingly, oversimplified view of CHC is an individual who – both commands and expects respect from pupils (Hofstede and Hofstede 2005) – has little willingness to engage in argumentation with pupils (Biggs 1996), and presents a teaching approach that is highly structured and detailed (Oxford and Bury-Stoke 1995) and based on a model of ‘instruction-practice-feedback’ (Stevenson and Lee 1997; Kennedy 2002). All of these CHC assertions concerning student, teacher and pedagogy take place in relatively large classes (by Western standards) of 35–40+ pupils, short lesson periods of 35 minutes and a perception that group work may be an anathema (Galton and Pell 2010). Figure 12.1 approximates the typical layout of a Hong Kong primary school classroom, with pupils seated/working individually, and the teacher at the front controlling the classroom and curriculum in a ‘virtuoso’ manner.

Confucius Confusions

For each of the traditional, formally taught examples of CHC, there have been a number of studies which seriously qualify the existence of the Chinese learner as an authority-dependent individual who prefers to learn alone via memorisation and rote. From the 1990s, Biggs (1994) typified Hong Kong classrooms as ‘student centred’ rather than teacher centred (moving at a pace that promotes understanding for all pupils in the class and encouraging high levels of cognitive understanding, as opposed to low cognitive challenge of rote learning; also see Li 2003). Watkins and Biggs (1996), Cortazzi and Jin (1996) and Cheng (2000) further assert that the CHC classroom blends international approaches to learning, while Western classrooms

tend to polarise approaches; hence, Hong Kong pupils are seen as ‘active’ learners who are open and reflective rather than passive recipients of teachers’ instructions. There is also evidence that Hong Kong pupils engage in critical analysis when offered group learning experiences in their classrooms (Tang 1996). Even Flowerdew (1998; similar to Nelson 1995) found that group work could be effective in CHC classrooms if teacher-structured groups drew upon the children’s collectivist orientation and did not ask pupils to overtly challenge one another.

Explanations for these contrary CHC findings draw upon two separate issues and identify three key considerations related to the use of group work to support learning. The issues are concerned with support for learning inside/outside of the classroom and explanations for the adaptability of the CHC learner. While most studies cited have only referred to observations made within classrooms, the literature does identify at least three separate aspects of CHC learning outside the classroom. Initially, many studies (Biggs 1994; Flowerdew 1998; Nguyen et al. 2005) have noted that respect for teachers and learning in schools is strongly supported by parents – there is encouragement to accept the way that teachers structure their classroom learning opportunities – no matter whether this is structured in a traditional or nontraditional manner. Children’s respect for the teacher is also based on the time and consideration that teachers provide for their pupils both inside and outside the classroom. Cortazzi and Jin (1996) noted that even when classrooms were structured in a formal manner, pupils’ learning problems were often resolved with the teacher outside of the classroom – helping the pupil to avoid falling behind in the classroom. The third outside classroom aspect is pupils’ willingness to collaboratively engage in spontaneous group-supported reviews of classroom lessons to ensure that everyone has reached a high level of understanding (Biggs 1994; Su 1995 as cited in Oxford and Anderson 1995; Wong 1996); this outside-of-classroom group learning demonstrates shared cognitive strategies that support a deep approach to learning. The second issue concerns the adaptability of the CHC learner and notes that in contrast to the passive recipient of knowledge, children and adolescents in Hong Kong can adapt their learning practices as teachers change their teaching styles (Kennedy 2010). In an early realisation of the adaptability of the Chinese learner, Tang and Biggs (1996) suggested that it is pragmatic for pupils to draw upon a more passive learning style within their classrooms due to the hierarchical presentation of knowledge by a respected teacher and the individualised layout of their classroom; this suggests that pupils will draw upon/use alternate learning styles such as group learning if these styles are legitimised/encouraged by their teacher and the classroom is set up for group learning in a culturally appropriate manner (Whitty et al. 1998).

While the traditional CHC classroom has characterised much of the research concerning Hong Kong primary school classrooms, the government’s education policy has encouraged teachers to move away from this teaching style over the last 20 years (e.g. the Target-Oriented Curriculum (Curriculum Development Council HK 1995) and Learning to Learn (CDCHK 2001)). In both of these curriculum recommendations, teachers were asked to adopt teaching styles that included enhanced pupil participation and engagement via discussion, argumentation and

group work within classrooms. And, there is some evidence that Hong Kong teachers have heeded the recommendations to incorporate a greater range of teaching styles in their classrooms and increased pupil engagement via group working processes (Mok and Morrison 2000; Keppell and Carless 2006; Education Bureau 2008). At the same time, though, there have been continuing regional arguments that group working strategies such as cooperative and collaborative learning are difficult to integrate into CHC classrooms (Messier 2003; Nguyen et al. 2009). Larger-scale studies of classrooms in Hong Kong tend to describe most teachers as maintaining traditional teaching styles. Even with a recent government initiative to reduce class size in primary schools, teachers were observed to maintain whole class teaching, individualising of learning tasks and rarely use groups to enhance learning (Galton and Pell 2010). Wong (2001) attributed the lack of change in Hong Kong teaching style to the short class period, the physical layout of classrooms, a competitive classroom climate that does not encourage shared thinking, teachers' lack of confidence in changing their classrooms and little focus on creative or critical thinking by pupils.

The portrait of Hong Kong primary school classrooms, thus, tends to be dominated by a traditional CHC practices – although there are counterexamples of the potential for group working and its limited use. Based on the review thus far, three considerations appear fundamental to the adaptation and use of group work for the enhancement of pupil learning in Hong Kong:

1. The role of the teacher – is she/he prepared to move away from perceived and established traditional practices and how can this movement be supported?
2. The classroom context – can both the physical layout and curricular practices that characterise the traditional classroom be changed to allow for more and effective group work?
3. The relational involvement of pupils – while classroom-based studies have acknowledged that CHC classrooms can include collectivistic/group orientations to learning, will children incorporate their (out-of-class) group learning potential within their current individualistic and competitive classroom?

Group Work in (Western) Classrooms

While it may appear late in the chapter to arrive at the actual topic of effective group work in classrooms in the promotion of pupil learning, it has been essential to provide a political and cultural context before effective group work can be considered in Hong Kong primary school classrooms. Group work in Western classrooms has been explored extensively in recent years (see Wilkins 2011; Kutnick and Blatchford 2014). These explorations acknowledge that there are good reasons to promote group work in the enhancement of learning although Western teachers rarely take up this opportunity effectively in their classrooms. Group work to enhance classroom learning has been the topic of study and innovation for centuries (see Piaget 1959;

Pepitone 1980; Wagner 1982; Johnson and Johnson 2003a; Slavin et al. 2003; and others). Each of the studies concerning group work and learning has been clear to separate the simplistic placement of pupils into groups from structured group work for learning (Chiu 2004; Kutnick and Blatchford 2014). Even with this separation, there is a variety of group work strategies that may be structured in classrooms. These strategies include: cooperative learning, collaborative learning, team learning and study groups. Virtually all Western models or theories underlying effective group work emphasise aspects of interpersonal motivation via interdependence and equality of participation (from Deutsch 1949) affecting children's cognitive understanding, school achievement and interpersonal relationships – yet, there are comparatively few studies that have shown that effective group work has been incorporated into classrooms on a long-term basis (Fung 2014).

Why group work in schools? Theoretical explanations: Since the advent of schooling, placing pupils in classrooms has meant that children's learning experiences take place in the presence of others – whether in some form of seated group or task-related learning group (Kutnick and Blatchford 2014). These pupil-based groups can vary in size from a large number of individuals (grouped as a class), to pairs, to triads, to other small groups (4–6 pupils), to larger groups (10–15 pupils) and to the whole class (Baines et al. 2003). At the same time, dynamics of group-based learning can include tutorial-based learning with peers or adults (Wagner 1982), mutual problem-solving (from Piaget and Inhelder 1972) and scaffolded zones of proximal development (from Vygotsky 1978; Wood 1998). Most studies that explore the learning that might be gained by effective group work have focused on pairs, triads or small groups and have taken place mainly within classrooms. These studies draw upon cognitive, socio-cognitive (including sociocultural) and social psychological theories.

The Western-based theories that underlie group work for learning tend to see the child as an active agent in her/his own learning and the learning of others. Children actively co-construct their learning through social interactions with peer and teachers. Piaget (1971) identified that cognitive understanding was promoted in the process of equilibration, a dynamic rebalancing of the individual's existing knowledge with the need to integrate new knowledge into the child's cognitive repertoire. This process is promoted in the child's social interactions with adults and peers and is greatly enhanced with the child's increasing linguistic competence and shared activity with others (see Piaget 1959; Vygotsky 1962; Goswami and Bryant 2007). From a Piagetian-cognitive perspective, emphasis in this socially enhanced learning process is placed on mutual interactions between peers – where a multiplicity of personal perspectives encountered in social interaction facilitates equilibration mainly via language-based interactions. Examples of these encounters include: children solving problems jointly (Doise and Mugny 1984; Perret-Clermont 1980) and engaging in explanations, making judgements and predictions with others (Howe and Tolmie 2003; Howe 2010). In a seminal review of research in this area, Damon and Phelps (1989) identified that the effectiveness of the social interaction leading to cognitive development will be mediated by a climate of 'connectedness' between the interacting peers – especially if the connection between children is characterised

by 'mutual' sharing of knowledge with no power/authority differences between the interactors. Mutuality may also be seen to lie at the heart of Western approaches to 'cooperative learning' – an application based on equality of group members in both the learning process and knowledge gained; to be explained in the next section of this chapter concerning Deutsch (1949), Allport (1954; and others).

The underlying need for mutual connectedness (of equal peers) contrasts with socio-cognitive/sociocultural theories and explanations of cognitive development attributed to Vygotskian and neo-Vygotskian perspectives (Vygotsky 1978; Rogoff 1990; Wertsch and Sohmer 1995; Wood 1998). These theories identify that the social interactions at the heart of cognitive development take place within a cultural context, and explanations for the 'handing down' of knowledge from one generation to another is best explained within this theoretical context. In school-based applications, the role of the teacher and expert peers described in the zone of proximal development facilitates what Bruner (1983), Wertsch and Sohmer (1995) and others have described as a theory of 'instruction'. The social tie between teacher/expert and novice (learner) has been described mainly in intellectual terms – where the knower engages the learner with arguments and alternatives that are meaningful to the learner but in advance of the current knowledge of the learner (e.g. Rogoff 2003; Tharp and Gallimore 1988). Socio-cognitive/sociocultural theories are firmly rooted in the understanding that children require the use of language within their interactions with others to promote cognitive development (Mercer and Littleton 2007), although school-aged children may require particular linguistic support as many of their within-class conversations do not include a high proportion of explanatory/elaborated speech (see Mercer et al. 1999; Webb and Farivar 1994; and others). Whereas cognitive-oriented theories draw upon a mutual/equal relationship, the socio-cognitive/sociocultural theories have an equitable relationship as their basis and have been applied in classroom group settings that draw upon collaborative learning in the forms of peer tutoring (Topping 2005; Goodlad and Hirst 1989), argumentation (Anderson et al. 1997; Reznitskaya et al. 2009) and 'talk' programmes (Littleton et al. 2005).

A further theoretical explanation for group work in classrooms arises from social psychological theories of interpersonal relationships. Early research that showed joint problem-solving is superior to individual problem-solving due to its enhanced complexity and basis for learning (Lewin 1946); more substantial interpersonal and motivational explanations for effective learning by cooperation have been provided by David and Roger Johnson (Johnson and Johnson 2003a), Robert Slavin (Slavin 1995) and others. As the Johnsons identify, cooperative learning theories are strongly based on interdependence between participants (from Deutsch 1949) and contact theory (from Allport 1954). Reviews of these theories often focus on the potential for classroom learning (Lou et al. 1996; Roseth et al. 2006) and give only minor consideration to the initial social uses of cooperation espoused by Lewin, Allport and others. Thus, it is not unusual to note that the above reviews identify that cooperative learning studies based on these theories enhance children's learning when compared to traditionally taught classes. But, it should be noted that the studies are also effective in promoting positive within-class social relationships and

positive attitudes towards schooling among children. Aside from a basis of equality designed into these social psychology theories, there is a strong notion of heterogeneity (each pupil group should typify the general composition of a class – including a mix of sexes, attainment levels, race and ethnicity; Slavin 1995) with groups and learning tasks structured to overcome any social status differences between pupils (Cohen and Lotan 1995). Social psychological theories are most likely represented in classroom groups in various types of cooperative learning settings.

Actual Classroom Studies Concerning the Use of Pupil Groups

As reviewed elsewhere (Kutnick and Blatchford 2014; Baines et al. 2008), studies of pupil groups in classrooms are of two types – with very little overlap between the types. Studies most strongly associated with Galton (and this volume) are based on naturalistic observation of classrooms and identify the range of groups used, when the groups are used, size and composition of groups. Naturalistic group studies tend not to be associated with ‘outcome’ measures of cognitive, academic or other achievements. The other type of classroom study is referred to as ‘experimental’ and records evidence of effects of an educational innovation (usually cooperative or collaborative) in terms of cognitive and academic achievement as well as social behaviour.

Naturalistic studies of pupil groups in classrooms have been, predominantly, undertaken in the UK. A short history of these studies shows a concentration of interest in the 1970s/1980s when a largely government-driven debate ensued concerning the merits of child-centred pedagogies (see especially Alexander et al. 1992). In this debate, children in primary schools were accused of underachieving due to child-centred practices attributed to the imposition of recommendations from the Plowden Report (1967). Naturalistic studies were undertaken using observation and questionnaire methods and drew upon fairly large samples. The most important of these studies included: Bennett (1976), Galton et al. (1980), Bennett et al. (1984), Mortimore et al. (1988) and a repeat study by Galton et al. (1999). While these studies have been reviewed in depth elsewhere (see Kutnick 1988; Kutnick and Blatchford 2014), they essentially tell the reader that child-centred pedagogical practices did not take hold in a substantive manner. Most classroom teaching was undertaken with the teacher maintaining traditional control of knowledge and behaviour, with children working individually (on individual learning tasks) although they were often seated in small groups around tables and with little evidence of children being asked to undertake learning tasks in groups or being allowed/directed to discuss/interact with their peers. These studies also showed that pupil groups could vary in size from children working alone or being seated in pairs or small groups with the predominant pedagogic context of the teacher directing the whole class – no matter how children were seated. If pupil groups were used in the teaching and learning process, it was most likely during the limited discussion time

associated with literacy tasks and least likely in individualised mathematics lessons; pupil groups were composed either by differentiated attainment levels or by friendship.

Through the 1990s and 2000s, a new approach to classroom observations added further descriptions of social pedagogic practices via the use of classroom mapping (see Kutnick et al. 2002; Baines et al. 2003; Kutnick and Brighi 2007). Mapping fulfils criteria of ‘authenticity’ in that the technique identifies the placement, grouping and learning activity of all children (and adults) in a classroom during lesson time; this is a distinct approach from previous observation methods that focused on a limited number of children who may be ‘representative’ of learning activity undertaken with teachers and peers. Mapping provides insight into group size (and corresponding number of groups), group composition, interactions to support learning within groups, learning tasks, actions of adults and interrelationships between these various classroom factors. Many of the findings reported in the above studies coincide with previous naturalistic studies, although a range of newer and more refined insights have arisen when mapping studies are drawn upon to compare different year levels in primary school. These insights include: over the primary school years, there is a greater tendency to group children by their level of attainment, especially with regard to mathematics and literacy subjects; as group sizes became smaller, teachers could only focus on one group at a time, and hence, as year in school increased pupils had to work more autonomously from the teacher while rarely being provided training for this autonomous work; while all classrooms showed a mixture of group sizes, younger pupils were more likely to be found seated in small groups, and older pupils were more likely to be seated in dyads, most of these pupil groups were seated around tables of 4–6 children (also see Hastings and Chantry 2002); while seated in various group sizes, most learning tasks required pupils to work individually, there was very little evidence of peer-interactive talk and most learning-oriented talk took place between teacher and pupil rather than between pupils; learning tasks assigned to children evolved with year in school, from a stronger practice orientation with younger pupils to a cognitive (new knowledge and skills) orientation with older pupils; and while there was a change in learning task orientation with year in school, there was no clear relationship to size or interaction of pupil groups, as most of the learning tasks were structured and led by the teacher. The mapping studies show little academic use for groups in Western classrooms, and three concerns arise that should be considered is the understanding of the role and potential of pupil grouping:

1. Pedagogically, while theoretical studies have identified the potential for children learning with/from their peers and adults, mapping has identified a teacher domination of talk and task structure across all classroom learning tasks. If the pedagogic potential of groups for learning is to be realised, then classroom groups will have to be reoriented from their predominant seating role towards a discussion and interactive learning role.
2. If pupils are to be more actively engaged pedagogically, teachers may need to provide training, support and classroom legitimisation for peer interaction as

well as arrange their classrooms to allow peers to become more interactively engaged in their learning.

3. If children are to become more interactively and pedagogically engaged, Western teachers (similar to their CHC counterparts) will need extra training and support for more active and noisy classrooms – for there have been a number of studies (reviewed in Baines et al. 2008) which identify that teachers' lack of desire to introduce group work in classrooms to be founded on fears of unruly and noisy classrooms that contrast with the orderly and well-mannered classrooms of other teachers in their schools.

Experimental studies of cooperative and collaborative learning directly contrast with naturalistic studies reported above. Experimental studies have been structured to assess advantages in pupil learning via cooperative or collaborative interventions compared to traditional (Western), teacher-dominated classrooms. Cooperative learning interventions have a number of common characteristics. Cooperative pupil groups tend to be small – between 4 and 6 children – and of a heterogeneous composition to avoid knowledge and status hierarchies in the classroom (Cohen and Lotan 1995). Cooperative learning tasks must also be structured to develop/draw upon peer interdependence such that each pupil can contribute equally (Ames 1981; Johnson and Johnson 2003b) and encourage contact – especially drawing upon interpersonal communication skills (Barron 2003). When compared to traditional classrooms, reviews of cooperative studies (Kulik and Kulik 1992; Lou et al. 1996; Roseth et al. 2006) have consistently identified that: (1) pupils learn as much (and sometimes more) curriculum material than pupils in traditional classes; and (2) pupils in cooperative classes undertake their learning in a positive social atmosphere that engenders the development of extended within-class friendships and pro-school attitudes. These cooperative learning benefits can only be made if teachers are extensively trained in the cooperative intervention, such that they can model and support their children's new approach to learning (Gillies and Kahn 2009; Webb et al. 2009).

Collaborative learning, in contrast to cooperative learning, does not structure tasks for interdependence but is based on children's codevelopment of joint understanding via enhanced discussion and communication. Key communication skills drawn upon/developed through collaborative learning include problem-solving and elements of elaborated speech (justifications, explanations, predictions, etc.) as identified in a range of studies (Rosenshine et al. 1996; Dillenbourg et al. 1996; Sjard and Kieran 2001; Rojas-Drummond and Mercer 2003; Reznitskaya et al. 2009). Collaborative studies identify that shared information among pupils is likely to increase their understanding of general problem-solving and curriculum-oriented learning (Forman and Cazden 1985). Yet, the type of communication skills that promote and enhance collaborative learning is not generally a characteristic of normal within-class, peer-based interaction (see Mercer and Littleton 2007; Howe et al. 2000; and others). Hence, the facilitation of collaborative learning in classrooms draws upon the need to apply communication interventions to enhance elaborated talk (Mercer et al. 2004), helping and supportive behaviour (Webb and Mastergeorge

2003), argumentation (Mirza and Perret-Clermont 2009) and supportive questioning (O'Donnell and King 1999). The introduction of collaborative learning with pupil groups in classrooms, like cooperative learning, is not straightforward. Teachers will need to change traditional teaching styles to encourage more pupil talk (Webb et al. 2014), promote pupil questioning that is not threatening for 'face' (Kazemi and Stipek 2000) and provide opportunities for collaboration as well as model collaborative behaviour (Gillies and Kahn 2009).

Both cooperative and collaborative learning for the classroom appear to be strongly supportive of the cognitive and socio-cognitive/sociocultural theories. While studies identify successful classroom interventions, there are a number of limitations. Studies that describe successful cooperative and collaborative approaches tend to be undertaken over a short period of time, between 2 weeks or a term and, thus, do not provide evidence of any long-term change in children's group working behaviours. Each of the approaches is reliant on children's desire and ability to work with one another – cooperative approaches appear to see interpersonal/relational development as a result of successful cooperative activity, and collaborative approaches must take place between peers who want to talk with one another. Without problematising pupil's interpersonal relationships before initiating cooperative and collaborative interventions, there is a likelihood that children will not want to work with one another. Also, effective cooperative and collaborative learning requires that children work autonomously from the teacher, and interventions will need to include some form of training to enhance pupil interdependence and reduce dependence on the teacher. Finally, due to the methodological structure of these studies, the (often) quantitative methods of cooperative studies do not allow insight as to why this approach may be effective, and the (often) qualitative methods of collaborative studies tend to focus on only a few pupils in the classroom without identifying how effective the approach is for all children in the authentic classroom.

While Western group working practices to support cognitive, academic and social development of pupils in primary schools have strong theoretical backgrounds, their actualisation in authentic classrooms is more limited than one might expect. Being cognisant of cooperative and collaborative structures to support learning as well as naturalistic hurdles for effective group work, one further set of studies undertaken by Blatchford et al. (2005) was structured and evaluated on a large-scale, whole-class basis. These SPRinG (Social Pedagogic Research into Group work) studies drew upon the intention to promote pupils' cognitive and curricular understanding, but the studies approached 'effective' group work within authentic classrooms in a slightly different manner from previous research. Unlike many of the previous studies, SPRinG was funded over three+ years – which allowed for phases of development, application and evaluation (see Kutnick and Blatchford 2014 for a fuller explanation). Also, SPRinG deviated from previous studies in that it problematised children's ability to relate to all other members of their class in a positive and supportive manner rather than expecting children's social development to be a result of interacting cooperatively or collaboratively. This focus on relationships also meant that teachers would need to reconsider their roles in the classroom

as well as how the classroom was physically structured to enhance curriculum-based learning. The development phase allowed insight into aspects not normally considered in previous studies: (1) the involvement of a dedicated set of teachers who wished to promote group work in their classrooms and codevelop theoretically informed actions and activities with researchers; and (2) adaptation of a 'relational approach' (Kutnick and Manson 1998) that would enhance children's sensitivity, trust, communication and joint actions with their classmates in an inclusive manner. In its application phase, the codeveloped SPRinG studies (Kutnick et al. 2008; Blatchford et al. 2006) were undertaken in primary schools over a whole school year and, at this point in time, represent the largest quasi-experimental assessment of group work internationally. The primary schools studies involved over 1300 pupils with 51 experimental and 58 control classes. The group working skills engendered in SPRinG were not developed to be associated with any particular curriculum subject although cognitive and curriculum-based pre-testing to post-testing showed significant development in pupils' understanding of mathematics, literacy and science. The cognitive achievements of pupils in the SPRinG classrooms significantly affected children at all levels of attainment and both boys and girls. Comparative observations of children over the year showed distinct advances in SPRinG as opposed to control classes with regard to elaborated communication among mutual peers, sustained on-task and within-group focus for communication and involvement of all group members in curriculum-based talk. And, while there was variation among the SPRinG teachers with regard to how fully they adapted the recommended approach in their classrooms, there was good evidence to show the teachers moved from a traditional controlling curriculum and knowledge orientation to one of observing and monitoring their pupils and teachers increased their confidence in offering group work opportunities for their children. As a result of these studies, three principles were identified for the adaptation of effective group working to support learning in classrooms (see Baines et al. 2009, p. 3):

1. The relational approach: Group work skills have to be developed – children cannot simply be put into groups and be expected to work well together. Group work skills should help children to trust and respect each other; communicate effectively through listening, explaining and sharing ideas; and plan, organise and evaluate their group work.
2. The classroom context: The classroom and pupil groups should be strategically organised and managed with attention paid to seating arrangements and group characteristics that account for size, composition and stability of pupil groups.
3. The role of the teacher: Teachers (and other adults who work within classrooms) should adopt a range of roles that are supportive of group work and that encourage pupil interdependence rather than the direct, traditional teaching of pupils. Careful attention should be paid to the nature and structure of curricular and other classroom activities to ensure that group work can be effective.
4. Two case studies of effective group work in primary schools in Hong Kong.

A search of the research literature concerning the use of group work in primary schools in Hong Kong produced relatively few published studies. The lack of studies

is somewhat surprising in that the government (via its Education Bureau) has been encouraging the use of group work, pupil engagement and discussion since the start of the millennium. There have been a number of observational and other studies undertaken in Hong Kong primary schools (previously reviewed) which appear to attest to the continuing use of CHC practices of teacher-directive, formal teaching. Particularly, as shown in Fung's (2014) Fig. 12.1, classrooms tend to be taught in an individualised manner – both in terms of seating and in terms of pedagogic orientation between the individual pupil and her/his teacher. Each of these classrooms are well equipped with technological aids to support the 'virtuoso' teacher; these aids are concentrated at the front of the classroom and under the teacher's control. Even when offered the opportunity to create/use different pedagogic approaches by the reduction in their class sizes (from 35 pupils reduced to 25), Hong Kong primary school teachers maintained their traditional pedagogic approach (Galton and Pell 2010). Against this backdrop, two recent studies/cases are briefly introduced here (their full reports are still in preparation [Kutnick, Mok, Fung, Lee, Lai and Li] and in press [Fung 2014]). The two studies each drew upon the methodology and approach created in the UK-based SPRinG studies (Kutnick and Blatchford 2014), but were adapted for Hong Kong primary school classrooms. Kutnick et al. (in preparation) focused on the introduction and assessment of effective group work in mathematics classes in the upper primary school (P4), and Fung (2014) focused on the introduction and assessment of critical thinking skills in the upper primary school (P5). While both studies drew upon the SPRinG materials (Baines et al. 2009), each of the studies developed slightly different quasi-experimental methods. In so doing, the studies compared pupil knowledge and understanding (pre-post) over time and between experimental and control classes. Both studies worked with groups of teachers in the adaptation of key SPRinG principles (relational approach, adaptation of the classroom context and adaptation of teacher role) for the CHC classroom context.

The Kutnick et al. study worked with 20 mathematics teachers (12 experimental, 8 control) over two-thirds of a school year – rather than the full-year SPRinG programme. The focus on mathematics teachers and their classes was made because mathematics had been known internationally to be the most individualistically taught of all primary school curriculum subjects (Kutnick et al. 2002). Experimental and control teachers were initially assessed for their mathematics understanding and pedagogic efficacy (Wong et al.'s (2008) Hong Kong-based adaptations of Rowland et al.'s (2003) teacher assessments) in teaching mathematics, while their children were assessed on their mathematical knowledge via an adapted government-based test of age-appropriate mathematics questions and observed in their classrooms over two terms. Initial pretest results explored for differences between experimental and control teachers and their classes. As might be expected, no significant differences were found in teachers' mathematical understanding or pedagogic efficacy or their children's mathematics understanding. Over the course of the two terms, experimental teachers were provided training in the SPRinG approach, and adaptations for their classrooms and the mathematics curriculum were discussed, codeveloped and implemented in their classrooms. It should be noted here, but only at an

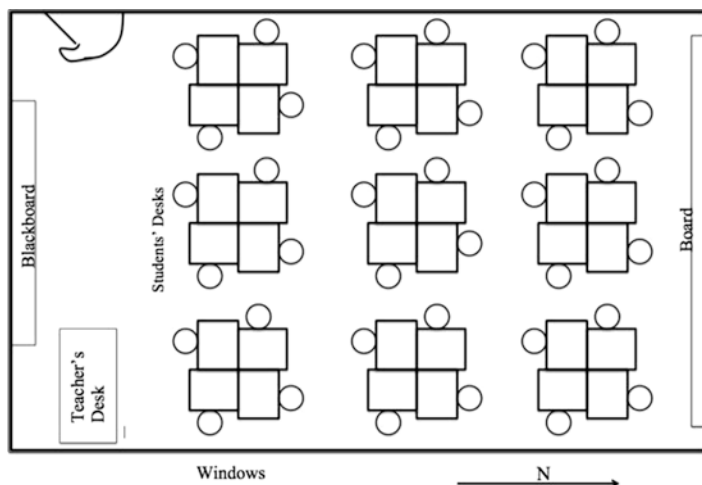
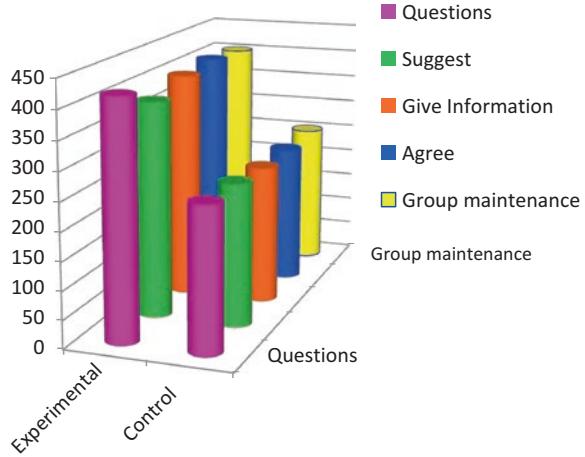


Fig. 12.2 Adapted layout of Hong Kong classroom for effective group work (From Fung 2014)

anecdotal level, that the teachers needed to engage in group work activities themselves before introducing the activities into their classrooms; and teachers become a support group among themselves. Observations over the research period showed that the experimental classrooms changed physically from the presentation of Fig. 12.1 to a close approximation of what Fung (2014) has presented as Fig. 12.2 – that is, desks were easily moved from individual positions to allow for small group, face-to-face interactions. The control class layout remained fundamentally the same over time (Fig. 12.1). Experimental pupil interactions changed from predominantly teacher-oriented individual pedagogic activity to show significant (based on non-parametric, chi square tests for difference with probability levels at 0.05 or lower and displayed in Fig. 12.3) within-group increases in questioning, suggesting, giving information, agreeing and maintaining group direction and (not in the figure below) on-task behaviour. There was also a significant difference between experimental and control classes in pupils' gain in mathematical understanding over the two terms (an initial ANCOVA: $F[1,476] = 9.715$, $p < 0.001$, effect size = 0.2; compared for individual post-test differences controlling for initial pretest scores, and this finding was later confirmed at class-level comparison using hierarchical linear modelling [HML]). The effect size showed experimental children progressing about 2 months in advance of control pupils (displayed graphically in Fig. 12.4). Finally, when post-test comparisons were undertaken on teachers' pedagogic efficacy, experimental teachers increased their scores significantly, while control teachers' scores remained fundamentally the same (regression: $F[3,16] = 5.465$, $p < 0.009$). Thus, against a background of significant increases in mathematical understanding for the experimental children, the study identified that the children became more likely to engage in the activities being recommended by the government (e.g. enhanced discussion and argumentation skills within a group work context; CDCHK 1995, 2001). Also, while experimental pupils were more likely to remain 'on-task'

Fig. 12.3 Post-test observed differences in incidence of communicative in experimental and control classes



P4 maths test results

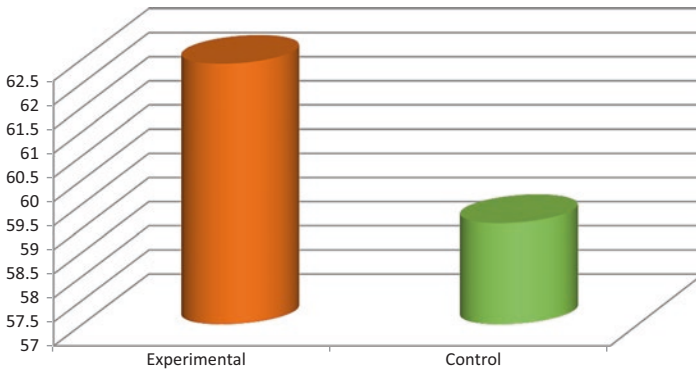


Fig. 12.4 Post-test differences in mathematical understanding after accounting for initial (pretest) results

than their control counterparts, this increased interpersonal interaction and on-task behaviour may not tell the full story. Experimental teachers’ pedagogic efficacy increases also demonstrated a greater willingness for teachers to engage with their pupils. Hence, the increase in effective group work in these mathematics classrooms appears tied to changes in the teacher’s role and changes in pupils engaging activities simultaneously.

In Fung’s (2014) study, a smaller group of teachers (six in total) agreed to introduce critical thinking skills to their classrooms. Teachers from two schools were assigned to three teaching conditions: traditional classroom, standard group work task assignment with no particular training for group work and group work training based on the SPRinG programme (Baines et al. 2009). Critical thinking tests (California Critical Thinking Disposition Inventory (Facione and Facione 1992) and

Test of Critical Thinking Skills for Primary and Secondary School Students (Yeh et al. 2000) adapted for use in Hong Kong) were administered as a pretest, and no significant differences were found between children in the three conditions. Over a 5-month (two-term) intervention period, pupils were taught a minimum of ten critical thinking lessons in a manner consistent with their pedagogic condition. Outcomes related to critical thinking showed that all children increased their critical thinking capabilities over time, but the group work with training classes improved to a significantly higher degree than the standard group work classes, and both of the group work conditions improved more than the traditionally taught classes (statistical assessment of the California Critical Thinking Disposition Inventory and the Test of Critical Thinking Skills for Primary and Secondary School Students drew upon mixed-model two-way ANOVAs with Bonferroni post-test comparisons between conditions). Observations of the children's joint working (within the group conditions only) showed that standard and group work with training conditions used high levels of justification, but the trained condition used these to a significantly greater degree. To explain why the trained group work condition produced consistently better results than the standard group work and traditional conditions, Fung interviewed teachers. Interviews found that teachers were easily able to adapt their teaching approach from their previous traditional approach, but this adaptation needed to be supported by specific training of teachers and pupils to engage in group work; the ability to adapt their classrooms (especially layout and pedagogic methods) was seen in a move from Figs. 12.1 to 12.2; and the adaptation of the teacher's role from directing the class to engaging with the children in their discussions was seen as fundamental for pupils' improvement in critical thinking.

Summary and Conclusion

Arguments for the use of group work in classrooms have strong Asian and Western theoretical backgrounds, but the application of effective group work for learning has been very limited in countries around the world. This chapter has identified political contexts of group work and strongly supports the tenet that the introduction of effective group work in Hong Kong classrooms must be undertaken in a 'culturally appropriate' manner. At the same time, after a review of both theory and research evidence, the chapter has pointed out that there has been no clear culturally appropriate interpretation for effective group work approaches in Hong Kong until recently. A summary of the literatures reviewed within the chapter has identified that culturally appropriate principles should account for an adaptation in the role of the teacher, an ability to change the context (both physical layout and curriculum presentation) of the classroom and support for the development/legitimation of relational and group working skills of pupils. Each of these principles has been derived from Confucian heritage and Western contexts, and the principles set a background for continuing case studies in Hong Kong. The case studies also draw upon further considerations that have been developed by Galton and his various

colleagues (see especially Blatchford et al. 2003), considerations of classroom authenticity, inclusion of all children in a class and teacher codevelopment. Drawing upon these principles and considerations, the case studies have shown that effective group work can be integrated into Hong Kong primary school classrooms – affecting children’s academic achievement, increased levels of classroom engagement of teachers and pupils and teachers’ pedagogic confidence.

References

- Alexander, R., Rose, J., & Woodhead, C. (1992). *Curriculum organisation and classroom practice in the primary school: A discussion paper*. London: Department of Education and Science.
- Allport, G. (1954). *The nature of prejudice*. Cambridge, MA: Addison Wesley.
- Ames, C. (1981). Competitive versus cooperative reward structures: The influence of individual and group performance factors on achievement attributions and affect. *American Educational Research Journal*, 18, 273–287.
- Anderson, R. C., Chinn, C., Chang, J., Waggoner, M., & Yi, H. (1997). On the logical integrity of children’s arguments. *Cognition and Instruction*, 15(2), 135–167.
- Astorga, H. (2002). *Teamwork—a new twist to old Asian collectivism*. Asia Pacific Management Forum. Retrieved November 12, 2004, from <http://www.apmforum.com/columns/eaststrategy5.htm>
- Baines, E., Blatchford, P., & Kutnick, P. (2003). Changes in grouping practices over primary and secondary school. *International Journal of Educational Research*, 39(1–2), 9–34.
- Baines, E., Blatchford, P., & Kutnick, P. (2008). Pupil grouping for learning: Developing a social pedagogy of the classroom. In R. Gillies, A. Ashman, & J. Terwel (Eds.), *The teacher’s role in implementing co-operative learning in classrooms* (pp. 55–72). New York: Springer.
- Baines, E., Blatchford, P., and Kutnick, P. with Chowne, A., Ota, C., and Berdondini, L. (2009). *Promoting effective group work in primary schools*. London: Routledge.
- Barron, B. (2003). When smart groups fail. *The Journal of the Learning Sciences*, 12(3), 307–395.
- Bennett, N. (1976). *Teaching styles and pupil progress*. London: Open Books.
- Bennett, N., Desforges, C., Cockburn, A., & Wilkinson, B. (1984). *The quality of pupil learning experiences*. London: Erlbaum.
- Biggs, J. (1994). Asian learners through Western eyes: An astigmatic paradox. *Australian and New Zealand Journal of Vocational Education Research*, 2(2), 40–63.
- Biggs, J. (1996). Western misconceptions of the Confucian-heritage learning culture. In D. Watkins & J. Biggs (Eds.), *The Chinese learner: Cultural, psychological and contextual influences* (pp. 45–67). Hong Kong: CERC and ACER.
- Blatchford, P., Kutnick, P., Baines, E., & Galton, M. (2003). Towards a social pedagogy of classroom group work. *International Journal of Educational Research*, 39, 153–172.
- Blatchford, P., Galton, M., Kutnick, P., & Baines, E. (2005). *Improving the effectiveness of pupil groups in classrooms: Final report to the ESRC (L139251046)*. Swindon: Economic and Social Research Council.
- Blatchford, P., Baines, E., Rubie-Davies, C., Bassett, P., & Chowne, A. (2006). The effect of a new approach to group work on pupil-pupil and teacher-pupil interactions. *Journal of Educational Psychology*, 98, 750–765.
- Bruner, J. (1983). *Children’s talk: Learning to use language*. New York: WW Norton and Co..
- Chan, S. (1999). The Chinese learner – A question of style. *Education and Training*, 41(6/7), 294–304.
- Cheng, X. (2000). Asians students’ reticence revisited. *System*, 28, 435–446.

- Chiu, M. M. (2004). Adapting teacher interventions to student needs during cooperative learning: How to improve student problem solving and time on-task. *American Educational Research Journal*, 41(2), 365–399.
- Cohen, E., & Lotan, R. (1995). Producing equal status interaction in the heterogeneous classroom. *American Educational Research Journal*, 32, 99–120.
- Cortazzi, M., & Jin, L. (1996). Cultures of learning: Language classrooms in China. In H. Coleman (Ed.), *Society and the language classroom*. Cambridge: Cambridge University Press.
- Curriculum Development Council HK [CDCHK]. (1995). *Target oriented curriculum programme for study of mathematics, key stage 1 (primary 1–3)*. Hong Kong: Curriculum Development Council.
- Curriculum Development Council HK [CDCHK]. (2001). *Learning to learn – the way forward in curriculum development*. Hong Kong: Curriculum Development Council.
- Damon, W., & Phelps, E. (1989). Critical distinctions among three approaches to peer education. *International Journal of Educational Research*, 58, 9–19.
- Deutsch, M. (1949). A theory of cooperation and competition. *Human Relations*, 2, 129–152.
- Dillenbourg, P., Baker, M., Blaye, A., & O'Malley, C. (1996). The evolution of research on collaborative learning. In E. Spada & P. Reisman (Eds.), *Learning in humans and machines: Towards an interdisciplinary learning science*. Oxford: Elsevier.
- Doise, W., & Mugny, G. (1984). *The social development of the intellect*. Oxford: Pergamon Press.
- Education Bureau (2008). *Small class teaching in public sector primary schools*. Hong Kong: Education Bureau Circular No. 19/2008, 10 October 2008.
- Elliott, J. G., & Grigorenko, E. L. (2007). Are Western educational theories and practices truly universal? *Comparative Education*, 43(1), 1–4.
- Facione, P. A., & Facione, N. C. (1992). *CCTDI: A disposition inventory*. Millbrae: California Academic Press.
- Flowerdew, L. (1998). A cultural perspective on group work. *ELT Journal*, 52(4), 323–329.
- Forman, E. A., & Cazden, C. B. (1985). Exploring Vygotskian perspectives on education: The cognitive value of peer interaction. In J. V. Wertsch (Ed.), *Culture, communication and cognition: Vygotskian perspectives* (pp. 323–347). New York: Cambridge University Press.
- Fung, D. (2014). Promoting critical thinking through effective group work: A teaching intervention for Hong Kong primary school students. *International Journal of Educational Research*.
- Galton, M., & Pell, T. (2010). *Study on small class teaching in primary schools in Hong Kong*. Hong Kong: Education Bureau and Cambridge University.
- Galton, M. J., Simon, B., & Croll, P. (1980). *Inside the primary classroom*. London: Routledge and Kegan Paul.
- Galton, M. J., Hargreaves, L., Comber, C., Wall, D., & Pell, A. (1999). *Inside the primary classroom: 20 years on*. London: Routledge.
- Gillies, R., & Kahn, A. (2009). Promoting reasoned argumentation, problem-solving and learning during small-group work. *Cambridge Journal of Education*, 39, 7–27.
- Goodlad, S., & Hirst, B. (1989). *Peer tutoring: A guide to learning by teaching*. London: Kogan Page.
- Goswami, U., & Bryant, P. E. (2007). Children's cognitive development and learning. In *Research report 2/1a The Primary Review*. Cambridge: University of Cambridge.
- Hastings, N., & Chantry, K. (2002). *Reorganising primary classroom learning*. Buckingham: Open University Press.
- Hofstede, G., & Hofstede, J. (2005). *Cultures and organisation-software of the minds* (2nd ed.). New York: McGraw-Hill.
- Howe, C. (2010). *Peer groups and children's development: Psychological and educational perspectives*. Oxford: Wiley-Blackwell.
- Howe, C., & Tolmie, A. (2003). Group work in primary school science: Discussion, consensus and guidance from experts. *International Journal of Educational Research*, 39(1–2), 51–72.

- Howe, C., Tolmie, A., Duchak-Tanner, V., & Rattray, C. (2000). Hypothesis testing in science: Group consensus and the acquisition of conceptual and procedural knowledge. *Learning and Instruction, 10*(4), 361–391.
- Johnson, D. W., & Johnson, R. (2003a). *Joining together: Group theory and research*. Boston: Allyn and Bacon.
- Johnson, D., & Johnson, R. (2003b). Student motivation in co-operative groups: Social interdependence theory. In R. Gillies & A. Ashman (Eds.), *Co-operative learning: Social and intellectual outcomes of learning in groups* (pp. 136–176). London: Routledge/Falmer.
- Kazemi, E., & Stipek, D. (2000). Promoting conceptual thinking in four upper-elementary mathematics classrooms. *The Elementary School Journal, 102*, 59–80.
- Kennedy, P. (2002). Reading literature in Hong Kong: the beliefs and perceptions of three groups of adult learners. In J. Cribben & P. Kennedy (Eds.), *Lifelong learning in action: Hong Kong practitioners' perspectives* (pp. 219–228). Hong Kong: Hong Kong University Press.
- Kennedy, P. (2010). Learning cultures and learning styles: Myth-understandings about adult (Hong Kong) Chinese learners. *International Journal of Lifelong Education, 21*(5), 430–445.
- Keppell, M., & Carless, D. (2006). Learning-oriented assessment: A technology-based case study. *Assessment in Education, 13*(2), 179–191.
- Kulik, J. A., & Kulik, C.-L. C. (1992). Meta-analytic findings on grouping programs. *The Gifted Child Quarterly, 36*, 73–77.
- Kutnick, P. (1988). *Relationships in the primary school classroom*. London: Paul Chapman Press.
- Kutnick, P., & Blatchford, P. (2014). *Effective group work in primary school classrooms*. Dordrecht: Springer.
- Kutnick, P., & Manson, I. (1998). Social life in the classroom: Towards a relational concept of social skills for use in the classroom. In A. Campbell & S. Muncer (Eds.), *The social child*. Hove: The Psychology Press.
- Kutnick, P., Blatchford, P., & Baines, E. (2002). Pupil groupings in primary school classrooms: Sites for learning and social pedagogy? *British Educational Research Journal, 28*(2), 189–208.
- Kutnick, P., and Brighi, A. with Avgitidou, S., Genta, M. L., Hannikainen, M., Karlsson-Lohmander, M., & Ortega Riuz, R. (2007). The role and practice of interpersonal relationships in European early education settings: sites for enhancing social inclusion, personal growth and learning? *European Early Childhood Education Research Journal, 15* (3), 379–406.
- Kutnick, P., Ota, C., & Berdondini, L. (2008). Improving the effects of classroom groupwork with young children; attainment, attitudes and behaviour. *Learning and Instruction, 18*(1), 83–95.
- Kutnick, P., Mok, I., Fung, D., Lee, P.-Y., Lai, V., & Li, J. (in preparation). *Effective group work for mathematics understanding in Hong Kong primary school classrooms*.
- Lewin, K. (1946/1948). Action research and minority problems. In G. W. Lewin (Ed.), *Resolving social conflicts* (pp. 201–216). New York: Harper and Row.
- Li, J. (2003). US and Chinese cultural beliefs about learning. *Journal of Educational Psychology, 95*(2), 258–267.
- Littleton, K., Mercer, N., Dawes, L., Wegerif, R., Rowe, D., & Sams, C. (2005). Thinking together at Key Stage 1. *Early Years: An International Journal of Research and Development, 25*(2), 165–180.
- Liu, J. (2002). Negotiating silence in American classrooms: Three Chinese cases. *Language and Intercultural Communication, 2*(1), 37–54.
- Lou, Y., Abrami, P. C., Spence, J. C., Poulsen, C., Chambers, B., & d'Apollonia, S. (1996). Within-class grouping: A meta-analysis. *Review of Educational Research, 66*(4), 423–458.
- Marton, F., Dall'Alba, G., and Tse, L.K. (1996). Memorising and understanding: The keys to the paradox. In D. Watkins and J. Biggs (Eds.) *The Chinese learner: Cultural, psychological and contextual influences* (69–84). Hong Kong: CERC and ACER
- Mercer, N., & Littleton, K. (2007). *Dialogue and development in children's thinking – a socio-cultural approach*. London: Routledge.

- Mercer, N., Wegerif, R., & Dawes, L. (1999). Children's talk and the development of reasoning in the classroom. *British Educational Research Journal*, 25(1), 95–111.
- Mercer, N., Dawes, L., Wegerif, R., & Sams, C. (2004). Children's talk and the development of reasoning in the classroom. *British Educational Research Journal*, 25, 95–111.
- Messier, W.P. (2003). Traditional teaching strategies versus cooperative teaching strategies: Which can improve achievement scores in Chinese middle schools? <http://web.hku.hk/~cel2004/Proceedings/064-WilliamPMessier.doc>. Accessed 28 Jan 2014.
- Mirza, N. M., & Perret-Clermont, A.-N. (2009). *Argumentation and education: Theoretical foundations and practices*. New York: Springer.
- Mok, I. A. C., & Morrison, P. (2000). The metamorphosis of the 'virtuoso': Pedagogic patterns in Hong Kong primary mathematics classrooms. *Teaching and Teacher Education*, 17(4), 455–468.
- Mortimore, P., Sammons, P., Stoll, L. D., & Ecob, R. (1988). *School matters: The junior years*. Wells: Open Books.
- Mullis, I. V. S., Martin, M. O., Foy, P., & Arora, A. (2012). *TIMSS 2011 results on mathematics*. Chestnut Hill: TIMSS and PIRLS International Study Center, Boston College.
- Murphy, D. (1987). Offshore education: A Hong Kong perspective. *Australian Universities Review*, 30(2), 43–44.
- Nelson, G. (1995). Cultural differences in learning styles. In J. Reid (Ed.), *Learning styles in the ESL/EFL classroom*. Boston: Heinle and Heinle.
- Nguyen, P.-M., Terlouw, C., & Pilot, A. (2005). 'Cooperative learning vs. Confucian Heritage Culture's collectivism. *Asia-Europe Journal*, 3 (3)' as reported in Nguyen, P.-M., Terlouw, C., & Pilot, A. (2006). Culturally appropriate pedagogy: The case of group learning in a Confucian Heritage Culture context. *Intercultural Education*, 17 (1), 1–19.
- Nguyen, P.-M., Terlouw, C., & Pilot, A. (2006). Culturally appropriate pedagogy: The case of group learning in a Confucian Heritage Culture context. *Intercultural Education*, 17(1), 1–19.
- Nguyen, P.-M., Elliot, J., Terlouw, C., & Pilot, A. (2009). Neocolonialism in education: Cooperative learning, Western pedagogy in an Asian context. *Comparative Education*, 45(1), 109–130.
- O'Donnell, A. M., & King, A. (Eds.). (1999). *Cognitive perspectives on peer learning*. Mahwah: Erlbaum.
- Organisation for Economic Co-operation and Development. (2010). *What students know and can do: Student performance in reading, mathematics and science*. Paris: OECD Publications.
- Oxford, R., & Anderson, N. (1995). A cross-cultural view of learning styles. *Language Teaching*, 28, 201–215.
- Oxford, R., & Bury-Stoke, J. (1995). Accessing the use of language learning strategies worldwide with ESL/EFL version of the strategy for language learning. *System*, 23(2), 153–175.
- Pepitone, E. (1980). *Children in co-operation and competition*. Lexington: Lexington Books.
- Perret-Clermont, A.-N. (1980). *Social Interaction and Cognitive Development in Children*. London: Academic.
- Piaget, J. (1928, trans. 1959). *Language and thought of the child*. London: Routledge and Kegan Paul.
- Piaget, J. (1971). *Science of education and psychology of the child*. London: Routledge and Kegan Paul.
- Piaget, J., & Inhelder, B. (1972). *The psychology of the child*. New York: Basic Books.
- Report, P. (1967). *Children and their primary schools*. London: Her Majesty's Stationary Office.
- Reznitskaya, A., Kuo, L.-J., Clark, A.-M., Miller, B., Jadallah, M., Anderson, R., & Nguyen-Jahiel, K. (2009). Collaborative reasoning: A dialogic approach to group discussions. *Cambridge Journal of Education*, 39(1), 29–48.
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York: Oxford University Press.
- Rogoff, B. (2003). *The cultural nature of human development*. Oxford: Oxford University Press.
- Rojas-Drummond, S., & Mercer, N. (2003). Scaffolding the development of effective collaboration and learning. *International Journal of Educational Research*, 39(1–2), 99–111.

- Rosenshine, B., Meister, C., & Chapman, S. (1996). Teaching students to generate questions: A review of the intervention studies. *Review of Educational Research*, 66, 181–221.
- Roseth, C. J., Fang, F., Johnson, D. W., & Johnson, R. T. (2006). *Effects of cooperative learning on middle school students: A meta-analysis*. San Francisco: American Educational Research Association Annual Conference.
- Rowland, T., Huckstep, P., & Thwaites, A. (2003). The knowledge quartet. *Proceedings of the British Society for Research into Learning Mathematics*, 23(3), 97–102.
- Salili, F., & Lai, M. K. (2003). Learning and motivation of Chinese students in Hong Kong: A longitudinal study of contextual influences on students' achievement orientation and performance. *Psychology in the Schools*, 40(1), 70–81.
- Sjard, A., & Kieran, C. (2001). Cognition as communication; rethinking learning-by-talking through multi-facted analysis of students' mathematical interactions. *Mind, Culture, and Activity*, 8, 42–76.
- Slavin, R. (1995). *Cooperative learning* (2nd ed.). Boston: Allyn and Bacon.
- Slavin, R., Hurlley, E. A., & Chamberlain, A. (2003). Cooperative learning and achievement: Theory and research. In W. M. Reynolds & G. E. Miller (Eds.), *Handbook of psychology: Educational psychology* (Vol. 7, pp. 177–197). New York: Wiley.
- Stevenson, W., & Lee, S. (1997). The East Asian version of whole-class teaching. In W. K. Cumming & P. G. Albach (Eds.), *The challenge of Eastern Asian education* (pp. 33–49). Albany: State University of New York Press.
- Su, 1995 as cited in Oxford, R., & Anderson, N. (1995). A cross-cultural view of learning styles. *Language Teaching*, 28, 201–215.
- Tang, C. (1996). Collaborative learning. Western misconceptions of the Confucian-heritage learning culture. In D. Watkins & J. Biggs (Eds.), *The Chinese learner: Cultural, psychological and contextual influences* (pp. 183–204). Hong Kong: CERC and ACER.
- Tang, C., & Biggs, J. (1996). How Hong Kong students cope with assessment. In D. Watkins & J. Biggs (Eds.), *The Chinese Learner: Cultural, psychological and contextual influences* (pp. 159–182). Hong Kong: CERC and ACER.
- Tang, T., & Williams, J. (2000). *Who have better learning styles – East Asian or Western students?* Proceedings of the 5th ELSIN conference, Hertford UK.
- Tharp, R., & Gallimore, R. (1988). *Rousing young minds to life: Teaching, learning and schooling in social context*. New York: Cambridge University Press.
- Topping, K. (2005). Trends in peer learning. *Educational Psychology*, 25(6), 631–645.
- Vygotsky, L. (1962). *Thought and language*. Cambridge, MA: MIT Press.
- Vygotsky, L. (1978). *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.
- Wagner, L. (1982). *Peer teaching: Historical perspectives*. Westport: Greenfield Press.
- Watkins, D., & Biggs, J. (Eds.). (1996). *The Chinese learner: Cultural, psychological and contextual influences*. Hong Kong: CERC and ACER.
- Webb, N. M., & Farivar, S. (1994). Promoting helping behaviour in cooperative small groups in middle school mathematics. *American Educational Research Journal*, 31, 369–395.
- Webb, N., & Mastergeorge, A. (2003). Promoting effective helping behaviour in peer directed groups. *International Journal of Educational Research*, 39(1–2), 73–97.
- Webb, N., Franke, M. L., Tondra, D., Chan, A., Freund, D., Shein, P., & Melkonian, D. (2009). Explain to your partner: Teacher instructional practices and students' dialogue in small groups. *Cambridge Journal of Education*, 39(1), 49–70.
- Webb, N., Franke, M. L., Ing, M., Wong, J., Fernandez, C. H., Shin, N., & Turow, A. C. (2014). Engaging with others' mathematical ideas; interrelationships among student participation, teachers' instructional practices and learning. *International Journal of Educational Research*, 63, 79–83. doi:10.1016/j.ijer.2013.05.02.
- Wertsch, J., & Sohmer, R. (1995). Vygotsky on learning and development. *Human Development*, 38, 332–337.

- Whitty, G., Power, S., & Halpin, D. (1998). *Devolution and choice in education*. Melbourne: Australian Council for Educational Research.
- Wilkins, A. (2011). Co-operative learning – A conceptual framework. *Journal of Co-operative Studies*, 44(3), 5–14.
- Wong, W. (1996). *How do Hong Kong students learn? Implications for teacher 13*. Hong Kong: Educational Technology Centre, Hong Kong University of Science and Technology.
- Wong, T.S. (2001). Group work in science learning – International scenarios and implications for teaching and learning in Hong Kong. *Asia-Pacific Forum on Science Learning*, 2 (2), Article 9.
- Wong, N.-Y., Rowland, T., Chan, W.-S., Cheung, K.-L., & Han, N.-S. (2008, July). *To what extent are our mathematics teachers equipped with adequate mathematics to teach? A comparative perspective*. Paper presented at the 11th international congress on mathematical education, Monterrey, Mexico.
- Wood, D. (1998). *How children think and learn: The social contexts of cognitive development* (2nd ed.). Oxford: Blackwell.
- Yeh, Y., Yeh, P., & Hsieh, C. (2000). The development of “the test of critical-thinking skills for primary and secondary school students”. *Psychological Testing*, 47(1), 27–46.

Chapter 13

Classroom Creativities, Pedagogic Partnership and the Improvisatory Space of Creative Teaching and Learning

Pamela Burnard

Abstract There is a long history of collaborations between teachers and professional artists in participatory arts activities in schools and communities. Models of pedagogic partnerships between artists and teachers vary considerably. However, effective partnerships between artists and teachers in schools suggest that it is in classroom creativities that innovative professional practices emerge. This chapter draws significantly on Professor Maurice Galton's study of the pedagogy of resident artists in schools for Creative Partnerships and the Arts Council of Great Britain. Extending Professor Galton's ideas, I argue that creative learning and teaching are more likely to occur when the rigid division between teacher and student is relaxed, creating an improvisatory space where teacher, artist and students jointly construct the improvisational flow of the classroom.

Keywords Creative learning • Creative teaching pedagogic partnership • Artist-teacher collaborations

In primary and secondary classrooms, a collaboration between teachers and professional artists (Craft et al. 2007) has been associated with fostering positive learning relationships, fostering wellbeing and enhancing engagement along with innovation, originality, ownership and control (McLellan et al. 2012; Burnard and Murphy 2013). Reflecting on what makes for creative learning is only part of the picture, since teaching for creativity, together with the mutual dependency of learning and teaching, also needs to be acknowledged. One of the biggest challenges for teachers, particularly in climates of school reform, accountability and standards, is in

P. Burnard (✉)

Faculty of Education, University of Cambridge, 184 Hills Road, Cambridge CB2 8PQ, UK
e-mail: pab61@cam.ac.uk

their planning and in the ethos which they create to afford high value to curiosity and risk-taking, ownership, autonomy and making connections (McLellan et al. 2012). Successful teachers more often work in partnership with others: with children, other teachers and artists (Galton 2010). Creativities embodied in and arising from partnership practices are often initiatives involving artists and teachers working in collaboration. Pedagogic partnerships are often inherently improvisational. The name that we give an activity or process (such as ‘teaching’) acts as a ‘frame’ for how we put it into practice. As with ‘unscripted theatre’ and ‘jazz music’, where there is a body of accumulated knowledge built up around the terms, so too with ‘teaching’; innovative teachers make a conscious effort to develop improvisational expertise and educational practices that create improvisatory spaces. Pedagogic partnerships, typically those which are long-term initiatives between teachers and artists, usually involve an arts organization that both funds the project and has direct input to its planning and delivery. Local government arts offices have acted as major stakeholders in supporting and developing partnership initiatives. Research evidence highlights the impact of partnerships (involving professional artists and teachers in collaboration with pupils) in developing creative learners who can succeed in a twenty-first century economy that rewards creativity and innovation.

Between 2002 and 2006, Professor Maurice Galton codirected a £1 million UK study on grouping and group work for the Teaching and Learning Research Programme (TLRP). This project was followed by a study of the pedagogy of resident artists in schools for Creative Partnerships and the Arts Council of Great Britain and the impact of creative partnerships on the wellbeing of children and young people (Galton 2010). In this project, his purpose, as with the premise of all of his work, was to develop classroom practice and to enhance the act of teaching and teachers’ status as creative professionals. Effective creative teaching strikes a delicate balance between diverse renderings of classroom creativities arising from artist-teacher collaborations. Pedagogic partnerships set up with artists encourage teachers to take risks, to be adventurous and to explore creativity themselves. Yet, what constitutes creativity in education remains ambiguous. Slippage in language is confusing, and it is common for slippage to occur between the terms ‘teacher creativity’, ‘creative teaching’, ‘teaching for creativity’ and ‘creative learning’. In this chapter, I will discuss studies that explore partnership programmes which aim to foster and promote classroom creativities through the development of positive learning environments in which students can take risks, engage in imaginative activity and do things differently.

One of Maurice Galton’s many groundbreaking projects in educational research, the Oracle project (Observational Research and Classroom Learning Evaluation), provided a detailed picture of the range of strategies observed in British primary classrooms. The pedagogic levels on which teachers operate concerned: (a) classroom practice at the strategic level, which thematized teachers’ intentions prior to the start of a lesson, and (b) tactical decisions in the ‘moments of teaching’, i.e. the minute-by-minute occurrences throughout the lesson. Galton identified a number of teaching styles which can be seen to be linked closely to different types of pupil behaviour – some being more effective than others.

Studies conducted in the following decade have largely confirmed these findings (Galton et al. 1998). The ongoing debate recognizes, more than 10 years on, that the translation of educational policy into pedagogic practice is neither straightforward nor unproblematic.

In the UK, as well as in the USA, Norway, Ireland, Taiwan and Hong Kong, governments are encouraging an expansion of artist-teacher pedagogic partnerships (Burnard 2013). In these partnerships, working professional artists visit the classroom for a limited time period and work side by side with the full-time teacher. Partnerships have become a delivery model in education, offering a forum for creative opportunities.

In the UK, an emerging commitment to address the performative climate within education and children's wellbeing was reflected in a government initiative called 'Creative Partnerships'. A £150 million initiative by the UK Department for Culture, Media and Sport (DCMS 2004), Creative Partnerships, invests in relationships between creative practitioners and schools to encourage and support creativity in learning (see www.creative-partnerships.com).

There is a long history of collaborations between teachers and professional artists in participatory arts activities in schools and communities. Models of practice in partnerships between artists and teachers vary considerably. However, effective partnerships between artists and teachers in schools suggest that it is in the act of creativity itself that empowerment lies. Teaching is a subtle and complex art, and successful teachers, like artists, view their work as a continuing process of reflection and learning.

Effective partnerships have been reported as directly benefiting students, but they also have the potential to indirectly benefit students by increasing teacher expertise. There is a consensus that educational partnerships are dependent on the help, trust and openness of the individuals involved (Burnard and Swann 2010; Galton 2010; Jeffrey 2005). For a partnership to work well, either for students or for teacher professional development, Wenger (1998, p. 73) argued that there must be genuine collaboration, dialogue, openness and mutual tuning. Under these conditions, there is the potential for a collaborative partnership to develop, one in which teachers and artists engage in dialogue and are dialogic in their teaching. For this to happen, they need to have time for thinking, to encourage and maintain ambiguity and to share understanding about what they are doing and what that means within the community (Galton 2008).

Teachers and artists co-construct a *pedagogy* when their collaboration encompasses 'the act of teaching, together with the ideas, values and collective histories that inform, shape and explain that act' (Alexander 2008, p. 38). To analyse how this happens, in my research, I study how the core acts of teaching – namely, 'task, activity, interaction, and judgement' (Alexander 2008, p. 78) – feature in the dialogue between teachers and artists.

When teachers and artists collaborate, they often have different conceptions of the organization of space, material and time in the classroom. The visiting artist typically uses a more improvisational, open-ended approach, while the classroom teacher typically uses a more structured style (Burnard and Maddock 2007).

This gives rise to a dilemma: How can the more unpredictable, improvisational approach of the visiting artist be balanced against the more predictable, normative and accountable style of the teacher? And how do teacher-artist partnerships resolve this dilemma?

Improvisational Spaces of Teaching

In music, improvisation can be thought of as the discovery and invention of original music spontaneously while performing it, without preconceived formulation, scoring or context. This definition of ‘improvisation’ helps to advance the notion of teaching as a performative act, moving flexibly, reflexively and spontaneously between scripted and unscripted sections, a kind of partly improvised and partly choreographed dance in dynamic interaction with all those present.

Another dimension of improvisation which is often referred to in music and theatre is ‘going with the flow’ or ‘getting in the groove’. These skilled performances are based on a high degree of tacit knowledge and practice, just as is all professional expertise. Improvised behaviours involve ‘ideas which leap to mind’ (and to jazz player’s fingers, according to Pike 1974) and can be seen in the perceptual nature of responsiveness on the part of the teacher and artist to students. This resonates with the notion of Nardone (1996) who considered the lived experience of improvisation to be a coherent synthesis of the body and mind engaged in both conscious and pre-reflective activity. When teachers and artists work together, particularly over sustained periods, their tacit knowledge and practice can be examined, reflected on and shared and new practices created.

Berliner (1994) offers a further understanding of the openness, uncertainty and dialogical nature of improvisation and the conditions that allow individuals to be generative, adaptive and reciprocal. He says:

The sense of exhilaration that characterizes the artist’s experiences under such circumstances is heightened for jazz musicians as storytellers by the activity’s physical, intellectual and emotional exertion and by the intensity of struggling with creative processes under the pressure of a steady beat. From the outset of each performance, improvisers enter an artificial world of time in which reactions to the unfolding events of their tales must be immediate. Furthermore, the consequences of their actions are irreversible. Amid the dynamic display of imagined fleeting images and impulses – entrancing sounds and vibrant feelings, dancing shapes and kinetic gestures, theoretical symbols and perceptive commentaries – improvisers extend the logic of previous phrases, as ever-emerging figures on the periphery of their vision encroach upon and supplant those in performance...Few experiences are more deeply fulfilling. (Berliner 1994, p. 216)

What follows is an analysis of the two different roles in a creative partnership, teacher and artist, and I focus on the tension between their two different sets of tacit practices, beliefs and professional perspectives. My goal is to understand how they resolve this tension to create a shared space for teaching that enables the emergence of improvisational forms of teaching. How this links to the work of Maurice Galton

is in the idea that there is a set of pedagogic principles that are associated with creative practitioners (artists). What takes teachers and artists from teaching together, independently and side by side, to co-constructing an emergent pedagogy? Like Maurice Galton, I focus on two questions: When is it that artists enable teachers by working in classrooms? And how are artists helping teachers improve their teaching?

When teachers and artists collaborate, their different conceptions of teaching and different paradigms of expertise must be resolved before they can construct an effective learning environment. This examination sheds light on the teaching paradox because the visiting artist represents the more creative, improvisational end of the paradox, while the classroom teacher represents the more constrained, scripted end. Teacher-artist partnerships have been shown to help teachers enliven and loosen up tightly scripted ways of teaching (Burnard and Swann 2010; Burnard and White 2008; Jeffery 2005). As one creative practitioner put in Galton's (2010) study:

To me being here is about several things. One important thing for me is to look at a different model of working; of the ways artists can work with schools and teachers in a much more collaborative way rather than be expected to come in and deliver and then go away again. And another important thing is with the children. What we are trying to do here is to be a person who responds to ideas that the children are coming up with and then to bring our own practice to share. (p. 365)

Very often teacher identities are played out in particular professional roles where their pedagogy and values are regularly scrutinized and tested in the classroom, as behaviour managers fuelled/informed by an institutional dimension often creating an inner conflict between skilfully modelling teacher attributes and pedagogic content knowledge. Artists, in contrast, are stereotypically presented and seen as artists or arts practitioners, professionals involved in cultural production. The artist in education is frequently an outsider who comes into an education space and acts as a catalyst or challenger of learning and who provides ways of exploring the world which involve more sensory, immersive and improvisatory ways of working than are customary in classroom settings. The artist is often seen as precisely *not* the teacher, as the 'other' who is permitted to open up new contexts, new frontiers and challenges that are unfamiliar to the learners.

I will now move beyond these divisive stereotypes of teacher and artist and discuss how teacher-artist partnerships can create collaborative spaces for teaching that resolve the teaching paradox in a way that promotes conditions conducive to student creativity, such as taking risks and allowing for the unexpected.

Pedagogic Partnerships and Teaching for Creativity

For many years, schools have employed visiting professional artists, in music, dance and theatre, to work in educational partnerships with teachers in schools. But this practice has increased dramatically in the UK in the last decade, as a result of the

publication of the report of the National Advisory Committee on Creative and Cultural Education (NACCCE 1999). In the years after this influential document was published, many subsequent government policies and advisory documents have indirectly increased the interest in partnerships with artists in schools. The partnerships are thought to directly impact creative learning (Creative Partnerships 2005a), as well as to indirectly impact it by enhancing the teacher's ability to teach for creativity, even after the partnership has ended and the artist has left (Pope et al. 1999). In educational research, there is a small but growing body of research that identifies the pedagogical potential of teacher-artist partnerships (Burnard and Swann 2010; Triantafyllaki and Burnard 2010; Burnard and Maddock 2007; Jenkins et al. 2008). The vision and the hope are that the learning of pupils, pedagogic practices of teachers and schools as organizations will be changed by educational partnerships and their significance in school improvement.

The vision and number of educational partnerships were increased dramatically in the UK as a result of the 2002 policy initiative, *Creative Partnerships* (2005b, c). Creative Partnerships is the government's flagship creative learning programme designed to develop the creativity of young people across England. The vision and hope of this program brought artists who champion contemporary arts practice and creative practitioners such as architects, scientists and multimedia developers into schools to enhance young people's learning through arts and cultural experiences. With over 330,000 young people and over 4500 teacher-artist collaborations, partnerships are acknowledged to have great potential to enhance arts education and creative education in schools.

The Creative Partnerships programme was established within the Arts Council of England in April 2002 as a shared initiative between the Department of Culture Media and Sport and the then Department for Education and Skills. Unlike the earlier 'resident artist in schools' ventures in earlier decades, this flagship creative learning educational programme has been rolled out to more than 1,100,000 young people in 12,800 schools in 36 different areas across in the UK. In total, the English government has spent £247,000,000 with multiple goals. One goal is to help pupils learn more creatively; a second goal is to help teachers to teach more creatively; a third is to help schools become more innovative organizations; a fourth is to forge strong and sustained partnerships between schools and artists. Research on the impact of artists (more recently referred to as creative practitioners in the UK) in schools and classrooms has focused on their pedagogic practices (Galton 2010) or on pupil perceptions of learning with artists (Burnard and Swann 2010). This chapter provides evidence of how the teaching paradox is resolved in these collaborative pedagogic practices between teachers and artists working in partnership in schools.

In 2009, the Creative Partnerships programme moved to a new national agency *Creativity, Culture and Education* (CCE 2009) which created a fund with which to manage cultural and creative programmes for young people; this agency invested a further £100 million between 2009 and 2011. One of the key policy messages was to establish 'a new balance in education' through 'relationships between schools and other agencies' (NACCCE 1999, p. 10). The vision and hope here, in the light of these educational policy initiatives (as well as CCE 2009; NCSL 2002; QCA

2005 and *Schools of Creativity* (Creative Partnerships Prospectus for Schools September 2007)), were that teachers would better learn how to resolve the teaching paradox: they would be stimulated and supported by sharing the spontaneous and unpredictable nature of working in collaborative practice with artists, where the teacher makes unpremeditated, spur-of-the-moment decisions, where a considerable degree of residual decision-making occurs and where the acquired skills which are normally executed as a professional repertoire of teaching strategies are linked up with those of the artists to develop a new way of resolving the teaching paradox between advance planning and the real-time practice of classroom teaching.

Professional Relationships and the Spaces That Enable Teaching for Creativity

As Maurice Galton's work on creative partnerships has shown, when artists and teachers collaborate, the full complexity of teaching is affected. Teachers and artists enter the partnership with different theories, beliefs, practices, questions, visions and hopes. Thus, the teaching paradox is played out visibly, in the social interaction between the two professionals. There is strong evidence that artists use a more improvisational approach as they engage with students and teachers (Sefton-Green 2008). Research suggests that artists share processes of creative thinking in classrooms through an apprenticeship model of teaching, in contrast to the instrumental/instructionist style that dominates most school classrooms. This is further substantiated by Pringle (2008) who notes that artists view teaching 'as an experiential process of conceptual enquiry that embraces inspiration, critical thinking and the building of meanings' (p. 14). She argues that artists teach by sharing artistic knowledge and by enabling learners to participate alongside them (Pringle 2008).

Maurice Galton (2008) studied a group of artists with a successful track record of working in schools, not only including artists from traditional disciplines but also practitioners making regular use of various forms of information and communications technology (ICT) such as digital photographers and film-makers. As with Pringle's (2008) account, Galton found that these artists mostly felt that it was sustained dialogue with teachers (and students) and the time taken for planning that enabled them to engage in improvisational practices in the classroom. Artists define themselves as creative practitioners in terms of the artistic expertise, knowledge and skills they possess (Galton 2008); they also define themselves by what pedagogical practices they use in their work in schools (Hall et al. 2007; Hall and Thomson 2007; Jeffery 2005).

Creative Partnerships has funded 'action research' investigations (the first round was in 2004–2005; the second round was 2005–2006) into these partnerships. There are some studies that explore artist-teacher partnerships in primary school contexts (Hall et al. 2007; Hall and Thomson 2007; Maddock and Sapsed 2008), in secondary schools (Galton 2008; Cochrane et al. 2007b; Cape 2005; Jeffery 2005), in

higher education and university sectors (Cochrane et al. 2007a) and in professional development programmes (Jenkins et al. 2008; Ledgard 2006). These primarily analyse the impact of the artists on students' experience of learning and tend to be outcomes of what artists *do* rather than what teachers learn.

While recognizing the value of the wide range of artist-led interventions in education, which can enhance students' learning (such as the long-standing tradition of theatre in education), this chapter explores the research that demonstrates the benefits, complexities and challenges of teacher-artist partnerships and provides evidence of how artists and teachers collectively create emergent resolutions of the teaching paradox.

Improvisatory Dimensions of Teaching for Creativity

There is a growing body of evidence on teachers' experience of teacher-artist partnerships, its rewards, tensions and dilemmas (Hall and Thomson 2007; Uptis 2006; Ledgard 2006; Jeffery 2005; Cochrane 2008). In schools, where the Creative Partnerships programme is well established, a key issue has emerged: How do artists' perspectives on pedagogy inspire, guide and mentor teachers? While there is no lack of evidence that artists motivate students, there is little extant research which identifies what teachers learn about teaching while working with artists. The metaphor of improvisation helps to illuminate the concept that creative learning is essentially polyphonic; it evolves not in a single line of action or thought but in several strands and directions at once. It is not circumscribed by the tried and traditional and enables risk-taking. In the face of this, artists can adopt different stances and engage in different collaborative activities, to different degrees, in collaboration with teachers.

Improvisation is characterized by flexible, adaptive, responsive and generative activity. Improvisation forms a part the discourse of creativity which permits an understanding of the elements which frame teaching as a performance which can move between a fixed and a flexible structure, an existing and an emergent framework, where choices can be made spontaneously, moving between scripted and non-scripted formulations. Teaching, like improvisation, is framed conceptually and ethically, as well as temporally and spatially. Pedagogic practices can be rigid, with impermeable borders that form barriers to students, or they can move inside and outside the safe, the known and the predictable.

In the variability of pre-existing pedagogic and artistic practices, teachers and artists engage in considerable risk-taking when they work together. Improvisational teaching constantly negotiates the teaching paradox: It dances between planned, scripted, deliberate and conscious episodes and opportunistic action, ensuring spontaneity by yielding to the flow and its immediacy, signifying improvisational characteristics in the synchronous moment to moment of creating a new pedagogic practice. From teacher expertise literature, we know that expert teachers have mastered the structures of teaching – a large repertoire of plans, routines and scripts. In

addition, teachers must master the practice of teaching – a range of teaching strategies which include improvisational forms.

Pedagogic Creativities or Pedagogies of Creativity?

In the context of the qualitative differences between artist and teacher pedagogies, Bernstein (1996) offers a framework which differentiates between pedagogies in terms of *competence* and *performance*. ‘Competence’ pedagogies focus on the learner and what the learner has achieved and so tend to be ‘active, creative and self-regulating’. Performance models of pedagogy place the emphasis upon clearly defined outputs so that learners are expected to acquire certain skills or to construct specific texts or products in fulfilment of the required outcome. The pedagogies of artists, who more often define themselves in terms of the specialist knowledge and skills they and others perceive they possess, prioritize the development of learners’ ideas and individual creativity while encouraging them to reflect on the process and what has been achieved. The emphasis is on ‘competence’ pedagogies which pass a greater degree of control over learning to the learner.

The ‘performance’ model of pedagogy, Bernstein argues, ‘places the emphasis upon a specific output of the acquirer [learner], upon a particular text the acquirer is expected to construct and upon the specialised skills necessary to the production of this specific output, text or product’ (Bernstein 1996, p. 4). In any given teaching session, performance models might include, as a core act of teaching, improvisational forms which ‘in the moment’ promote learner independence and autonomy or require the teacher to spontaneously scaffold learning so as to help learners to move forwards in their learning. Teachers are being pushed by two opposed agendas: They are being asked to promote creativity while at the same time meeting accountability targets measured by success in standardized tests. The evidence from several studies is that there are many understandable tensions arising out of this paradox (Cochrane 2008).

What kinds of pedagogic practices and partnerships have the potential to create better professional teacher practices? These narratives of artists’ and teachers’ illustrate two aspects of pedagogic collaboration. First, we have strong evidence that artists work adaptively with and alongside teachers and students (Galton 2008). They work together improvisationally, as ideas are exchanged and built on dialogically (Sawyer 2004). Second, we have strong evidence that for the teachers, working with artists involves teaching in a variety of ways.

Artists tend to move between competence and performance pedagogies, splitting the focus between the learner, what the learner achieves, the teacher and the performance of teaching. Teachers tend to favour the performance models of pedagogy, which place the emphasis upon clearly defined objectives and outputs, but having seen the effects of encouraging students to pursue different lines of thinking and to question and challenge the values and practices of past lessons and the consequences of professional reflection, most teachers increasingly come to understand that

creative learning is not about getting a right or wrong outcome but is, rather, an improvised and choreographed dance. As a result of the partnerships, teachers change their approach to teaching: they become more improvisational.

The ways that artists tune in to teachers and learners provide an important clue as to how teachers can better negotiate the teaching paradox. In the same way that instruments are tuned on the basis of tension, so the success of an educational partnership depends on the tension being maintained in balance. On the one hand, as artist and teacher open themselves up to each other, they feel the pull of the other that demands respect. The point at which the partnership results in the most effective learning environment is when improvisatory acts (of collaboration) and improvisations (in classroom activities) occur. When artists and teachers attune to each other's ways of working, they render diverse classroom creativities in education. These include practices which invite flexible thinking, risk-taking, multivocality or taking a new professional viewpoint. These practices are modelled on more improvised and less formulaic and fixed approaches to teaching. As Professor Galton makes clear and as I argue, creative learning and teaching are more likely to occur when the rigid division between teacher and student is relaxed, creating an improvisatory space where teacher, artist and students jointly and authentically construct and reconstruct the improvisational flow of the classroom.

References

- Alexander, R. (2008). *Essays on pedagogy*. Abingdon: Routledge.
- Berliner, P. (1994). *Thinking in Jazz: The infinite art of improvisation*. Chicago: University of Chicago.
- Bernstein, B. (1996). *Pedagogy, symbolic control and identity*. New York: Rowman and Littlefield.
- Burnard, P. (Ed.). (2013). *Developing creativities in higher music education: International perspectives and practices*. London: Routledge.
- Burnard, P., & Maddock, M. (2007). *Pupil and teacher perceptions of the nature of artist pedagogy and its impact on school change*. <http://www.educ.cam.ac.uk/research/projects/proj5.html>
- Burnard, P., & Murphy, R. (2013). *Teaching music creatively*. London: Routledge.
- Burnard, P., & Swann, M. (2010). Pupil perceptions of learning with artists: A new order of experience? *Thinking Skills and Creativity*, 5(2), 70–83.
- Burnard, P., & White, J. (2008). Creativity and performativity: Counterpoints in British and Australian education. *British Educational Research Journal*, Special Issue on *Creativity and Performativity in Teaching and Learning*, 34(5), 667–682.
- Cape, U. K. (2005). *Creative space: Collaborative approaches to science learning in schools*. Leeds: Cape UK.
- Cochrane, P. (2008). Making space for creativity: How teachers and school leaders in England navigate mixed policy messages. *Observatory E-Journal, Multi-Disciplinary Research in the Arts*, (3). <http://www.adp.unimelb.edu.au/unesco/ejournal/pdf>
- Cochrane, P., Jeffery, G., & Price, D. (2007a). *Creative partnerships and the further education sector*. London: Creative Partnerships Learning Team.
- Cochrane, P., Craft, A., & Dillon, P. (2007b). *King James 1 Community College creative partnerships project: Writing for radio*. Durham: Creative Partnerships Durham/Sunderland. (in collaboration with Exeter University).

- Craft, A., Cremin, T., & Burnard, P. (Eds.). (2007). *Creative learning: And how to document it*. London: Trentham.
- Creative Partnerships. (2005a). *First findings policy, practice and progress: A review of creative learning 2002–2004*. London: Arts Council England.
- Creative Partnerships. (2005b). Creative Partnership Website. Retrieved February 29, 2005, from <http://www.creative-partnerships.com/aboutcp>
- Creative Partnerships. (2005c). Creative Partnership Website. Retrieved February 29, 2005, from <http://www.creative-partnerships.com/cpandyou/creatives>
- Creative Partnerships Website. (2007). Schools of creativity, prospectus for schools. <http://www.creative-partnerships.com/soc>. Accessed Nov 2007.
- Creativity, Culture and Education. (2009). *Homepage*. Retrieved January 29, 2009, from <http://www.creativitycultureeducation.org/>
- Department of Culture, Media and Sport. (2004). Available online at: <http://www.culture.gov.uk>. Accessed 4 Sept 2004.
- Galton, M. (2008). *Creative practitioners in schools and classrooms*. London: Creative Partnerships London/Arts Council England.
- Galton, M. (2010). Going with the flow or back to normal: The impact of creative practitioners on schools and classrooms. *Research Papers in Education*, 25(4), 355–375.
- Galton, M., Hargreaves, L., & Comber, C. (1998). Classroom practice and the National Curriculum in small rural primary schools. *British Educational Research Journal*, 24(1), 43–61.
- Hall, C., & Thomson, P. (2007). Creative partnerships? Cultural policy and inclusive arts practice in one primary school. *British Educational Research Journal*, 33(3), 315–330.
- Hall, C., Thomson, P., & Russell, L. (2007). Teaching like an artist: The pedagogic identities and practices of artists in schools. *British Journal of Sociology of Education*, 28(5), 605–619.
- Jeffery, G. (2005). *The creative college: Building a successful learning culture in the arts*. Trentham: Stoke-on-Trent.
- Jenkins, D., Jeffery, G., & Walsh, A. (2008). *Mediated conversations at a cultural trading post: A study of the TAPP and Eastfeast PPD Programmes in support of teachers and artist s*. www.creative-partnerships.com/researchandevaluation
- Ledgard, A. (2006). Fair exchange: Shared professional development and reflective action. In P. Burnard & S. Hennessy (Eds.), *Reflective practices in arts education* (pp. 169–182). Dordrecht: Springer.
- Maddock, M., & Sapsed, R. with Drummond, M. J. (2008). *Igniting a fuse: Developing the creative practice of primary educators*, Tendring: Creative Partnerships.
- McLellan, R., Galton, M., Steward, S., & Page, C. (2012). *The impact of creative partnerships on the wellbeing of children and young people, Final report*. London: Creative Partnerships and Creativity, Culture and Education.
- Nardone, P. L. (1996). The experience of improvisation in music: A phenomenological psychological analysis. Unpublished PhD. Dissertation, Saybrook Institute. Ann Arbor: University of Michigan, UMI.
- National Advisory Committee on Creative and Cultural Education (NACCCE). (1999). *All our futures: Creativity, culture and education*. London: Department for Education and Employment.
- National College of School Leadership. (2002, November). *Leading the creative school: A leading edge seminar*. Nottingham.
- Pike, A. (1974). A phenomenology of jazz. *Journal of Jazz Studies*, 2(1), 88–94.
- Pope, M., Fuller, M., Boulter, C., Denicolo, P., & Wells, P. (1999). Partnership and collaboration in teacher education. In M. Lang, J. Olson, H. Hansen, & W. Bünder (Eds.), *Changing schools/ changing practices: Perspectives on educational reform and teacher professionalism*. Garant: Louvain.
- Pringle, E. (2008). Artists' perspectives on art practice and pedagogy. In J. Sefton-Green (Ed.), *Creative learning* (pp. 41–50). London: Arts Council.
- Qualifications and Curriculum Authority. (2005). Creativity: Find it, promote it. <http://www.ncac-tion.org.uk/creativity/about.htm>. Last access 7 April 2005.

- Sawyer, R. K. (2004). Creative teaching: Collaborative discussion as disciplined improvisation. *Educational Researcher*, 23(2), 12–20.
- Sefton-Green, J. (Ed.) (2008). Creative learning. In *Creative partnerships*. London: Arts Council.
- Triantafyllaki, A., & Burnard, P. (2010). Creativity and arts-based knowledge creation in diverse educational partnership practices: Lessons from two case studies in rethinking traditional spaces for learning. *UNESCO Observatory E-Journal, Multi-Disciplinary Research in the Arts* (in press).
- Uпитis, R. (2006). Challenges for artists and teachers working in partnership. In P. Burnard & S. Hennessy (Eds.), *Reflective practices in arts education* (pp. 55–68). Dordrecht: Springer.
- Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.

Chapter 14

Primary Education in Small Rural Schools: Past, Present and Future

Linda Hargreaves

Abstract Rural primary schools cater for very high proportions of the world's children. They are the infrastructure in the quest for universal primary education yet are barely visible in mainstream education literature. This chapter provides a selection of views of life and conditions in small rural schools in North America, China, Eastern and Northern Europe and especially England, where Maurice Galton's research on small primary schools has been conducted. Recurrent themes in the chapter include the role of rural schools in alleviating the effects of poverty, the need to challenge negative stereotypes of teachers and children in rural schools and the importance of (re-)establishing school–community relationships, creating a locally relevant, place-conscious curriculum, and of small schools working together to improve their sustainability. The conclusions look towards genuine partnerships between parents, school and community, interschool collaboration and research that focuses on teaching and learning as well as external relations and survival strategies.

Keywords Small rural schools • Primary education • Rural poverty • Parent and community participation • Curriculum relevance

Introduction: Recurrent Themes in Rural Schools' Research

A chapter on education in small rural primary schools in a handbook on life in schools and classrooms would be considered unusual if it were not linked with Maurice Galton's wide-ranging classroom-based research. This includes two national projects in England on small and/or rural schools and several smaller-scale projects. As Kannapel and DeYoung (1999) and Burton et al. (2013) observe, the rural voice is overlooked in educational discourse, despite its global prevalence, the high proportions of children taught in rural schools and the many rural–urban educational similarities. Yet there are critical differences too, associated with poverty,

L. Hargreaves (✉)

Faculty of Education, University of Cambridge, 184 Hills Road, Cambridge CB2 8PQ, UK
e-mail: lh258@cam.ac.uk

isolation and small schools' sustainability. Nevertheless as long as rural research is published principally in rural journals, stereotypes of professionally isolated teachers and low achievement levels will be perpetuated in the minds of mainstream educationists (Burton et al. 2013). These statements depend on a 'common sense' rural–urban distinction, but it has been necessary, of course, to define 'rural' in educational research. It is a relative concept: an English village school, a few miles from the next village school, would hardly qualify as rural against the long inter-settlement distances and sparse populations of the US or Australian 'rural'. We shall return to definitions below.

Several themes recur in the rural schools' literature. The dominant theme globally is of rural poverty and education's contribution to changing this, in line with the United Nations Millennium Development Goal 2: the achievement of universal primary education (see UNESCO 2013: 54 million children without a school). Other themes concern school–community relevance and relationships, images of the rural, the ironic links between education and out-migration and the sustainability of rural schools in straitened economic times. Less commonly addressed is the teaching and learning that take place in rural schools, except in Galton's research. Beyond these, the nature and quality of rural schools' research need scrutiny. Coladarci (2006) and Kvalsund and Hargreaves (2009, 2013) challenge rural schools' researchers to improve their arguments, questions and designs and to examine the theoretical bases of their studies to minimise or mitigate the 'research footprint' in rural communities when the researchers leave (Anderson and Lonsdale 2013).

This chapter will consider several aspects of life in rural primary schools, past, present and future, drawing on selected examples from the Northern Hemisphere including North America, Western China, Europe and, especially, England.

Variations on 'Rural'

To quote Coladarci (2007, p. 2), 'There is no single definition of 'rural', as any reader of rural education quickly and incredulously learns'. The issue of how to define rural has exercised researchers for decades (Cloke 1971; Kannapel and DeYoung 1999) and still does (Bell 2007). Quantitative definitions set fixed thresholds on variables such as population density and inter-settlement distances. Qualitative definitions identify local features such as facilities (shop, school and pub), occupations or physical accessibility. These variables change over time as new transport systems affect accessibility or businesses open or close. Looking back to the 1960s, Cloke (1971) observed, cynically, a 'fluid conceptual framework' (p. 32) as the 'treatment of the rural–urban distinction ... [had] changed from the study of two extremes to the recognition of common social variables in these extremes' (p. 31). Cloke constructed a British 'index of rurality' based on a principal component analysis of 16 selected variables (including population density, population change, household amenities (hot water, bath), occupations, in-/out-migration, distance to urban centres). Despite this, England and Wales had no formal definition of

rurality until 2004 (Commission for Rural Communities 2004). This identified eight different area types. Four categories of settlement are based on population density from the 2001 census, urban >10 K, town and fringe, village and hamlet and isolated dwellings, each classified as ‘sparse’ or ‘less sparse’. Excluding ‘urban’, this provides six rural categories. The Department for Education (DfE) now publishes an annual list of schools’ rural classification (DfE 2013a, b, c). Scotland’s definition includes not only population density and inter-settlement distance but also journey drive times, thus allowing for the negotiation of mountain passes, lochs and ferries. Dowling (2009) compared Shucksmith’s (1990) ‘rural typology’ of four different types of rural areas (pressured (e.g. commuter belts and national scenic areas), intermediate gaining population, intermediate losing population and remote sparsely populated) with the Scottish Executive (2003) household survey, remote small towns, accessible rural and remote rural. Scotland’s most recent rural school’s list includes ‘very remote rural’ (fewer than 3,000 people with a drive time of over 60 min to a settlement of 10,000 or more) (Scottish Government 2011).

The USA and Australia also recognise numerous definitions of rural. The Australian government does not publish a single definition, but an Australian Institute of Family Studies (2011) fact sheet notes that despite everyday usage of words such as city, country and bush, it is difficult to define where one ends and the next begins. They opt for a five-category definition based on road distances between populated localities and service centres, ranging from ‘major cities’ (0–0.2 km) to ‘very remote’ (>10.53–15.00 km).

Defining rural in the USA is complicated. Cromartie and Bucholtz (2008) offer guidance but note that ‘Policy makers and researchers [must choose] appropriately from among the more than two dozen rural definitions currently used by federal agencies’ (p. 1). The US Department of Agriculture (USDA) describes three principal definitions wherein rural is defined as not urban: (1) defined by population density, ‘urban areas’ (UAs) are densely settled areas of 50,000, with over 1,000 people per square mile, and all other settlements of over 2,500 outside UAs are classed as ‘urban’; (2) nonmetro areas where metro means cities of 50,000 or more or a UA with at least 100,000; and (3) nine ‘rural–urban continuum codes’ in which 0–3 are metro counties and 4–9 are nonmetro. As USDA (2013, p. 1) points out, the ‘existence of multiple rural definitions reflects the reality that rural and urban are multidimensional’.

Bell (2007) would describe the preceding definitions as ‘first rural’ and the following one as ‘second rural’:

I personally define [rural] as: (a) you have to open and close a gate to get into your ‘yard’ which contains some form of livestock, (b) you can’t get anything faster than dial-up, have to drive at least five miles for a wifi hot spot, have static on the phone, and are the last people to get repairs when the power goes out and if a cow stands in the wrong spot you lose your signal. (from US-based ‘wiki.answers.com’)

Bell’s ‘second rural’ is an epistemological or thought-based phenomenon, built on ‘place’ rather than space. He defines it in the USA as:

... a rural of associations. It calls upon the connections we have long made between rural life and food, cultivation, community, wild freedom, and masculine patriarchal power, and the many contradictions we have also so long associated with the rural, such as desolation, isolation, dirt and disease, wild danger, and the straw-hatted rube.¹ (Bell 2007, p.408)

This chapter is based on ‘first rural’ definitions but should elicit readers’ known or imagined second rurals too.

Rural Schools: North America

The United States of America

Kannapel and DeYoung’s (1999) review of 25 years of rural schools’ research opens with reference to the ‘Rural School Problem’ of 1896 and the decision of the ‘Committee of Twelve’ to consolidate schools, centralise their management and professionalise the teachers in order to upgrade academic standards. Yet in 1999, they concluded not only that ‘centralization, consolidation, bureaucratization, and professionalization have not, by themselves, cured the problems that plagued America’s schools’, they have ‘created problems of their own in the form of large, impersonal schools; thick layers of bureaucracy; and decreased parental involvement in school decision making’ (p. 67). Kannapel and DeYoung observe that rural schools ‘have lost much of their uniqueness, and, consequently, many of their strengths’ (p. 67), and they raise the question of whom the school should serve: community, larger society or both.

Why Rural Matters in the USA

Since 2000, the regular publication of ‘Why Rural Matters?’ (e.g. Johnson and Strange 2007; Strange et al. 2012) has presented a systematic analysis of each state’s statistics on five measures and a composite ‘Rural Education Priority Gauge’. Using data held in the National Center for Education Statistics (NCES) and the US Census Bureau, the 50 states are ranked on these ‘gauges’ in order of the urgency for action to address rural issues considered to influence educational achievement. ‘Rural’ is defined on the NCES ‘urban-centric locale code system’ and includes three categories: rural fringe, rural distant and rural remote (Strange et al. 2012, p. 1). In 2011–2012, using 2008–2009 data, 20 per cent or nearly 10 million children attended school in rural school districts. The 2011–2012 longitudinal gauge showed that since 1999–2000, rural school enrolments have outpaced non-rural public

¹Rube Waddell, also known as Ed, was a legendary American baseball pitcher, 1876–1914, who, according to the Society for American Baseball Research, perpetuated a hayseed image but was son of a Scottish oilfield worker in Philadelphia. <http://sabr.org/bioproj/person/a5b2c2b4>

school enrolments. During this period, 70% of the national total public school enrolment (1.7 million children) was in rural schools, while non-rural enrolment increased by only 1.7% (673,000). The greatest enrolment gains were in seven southern states and California. Apart from California, these states were also those with the highest proportions of black students, higher rates of poverty and lower achievement levels. The statistics reveal very uneven patterns of spending among these rural states. Finally the educational outcome gauge uses four different achievement indicators but shows little variation between the worst performing states on the National Assessment of Educational Progress (NAEP) at grades 4 and 8 in reading and mathematics. Strange et al. (2012, p. 21) conclude that, with the rapidly rising rates of enrolment, 'rural schools are becoming more complex, with increasing rates of poverty, diversity and special needs students' and that rural education's 'geographical dispersion, its small and decentralised institutions, its isolation and the cultural conservatism of many of communities make rural education a conundrum to reformers and policy makers whose ... concerns are so often focused on urban education'. They suggest that the rural education is now impossible to ignore and call for new more thoughtful policy.

Do Smaller Schools Maintain Achievement Levels in the Face of Poverty?

'Why Rural Matters' identifies an association between low achievement levels and poverty ratings in the most rural states. Coladarci (2007) also notes a recurring theme in rural education research that poor socio-economic values explain less of the variance in achievement levels in smaller than larger schools. In a rigorous analysis of Maine's achievement data for 2002–2003 and 2003–2004 for 216 schools, he demonstrated that smaller schools are significantly associated with a reduction in the effects of poverty on reading and mathematics achievement, although the latter association disappeared when schools with unstable results were excluded. That said, research inside the classrooms is needed to find out why.

Teachers in US rural schools are typically less well paid, younger, less experienced, with less professional training, with fewer benefits and hence more likely to take second jobs than urban teachers (Kannapel and DeYoung 1999; Strange et al. 2012). Kannapel and DeYoung cited Nachtigal's (1982) observations that rural teachers were scrutinised more closely, more likely to be 'insiders' and are more subject to local community pressure than urban teachers. Consequently, they may understand the community better but at the same time be more resistant to change. Burton et al. (2013) challenge this image of rural school teachers, however. Their qualitative 'meta-analysis' of 47 studies in four decades of research on rural teachers used techniques from fiction analysis, such as dialogue, narrative and the casting of teachers, students and researchers as pro- or antagonist characters as if in a story: a 'protagonist works to [improve] education and life for those in rural communities

whereas the antagonist creates tensions and problems associated with rural education' (Burton et al. 2013, p. 4–5). In so doing, they identified four 'storylines' of rural teachers, as professionally isolated, different from urban or suburban teachers, lacking professional knowledge and qualifications and particularly resistant to change. They argue that these storylines owe more to researcher preconceptions and expectations, within a twentieth-century deficit model of rural education, rather than to the voice of the contemporary rural teacher. Only 13 of the 47 studies included informant approaches in which that voice might be heard. Burton et al. call for more comparative urban–rural studies to be conducted by open-minded researchers to challenge these 'storylines'.

Finally, and moving to Canada, Corbett's (2007a) oral history study, 'Learning to Leave', on schooling in 'Digby Neck', a rural fishing community in Nova Scotia, is relevant here for its emphasis on student voice in three cohorts of secondary students, whose stories follow the rise, 'glory days' and decline of the fishing industry since the 1960s. For Corbett, the students' decisions to leave school early, often without qualifications, undermine a classic aim of education, namely, to enable youngsters to achieve a better life, typically by providing them 'mobility capital' for out-migration from rural areas. Corbett calls this education's 'mobility imperative', but in listening to his students' stories, he recognises the power and identity they gain through deciding not to stay on at school: 'Despite the alarmist rhetoric around massive depopulation of Canada's coastal and rural communities, it could be that a healthy proportion of ... rural youth will also remain in or near their home communities, proving with their lives that leaving is harder than staying on' (Corbett 2007b, p. 789). Corbett's dilemma raises many questions for educationists about how education should serve these youngsters, but ironically, while the Western world ponders how to keep children in school, much of the world is wondering how to get them in. UNESCO (2008, p. 3) reminds us that 75 million children are still not enrolled in school, over a third drop out before completing primary education, and most of these children are girls. In 2013 (UNESCO 2013), 54 million still had no school. We turn now to China, which has invested heavily in rural education in the past decade, towards achieving universal primary education.

Life in Rural Schools in China

The Chinese education system has undergone eight basic reforms since the formation of the People's Republic in 1949 (Lui et al. 2013). Since the 1980s, China has been undergoing educational decentralisation, whose costs in social and economic inequalities have been 'disproportionately born[e] by poor rural children' (Hannum 2003, p. 142). Farmers in the poorer villages may not contribute enough taxes to fund a school, while poor families could not afford private school fees. Hannum's analysis of the 1992 National Sample Survey of the Situation of Chinese Children included 381,039 rural households, 7,550 villages and 83,379 12–14-year-old children. She found, predictably, that lower school enrolments were associated with

poorer village and household incomes. Girls were particularly disadvantaged in this respect, especially if they had a long journey to school. Mean junior high school enrolments in Western rural China at the time were 83% and 92% for girls and boys, respectively, but only 75% for girls in the poorest villages (Hannum 2003).

Against this context, the 2001 reform of the Basic Education Curriculum represented a radical shake-up of the curriculum and teaching approach. Not surprisingly, its aims were to increase students' sense of patriotism, collectivism and attachment to socialism and 'to continue to develop the best inherited traditions of the Chinese nation' (Lui et al. 2013, p. 176). More surprisingly, the goals included replacing the old emphasis on knowledge, book learning, memorisation and practice, by active learning, problem-solving, cooperation, communication and closer links between the curriculum and children's lives outside school. Assessment and evaluation practices were also to change from examinations to the promotion of student development, teacher progress and improvement of teaching methods (Lui et al. 2013, p. 177). Government investment, focused in poor rural areas especially Western China, was provided for buildings and resources; compulsory schooling was extended to 9 years, but with rural students exempt from high school fees; and rural teachers were to be paid on the national scale, a move more likely to encourage teachers to work and stay in rural areas (e.g. The People's Daily Online 2002). Sargent and Hannum (2005) cite a 'Gansu Institute of Education Research' report that showed pupil numbers rising, up to 16.5% in 6 years, but teacher numbers declining (down to 6.2%) in rural areas (p. 176). They had found also the rural teachers most satisfied with their jobs were the least qualified in the remotest and poorest villages. Thus, whether the government investment would help to bring about the desired changes in teaching practice is questionable. Lui et al. (2013) present detailed case studies of two Western Chinese rural primary schools showing that some teachers were striving to make their curriculum more relevant and to engage children in practical science and more active and interactive learning. In Zhongtai Primary School, for example, children learned how to raise goats and simple farming skills, since most of the children's families raised goats (Lui et al. 2013 p. 184). The teachers thus linked their curriculum with life outside school, and themselves became researchers of their local environment. In another community-oriented initiative, 'Plan China',² schools and communities are forming joint committees to include at least one woman teacher, one woman villager and three children (p. 193). Such rare examples may show that some children can 'experience the thrill of exploration', and connections between curriculum and community can emerge, but Liu et al. have to conclude that 'the education reform based on student-centred learning has had no significant impact on Chinese teaching and learning' (p. 193).

As a Westerner, I find it difficult to imagine school life in rural China or to contextualise and evaluate the significance of the examples above. They do, however, represent pockets of educational progress that surprised me, and which could, in the future, offer a better life for Chinese boys, and especially girls, currently living in

²Part of 'Plan International' based in Woking, England, seeking 'a world in which all children realise their full potential in societies that respect people's rights and their dignity' (p. 179).

rural poverty. On the other hand, there is a global obsession with topping international achievement league tables, in which metropolitan China is enjoying some success whether or not such reforms are embedded. It could be that the pedagogical and curricular developments in rural areas could be extinguished soon after birth (see, e.g., Alexander 2011; Berliner 2011).

Rural schools in Western China, coastal Canada and the Southern USA, despite their cultural and political differences, all represent cases for the establishment of more meaningful school and community connections. Western research has revealed the positive impact of parent and community involvement on their children's motivation, engagement and achievement (e.g. Jeynes 2011; Goodall et al. 2011; Flecha 2012). In rural areas, merely a blur in, Giddens' (1991) vision of a 'runaway world', there remains the opportunity to resist, or revive, the time-space and place disconnection (retaining a village school) and the disembedding of social action and knowledge (raising one's children *with* their teachers) that predate the evolution of schooling as a commodity (see Kvalsund and Hargreaves 2013). In their present circumstances, the [re] creation of school–community relations in Digby Neck, or poor Chinese villages, might seem an impossible dream, as it did for Freire in poverty-stricken, illiterate 1960s Brazil. A Freirean approach to the articulation and realisation of parents', children's, teachers' and community's dreams could change not only the children's but also their communities' futures (Freire 1992/2004). Finally we shall focus on rural schools in Europe, whose extremes have parallels with the rural dilemmas described above and where education for all is not yet achieved.

Europe

This section will focus on Eastern and Northwestern Europe, highlighting Europe's stark political and economic contrasts. Despite the disintegration of the Eastern bloc between 1985 and 1991, rural educational research has only recently found its way into Western Europe at English-medium conferences such as the European Conference on Educational Research (ECER). In June 2013, ECER's Network 14 held a symposium at the Charles University in Prague with contributions from Czechia, Serbia, Montenegro, Latvia, Poland, Finland and England.³ This section of the chapter will draw on the presentations from Serbia and Czechia.

³The symposium was organised by Sylvie Kučerová, Kateřina Trnková (Czechia) and Cath Gristy (UK) under the auspices of Dr. Dušan Drbohlav and Dr. Tadeusz Siwek (Charles University). The programme included rural primary schools' research from Serbia (Pešikan, Ivić and Antić, University of Belgrade), Montenegro, (Joksimović, University of Belgrade), Czechia, (Kučerová, Charles University, Prague, and Trnková, Masaryk University, Brno), Latvia (Trapenciēre, Latvia) and Poland (Bajerski) as well as Finland (Kilpeläinen and Kalaoja, Jyväskylä) and England (Gristy, Plymouth, and Hargreaves (L), Cambridge) and Kvalsund (Volda, Norway).

Educational Reform and Rural Schools in Serbia

Post-Soviet Serbia's economic stability and 5% annual growth in the early years of this century were not translated into significant poverty reduction. Forty per cent of Serbia's population live in rural areas and account for 75% of Serbian poverty. Rural households in Serbia are not only poor but also vulnerable, living with the risk and uncertainty of when, rather than if, they will be unable to cope (Ersado 2006). A drought in 2003, for example, robbed rural producers of potential gains, as urban consumers were protected by price controls. Ersado's analyses of the Serbian living standard in 2002 and 2003 report dramatic differences between urban and rural statistics, showing that rural families were larger and have lower educational levels and twice the journey to reach a school, pharmacy or hospital than do urban households. More recently, between 2005 and 2009, Antić and Pešikan (2012) reported a fall in rural primary school enrolments from 81 to 74% and higher drop-out rates in rural (15.25%) than urban (5%) areas. The rural primary school completion rates were 74% rural and 95.2% urban.

Ersado's (2006) analyses showed that while postsecondary education had positive associations with reduced poverty, risk and vulnerability in rural households, primary education had no significant effect on these variables. This might be explained by Ivić and Pešikan's (2012) blistering critique of educational policy between 2000 and 2003, when government's comprehensive educational reforms were based on a supposed Western European ideal, but without 'a single clear and coherent idea of what 'modern European education' meant. ... the reform appeared to be an ad hoc compilation of separate measures borrowed from the education systems of other European countries' (p. 34). These included replacing the previously 'prescribed and mandatory curricular content for each subject, [with] only a framework' (p. 39) and giving schools funding to prioritise curricular activities that would respond to local community needs. In schools, however, after 40 years of following a highly centralised decision-making process, teachers lacked the imagination and skills to draw up their plans. These reforms were annulled by the new government in 2004, and Serbian schools returned to a curriculum of compulsory, prescribed content (Ivić and Pešikan 2012).

Antić and Pešikan (2012), having found rural teachers' imaginations stultified by years of curricular prescription, have begun a 2-year project involving 'Rural Educational Tourism' (RET). RET is based on sociocultural theory, principles of active learning and optimisation of the school network, using rural schools as 'multifunctional centres'. The aim is to improve the quality of education for all children but, especially, for rural children. They are using rural schools as centres of community development, to connect key people in local communities and create collaborative networks, in order to diversify the rural economy and revitalise the villages. Examples of RET include 'the farm school', or education farm, and children and youth 'edutainment' nature centres. As children engage with real-life problems, which demand purposeful cooperation and communication, it is intended that the rural schools will have expanded roles as agents of the local community. Such

plans are ambitious but, given the extent of rural vulnerability, have the potential to make rural primary education genuinely relevant to community life. The plans share some characteristics with the future in education envisaged by Hargreaves (A.) and Shirley (Hargreaves and Shirley 2009); in the 'Fourth Way' in England, one might argue that the limited connection between the curriculum and real life, and loss of intrinsic motivation for learning, is a key factor in declining attitudes to school (Pell 2009).

Territorial Inequalities in Primary Education: Czechia

Kučerová and Kučera (2012) analysed geographical data on the location of school closures in Czechia and point out that territorial aspects of educational inequalities are rarely explored (p. 1). They plotted the spatial distribution of elementary schools in three phases since 1950 when there were over 8,000 such schools, some serving very small municipalities of say 200 people. By 2009–2010 there were 4,125 elementary schools, and a third of these had under 50 pupils. In the 1970s, however, settlements were placed in one of three categories, with consequences for future investment, building and employment. Lowest category settlements were left to face gradual decline, and schools 'were closed on a massive scale, as decreed by immediately [e]ffective decisions from supervisory bodies (within a matter of months or even weeks)' (*ibid* p. 9). The authors' interview data provide moving insights not only into the community spirit of the time but also the brutal insensitivity of the regime. School closures were sometimes 'accomplished [in] a simple public announcement' undermining the 'unique notion of common ownership'. Local people would work unpaid to build and furnish their school '(although they were under some pressure to 'build a socialist village')' (p. 12):

A local historian [read] from his municipality chronicle, 'In 1969, general maintenance work was done, windows and electricity and a new plaster. The work was done by a brigade of local citizens.' ... [The] former mayor recalled with anger how they 'fixed up the school, put in everything new. Windows, floor, electricity ... And, I don't know how long it was open, a few months maybe, and the gentlemen from the district authority came and shut down our school!' (p. 12)

One strength of Kučerová and Kucera's paper is its record of local people's views after the school closure. This, and the effects of a school closure on its community, is lacking in the literature (Kvalsund and Hargreaves 2009). This section, on rural schools in Czechia, looks to the past and tells ironically of the genuine community ownership and participation in the local school. It is included for its glimpses of life in rural schools and villages in a (then) communist country.

Having visited two European countries where rural poverty is the norm, we turn to affluent Northwest Europe and England in particular.

England: 'Further Tales from an Unsettled Countryside' (Woods 2010, p. 216)

This section is about small rural schools in England, with reference relevant to other European research. Hargreaves et al. (2009) introduced five reviews of rural schools' research in England (Hargreaves 2009), Finland (Kalaoja and Pietarinen 2009), Norway (Kvalsund 2009), Scotland (Dowling 2009) and Sweden (Aberg-Bengtsson 2009). We noted greater emphasis on school–community links in Norway and in Finland, where 'municipalities are obligated to draw up a local curriculum based on the National Core Curriculum' (Nevalainen and Kimonen 2013). In Scotland, Sweden and England, the attainment of rural school children was at least as good as that of urban children. There were differences in research strategy, with more micro-scale qualitative case studies in Norway and Finland and more macro-scale quantitative studies in England, Sweden and Scotland. In Britain, two decades of rapid policy change had wrought an emphasis on policy-driven rather than theoretically based research.

The Past: Rural School Clusters and the National Curriculum

Hargreaves (2009) reviewed research on rural schools in England from 1975 to 2009. The most prominent research of the period was directed by Maurice Galton, but other key studies include Bell and Sigsworth (1987), Webb (1993) and Vulliamy and Webb (1995) who have shown, *inter alia* that amalgamating small schools is not necessarily cost-effective, that many rural head teachers were more effective curriculum leaders than urban heads and that small schools' teachers revealed strong, resilient professionalism in the face of national pressures.

Galton and his team carried out several large-scale projects. The first was a government-funded systematic observational survey of curriculum provision in a national sample of 68 small, mostly rural, schools (the PRISMS project: Galton and Patrick 1990). Despite government's anticipation of rural curricular inadequacy, the main findings were of rural–urban similarity between teachers, teaching and curriculum provision, while pupil attainment was as good as and arguably better than in urban schools. Nevertheless, the rural schools' education support grant (ESG) initiative for curriculum enhancement projects still went ahead. Galton's team conducted the national evaluation of rural ESG in 1988–1990 and followed up the clustering strategy that had appeared in some local education authorities (LEAs) in the PRISMS research (Rural SCENE Project: Galton et al. 1991). In Northumberland, Staffordshire and Northamptonshire, for example, some small schools had formed collaborative clusters for planning, professional development and sharing curriculum materials while also reducing professional isolation and expanding children's peer groups. This was still in an era when primary teachers were very protective of their 'pedagogical property' although in Scandinavia, clusters were already a

well-established school survival strategy in rural areas (Aberg-Bengtsson 2009, Kvalsund 2009; Sigsworth and Solstad 2005). In a subsequent project on cluster development, Galton and Hargreaves (1995) proposed a cluster model which emphasised the time needed for cluster schools to eventually establish sufficient mutual trust to pool financial resources and see the benefit for all the cluster schools. Hargreaves, Comber and Galton (Hargreaves et al. 1996) were subsequently able to show positive relationships between cluster establishment and teacher confidence and competence to teach the NC. A fourth project explored the prototypical use of email for ‘distance inset’ and interschool data sharing about local moths in an established cluster. Children and teachers improved their digital literacy and knowledge of local the study of moths, but prohibitive costs and early technology limited wider take-up (Jarvis, Hargreaves and Comber, Jarvis et al. 1997).

The Present: In Rural Areas, High Attainment Is Not Enough

England’s rural schools face a conundrum: pupil achievement levels are, generally, superior to those of their urban counterparts, a feature recognised internationally in PISA (OECD 2013); yet many of them are under threat of closure due to their ‘surplus places’ (see, e.g., The Journal 2010). The present government’s bizarre response to this is to say it will raise standards by opening *more* schools in rural areas. In a House of Commons ‘special adjournment debate’ on rural school closures, Nick Gibb, then Minister of State for Education, offered an ambiguous ‘presumption against closure’ countered by the present government’s ‘academy/free school presumption’ (DfE 2013a, b, c) evidently immune to the ‘surplus places’ condition:

... to ensure that there is greater choice in rural areas, that standards are improved by increasing the number of academies and free schools, and that the number of rural school closures is kept to a minimum. (Minister of State for Education, 08.02.12. House of Commons 2012)

Despite the continued ‘presumption against closure’ (DfEE 1998), small schools’ futures remain insecure. The Commission for Rural Communities (CRC) (2010a, p. 19) revealed that of 285 rural and 2,213 urban schools closed between 1998 and 2009, the reason given in 25% rural and 9% urban closures was simply ‘closure’, while 58% and 68%, respectively, were closed due to ‘amalgamation’.

Attainment

Since 1999, at least, attainment has been consistently higher in rural than urban areas. In 2010, more rural than urban, 11-year-olds achieved their target levels in English, maths and science, while rural 16-year-olds scored an average of 407, compared with 389 for urban students in their General Certificate of Secondary

Education (GCSE). This ‘rural advantage’ was recently recognised internationally as OECD (2013) identified the UK, along with Germany, Belgium, Denmark and the USA, as a country where rural children outperformed urban children in PISA 2009. OECD’s publicity, however, referred to this as the rural *dis* advantage, where in most countries, rural students typically have lower socio-economic status (SES) and attend smaller schools with poorer facilities, fewer qualified teachers and less autonomy in the deployment of their resources. OECD’s very general findings fail to acknowledge that in rural England, poverty is rendered ‘invisible’, masked by adjacent wealth. CRC (2010b), for example, shows that children in the most rural districts had the lowest levels of well-being.

Looking back, perhaps the smaller classes, higher levels of on-task behaviour (Galton and Patrick 1990), authentic curricular leadership (Webb 1993), resilient teacher professionalism (Vulliamy and Webb 1995), the support of small rural schools’ clusters (Hargreaves et al. 1996) and indications of greater community cohesion throughout the 2000s (CRC 2010a) contribute to rural children’s achievement levels.

School Closures

Small schools’ closures continued at a reduced pace between 1998 and 2009, compared with previous decades (note that Office for National Statistics tables of number of school by number on role appear to have been discontinued, rendering it very difficult to determine recent and current rates of closure). The Commission for Rural Communities (CRC) (2010a p. 19) reported 115 rural closures during 1998–2003 and 170 from 2004 to 2009. These closures continue despite 33,250 more children moving into than out of rural areas in 2008 (*ibid.*, p. 8) and rising birth rates (ONS 2013). Further small rural school insecurity arises from several cuts imposed by the coalition government in 2010. The head teacher of a very small school described the main problems facing small schools as ‘...budgets, budgets, budgets. Everything you do in a small school hinges on the budget or lack of it, compared to bigger schools’. She explained that the previous (Labour) government had introduced ‘loads of new initiatives’ but also provided funding for staff training. She continued:

Under the present government we have had nothing. One of the first actions of the [present Secretary of State for Education] was to abolish the Sports Partnerships. Almost overnight sports were curtailed in small schools as the Sports Partnerships were instrumental in arranging tournaments in every sport known, between small rural schools. We don’t have the staff to arrange these. I don’t think the bigger schools were affected to the extent of small schools. (Personal communication, small school’s head teacher, 2013)

Currently parliament has been debating a new funding formula which would remove local authorities’ autonomy to support small rural schools and replace it with a one-off annual grant of £100–150 K to the small schools. The same head

teacher suspects a conspiracy to underfund small schools such that they cannot survive.

Whether or not this is so, small rural schools can be proactive in developing their community relationships in order to become the heart of the community. As we have seen, school–community relations are well developed or being developed in Europe and Asia. In England, the extended schools’ initiative of the previous government has been effective in furthering this aim.

The Recent Past and the Future: Clusters, Cooperatives and Communities

Rural Schools and Their Communities

Relatively few rural education researchers in England, apart from Arnold (1998) and Bell and Sigsworth (1987, 1992), have turned their attention to community–school relations in large-scale or peer-reviewed work (Hargreaves 2009). Politicians, however, have shown greater interest. The CRC (2010a) explored the provision of ‘extended services’ (e.g. breakfast clubs, out of hour’s activities, multiagency access) in four small rural schools’ clusters. Extended services were introduced by the new Labour government in 1997 to ‘break the link between poverty and poor educational services’ (CRC 2010c, p. 6). In rural areas, CRC (2010c, p. 8) points out that 2.2 million children live in rural areas and that one in four of these lives in poverty. Rural children are less likely to claim free school meals and more likely to live in ‘non-decent’ housing and have the lowest level of well-being in the housing domain in the child well-being index. They have to travel further to school and are less likely to take part in clubs and after-school activities because of transport limitations or financial hardship (Muschamp et al. 2009). Extended services, therefore, offered a breakthrough. The CRC found that the clusters had all ‘established or contributed to effective multi-agency services for children and parents in their localities ...[and have] considered and taken steps to overcome the practical and other barriers which might prevent those families using the various services on offer’ (CRC 2010c, p. 64). These steps include provision of a ‘twilight’ bus scheme, in Driffield, Yorkshire, and ‘Room 21’, an award-winning, accessible, multiagency room at Leek High School, Staffordshire Moorlands. It appears that strong school–community relations had been established (p.71), and in some cases, parents and teachers were already considering extending services further (with a café or shop) to render the school the hub of the village in the face of declining services and poor transport.

These positive findings cannot be generalised, however, as Bagley and Hillyard (2011) discovered. Further, while the CRC (2010c) found that parents in all its case studies would staunchly oppose the closing of their schools, this does not mean that they would fulfil the government’s Big Society assumption that parents would be

willing and able to open a ‘free school’. Free schools are ‘all-ability state-funded schools set up in response to what local people say they want and need in order to improve education for children in their community’ (DfE 2013a, b, c) and which (like an academy) are required neither to teach the National Curriculum nor employ qualified teachers.

Nevertheless, ample evidence of the positive effects on children’s achievement of their parents and communities’ involvement in schooling suggests that development of stronger school–community and school–family links is to be encouraged (see above).

Small Schools’ Collaborations and Clusters

Looking to the future of the small schools’ clusters, which Galton and Hargreaves (1995) predicted would be to enter into more formal collaborative arrangements such as federations with one head teacher and shared governing body. Such a federation would be built upon well-established informal cluster relations with high levels of mutual trust and shared commitment. At that time, however, we met heads and governors very concerned about the anticipated loss of autonomy and identity in cluster formation (Galton et al. 1991) and a fear of ‘*being federated*’. The intervening years have seen continued clustering (see, e.g., Todman et al. 2009 (below); OfSTED 2013), and ‘federation’, often of a failing school with a successful school, becomes a familiar, and arguably less threatening, concept. Thorpe and Williams (2002) conducted case studies of six small schools’ federations in Wales, including two very successful and failed federations. Their findings validate Galton and Hargreaves’ (1995) view that cluster development takes time as schools move towards more formal arrangements and they provide an invaluable template of conditions predictive of the success or failure of a federation that is relevant to small schools in England. They show how a locally supported federation built on pre-established collaboration can retain both the positive small school characteristics such as close community links, ‘family’ ethos and being flexible and innovative, while benefiting also from being part of a larger unit through reduced administration and teaching load for head teachers, facilitating INSET, sharing resources and curricular expertise and, potentially, attracting high-calibre candidates for headship (Thorpe and Williams 2002, p. 8–9). Critically, too, ‘[W]here the driving force for change comes from the communities themselves, supported by the [local authorities], the feeling of ownership amongst parents, governors and school staff is a powerful motivating and sustaining factor’ (Thorpe and Williams 2002, p. 19).

Since then, various ‘hard’ and soft’ federated models have emerged, with executive head teacher and single governing body or where schools retain their head teachers but have a shared decision-making committee, respectively (Lindsay et al. 2007). Todman et al. (2009) were commissioned by the previous government’s Department for Children, Schools and Families ‘to investigate how formal collaborative models might support small rural schools in England to improve their

services for children and young people, to remain viable and generate better value for money' (p. 2). The research, in three–four school clusters in Northumberland, Norfolk and Cornwall, suggests federation or 'trust' formation as ways forward that could make savings (which are calculated and published). Thorpe and Williams (2002, p. 22) warn, however, that federation is unlikely to save money in the short term 'and will only successfully fulfill its educational potential if funded properly'. Conservative governments since Prime Minister Thatcher have sought to reduce local authority influence in schools currently through its 'academy/free school presumption' (DfE 2013a, b, c). One alternative route for a small rural school cluster could be a 'cooperative trust' in partnership with an external institution such as a library, a museum, an early years centre *and* the Norfolk local authority children's services (see, e.g., The Aylsham Cluster Trust 2013).

To conclude, the way forward for small rural schools in England would still appear to be through clustering or federated arrangements but adequately supported and constructed with careful attention to community as well as educational and economic concerns. Clustering of small schools is now practised widely not only in Northern Europe but also in Spain. In mountainous Catalonia, for example, there are numerous very small schools, supported since the 1980s through 'zones escolars rural' (ZER) of three or four small schools. The schools in each ZER share educational projects and materials and specialist teachers in, say, English, science and music and work together to create larger peer groups. Each ZER has a management team, but each school keeps its own director and individual identity. To quote my Catalonian rural primary teacher informant, 'with careful organisation of the ZER, you can enjoy the benefits of the [larger] school without losing the charm of the small village school'.

Summary and Conclusions

This chapter has looked at life conditions in small rural schools in the Northern Hemisphere, past, present and future. Similar themes emerge the world over, despite dramatically different geographies, culture, histories and political contexts. First and most serious are the high levels of poverty in rural areas such as the Southern USA, China and Eastern Europe and the need for rural schools to contribute to achieving universal primary education to achieve better futures for children and communities as in Education for All 2015 (UNESCO 2008). Beyond this, however, are the arguments raised by Corbett (2007a) about the ironic effects of achieving universal education, namely, that the youngsters leave their rural homes in search of further education and more job opportunities. We have seen that there are efforts to go beyond the standardised curricula criticised by Kannapel and DeYoung (1999) among others, towards place-conscious curricula relevant to local communities, as pioneered in Finland and Norway (e.g. Nevalainen and Kimonen 2013; Sigsworth and Solstad 2005), as well as to engage parents and community in real two-way partnerships with schools. Whether rural school enrolments are increasing or

decreasing, the more school–community boundary crossing there can be, the greater the potential to break down home–school barriers, value children’s knowledge in and out of school and make staying in or returning to the rural community to support its revitalisation a viable option for educated youngsters.

Secondly, there is evidence now that small rural schools can and do work together successfully, informally and formally. In England, they have been encouraged to formalise their collaborative arrangements as trusts or federations to improve their economic viability and benefit from being in a larger unit while retaining their individual identity. Such moves provide alternatives to present government pressure on schools to become academies or communities to open free schools. If school–community relations are strong, strengthened through extra- and para-educational services, for example, then it is in the communities’ interests to support formal collaboration. These are by no means new arguments, but there is, by now, accumulated evidence that such schemes can be workable, beneficial and sustainable.

Finally, much rural schools’ research focuses on leadership, collaboration and external relations, but there is very little that looks closely and systematically over time at learning and teaching processes inside the small school. If working in partnership with parents, community and other local schools is effective in raising pupil motivation and attainment, research on how this happens and whether any change can be seen in classroom and home dialogue is needed. Could it be that more opportunities for children to articulate their knowledge from outside school might be found?

References

- Aberg-Bengtsson, L. (2009). The smaller the better? A review of research on small rural schools in Sweden. *International Journal of Educational Research*, 48(3), 100–108.
- Alexander, R. (2011). Evidence, rhetoric and collateral damage: the problematic pursuit of ‘world class’ standards. *Cambridge Journal of Education*, 41(3), 265–286.
- Anderson, M. and Lonsdale, M. (2013). ‘Three Rs for rural research: respect, responsibility and reciprocity’. In S. White and M. Corbett (eds.) *Doing Educational Research in Rural Settings: Methodological issues, International Perspectives and Practical Solutions*. London: Routledge.
- Answers. (2013). *What is mean (sic) by rural?* At http://wiki.answers.com/Q/What_is_mean_by_rural_areas#slide5. Accessed 14 Oct 2013.
- Antić, S., & Pešikan, A. (2012). *Rural Education Tourism: New concept/solution for the problem of regional discrepancies in education*. Paper presented at Network 14, ECER, Cadiz 9 September., and Charles University, Prague, June 2013.
- Arnold, R. (1998). *The small rural primary school and its community: Educating together*. Stroud: Glos. Action with Communities in Rural England (ACRE)/National Small Schools Forum (NSSF) (Reproduced by the NSSF).
- Australian Government Institute of Family Studies. (2011). *Families in regional, rural and remote Australia*. Updated 2013. Accessed 28 Nov 2013 at <http://www.aifs.gov.au/institute/pubs/factsheets/2011/fs201103.html>
- Aylsham Cluster Trust. (2013). *Membership of the Aylsham Cluster Trust*. Accessed 7 Jan 2014 at <http://www.aylshamcluster.co.uk/main/membership/4>; and *Who are our Trust partners?* At <http://www.aylshamcluster.co.uk/main/partners>

- Bagley, C., & Hillyard, S. (2011). 'Village schools in England: At the heart of their community?' *Australian Journal of Education*, 55(1), 37–49. At <http://aed.sagepub.com/content/55/1/37>. Accessed 3 Oct 2013.
- Bell, M. (2007). The twoness of rural life and the ends of rural scholarship. *Journal of Rural Studies*, 23, 402–415.
- Bell, A., & Sigsworth, A. (1987). *The small rural primary school a matter of quality*. Lewes: The Falmer Press.
- Bell, A., & Sigsworth, A. (1992). *The heart of the community. Rural primary schools and community development*. Norwich: Mousehold Press.
- Berliner, D. (2011). Rational responses to high stakes testing: The case of curriculum narrowing and the harm that follows. *Cambridge Journal of Education*, 41(3), 287–302.
- Burton, B., Brown, K., & Johnson, A.. (2013). Storylines about rural teachers in the United States: A narrative analysis of the literature. *Journal of Research in Rural Education*, 28(12), 1–18. Retrieved November 14, 2013, from <http://jrre.psu.edu/articles/28-12.pdf>
- Cloke, P. (1971). An index of rurality for England and Wales. *Regional Studies*, 11(1), 31–46.
- Coladarci, T. (2006). 'Do smaller schools really reduce the 'power rating' of poverty'? *The Rural Educator*, 28(1), 1–9. Accessed 29 Oct 2013 at http://www.ruraleducator.net/archive/28-1/28-1_Coladarci.pdf
- Coladarci, T. (2007). Improving the yield of rural education research: An editor's swan song. *Journal of Research in Rural Education*, 22(3). Accessed 30 Nov 2013, from <http://jrre.psu.edu/articles/22-3.pdf>
- Commission for Rural Communities (CRC). (2004). *Defining Rural England*. Cheltenham: CRC.
- Commission for Rural Communities (CRC). (2010a). *State of the Countryside 2010 Summary Report*. Cheltenham: Commission for Rural Communities.
- Commission for Rural Communities (CRC). (2010b). *State of the Countryside update children and educational services*. Accessed 9 Dec 2013 at http://webarchive.nationalarchives.gov.uk/20110215111010/http://www.ruralcommunities.gov.uk/files/sotc/livingincountryside_2_7.pdf
- Commission for Rural Communities (CRC). (2010c). *Small schools Big communities Village schools and extended services*. <http://webarchive.nationalarchives.gov.uk/20110303145243/http://www.ruralcommunities.gov.uk/files/extendedservicesreport.pdf>
- Corbett, M. (2007a). *Learning to leave. The irony of schooling in a coastal community*. Black Point: Fernwood Publishing.
- Corbett, M. (2007b). Travels in space and place: Identity and rural schooling. *Canadian Journal of Education*, 30(3), 771–792.
- Cromartie, J., & Bucholtz, S.. (2008, June). 'Defining the 'rural' in rural America'. *Amber Waves*, June. Accessed 27 Nov 2013 at <http://webarchives.cdlib.org/sw1vh5dg3r/http://ers.usda.gov/AmberWaves/June08/Features/RuralAmerica.htm>
- Department for Education (DFE). (2013a). *Rural primary schools designation 2013*. Accessed 24 Oct 2013 at <http://www.education.gov.uk/schools/leadership/schoolorganisation/b00192440/the-designation-of-rural-primary-schools-2012>
- Department for Education (DFE). (2013b) *Leadership and governance: Free schools*. Accessed 31 Dec 2013 at <http://dfe.gov.uk/schools/leadership/typesofschools/freeschools>
- Department for Education (DFE). (2013c). *The academy/free school presumption*. Accessed 31 Dec 2013 at <http://dfe.gov.uk/aboutdfe/advice/f00209212/academy-free-school-presumption/establishing-new-school> <http://www.aylshamcluster.co.uk/main/the-trust>
- Department for Education and Employment. (1998). *End to wholesale village closures*. Press release110/98. Retrieved March 18, 2009, from http://www.dcsf.gov.uk/pns/DisplayPN.cgi?pn_id=1998_0110 but http://webarchive.nationalarchives.gov.uk/quick_search/
- Dowling, J. (2009). Changes and challenges: Key issues for Scottish rural schools and communities. *International Journal of Educational Research*, 48(3), 129–139.
- Ersado, L.. (2006). Rural vulnerability in Serbia. *World Bank Policy Research Working Paper 4010*. Accessed 8 Dec 2013 at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=931564

- Flecha, R.. (2012). Includ-ED: Strategies for inclusion and social cohesion in Europe from education. D. 52.5. *Final Report of the Includ-ED project*. Retrieved 20 Dec 2013 at http://creaub.info/included/wp-content/uploads/2010/12/D25.2_Final-Report_final.pdf
- Freire, P. (2004). *Pedagogy of hope. Reliving pedagogy of the oppressed* (First published 1992). London: Continuum.
- Galton, M., & Hargreaves, L. (1995). Clustering: A survival mechanism for rural schools in the United Kingdom. *Journal of Research in Rural Education*, 11(3), 173–181.
- Galton, M., & Patrick, H. (Eds.). (1990). *Curriculum provision in the small primary school*. London: Routledge.
- Galton, M., Fogelman, K., Hargreaves, L., & Cavendish, S. (1991). The rural schools curriculum enhancement national evaluation (SCENE) project. Final report. London: DES.
- Giddens, A. (1991). *Modernity and self-identity. Self and society in late modern age*. London: Polity Press.
- Goodall, J., and Vorhaus, J., with Carpentieri, J, Brooks, G., Akerman, R., & Harris, A.. (2011). *Review of best practice in parental engagement*. Research Report DfE-RR156. London: Department for Education.
- Hannum, E. (2003). 'Poverty and basic education in rural China: Villages, households and girls' and boys' enrolment'. *Comparative Education Review* 47(2), 141–159. Accessed 6 Dec 2013 at <http://www.jstor.org/stable/10.1086/376542>
- Hargreaves, L. (2009). Respect and responsibility: Review of research on small rural schools in England. *International Journal of Educational Research*, 48(2), 117–128.
- Hargreaves, A., & Shirley, D. (2009). *The Fourth way. The inspiring future for educational change*. London: Corwin/Sage.
- Hargreaves, L., Comber, C., & Galton, M. (1996). The National Curriculum: Can small schools deliver? Confidence and competence levels of teachers in small rural primary schools. *British Educational Research Journal*, 22(1), 89–99.
- Hargreaves, L., Kvalsund, R., & Galton, M. (2009). Reviews of research on rural schools and their communities in British and Nordic countries: Analytical perspectives and cultural meaning. *International Journal of Educational Research*, 48(2), 80–88.
- House of Commons. (2012). *Rural schools special adjournment debate*. Retrieved November 27, 2013 at http://www.smallschools.org.uk/images/pdf/rural_schools_commons_adjournment_debate.pdf
- Ivić, I., & Pesikan, A. (2012). 'Education system reforms in an unstable political situation: The case of Serbia in the first decade of the 21st century'. *CEPS Journal* 2(2), 31–53. Accessed 8 Dec 2013 at http://www.pedocs.de/frontdoor.php?source_opus=6726
- Jarvis, T., Hargreaves, L., & Comber, C. (1997). An evaluation of the role of email in promoting science investigative skills in primary rural schools in England. *Research in Science Education*, 27(1), 223–236.
- Jeynes, W. (2011). *Parental involvement and academic success*. New York: Routledge.
- Johnson, J., & Strange, M. (2007). Why rural matters. In *The realities of rural education growth*. Washington, DC: Rural School and Community Trust.
- Kalaoja, E., & Pietarinen, J. (2009). Small rural schools in Finland: A pedagogically valuable part of the school network. *International Journal of Educational Research*, 48(2), 109–116.
- Kannapel, P., & DeYoung, A. (1999). The rural school problem in 1999: A review and critique of the literature. *Journal of Research in Rural Education*, 15(2), 62–79.
- Kučerová, S., & Kučera, Z. (2012). Changes in the spatial distribution of elementary schools and their impact on rural communities in Czechia in the second half of the 20th century. *Journal of Research in Rural Education*, 27(11), 1–17.
- Kvalsund, R. (2009). Centralized decentralization or decentralized centralization? A review of newer Norwegian research on schools and their communities. *International Journal of Educational Research*, 48(2), 89–99.

- Kvalsund, R., & Hargreaves, L. (2009). Reviews of research in small rural schools and their communities: Analytical perspectives and a new agenda. *International Journal of Educational Research*, 48(3), 140–149.
- Kvalsund, R., & Hargreaves, L. (2013). Theory as the source of ‘research footprint’ in rural settings. In S. White & M. Corbett (Eds.), *Doing educational research in rural settings: Methodological issues, international perspectives and practical solutions*. London: Routledge.
- Lindsay, G., Muijs, D., Harris, A., Chapman, C., Arweck, E., & Goodall, J. (2007). *School Federations Pilot Study 2003–2007*. Research Report DCSF-RR015. London: Department for Children, Schools and Families (DCSF). Retrieved December 5, 2013, at <http://dera.ioe.ac.uk/7911/1/dcsf-rr015v2.pdf>
- Lui, S., Cui, R., & Lu, G. (2013). The challenges of basic education curriculum change in rural primary schools in West China. In E. Kimonen & R. Navalainen (Eds.), *Transforming teachers’ work globally*. Rotterdam: Sense Publishers.
- Muschamp, Y., Bullock, K., Ridge, T., & Wikeley, F. (2009). Nothing to do’: The impact of poverty on pupils’ learning identities within out-of-school activities. *British Educational Research Journal*, 35(2), 305–321.
- Nachtigal, P. (1982). *Rural education: In search of a better way*. Boulder: Westview Press.
- Nevalainen, R., & Kimonen, E. (2013). The teacher as implementer of curriculum change. In E. Kimonen & R. Nevalainen (Eds.), *Transforming teachers’ work globally*. Rotterdam: Sense Publishers.
- Office for National Statistics (ONS). (2013). *Statistical Bulletin* (26 June 2013). Retrieved 15 Dec 2013 at http://www.ons.gov.uk/ons/dcp171778_315456.pdf
- Office for Standards in Education (OfSTED). (2013). *Grendon Church of England primary school inspection report* Retrieved 19 Nov 2013 at <http://www.ofsted.gov.uk/inspection-reports/find-inspection-report/provider/ELS/121975>
- Organisation for Economic Co-operation and Development. (2013, May). What makes urban schools different?. PISA in Focus, 28. Accessed 13 May 2013 at <http://jrre.psu.edu/articles/27-11.pdf>
- Pell, T. (2009). Is there a crisis in the lower secondary school?’ In M. Galton, with S. Steward, L. Hargreaves, C. Page, T. Pell. *Motivating your secondary class*. London: Sage.
- People’s Daily On-line. (2002). *Who should pay China’s rural primary education?* Accessed 6 Dec 2013 at http://english.peopledaily.com.cn/200212/21/eng20021221_108837.shtml
- Sargent, T., & Hannum, E. (2005). ‘Keeping teachers happy: Job satisfaction among primary school teachers in rural northwest China.’ *Comparative Education Review*, 49(2), 173–204. Accessed 6 Dec 2013 at <http://www.jstor.org/stable/10.1086/428100>
- Scottish Executive. (2003). *Social focus on urban Scotland 2003*. Last accessed 020109 at <http://www.scotland.gov.uk/Publications/2003/05/17207/22176>
- Shucksmith, M.. (1990). *The definition of rural areas and rural deprivation*. Research Report No. 2. Edinburgh: Scottish Homes.
- Sigsworth, A., & Solstad, K. J. (Eds.) (2005). *Small rural schools: A small inquiry*. Nesna University College/Interskola Cornwall, England. Retrieved November 14, 2013, at http://brage.bibsys.no/hinesna/bitstream/URN:NBN:no-bibsys_brage_7543/1/64.pdf
- Strange, M., Johnson, J., Showalter, R., & Klein, R. (2012). *Why rural matters, 2011–12. The condition of rural education in the 50 states*. Washington, DC: Rural School and Community Trust.
- The Journal. (2010). *Schools close as surplus places rise*. 6th, December 2010. Accessed 14 Nov 2013 at <http://www.thejournal.co.uk/news/north-east-news/schools-close-surplus-places-rise-4442887>
- The Scottish Government. (2011). *Rural Schools List*. Accessed 27 Nov 2013 at <http://www.scotland.gov.uk/Topics/Education/Schools/Buildings/changestoschoolestate/Ruralschoollist>
- Thorpe, R., & Williams, I. (2002). What makes small schools’ federations work? An examinations of six instances of small school federation in Wales. *The University of Wales, Journal of Education*, 11(2), 3–25.

- Todman, P., Harris, J., Carter, J., & McCamphill, J. (2009). *Better together exploratory case studies of formal collaborations between small rural primary schools*. DCSF Research Report RR162. London: Department for Children, Schools and Families (DCSF).
- United Nations Educational, Scientific and Cultural Organisation. (2013). *Millennium development goals and beyond 2015*. Official Website <http://www.un.org/millenniumgoals/>
- United Nations Educational, Scientific and Cultural Organisation (UNESCO). (2008). *Education for all: Class of 2015*. Communique 3 http://educationforall2015.org/Education%20for%20All-%20Class%20of%202015%20Communique_3_.pdf
- US Department of Agriculture (USDA). (2013). *Rural classifications. What is Rural?* Accessed 27 Nov 2013 at <http://www.ers.usda.gov/topics/rural-economy-population/rural-classifications/what-is-rural.aspx#.UsX1sJHFk8M>
- Vulliamy, G., & Webb, R. (1995). The implementation of the national Curriculum in small primary schools. *Educational Review*, 47(1), 25–41.
- Webb, R. (1993). *Eating the elephant bit by bit: The National Curriculum at Key Stage 2*. London: Association of Teachers and Lecturers.
- Woods, M. (2010). Engaging the global countryside: Globalization, hybridity, and the reconstitution of rural place. *Progress in Human Geography*, 31, 485–506.

Chapter 15

Life in Hong Kong International School Classrooms: A Case Study of Curricula Reform at the Primary School Level

David Sorrell

Abstract Recent years have witnessed changes in the curricula used in Hong Kong international schools. Primary schools of the English Schools Foundation (ESF) and several in the private sector were previously using the National Curriculum of England and Wales (NC). The curriculum, however, was replaced with the International Baccalaureate's (IB) Primary Years Programme (PYP) in all ESF primary schools and in the international school discussed in this chapter.

First-hand experiences as a primary classroom teacher during and after the transition phase with regard to the implementation of the PYP shall be discussed. Parents in terms of their initial concerns regarding lack of assessment and students in terms of adapting to changes in teaching style and the choices they had in personal learning approaches will also be discussed.

Keywords Hong Kong • IBO • International Baccalaureate Organisation • Inquiry-based learning • International schools • Primary • Primary Years Programme • PYP

The number of international schools in Hong Kong offering the “international education programs” (Law et al. 2012) of the IB has greatly increased in recent years. Up until the late 2000s, the schools of the ESF and most English medium of instruction (EMI) independent international schools were using the NC. Many of the EMI schools decided to adopt the PYP in primary schools and the Middle Years Programme (MYP) and Diploma Programme (DP) in secondary schools and colleges. There is now a fourth programme, the IB Career-related Certificate, and similarly to the DP, it is aimed at students aged 16 to 19 years old, but as the name suggests, its content is career related, whereas the DP is aimed at university preparation. In 2013, there were 27 primary international schools in Hong Kong offering the PYP (IB 2013a).

D. Sorrell (✉)

Faculty of Education and Human Development, The Education University of Hong Kong,
10 Lo Ping Road, Tai Po, New Territories, 852 Hong Kong, SAR China

e-mail: dsorrell@eduhk.hk

The influence and reputation of the IB within international education have been explored in studies (Law et al. 2012; Resnik 2012; Tarc 2009) and claimed to provide an important educational service to students displaced around the world (Hill 2003) or a curriculum for schools to adopt for students who are “globally mobile” (Cambridge 2002; Doherty 2009). It has been described as a “recognized leader in the provision of K-12 international education” (Tarc 2009). International schools have been described as adopting the programmes of the IB in order to have “internationalism and academic quality” (Law et al. 2012). Students returning to their home country or intending to move to a “new” country for university have often encountered problems entering degree and diploma programmes if not in possession of recognised certificates or diplomas of the host country (Hill 2012). The DP has provided students with an internationally recognised qualification accepted in universities worldwide (Bagnall 1997) and has been described as a curriculum with “valid university entry credentials” (Resnik 2012). The programme has been highly advocated and claimed to have “quietly matured into one of the most widely available, and arguably one of the best, advanced academic programs available at secondary schools today” (Sjogren and Campbell 2003). In Australia, the IB has been officially recognised as an alternative to regulated tertiary admission credentials (Doherty 2009). The IB programmes have been portrayed in Australia as selective due to the associated expensive school fees that not all parents can afford; students attending such schools are often described as “privileged” (Doherty 2009). In addition, the programmes have attracted the interest of administrators in Australian public sector schools with the aim of winning back drifting middle classes (Doherty 2009). The notion that schools not offering the IB programmes may fall “behind the game” has also been suggested (Bell 2009), and although not confirmed, this could be one of the reasons why international schools in Hong Kong have chosen to change their curricula. Marketisation (Whitehead 2005), the acceptance of market-orientated values and the IB programmes as globally branded products (Cambridge 2002), has made it a necessity for IB World Schools to maintain well-designed websites and develop updated publicity materials that inform existing and prospective parents. Accessible information will either inform parents unfamiliar with programme content or for families moving to another country wishing for their child to continue to be educated in one of the programmes for continuity purposes.

The IB and the PYP

The IB is a non-profit educational foundation originally established in Geneva, Switzerland, in 1967 (Hill 2002). Curriculum origins were as a series of pamphlets entitled the “International Schools Examination Syndicate” or ISES, published as the International Schools Association (Fox 1998). The organisation has been described as:

A uniquely transitional educational construction, a curriculum without borders [with] a capacity to productively embed itself within a variety of national settings” (Doherty 2009). The mission of the IB is stated as: “The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. To this end, the organisation works with schools, governments and international organisations to develop challenging programmes of international education and rigorous assessment. These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right. (IB 2013b)

The PYP was first introduced in 1997 (Drake 2004; Hayden 2006) and is available in English, French and Spanish (Hill 2012) thus potentially increasing the number of schools worldwide that can offer it as their teaching curriculum. The programme is designed for students aged between 3 and 12 years old with whole child development as its ultimate aim (Lee et al. 2012). According to the IB’s website, the programme aims to address the academic, social and emotional well-being of students, to encourage the development of student independence and taking on responsibility for their own learning and to support students gain world understanding and how to function comfortably within it and for personal values to be established in order for international-mindedness to develop and flourish (IB 2013b). In addition, the IB programmes are said to share the common philosophy and pedagogical approach with the ultimate aim of developing the whole student in six different ways: intellectually, socially, ethically, aesthetically, physically and culturally (Hill 2012).

Students are supported to move beyond memorising facts, figures and dates, building on their prior knowledge, explore new ideas, deepen understandings and develop their thinking, communication and research skills. The learner profile underpins all teaching and learning and is comprised of ten principles and was established in 2006, after two years of consultation with IB schools worldwide (Hill 2012). Ian Hill, the deputy director general of the IB before retiring in 2012 stated “Schools inculcate the learner profile into their communities. This is not just for students, but for teachers, parents, and everyone else. As a key cross-programme component, the learner profile is central to the definition of what it means to be internationally minded” (Hill 2012). The learner profile consists of the following competencies that are integrated into all learning areas: balanced, caring, communicators, inquirers, knowledgeable, open-minded, principled and reflective risk takers and thinkers (Hill 2012). In addition to the learner profile, there are ten attitudes, namely, appreciation, confidence, creativity, cooperation, curiosity, empathy, enthusiasm, independence, integrity and respect. Students are actively encouraged to develop and maintain the learner profile and attitudes.

Six transdisciplinary themes underpin the PYP. The IB stipulates in its regulations that each theme should be covered once in each year group within a unit of inquiry (referred to at the focus school as UoI). At the focus school, each unit of inquiry lasted approximately six to seven weeks. The six themes (Hill 2012) are:

- Who we are
- Where we are in place and time

- How we express ourselves
- How the world works
- How we organise ourselves
- Sharing the planet

The PYP, in addition, has five transdisciplinary skills. The main guidance manual “Making the PYP Happen” (IB 2000) states that “The PYP position is that, in order to be well prepared for further education and for life beyond the school, students need to master a whole range of skills beyond those normally referred to as basic”. The five skills are communication, research, self-management, social and thinking.

The UoIs are guided by eight concepts of which, on average at the focus school, three were usually chosen and explored. During the course of the year, all eight concepts were covered, some more than once. The eight concepts (Hill 2012) are:

- Causation – Why is it the way it is?
- Change – How does it change over time?
- Connection – How is it connected to other things?
- Form – What does it look like?
- Function – How does it work?
- Perspective – What are the points of view?
- Reflection – How do we know?
- Responsibility – What is our responsibility?

Teaching Using the National Curriculum of England and Wales (NC) in England and Hong Kong

Before moving to Hong Kong in August 2002, I had taught using the NC for seven years in Southeast England. As the international schools in Hong Kong were similarly using the curriculum, I was, therefore, already familiar with its structure and terminology such as attainment targets, level descriptors and the statutory assessment requirements. This was one reason for me applying to the school. Such familiarity was highly beneficial, allowing me to settle quickly into living and working abroad for the first time and teaching English to students who were predominantly second language (L2) learners. Looking back, when comparing the teaching of the curriculum in England to Hong Kong, there are notable differences. For example, when teaching geography in Hong Kong, place names included in the NC were substituted with more familiar towns, cities and countries in Asia, particularly for the younger students. When teaching mathematics and referring to money, pounds and pence in money-related questions were substituted with Hong Kong dollars and cents. When teaching history, content on the Tudors, for example, was seen as

irrelevant to students in Hong Kong, whereas Ancient Egyptians were regarded as of international interest and, therefore, remained unchanged within the history curriculum and certainly enjoyed by students and teachers alike.

At the first school I taught at, there were a number of students from Laos and Pakistan but born in England. I had no experience teaching English as an L2 before I moved to Hong Kong, and at the time, I cannot remember being daunted by the fact. Looking back, this surprises me. Possibly due to visiting Hong Kong twice before on holiday I was somewhat accustomed to the fact that English is very widely spoken and, maybe, assumed that the students in the year group I was teaching (7 and 8-year-olds) would already be proficient in the language, if they had been students at the school since kindergarten. The English as an additional language (EAL) department was well resourced in terms of differentiated work materials and staff with expertise and qualifications in the EAL field. Coincidentally, I was fortunate that in my first year, the decision was made by the SMT to implement an after-school course titled "EAL in the Mainstream" led by the EAL coordinator over ten weeks. All classroom teachers and teaching assistants participated. The sessions proved to be highly supportive for me when teaching the L2 English students, for example, with the use of picture cues to explain new vocabulary. As almost 60% of the students attending the school were first language (L1) Chinese (Cantonese or Mandarin), the course explicitly covered the differences between spoken Chinese and English which helped enormously in the classroom. For example, that in Chinese, there are no differences between she and he, his and her and I and me. There are no tenses and no plurals. This awareness was crucial when teaching the L1 Chinese students, as I was able to explicitly remind them of the grammatical differences between written Chinese and English or spoken Cantonese/Mandarin and English. Such awareness also meant that unfair criticism of the students did not happen if mistakes were made, for example, not pluralising words. I know that my colleagues also found the course to be extremely useful for their own teaching and student learning. Unfortunately, however, it was not repeated some years later, as I am sure it would have proved equally as beneficial for newer colleagues employed at the school.

It was not until I started teaching English in Hong Kong that I realised just how complicated the language can be to teach and for students to learn. In England, students are immersed in the language. On the whole unless the school chooses, other languages are not formally taught in primary schools. For L1 English students, they continue to be immersed in the language wherever they go, but not necessarily for L2 students, who outside school with their families will most definitely be communicating in their mother tongue. In Hong Kong, I soon realised and appreciated the many rules that exist in English and how complicated they can be. It was, therefore, necessary for me to address such complexes and ensure the students were aware of grammar rules and spelling patterns, for example.

The Transition to the PYP Curriculum

The school made the decision to change to the PYP for two main reasons. Firstly, as a private international school, it was essentially organised as a business. The school has described itself as a non-profit-making organisation. There was a business administrator, whose presence is vital for the school to remain competitive with other international schools in Hong Kong, both in the private sector and in the English School Foundation (ESF). The ESF had talked of changing from the NC to the PYP, and, therefore, to remain competitive, the school needed to follow suit. The school had already experienced a significant number of students moving to ESF schools around 2008 due to absence of a follow-on secondary school. Parents were naturally concerned and made the decision to send their children to ESF primary schools, as they wanted to guarantee a secondary school place, despite the fact that class sizes of the ESF schools were significantly larger. The schools were, therefore, fully aware of past financial problems and wanted to avoid fresh ones. It has been commented (Cambridge 2002) that international education institutions have business-like attributes with a cultural-ideological shift from pedagogical issues towards market-orientated values with the transformation of international education into a globally branded product. The recent changes of curricula in Hong Kong education can be similarly compared with the changing climate in Australia's education system in terms of informational and communication technology growth, the needs of young people changing and increases in social diversity (Law et al. 2012). Law et al. (2012) cited a 2008 report of the Ministerial Council on Education, Employment, Training and Youth Affairs and "the need for multi-skilled, multi-disciplinary workers in a changing employment market has resulted in a national shift in both teaching and learning". Secondly, the teaching staff and SMT were originally from countries such as Australia, New Zealand and Canada, often expressing the opinion that as an international school with students from approximately 20 countries, an international curriculum should be adopted to more appropriately meet all their needs. International-mindedness, intercultural awareness and diversity are values that the IB claims are fostered within their programmes (IB 2007) and were considered by the school to be of importance to the whole school community. Similarly, to other Hong Kong international schools, the PYP was chosen as the replacement for the NC.

On the whole, staff members were very enthusiastic about the prospect of adopting the PYP. Those approaching retirement age, however, were less enthusiastic; their reluctance to change was somewhat understandable. Teaching has been discussed as an emotional occupation and that teachers are often reluctant to educational change for a variety of reasons including the stage they are at in their careers (Hargreaves 1997a). Hargreaves (1997a) commented, "If educational reformers and change agents ignore the emotional dimensions of educational change, emotions and feelings will only re-enter the change process by the back door". Hargreaves (1997b) also commented on the implementation and restructuring of schools placing "literal and metaphorical impositions upon the lives and work of teachers.

Structural reforms have too often been built on teachers' backs, mandated without their involvement or consent". It was, therefore, essential that the SMT valued the opinions of the staff and were sympathetic and tolerant to their concerns in the transition process.

The SMT was very responsive and accordingly ensured teaching staff, students and parents were adequately informed, prepared and trained for the transition from traditional teaching to inquiry teaching methods. Initially, training was organised and taught by the Deputy Principal who was familiar with inquiry-based teaching methods in Australia and the work of educationalists such as Kath Murdoch and Edward de Bono. The Deputy Principal became the PYP coordinator overseeing the transition process. Staff members attended workshops organised by the IB within Hong Kong and overseas and later became certified as PYP teachers. A cautionary remark has been raised in the literature that consistency in classroom practice is not guaranteed even if a teacher knows the policy or programme (Kauffman 2005), and if their skills are not reformulated to be consistent with programme goals, implementation is in risk of failure (Duffy and Roehler 1986, cited in Kauffman 2005). Staff training was, therefore, a regular occurrence. When the IB held updated workshops, staff members attended. Meetings were often held at other international schools and were an opportunity for discussions with fellow colleagues, many of whom were also in the transition phase. The SMT received full backing from the Board of Governors. Legitimacy or approval is often sought by teachers or school administrators for their school, and the public can have a real influence (Kauffman 2005). Parents, therefore, were fully informed of the intended curriculum changes from the outset, and their approval, understanding and acceptance of the PYP were fundamental to the implementation process. The SMT organised information meetings and workshops for parents to attend allowing them the opportunity to raise questions and any concerns that they had. For the majority of parents who were educated within the Hong Kong local education system, their biggest concerns were with regard to assessment and homework. I remember many Chinese parents continuing to ask me at parent/teacher meetings about, for example, the position of their child in the class; how they would be tested; how work would be graded or commented upon once the PYP was adopted and so forth. They were also concerned about inquiry-based teaching and whether such an approach would be detrimental to their child's learning. They appreciated that their child would gain on a personal and social level but were anxious about a perceived lack of new knowledge gained, for example, in science.

Before formal accreditation procedures were initiated and with the majority of parents reassured of the merits of the PYP, the school decided to trial an inquiry-based curriculum for two academic years that was based on several curricula, including from Queensland and South Australia in the subject areas of science, humanities, arts, information technology, music and physical education. The school continued to implement the NC's literacy (English) and numeracy (mathematics) strategies, as they were considered strong in terms of structure and content. It was also decided that NC end of year assessments should continue to be used, which certainly reassured parents who had uncertainties on assessment procedures.

In the second trial year, the school started formal procedures to become an accredited International Baccalaureate (IB) World School and offer the PYP as its teaching and learning curriculum. When teaching the NC in the past, many teachers planned and taught lessons in isolation. Similarly to the school discussed in Korsmo et al. (2012), the teachers at the focus school, as stipulated by the IB, were required to collaboratively plan as year groups. Experienced teachers, initially less enthusiastic and uncertain about the adoption of the PYP, were now more positive, seeing one of the underpinning philosophies of the programme for collaborative planning as of support to them in the transition process. During this second year, teachers and teaching assistants continued to participate in workshops, training them on how to teach using an inquiry-based approach. The accreditation took place in March 2010, when the school had completed all of the requirements, including the formulation of new policy documents, including a language policy. The school was notified of its success in April 2010.

As previously mentioned, the PYP includes five transdisciplinary skills (communication, research, self-management, social and thinking). An important consideration for schools wishing to become an accredited IB World School is the arrangement and organisation of classrooms, most significantly of the tables or desks in order for students to be able to develop the five skills. To highlight this point, the seating arrangements of United Kingdom and overseas classrooms have been described in the literature (Galton and Williamson 1999; Galton et al. 1999) as children sitting in groups “around tables or at desks pushed together to make a square” (Galton and Williamson 1999). The functioning of groups, however, was further described as “surprising” as the practice did not “appear to match the ideology which one might suppose dictates the decision to bring children together in this way” (Galton and Williamson 1999). That is, grouping children can indicate discussion and sharing of ideas, but in practice, they would be assigned tasks to work on individually. Teachers at the focus school were already organising their classrooms in the layout Galton et al. (1999) described as a “typical classroom” or a “shoebox” layout, opposed to the “horseshoe” layout. The “typical classroom” or “shoebox” layout is, effectively, ideal for inquiry-based teaching and learning, as these arrangements are naturally organised for collaborative groupwork and the development of all five transdisciplinary skills. When the school was in the transition stage, classroom organisation of seats and tables was not, therefore, an additional burden or issue for teachers to consider.

Galton et al. (1999) reported findings of the 1996 Observational Research and Classroom Learning Evaluation (ORACLE) study that was completed over five years following students in their last two years of primary and first year of secondary education. The study investigated the use of individual, group and whole class organisation of learning activities in the core subjects of mathematics, English and science and the foundation subjects of art, geography and history. Individual learning was found to be the highest method in all subjects except science. Whole class teaching was the highest method found for science. Groupwork was found to have least emphasis in all subjects than in art. Galton et al. (1999) commented that art is

usually seen as a subject students work on individually but that the percentage of one-to-one teacher-pupil interaction was only slightly above English.

The findings of the ORACLE (1996) project (see Galton et al. 1999) can be directly compared to the teaching and organisational settings expected within an inquiry-based classroom. Collaborative skills are a compulsory component, and, therefore, it could be predicted that within a PYP classroom, groupwork would be the highest level in the majority of learning activities. For English, however, according to the content of the UoI, specific texts and writing genres were planned in advance for coverage over the academic year, for example, persuasive texts and writing, poetry, report writing, science fiction texts and writing, etc. For the UoI that was based around a business venture, the contents of English sessions were persuasive texts, for example, to familiarise the students with persuasive language in order to attract potential customers in advertisements and face to face. Such content would be taught within whole class shared or group reading sessions and subsequently developed within the UoI sessions when the students worked on tasks individually, in pairs or in small groups. Similarly to Galton et al.'s (1999) discussion with regard to reading and the demands of teaching the NC, as well as juggling the expectations of head teachers, that is, "the pressure of including all the National Curriculum subjects has reduced the amount of time spent hearing the children read. In one class, for example, we observed a teacher attempting to satisfy the head teacher's rule that every child should be heard reading every second day", there were similar concerns for many of the teachers, particularly those teaching the older students who did not have a dedicated teaching assistant. It was common practice for teachers to listen to students read the same differentiated level text as part of a small group in order to satisfy the requirements of the SMT. Another strategy would be for a text to be read as a whole class sharing activity using the interactive whiteboard. The students would also have their own copy of the text, on which they could highlight unknown vocabulary or phrases that they could either question the teacher, their peers, or consult a dictionary at a later stage to confirm definitions.

Mathematics was, whenever appropriate, taught within the UoIs or as stand-alone inquiry units to cover new concepts within the scope and sequence document. When not appropriate to be taught using an inquiry approach, concepts were taught with an inquiry twist and student interaction. The students, however, would usually be working on tasks individually, relatively similar to the reported 1996 ORACLE findings.

The PYP has six subject areas identified, which are language, mathematics, science, social studies, arts and personal, social and physical education. A common concern of the teaching staff, particularly in the first two years after accreditation, was towards science and the teaching of concepts and skills, plus the lack of investigative experimental work. Similarly, but to a lesser extent, the once stand-alone subjects of the NC, namely, art, geography and history, were seen as being neglected within the UoIs. As a result, the UoIs, which were always reviewed after completion, were restructured and given a traditional subject emphasis or focus. So, a UoI might be considered to have a science focus on forces or light or a geographical focus on local land usage. Although some of the more experienced teachers were

less concerned than previously, there was still some concern from them towards the perceived lack of science in the UoIs. In addition, parents also expressed similar concerns with regard to the teaching of science.

As mentioned, when the UoIs were finished, they were evaluated. Evaluation is a major component of the IB programmes for staff and students. Students are encouraged to reflect on the UoIs and, in particular, to focus on the learner profile and attitudes, making judgements on their work, their strengths and successes, as well as the areas that they consider need further development. For the teachers, in collaborative planning sessions, they would meet with the PYP coordinator to discuss the UoIs with the view to required revisions in preparation for the following academic year when the UoI would be taught again. It was not uncommon for UoIs to be completely rewritten, especially in the first two or three years. The school was constantly learning and adapting, finding ways to improve the UoIs. This could be somewhat frustrating, particularly if the teachers felt that the UoI was, on the whole, particularly successful and rewarding for both the students and teachers. More often than not, Central Ideas or the concepts covered would be revised; the areas of the learner profile and attitudes chosen might be reduced in number, but most definitely, the teacher questions would be revised according to what was considered inappropriate to the unit.

Despite the fact teachers were planning collaboratively, there were, at times, grievances with regard to the formal planners designed by the IB that the school was required to use. The planners were seen as too detailed and prescriptive. They were not lesson plans but rather a tool in order to create a curriculum unit (Kauffman 2005) and, therefore, often seen as an additional, arduous and unnecessary requirement. Another common grievance of teachers was the high level of signage in classrooms and around the school. It was a requirement that the UoI being implemented had the focus areas of the learner profile and attitudes prominently displayed in the classroom with the remaining areas left on display, but separated. This was the same for the transdisciplinary (or organising) themes and the eight main concepts (e.g. Function – How does it work?) In addition, the Central Idea for the UoI supposed to underpin every session was also required to be on display. In the initial session(s), termed “tuning in”, there would be a provocation to the unit with the principle aim of engaging the students. The Central Idea would be discussed, normally in small collaborative groups and interpreted by the students. Discussion would usually follow as a whole class to gather ideas and look for similarities in opinions and ideas with a view to the next stage of the unit. An example of one UoI covered at the school was as follows:

- The organising or transdisciplinary theme – How we express ourselves.
- The Central Idea – “Performing arts can be an expression of people’s desire to communicate their ideas and feelings to entertain or inform others”.
- The concepts covered – change and reflection.

When planning the unit, the teachers and the PYP coordinator would formulate four lines of inquiry that, with the Central Idea and concepts, would become the programme of inquiry. For the unit described above, the four lines of inquiry were

using performing arts to express ideas and feelings; emotions, feelings and self-expression as part of performance; history of performance; and reasons for performance and performance effects.

Inquiry-based teaching is very different to traditional teaching methods, and initially, it was difficult to adapt for both teachers and students. The students were now being given the opportunity to learn using what were initially termed by the school as “smarts”. For example, if a student was particularly good at writing and reading, they would be described as “word smart”; if a student enjoyed painting and drawing, they would be described as “picture smart”; and if a student was into sports and exercise, they would be described as “body smart”. In addition to the Central Idea, concepts, etc. each classroom had signage with the different smarts displayed as reminders for the students and staff. The students were encouraged to work from time to time using their particular smart or smarts. Traditional teaching methods would usually consist of mainly closed questions, prescriptive workbook or photocopiable worksheets (Kauffman 2005). Inquiry-based teaching, in comparison, is called for open-ended questions to initiate discussion with peers, questioning and the development of research skills. Research could take the form of primary sources (asking others) or secondary sources of information such as the Internet, reference books, magazines and so on. Kauffman (2005) investigated the implementation of the PYP in three schools and, in his discussion, provided accounts of the various methods and lines of questioning that the teachers used. For example, Kauffman (2005) reported “The teacher encouraged the students to read and independently answer their own questions. The other 4–5 grade teacher connected the Gold Rush to writing and IBPYP attitudes”. Kauffman (2005) further reported that one school “involved students in many experiential activities and in classroom management”, whereas, in comparison, the other school “seemed to be in the midst of changing practices to be more consistent with IBPYP”. Kauffman’s findings provided examples of schools in a similar position to the focus school.

On the whole, the initial transition from the NC to the PYP was smooth; however, there were still a significant number of parents who were unconvinced of the merits of the PYP and at parent/teacher interviews, for example, raised their concerns. Most of the time, concerns continued to be focused on homework and assessment issues. For teachers, concerns were often mentioned with regard to the amount of work that was in the children’s exercise books. Teaching methods of the PYP included the use of collaborative working in small groups and the development of skills such as researching. Much of the time, larger sheets of paper were used for student ideas, and, hence, the only logical way in which evidence could be recorded for accountability to parents and the senior management team was photographs. It was not uncommon for student inquiry unit folders to include a number of colour photocopied photographs and reflection sheets that they had written of the activities.

During the course of the academic year, students would choose work which they were particularly proud of for inclusion in their Student-Led Conference (SLC) folder. The SLCs were held in May and were, as the name suggests, conferences led by the student. Parents were invited to attend, and the students showed their work.

The conferences were scheduled for one hour. The work selected for their folder would be reflected upon, for example, what they had learnt, did they overcome any difficulties to achieve the task, which of the learner profile and attitudes had they improved upon and so forth. My observations of the SLCs were always positive and of admiration for the students. They were, essentially, replacing the teacher's role of the past by conducting the final parent/teacher meeting of the academic year. Parent/teacher meetings continued to be scheduled in the first and second term. Although daunting for the students initially, during the five years I was teaching the older 9- and 10-year-old students, who had been taught at the school using the NC and the PYP, the confidence they exhibited when conducting their SLC could be astounding. Not only at their SLC but throughout the year, they were confidently presenting ideas in small groups, to the whole class, the year group or, indeed, the whole school. My colleagues and I would often comment on how times had changed from when we were at primary school and the difference now in our expectations of young students.

In the final year of the PYP, the 10- and 11-year-old students participate in their exhibition. The exhibition is described by the IB as students undertaking "a collaborative, transdisciplinary process that involves them in identifying, investigating and offering solutions to real-life issues or problems" (IB 2013b). For two consecutive years, I was fortunate to be a mentor to two groups of three students on their exhibition journey. On a personal level, I was proud to have either taught them the previous academic year or when they were 4- and 5-year-olds. The exhibition aims to bring together the many components of the PYP, including the learner profile, attitudes, concepts and transdisciplinary skills. There are critics of the PYP and other programmes of the IB, but on a personal level and writing as a qualified primary school teacher who has taught using the NC and PYP, the advantages of the PYP far outweigh any disadvantages. The world is certainly influenced by the ever-advancing changes in technology. Students are required now to present their ideas, conduct their own research and have the ability to work individually and collaboratively. The PYP curriculum would certainly appear to fulfil the mission of the IB and adequately prepare young students for their secondary schooling and beyond.

References

- Bagnall, N. (1997). The international baccalaureate in Australia. *Melbourne Studies in Education*, 38(1), 129–143.
- Bell, C. (2009). All choices created equal? The role of choice sets in the selection of schools. *Peabody Journal of Education*, 84, 191–208.
- Cambridge, J. (2002). Global product branding and international education. *Journal of Research in International Education*, 1(2), 227–243.
- Doherty, C. (2009). The appeal of the International Baccalaureate in Australia's educational market: A curriculum of choice for mobile futures. *Discourse: Studies in the Cultural Politics of Education*, 30(1), 73–89.
- Duffy, G., & Roehler, L. (1986). Constraints of teacher change. *Journal of Teacher Education*, 37(1), 55–58.

- Drake, B. (2004). International education and IB programmes: Worldwide expansion and potential cultural dissonance. *Journal of Research in International Hong Kong: Comparative Education Research Centre, Education*, 3(2), 189–120.
- Fox, E. (1998). The emergence of the International Baccalaureate as an impetus for curriculum reform. In M. Hayden & J. Thompson (Eds.), *International education: Principles and practice*. London: Kogan Page.
- Galton, M., & Williamson, J. (1999). *Group work in the primary classroom*. London: Routledge.
- Galton, M., Hargreaves, L., Comber, C., Wall, D., & Pell, A. (1999). *Inside the primary classroom: 20 years on*. London: Routledge.
- Hargreaves, A. (1997a). Rethinking educational change. In M. Fullan (Ed.), *The challenge of school change: A collection of articles* (pp. 3–32). Arlington Heights: Skylight Training and Publishing, Inc.
- Hargreaves, A. (1997b). Cultures of teaching and educational change. In M. Fullan (Ed.), *The challenge of school change: A collection of articles* (pp. 57–84). Arlington Heights: Skylight Training and Publishing, Inc.
- Hayden, M. (2006). *Introduction to international education: International schools and their communities*. London: SAGE.
- Hill, I. (2002). The International Baccalaureate: Policy process in education. *Journal of Research in International Education*, 1(2), 183–211.
- Hill, I. (2003). The International Baccalaureate. In G. Phillips & T. Pound (Eds.), *The Baccalaureate: A model for curriculum reform* (pp. 47–76). London: Kogan Page.
- Hill, I. (2012). An international model of world-class education: The International Baccalaureate. *Prospects*. doi:10.1007/s11125-012-9243-9.
- International Baccalaureate's. (2000). *Primary years programme: Making the PYP happen*. Cardiff: International Baccalaureate Organisation.
- International Baccalaureate's. (2007). *Towards a continuum of international education*. Cardiff: International Baccalaureate Organisation.
- International Baccalaureate's. (2013a). About the International Baccalaureate. <http://www.ibo.org/general/who.cfm>. Accessed 3 Oct 2013.
- International Baccalaureate's. (2013b). The IB primary years programme. http://www.ibo.org/communications/publications/documents/ibpyp_brochure_eng.pdf. Accessed 3 Oct 2013.
- Kauffman, N. (2005). Variations of a theme: Implementation of the international Baccalaureate primary years Programme. *Journal of Research in International Education*, 4(3), 243–261. doi:10.1177/1475240905057798.
- Korsmo, J., Barrett, W., Friesen, S., & Finnley, L. (2012). Mission possible: The efforts of the International Baccalaureate to align mission and vision with daily practice. *International Schools Journal*, xxxii(1), 29–39.
- Law, E., McDowall, J., & Feder, T. (2012). The International Baccalaureate primary years program in Australia: Parents and school choice. *The International Journal of Learning*, 1(10), 295–310.
- Lee, M., Hallinger, P., & Walker, A.. (2012). A distributed perspective on instructional leadership in International Baccalaureate (IB) schools. *Educational Administration Quarterly*, XX(X), 1–35. doi:10.1177/0013161X1436271.
- Resnik, J. (2012). The denationalization of education and the expansion of the International Baccalaureate. *Comparative Education Review*, 56(2), 248–269.
- Sjogren, C., & Campbell, P. (2003). The International Baccalaureate: A diploma of quality, depth and breadth. *College and University Journal*, 7(2), 55–58.
- Tarc, P. (2009). *Global dreams, enduring tensions: International Baccalaureate in a changing world*. New York: Peter Lang Publishing Inc.
- Whitehead, K.. (2005). *Advertising advantage: The International Baccalaureate, social justice and the marketisation of schooling*. Paper WHIO5426. Paper presented to the Australian Association for Research in Education annual conference, Parramatta, and 27 November–1 December 2005.

Part V
**Looking in Classrooms: Teaching in and
for Different Cultural Contexts**

Chapter 16

The Predicament of Racial Harmony and National Unity in Malaysia: Evidence Accrued from Schools and Classroom Practices

Suseela Malakolunthu and Nagappan C. Rengasamy

Abstract This paper examines the education policies and reform initiatives that were put in place historically and their contribution towards race and ethnic relations in Malaysia. The analysis reveals that they did serve well for the broader scheme of socio-economic development but undermined the purpose of integration and harmony among the various racial and ethnic groups. An obvious flaw or oversight of these early policy initiatives appears to be the failure to incorporate policies of multicultural education which, apparently, were foreshadowing the emerging divisive nature of Malaysian society. Before the present situation becomes irretrievable and causes greater harm, the government needs to review its stance and to expose, educate and nurture its citizens as to the nature of multiculturalism, its values and beliefs. The best place to begin would, of course, be in the schools.

Keywords Education policy • Racial integration • Multicultural education • Classroom practice • Malaysia

Introduction

Malaysia is a multiracial and multicultural country both demographically and constitutionally. This is a reality that will remain, despite any future turn of events, political or social; it is a legacy that the country inherited as a result of about two

S. Malakolunthu (✉)

Department of Educational Management, Planning and Policy, Faculty of Education Building, University of Malaya, Kuala Lumpur 50603, Malaysia
e-mail: suseela@um.edu.my

N.C. Rengasamy

PEMM Consultants and Asian Institute of Logistics, Kuala Lumpur, Malaysia

centuries of British colonial rule. However, it ought to be noted that foreign immigration to this part of the world had already commenced much earlier than the imperial era; it took place in random and isolated occurrences as a result of trade ventures from the Arabian Peninsula, India and China. It was, however, the British who encouraged large numbers of Chinese and Indians to leave their native countries to support and sustain the economic exploitation of the region. Thus in 1957, when independence was declared, it was at first for Malaya, now known as Peninsular Malaysia. At that time, the demographic composition was 50% Malays, 37% Chinese and 11% Indians (Abdul Rahim 2002). Then, in 1963, Malaya incorporated with Singapore and the island nations of Borneo, namely, Sabah and Sarawak, to form the confederation of Malaysia in order to consolidate the viability of their nationhood. This brought about a new demographic structure. Along with already fundamentally diverse population of Malaya, the peoples of the coalition countries added both to its numbers and ethnic multiplicity. The Malaysian census of 1964 revealed a population of 9.3 million with 52.5% Malays, 36.7% Chinese, 9.6% Indians and 2.2% others (Thomas 2007). The process of nation-building had therefore to contend with the various groups' determination to retain their own language, religion, cultural context, economic orientation, social beliefs and values, and 2 years after the formation of Malaysia, Singapore withdrawing from the arrangement for political and ideological reasons.

Today, the Malaysian population has grown to about 28.3 million: Malays and the natives of Sabah and Sarawak, who are collectively called *Bumiputra* or "sons of the soil", constitute 66.8%, while the Chinese and Indians in the category of immigrant citizens make up 24.5% and 7.4%, respectively; another 1.3% can be attributed to the others (Statistics Department Malaysia 2009). Also noteworthy is the inherent ethnic mix of the population in terms of religious adherence. According to the 2000 census, Muslims constituted 60.4% of the population. Of the other forms, Buddhism contributed 19.2%, Christian 9.1%, Hindu 6.3%, Confucianism, Taoism and other traditional Chinese religions 2.6%, with 1.5% either classified as other or unknown and 0.8% registering as having none. It may also be noted that all Malays are statutorily Muslims. However, in practice, it is the above racial and religious categorization that historically has heavily influenced the politics and policy-making processes of the country.

Upon attaining independence, the single most important goal for the newly formed country was building its nationalistic foundations, which in the case of Malaysia began with the desegregation and unification of the various multiple racial and ethnic groups. The government undertook a number of fundamental reforms to bring the various groups together beginning with education and the school system. This chapter examines the post-independent history of the government's management of the educational processes in parallel with the evolution of a multicultural society: what were the policies and challenges; what kind of inducements and interventions were offered in pursuit of greater social cohesion and integration; what appears to be the current position; and what might be in store for the country in the foreseeable future as a united multiracial and multicultural state. The stated investi-

gation was undertaken in view of numerous adverse reports and differences in public opinion about the present state of race and ethnic relations in the country. The electronic media has also been prolific in this debate with contributors expressing extreme, acrimonious viewpoints that suggest all is not well demographically in the country.

The Historical Context

History has it that the British precluded offering independence to Malaya and, subsequently, the formation of Malaysia without an assurance of unity and harmony among the various ethnic groups as a precondition (Thomas 2007). In practice, the peoples of the land had long lived in a segregated environment culturally and institutionally, each taking care of its own communal interests because of the British unscrupulous “divide and rule” policy in pursuit of economic gains (Drakakis-Smith 1992), and the three major races, including all the inherent ethnic groups, had to be brought together to raise a common front for independence. The founding fathers who were the leaders of the various racial groups thus convened an alliance which in due course issued a memorandum called the “Social Contract” that was duly enshrined in the Federal constitution. Although the drafting of the Social Contract commenced prior to the independence of Malaya, its principles were also formally adopted as the “Malaysia Agreement” to encompass the governance of Malaysia as well. The nature and essence of the Social Contract were captured well in a paper presented at the 14th Malaysian Law Conference by Thomas (2007, p.27):

Thus, the Social Contract, social compact or bargain reached by the 3 communities under the watchful eye of the British imperial power prior to Merdeka (Independence) was in essence that in exchange for a place under the Malayan sun with full citizenship, a right to use their language and observe their religion, the non-Malays had to concede special privileges to the Malays to assist the latter to ascend the economic ladder. It was a quid pro quo. In this equilibrium, the non-Malays were not to be relegated to second class citizens: citizenship was not on a 2-tier basis and there was going to be no apartheid, partition or repatriation. What was required from the non-Malays at the time of Merdeka was undivided loyalty to the new nation. Racial differences were recognized. Diversity was encouraged. There was no pressure to integrate into one Malayan race. Assimilation was out of the question. Thus, a united Malayan nation did not involve the sacrifice by any community of its culture or customs. Malaya was always to remain a plural society.

Explicitly, the Social Contract and, subsequently, the Federal constitution laid the foundation for a multiculturalism that is not assimilative but accommodative; this multiculturalism based on the Social Contract would determine the character of nation-building for Malaysia. Accordingly, the governance of the country would have to proceed on the basis of the stated principles of the contract towards national unity and racial harmony. This policy, it would appear, did operate for the decade after independence mainly by revamping the education system.

Education Ordinance and Act

The first phase of reconstruction of the colonial educational system into a Malaysian education organization commenced with the 1956 Razak Report that became the first education ordinance for independent Malaya (Report of the Education Committee 1956). Essentially, the ordinance called for structural changes at the primary school level. This was generally recognized as a necessary first step in the attempt to unify the various ethnic communities, since primary education was more developed and the resulting hope for improvements could forecast the nature of future needed changes in the secondary sector. The idea of a National Education System was thus mooted that would sponsor two types of public schools; Standard National Schools and Standard-type National Schools; the former would have Malay as the medium of instruction and the latter English, Chinese or Tamil. With regard to additional schools, the Malay medium schools were to be built as a strategic requirement, whereas the Chinese and Tamil schools were to be made available on a needs-based demand (either when there were at least 15 students in a class or the parents made a special request for it). The secondary schools were also to be similarly differentiated, but the Standard type would constitute only the English schools; in other words, the Chinese and Tamil schools would not exist beyond the primary level. However, despite the ruling on the fate of the vernacular schools, the Chinese community continued to maintain their high schools. Currently, Mandarin education as an independent entity takes place at 60 sites across the country. Malay and English had to be taught appropriately as compulsory subjects in all the primary and secondary schools. The ordinance also stated that all the national (government) schools were to be given financial aid.

A three-year review of the implementation of the 1956 Razak Report resulted in the Rahman Talib Report in 1960 and served as the basis for the Education Act of 1961. Fundamentally, it advocated the continued implementation of the previous report but at the same time drew up a mechanism for moving children from the different types of primary schools into the standard secondary schools. Besides, it also focused attention on schooling for rural children and the need for vocational schools for those who could not continue academically. The Rahman Talib Report also indicated that the national and national-type (changed from Standard National and Standard-type National) schools would offer free education for all children and would be linked by means of a common curriculum and examination. Henceforth, Malay was to be the national language and, therefore, immediately became the mandatory medium of instruction in all the primary schools and eventually in all the secondary ones. Ironically, tangential to the terms of the Social Contract, the report expressed interest in doing away with the Chinese and Tamil vernacular schools, but this suggestion was rebuffed by the non-Malays who argued that it would undermine their cultural existence and language. The non-Malays were also unhappy with a compensatory gesture that the vernacular languages would be taught as separate subjects when at least 15 students were available for a class.

Then, there were the Hussein Onn Report and Mahathir Report that came out in 1971 and 1979, respectively. Both reports claimed to continue to aim for national

unity, an idea that had to be coupled with the other developmental needs of the country. The reports recommended certain decisive actions. The Hussein Onn report put a closure to the debate on continuing the English medium schools. It stated, "Beginning 1968, the Malay language will progressively replace the English language as the medium of instruction in all English-medium schools". However, it wanted to retain English as a second language because of its worldwide usage and the expansion in its use in various fields. Building on the key aspects of the 1971 report, the Mahathir Report, in particular, emphasized that education also needed to address the manpower needs of the country and focus on science and technology and the development of noble values and discipline among children. It proposed a new coordinated curriculum for primary and secondary education in 1983 and 1989, respectively. However, neither report contained any significant discussion on the continuing maintenance of the Chinese and Tamil vernacular schools or the possibility of abolishing them.

Unlike the past ordinances, the 1996 Education Act, it is claimed, came into force with no input from the public. Nevertheless, it appeared to adopt a broader holistic approach in its coverage than its predecessors. An important aspect of the Act was that its authors embraced ideas of multiculturalism while retaining many of the recommendations of the 1961 Act and reports of 1971 and 1979 that had had a major impact on the evolution of the Malaysian education system. However, critics denounced it on the grounds that it lacked explicit recommendations for its claims (Segawa 2007). The strength of the 1996 Act was perceived to be the emphasis it placed on the needs of the country's fast-paced economic and social growth, especially in higher education where more liberal policies were adopted with regard to private education, science, technology, ICT and the medium of instruction. Where schools were concerned, it supported the continuance of the vernacular schools, thus attempting to allay the fear among the non-Malays that their abolition was an implicit part of the policy-maker's agenda. On the other hand, the Act recognized and reinforced their right to exist with an open-ended commitment of government support and the necessary financial aid to set up and maintain them. It proposed that religious subjects could also be taught in the schools but only to those who actually professed the particular form. And, in the national schools, facilities were to be made available to teach the students' mother tongue provided at least 15 individuals were available to make up a class. The preschools or kindergartens were also allowed to be run in the pupils' own language provided they also made learning the national language compulsory and complied with a national curriculum.

Perspectives of Multiculturalism in Education

Multicultural education has been defined as a structured process designed to foster understanding, acceptance and constructive relations among students (Banks 2003; Banks and Banks 2010a, b). It should provide opportunities for students to see people of different background and culture as a source of learning and to recognize

and respect diversity as an inherent characteristic of human life. Multicultural education should be able to help students understand their own culture and at the same time understand that no one culture is intrinsically superior to another. It should be able to elevate a student from the state of ethnocentrism to multiculturalism, whereby through different stages of understanding, accepting, respecting and appreciating they move from the view that their own culture and tradition are the best in the world to finally affirming other people's cultures and practices (Babstiste 2002; Komives et al. 1998; Nieto 2002). According to Banks and Banks (2010a, b), the ethnocentrism to multiculturalism growth process cannot be accomplished through sporadic add-on interventions that might be introduced situationally; instead, it had to be approached holistically through an integrated curriculum and relevant pedagogical practices which organize basic multicultural concepts around the contributions and perspectives of different groups and cultures (Gay 2000; Powell 2001).

It has been suggested that a comprehensive implementation of multicultural education would have to focus on five key areas (Banks and Banks 2010a, b): (a) *content integration* where teachers used examples and content from a variety of cultures and groups to illustrate key concepts, principles, generalizations and theories in a particular subject area or discipline; (b) *knowledge construction*, whereby the teachers helped students understand, investigate and determine how the implicit cultural assumptions, frames of reference, perspectives and biases within a discipline influenced the ways knowledge was created; (c) *practice of equity* pedagogy that allowed teachers to modify their teaching so as to facilitate the academic achievements of students from diverse racial, cultural and social class groups; (d) *prejudice reduction* that focused on the students' racial attitudes and how they could be modified by the teaching methods and materials; and (e) creation of an *empowering school culture* and structure that enabled the full participation of all students from diverse racial, ethnic and cultural groups.

Multicultural education when designed and executed effectively can, it has been argued, pave the way for self-expression, open dialogue, critical thinking and analysis of alternative viewpoints among students (Sleeter and Grant 2003). Multicultural education that emphasizes learning about the history, traditions and cultural practices of one's own culture and that of others can also assist students in feeling comfortable to communicate amicably with members of multiple cultures, thus overcoming feelings of alienation and isolation.

Critical Turning Point

In 1969, Malaysia, especially the peninsular area, witnessed a postelection racial riot known historically as the May 13 Incident. The Malays and Chinese engaged in a violent confrontation that affected the total population. The government's analysis of the incident was that it was triggered by the socio-economic imbalance that existed among the racial and ethnic groups. According to Abdul Rahim (2002), the

educational policy and developmental plan of the colonial rulers led to a disparity of educational opportunities between and within the major ethnic groups and also emphasized the social and economic inequalities between the Malays and non-Malays. It was estimated that the Malays owned only 1.5% of the nation's corporate stock ownership, while the non-Malays and foreigners owned much higher percentages (Jomo 2004). Until the riot erupted, the lurking racial grievances and tensions and their detrimental impact on national unity were never suspected. Thus, in 1970, the government introduced the New Economic Policy (NEP) and, subsequently, the Malay Affirmative Action plan to address the socio-economic disparity among the people (Jomo 2004; Lim et al. 2009).

Through the NEP the government aimed at reducing poverty levels in the country from 49% in the 1960s to 16% by 1990, with a distributed ratio of the national wealth at 30:40:30 percent among the Malays, non-Malays and foreigners, respectively. This implied that the growth ratio for the Malays as compared to the non-Malays would have to be huge and had to be achieved in just two decades. The government was also convinced that the Malays on their own were not going to make the socio-economic transformation as envisioned by NEP because of their relatively backward position compared to the non-Malays especially the Chinese who were commercially well ahead. If the identification of economic activities and status by race were to be eliminated, the government had to offer a helping hand to the Malays (Mohamad 2009; Watson 1980a, b).

Educationally, the government tolerated a great deal of latitude in the provision of direct benefits for the Malays. Apart from the educational reforms already in place that were coincidentally advantageous to the Malay students, namely, the national school policy, national language policy and expansion of school facilities to rural areas, the government established the matriculation stream as an alternative to the higher secondary school education to facilitate Malay students' access to university education. The government also set up a number of residential schools to provide focused training and tutoring for the matriculation students. Also, during the first stipulated period of the NEP, the Malaysian Technology University and Mara Institute of Technology, which in 1999 was given full-fledged university status, were created from extant technical institutions that gave preferential admission to Malay students to train and qualify them in a number of professional and semi-professional and technological disciplines. Additionally, Malay students were granted government scholarships extensively to go overseas for further education.

Conflicts and Contentions

An examination of literature produced both by local and international authors on the state of racial and ethnic relations in the country exposed a number of deeply embedded discriminatory views and beliefs among the Malaysian population (Abdullah et al. 2012; Gudeman 2002; Jamil and Raman 2012; Mohd Yousuf 2008; Noor 2007; Pong 1999; Puteh 2011; Saad 2012; Segawa 2007; Wan Husin 2011).

Not all of these views were explicitly expressed, as many were put forth as reasons and justifications for the positions taken by different people; at times, they were presented merely as disagreements of one form or another to rebut an ongoing debate. These authors were engaged in the contextual analysis and discussion of fundamental issues relating to nation-building, integration, national unity, racial harmony, social cohesion and polarization; a few also looked into the empirical aspect of typical social practices and norms in the wider environment beyond schooling. Interestingly, many scholars sought to maintain objectivity in their analysis, while others were inclined towards either end of the Malay and non-Malay spectrum.

Discussions by these authors of educational matters mainly concerned the issues of vernacular schools, curriculum, preferential treatment, and intercultural sensitivities.

Vernacular Schools

The non-Malays regarded the vernacular schools as a lifeline to perpetuate their native identity, culture and language. Although they do not enjoy the same status as the nationally accredited schools, they have survived all through the years of independence and number to date about 523 for the Indians and 1294 for the Chinese out of a total of 7723 institutions (Ministry of Education 2012). One of the complaints of the non-Malays is that their schools do not get the same level of government support and funding as do the Malay national schools. A nominal budget allocation would be 1% for the Indian schools, 2.5% for the Chinese schools and 96.5% for the Malay schools. Moreover, the vernacular schools have suffered grave shortages of qualified teachers, and there has been no effort on the part of the government to address the issue. Non-Malays have continued to harbour suspicions that the government intention was to abolish the vernacular schools and have therefore been extremely sensitive to possible threats to these establishments in any policy overtures.

However, those opposed to vernacular schools have argued that they were a hindrance to national unity. These opponents contended such schools deprived children from different ethnic background opportunities to sit at the same table to eat, chat and befriend each other, thus structurally causing polarization. Supporters rejected this point of view citing evidence that the conditions of polarization already existed in many national schools where there were mixed student populations. The latter argued that polarization was mainly the result of lopsided policy practices.

Another issue that frequently surfaced in the debate on vernacular schools was that the Chinese secondary schools operated as private institutions outside the realm of the National Education Policy. According to the policy makers and also advocates of pro-Malay medium of instruction, these vernacular secondary schools thereby contributed to polarization or alienation of the Chinese students from the children of other races. But the supporters of these Chinese institutions contended

that they were needed to perpetuate the group's cultural identity and language and at the same time safeguard the opportunities of their students to procure tertiary education places and thus ensure future employment prospects.

Curriculum

From the perspective of the minority groups, the Education Act, 1996, which reiterated the need to adopt a multicultural approach and to incorporate multicultural elements within the taught subject matter, did not bring about any substantial change on the ground or in the national curriculum. Critics argued that initiatives such as the "1-Malaysia" policy that the then Prime Minister propagated did not truly allow for meaningful student interaction across ethnic groups. They suggested that the institutional environment and necessary supportive requirements were not sufficiently well established in the schools and classrooms to do more than encourage tolerance and thus failed to promote real understanding about the multicultural nature of the national population. Moreover, there were still laws that prohibited open discussion on issues of ethnicity, language, religion and culture that constrained meaningful interaction among the students.

Preferential Treatment

A recurring discussion point in the debate on race and ethnic relations in the country concerned the position of the residential schools and the matriculation system for entering local universities, which fast tracked Malay students and thereby accorded them preferential treatment. These institutions were established to elevate the education level and employment opportunities of the Malay students, and they enjoyed the provision of abundant government sponsorship and facilitation. The teaching and administrative staff, occasionally coming from across the ethnic groups, were especially selected with regard to the various subjects and functions. Although, in principle, 10% of the student capacity was allocated to non-Malays, these places were not usually taken up because of the need to relocate away from families and to cope with cultural constraints of a Malay-dominant environment.

The award of government scholarships to pursue higher education overseas, and, more recently, in the local universities, has proved to be a policy favouring the Malay students. The award of scholarships is based on racial proportion, a practice the non-Malays argue does not correlate with the actual performance of students. In practice, the question of merit-based competition therefore exists only within and not between ethnic groups, thus resulting in many of the non-Malay students with outstanding examination results being deprived of the necessary fiscal support to further their education in pursuit of long cherished dreams.

Intercultural Sensitivities

There is a view that the regional culture and language (referring, in particular, to the Southeast Asian countries with an ethnic Malay majority) should serve as the basis for determining the design of a national culture and identity even if this favoured the assimilationist model. But non-Malays with their historically established traditions are firmly against losing their natural identities. They argue that policies of integration and social cohesion should not coerce the minorities to abdicate those intrinsic characteristics that make and differentiate them as a community. This bifurcated view of a national culture and identity seems to have resulted in members on either side of the racial spectrum becoming immune to one another's inherent sensitivities, as evidenced by the derogatory remarks, racial slurs and discriminatory acts which occur from time to time.

A search of the local media online revealed that racial discrimination and derogatory remarks by teachers, headmasters and school principals were a regular occurrence that remained unchecked by the authorities; unchecked because no system or concerted effort on the part of the government seemed to be available to monitor and counter them. When issues surfaced, the interventions by the authorities seemed designed to quell the "public noise" rather than to investigate the truth and root cause of such incidents and showcase them as deterrents to others.

Case of the Vision Schools

In 1995, the government introduced the policy of Vision Schools to combat the rising trend in racial polarization among students both in schools and in higher education (Ministry of Education 1995). The idea was to arrest the problem at the source which the government considered lay in the vernacular schools. Accordingly, the Vision Schools would house all three – Malay, Mandarin and Tamil – medium schools within the same compound or school campus, but each would manage its own affairs independently and be autonomous as in the past. Each school would have its own head teacher, teachers and students and staff and maintain the medium of instruction in their respective native language; they would also teach Malay, the national language, as a compulsory subject. However, they would share common facilities and amenities such as the canteen, playgrounds and multipurpose hall and organize school events and celebrations jointly such as various sporting occasions, the National Day and public holidays. At the same time, they would encourage their students to take part in the cultural festivals of the different groups.

The aim of the Vision Schools was to create the proximity, space and opportunity for the students to come together, mingle and befriend one another and possibly be exposed to one another's way of life and conduct. At the beginning, the Vision School policy seemed a positive move by the government. In the Seventh Malaysia Plan (1995–2000), it was stated that seven Vision Schools would be established

throughout the country as pilot projects and that this number was to be increased to 13 in later years, either by relocating existing schools or constructing new ones (Education in Malaysia 2001). However, as of 2009, only six schools were operational, and the number has not increased since then. Among the six, only one school has attempted to implement the policy aims fully with the participation of all three vernacular schools in the National Malay Day and the National-type Chinese and the National-type Tamil events. The other five institutions housed only the Malay and Tamil schools because the Chinese schools chosen to participate refused to go along with the policy, because they suspected a hidden agenda designed to affect their cultural identity and language.

An intensive case study of the Vision Schools in Malaysia (Malakolunthu 2009; Malakolunthu and Rengasamy 2013), including the fully participating schools in two different states, revealed that the policy was only a partial success in terms of its formulation, preparation and implementation. There was no actual policy document available except for a working paper circulated to selected people such as the school heads. This merely consisted of an introductory note explaining what the policy was all about. In comparative terms, there was no fundamental difference in the functioning of the Vision and regular schools. In each case, the curriculum was the same; the textbooks and assessment and examinations were the same; and the pedagogy remained unaltered and consisted mainly of teacher-led instruction. School heads and teachers did on occasion engage in a conversation about the Vision School policy and its intended purpose, and overall they were appreciative of the idea but were uncertain about the role they were supposed to play to make it work. They were also worried about the long-standing taboo that discouraged them from taking up racially sensitive issues during their teaching.

Discussion and Conclusion

The scenario that emerges from the investigation of the different sources of information on educational policies and practices in schools as well as race and ethnic relations in Malaysia over the years of independence has revealed that the original governmental efforts towards creating social cohesion and integration amidst its multiracial and multi-ethnic population had stalled along the way. The founding fathers, as was explicit in the “Social Contract” and “Malaysia Agreement”, clearly spelt out their vision for the form and character of the evolving Malaysian society that they wished to establish, and the educational reforms that were set in place at the time of independence were deemed exactly right to realize these goals. The Malayanization (subsequently the Malaysianization) education reforms which involved restructuring of the school system, creating a standardized curriculum, introducing a national language and making education mandatory, free and available for all children, all contributed to Malaysianization. The continued existence of vernacular schools was not viewed as an obstacle but, instead, paved the way for a centralized secondary education system by introducing an intermediate preparatory

year for students of national-type or vernacular schools. In later years these schools accepted the switch to the Malay national language as the medium of instruction.

A critical analysis of the evolution and growth of the education system, especially when viewed from the concerns of racial polarization among students and the reported incidences of racial discrimination and derogatory acts on ethnic minority groups in both primary and secondary schools, suggests that the policy makers and educational leaders, when laying down the foundations of the system, lacked the necessary foresight by failing to incorporate the principles of multicultural education. Although not explicitly stated, the need for such principles was strongly implied in the statutory documents produced by the nation's founding forefathers. Besides, the nation's demography, recognized explicitly within the constitution, should have prompted the authorities to adopt the principles of multicultural education in developing the Malaysian education system. Such policy directives would, according to Banks (2003), have helped to foster understanding, acceptance and constructive relations among the students of various backgrounds. However it would seem that such a policy orientation was never contemplated and the reasons for this omission remain unexplained, even today.

In the absence of a multicultural education approach, the early educational reforms appear to have been only physical, structural, purely academic and linguistic. In other words, the ethnocentric nature of the various groups of people remained unnurtured, and consequently little was done to promote the ideas of multiculturalism or to strengthen its practice. The "self-expression, open dialogue, critical thinking and analysis of alternative viewpoints" Sleeter and Grant (2003) perceived as essential for multicultural learning certainly did not exist in the school curriculum. Except for the claims of extraordinary friendship bonding among certain individuals of different races that were reported in the media and literature as typical of school days during the 1960s and 1970s, the generally interactive interracial and interethnic relationships of the time were most probably circumstantial and superficial. Moreover, no authentic reports or studies were available from that period to evaluate the extent to which polarization did or did not exist.

In the aftermath of the 1969 race riots, the policies that ensued, namely, the New Economic Policy and the Malay Affirmative Action, wittingly or otherwise, abandoned the founding fathers' vision of a united Malaysian multicultural society. Subsequently these policies have produced race-based politics and ideologies which over the years have increasingly dominated and become a new reality for the governance of the country. Thus, instead of desegregation, segregation has indeed been embedded into the existing structures. However, it may also be true to say that Malaysian society has never reached a point of integration throughout its history. Each racial and ethnic group has continued to remain reluctant to become involved with other sections of society in the attempt to safeguard and maximize its communal interests. Coupled with this, the socio-economic disparities, and the different amounts of cultural capital available to support entrepreneurship within the various ethnic groups, have created a highly competitive environment in which each group seeks to outdo the other. Starting from a lower base, the Malays have required

greater governmental support to lift them from poverty and help them overcome the limitations of an agrarian background, so that they could compete on equal terms. The other ethnic minorities have resented this favoured treatment and have argued that these “help” initiatives have been carried to excessive levels and advantaged special interest groups. The cumulative effect of all these policy initiatives has therefore been to reinforce the indisputable divide between the Malays and non-Malays, as evidenced by the opposing sets of mental models and perspectives harboured generally by the two respective groups.

An interesting result emerges from the above analysis. It would seem that the leaders of the various races and ethnicities opted at the time to ignore the consequences of not reinforcing the role of education in building social cohesion and national unity. Instead, their activities and initiatives contributed to distancing the different student groups from one another physically and emotionally and further exaggerated their differences. The result of this separation was the creation of a trouble free environment where the different races and ethnicities could live in close proximity, but without stepping on each other’s toes. Recently, the government has rolled out a new comprehensive Education Transformation Programme popularly known as the Malaysia Education Blueprint 2013–2025. This aims to achieve a standard of education that is on par with the best in the world in terms of access, quality, equity, unity and national identity (Ministry of Education 2013). While addressing many pertinent school improvement, teaching and learning and logistic issues, the policy makers seem to be non-cognizant of the seriousness of the race and ethnic relations in the country and hence are silent on specific plans to address it. In this Education Blueprint the dramatic growth of the vernacular schools and the resultant homogenization of the education system by ethnicity were cited as the main reasons why students were deprived of the opportunity to experience racial diversity. Statistics revealed that only 10% of non-Malay students associate with 90% of Malay students in the National Schools. In response to these statistics, the Blueprint expressed support for add-on programmes such as the Student Integration Plan for Unity rather than advocating an integral approach to prepare the students for a multicultural world. In conclusion, Malaysians are indeed caught in a vicious circle that will have to be broken in order to tackle the lurking trauma of an unhealthy race and ethnic relationship in the country. As it is, it remains to be seen whether Malaysia can ever become united enough to evolve into the developed nation that it aspires to become by 2020.

References

- Abdul Rahim, A. R. (2002). *Education and nation formation in Malaysia: A structured analysis*. Kuala Lumpur: University of Malaya Press.
- Abdullah, M. R. T., Ong, H. L., & Wan Husin, W. N. (2012). 1 Malaysia: National education challenge and nation building. *World Academy of Science, Engineering and Technology*, 70, 1158–1167.

- Babstite, H. P. (2002). Multicultural education and urban schools from a socio-historical perspective: Internalizing multiculturalism. In J. Burdin (Ed.), *School leadership: A contemporary reader*. Newbury Park: Sage.
- Banks, J. (2003). *Teaching strategies for ethnic studies* (7th ed.). Boston: Allyn & Bacon.
- Banks, J., & Banks, C. (2010a). Multicultural education: Characteristics and goals. In J. Banks & C. Banks (Eds.), *Multicultural education: Issues and perspectives* (pp. 3–26). Hoboken: Wiley.
- Banks, J., & Banks, C. (2010b). *Multicultural education: Issues and perspectives*. Hoboken: Wiley.
- Drakakis-Smith, D. (1992). *Pacific Asia*. London: Routledge.
- Gay, G. (2000). *Culturally responsive teaching: Theory, research and practice*. New York: Teachers College Press.
- Gudeman, R. H. (2002). Multiculturalism in Malaysia: Individual harmony, group tension. *Macalister International*, 12, Article 16. Retrieved from <http://digitalcommons.mcalester.edu/macintl/vol12/iss1/16>
- Jamil, H., & Raman, S. R. (2012). Malaysian educational policy for national integration: Contested terrain of multiple aspirations in a multicultural nation. *Journal of Language and Culture*, 31(1), 20–31.
- Jomo, K. S. (2004). *The new economic policy and interethnic relations in Malaysia* [Occasional Paper] Geneva: UNRISD.
- Komives, S., Lucas, N., & McMahon, T. (1998). *Exploring leadership for college students who want to make a difference*. San Francisco: Jossey Bass.
- Lim, T. G., Gomes, A., & Rahman, A. (2009). *Multiethnic Malaysia: Past, present and future*. Petaling Jaya: Strategic Information and Research Development Center (SIRDC).
- Malakolunthu, S. (2009). Educational reform and policy dynamics: A case of the Malaysian “Vision School” for racial integration. *Educational Research for Policy and Practice*, 8, 123–134.
- Malakolunthu, S., & Rengasamy, N. (2013). Multicultural education in primary vernacular schools: Predicament of the Vision School. In J. MacBeath, C. Sugrue, & M. Younger (Eds.), *A common wealth of learning: Millennium development goals revisited* (pp. 546). Abington: Routledge.
- Ministry of Education Malaysia. (1995). *Sekolah Wawasan: Konsep dan pelaksanaan*. Kuala Lumpur: Author.
- Ministry of Education Malaysia. (2001). *Education in Malaysia: A journey to excellence*. Putrajaya: Author.
- Ministry of Education Malaysia. (2012). *Malaysian educational statistics*. Putrajaya: Author.
- Ministry of Education Malaysia. (2013). *Malaysia Education Blueprint 2013–2025*. Putrajaya: Author.
- Mohamad, M. (2009). Politics of the NEP and ethnic relations in Malaysia. In T. G. Lim, A. Gomes, & A. Rahman (Eds.), *Multiethnic Malaysia: Past, present and future* (pp. 113–139). Petaling Jaya: Strategic Information and Research Development Center (SIRDC).
- Mohd Yousuf, N. (2008). Cultural diversity among students in Malaysian secondary schools. *International Journal of the Humanities*, 7(3), 35–50.
- Nieto, S. (2002). *Language, culture, and teaching. Critical perspectives for a new century*. Mahwah: Erlbaum.
- Noor, N. M. (2007). Polarisation and inequality in Malaysia: The future of Malay-Chinese relations. *Intellectual Discourse*, 15(2), 191–204.
- Pong, S. L. (1999, November 15–19). *Ethnicity and schooling in Malaysia: The role of policy*. Paper presented at the International Seminar ‘Educational Strategies, Families, and Population Dynamics’ Organized by CICRED & UERD at Ouagadougou, Burkina Faso. Retrieved from www.cicred.org/education/actes/con_Pong.pdf
- Powell, R. (2001). *Straight talk: Growing as multicultural educators*. New York: Peter Lang.
- Puteh, A. (2011). Education policy for globalization and multicultural society: The Malaysian experiences. *Journal of Emerging Trends in Educational Research and Policy Studies*, 2(5), 388–394.

- Report of the Education Committee. (1956). Kuala Lumpur: Government Printer.
- Saad, S. (2012). Re-building the concept of nation building in Malaysia. *Asian Social Science*, 8(4), 115–123.
- Segawa, N. (2007). Malaysia's 1996 Education Act: The impact of a multiculturalism-type of approach on national integration. *Journal of Social Issues in Southeast Asia*, 22(1), 30–56.
- Sleeter, C. E., & Grant, C. A. (2003). *Making choices for multicultural education: Five approaches to race, class, and gender*. Englewood Cliffs, NJ: Prentice Hall.
- Statistics Department Malaysia. (2009). *Source Key Data, Quarter two (Q2)*. Putrajaya: Author.
- Thomas, T. (2007, October 29–31). *The social contract: Malaysia's constitutional covenant*. Paper presented at the 14th Malaysian Law Conference 2007. Kuala Lumpur Convention Centre, Kuala Lumpur. Malaysia.
- Wan Husin, W. N. (2011). Nation-building and 1 Malaysia concept: Ethnic relations challenges in the educational field. *International Journal of Humanities and Social Science*, 1(9), 228–237.
- Watson, J. K. P. (1980a). Education and cultural pluralism in South East Asia, with special reference to Peninsular Malaysia. *Comparative Education*, 16(2), 139–158.
- Watson, J. K. P. (1980b). Cultural pluralism, nation-building and educational policies in peninsular Malaysia. *Journal of Multilingual and Multicultural Development*, 1(2), 155–174.

Chapter 17

Supporting Headteachers in a Developing Country

Sue Swaffield

Abstract It has become recognised that headteachers, or school principals as they are called in many countries, need professional development and support if they are to fulfil their responsibilities competently and well. However, school leadership development has been lacking in many places, including Ghana, a developing country in West Africa. A Ghanaian took the initiative that led to a Leadership for Learning (LfL) programme being established, using a framework developed previously through an international project of the same name. Professional development leaders tested the applicability of the framework's principles, contextualised them to the Ghanaian situation and co-devised and led headteacher workshops. The LfL Ghana programme, supported by the Ghana Education Service, developed and spread to include to date over 3000 headteachers throughout the country as well as circuit supervisors, directors and training officers. LfL has been adopted as national policy and been supported through publications, newsletters and text messaging. Impact is evident in a variety of ways including headteachers' actions, teachers' professionalism, pupil learning and community engagement.

The LfL Ghana programme illustrates a number of issues about change and professional development in developing countries when applying ideas developed in other contexts. The locus of control seems critical to a sense of ownership; principles provide commonality but can be applied through locally contextualised practice; a parsimonious framework aids learning and dialogue; modelling, critical friendship and moral purpose all have their place. Technology is likely to play a larger part in the future.

Keywords Headteachers • Professional development • Support • Ghana • Leadership for Learning • Developing countries

S. Swaffield (✉)

Faculty of Education, University of Cambridge, 184 Hills Road, Cambridge CB2 8PQ, UK
e-mail: ses42@cam.ac.uk

Introduction

Supporting learners is a prime concern for educators in every context. Headteachers, or school principals as they are known in many countries, are responsible for and influence the learning of everyone in their schools. This ‘everyone’ of course includes the pupils, but also the teachers who minute by minute, and month by month, enable pupils’ learning through their teaching. Perhaps most crucially, headteachers themselves must be prodigious learners if they are to lead learning-full schools, particularly in times of ever-increasing complexity. Everyone stands to benefit from headteachers being supported as learners and in their professional work of leading schools.

This chapter focuses on support for headteachers in the particular context of Ghana, a developing country in West Africa. It is based on the specific case of the ‘Leadership for Learning’ Ghana programme, whilst the issues discussed have more generic applicability. Firstly the situation in Ghana is outlined and the rationale for focusing on headteachers explained. Attention is then turned to the Leadership for Learning programme that was put in place to support the headteachers, with summaries of its theoretical basis, the various partners and participants and practical activities over a period of several years. Evidence of the programme’s impact is drawn from interviews and questionnaires with a range of participants and consideration given to planned and possible future developments. In the final sections, issues related to the process of change and professional development in developing countries are more broadly discussed.

Ghana

As with many developing countries, Ghana’s present is influenced by its colonial past and aftermath including more recent donor influence. From the fifteenth century onwards, several European countries, including Portugal, Denmark, the Netherlands and Britain, fought each other and the local inhabitants in pursuit of wealth. For the first half of the twentieth century, the territory (known then as the Gold Coast) was ruled by the British, although elements of the indigenous peoples exercised resistance in different ways throughout that period. Calls for self-government strengthened during and after the Second World War, with civil disobedience spreading until independence was gained and present-day Ghana came into being in 1957. Kwame Nkrumah, who had been prominent in the fight for emancipation, was Ghana’s first president, but his increasing authoritarianism led to him being overthrown in a military coup in 1966. Many years of political instability followed before the current multiparty democracy was established.

Education has been a high priority for successive governments. In pursuit of modernisation and national development, Nkrumah sought to extend formal education beyond the relative few who attended school under colonial rule to the masses

(Segura 2009). However, progress was faltered by political instability in the 1960s and 1970s to such an extent that according to Kingsley (2007), the education system became dysfunctional. 1987 saw major contributions to addressing the issues through an Education Act that established a national literacy campaign and the launch of the Whole School Development Programme. Successive reforms have followed, although it could be argued that progress has been slow as, for example, primary education only become free as well as compulsory in 2005.

The colonial legacy is seen clearly in Ghana's education system and practices. Antwi (1992) describes the imposition on traditional community-based education of Western-style formalised schooling by missionaries and others, a trend continued through the conditions accompanying aid from donor agencies. The effects are visible, for example, in rows of desks facing a blackboard, audible in formalised routines of question and response all in English and sensed through adherence to timetables, mundane record-keeping and respect for examinations. The place of leadership in all this is complex.

Traditionally the whole community shared responsibility for children's upbringing, within a context of tribal chiefs, which in the dominant ethnic group (Akan) included revered 'queen mothers', and extended families. Colonisation emphasised male supremacy, social and economic pressures result in many girls dropping out of school (Obeng 2002), and male teachers and leaders tend to be afforded greater status. Western models of decentralised schooling (as promulgated by 'whole school development') give headteachers responsibility and make them accountable within a hierarchical system of circuits, districts and regions. Alongside and, to some extent, integrated within the Ghana Education Service (GES) structures sit community-based systems of district assemblies, local councils and school management committees. To secure high-quality learning for pupils, headteachers need to navigate these interconnected webs, meet accountability measures, support often unqualified teachers, reform practices and influence mindsets – huge challenges that as Osei (2006) points out require high-quality leadership by everyone. Yet initial and continuing professional development is minimal, even for headteachers.

Leadership Development Over Time: In Ghana and Elsewhere

Policies and practices of professional development for headteachers in Ghana and throughout the world vary and have changed over time. Historically the 'headteacher' or 'principal teacher' was just that teacher with the highest status, often aligned with seniority and length of service, in overall charge of a school. Awareness of the need for school leadership to adapt to the increasing complexity of contemporary societies has led to the international growth of professional development for school leaders (Pont et al. 2008). An international review of strategies to develop school leadership (Dempster et al. 2011) affirmed the necessity of professional programmes and opportunities, as does Huber (2004, 2011). Nevertheless, as Bush

(2008) observes, there are many countries, both developed and developing, where headship preparation is still not deemed necessary.

In Ghana, the need for leadership development for headteachers had been largely ignored (Zame et al. 2008; Oduro 2010; MacBeath et al. 2013). The 'Headteachers' Handbook', first published by the Ministry of Education in 1994, included both management proficiencies necessary for the smooth running of a school and proficiencies to improve the quality of learning that if exercised would be categorised as leadership. However, only the first part appears to have been translated into practice: a survey conducted by Zame and colleagues over a decade after the handbook was first published showed that 'Head teachers of basic schools are involved in management and administrative behaviors to the exclusion of leadership behaviors' (Zame et al. 2008, p. 126). This echoed Oduro's (2003) descriptions of headteachers busy with routine record-keeping and basic maintenance-related tasks – actions that are perhaps understandable given that, between 2002 and 2007, three-quarters of headteachers in Ghana had had less than a week's training (Oduro 2010). In 2008, it was stated that 'currently there is no comprehensive reform initiative that addresses the need to develop head teachers' leadership proficiencies' (Zame et al. 2008, p. 117). This is despite the international recognition of the pivotal role school leaders play in school improvement (see, e.g., Robinson et al. 2009).

An opportunity to address this gap was spotted and seized by George Oduro, then director of the Institute for Educational Planning and Administration at the University of Cape Coast, at a 2008 colloquium to shape the work of the then newly formed University of Cambridge's Centre for Commonwealth Education. Maurice Galton was one of the Cambridge representatives at this significant gathering. Months of detailed discussions with key Ghanaian stakeholders followed, eventually leading to the Leadership for Learning Ghana programme – an initiative for 'Building headteachers' leadership capacity for enhancing quality teaching and learning in Ghanaian Basic schools'. The agreed aims were:

1. To strengthen the leadership capacity of basic school headteachers in Ghana.
2. To improve the quality of learning through school/classroom leadership.
3. To influence policymakers to make leadership development a condition for appointing basic school headteachers.

The first two aims put the emphasis on leadership (rather than management) in the service of learning, whilst the third sought to address the problematic situation identified by Zame et al. that 'individuals are promoted to the head teacher position without extensive leadership training' (2008, p.117).

The Leadership for Learning Ghana Programme

Theoretical Basis

The programme was based on a framework, a set of principles and a way of working developed in the course of a 3-year project – *Leadership for Learning: Carpe Vitam* (MacBeath and Dempster 2009) – that explored understandings of the nature of leadership and of learning and particularly the relationship between the two. The central ideas of leadership and learning are conceived as activity (Dempster 2009; MacBeath 2009), conjoined by agency (Frost 2006) and framed by moral purpose (Sergiovanni 1992). The headlines of the five principles are:

- A focus on learning
- Conditions for learning
- Dialogue
- Shared leadership
- A shared sense of accountability

Leadership for Learning is characterised as a discursive process, grounded in values and moral purpose, and informed by data and relevant theories, which both stimulates and is stimulated by practice informed by principles (MacBeath et al. 2006a).

The original Leadership for Learning Carpe Vitam project involved 24 schools in seven countries of which five were in Europe (England, Norway, Denmark, Austria and Greece), whilst the other two were the USA and Australia. Yet George Oduro, a Ghanaian who had studied at and subsequently worked in Cambridge for a short time with the LfL framework, recognised the potential for it to travel from the developed to the developing world. It was his initiative at the 2008 colloquium that led to the introduction of LfL into Ghana, meaning that the programme came about as the result of an invitation rather than an imposition. Nevertheless we, the Cambridge team, were acutely aware of the dangers of ‘policy borrowing’ and of the centrality of context in leadership and learning. In their book on the formulation and impact of educational policy, Maurice Galton and colleagues entitle a section in the chapter on globalisation ‘It’s Culture, Stupid’ (Bangs et al. 2011, p. 129). Not only is it ‘stupid’ to ignore culture in any context, but given the colonial legacy in Ghana, we were sentient to the possibilities of the LfL programme representing a later-day form of imperialism, notwithstanding its Ghanaian instigation and however well intentioned.

Partners and Participants

Right from the start, the LfL Ghana programme was developed through dialogue in collaboration with, and in many aspects led by, Ghanaians themselves. Central to this are 15 people, who very quickly coined and adopted the term ‘professional development leaders’ (PDLs). The PDLs are university and college lecturers, GES training officers and a headteacher at a university training school. They are employed by different sectors of the education service across Ghana: the GES, Colleges of Education, the University of Winneba and the University of Cape Coast. GES directors and senior staff in the higher education institutions selected the PDLs in consultation with George Oduro. The PDLs were introduced to the LfL framework and way of working, considered its applicability to the Ghanaian context, contributed to the detailed construction of the programme and have led workshops for headteachers and others throughout the country since the programme’s inception.

The preparation of the PDLs was structured as a Certificate of Further Professional Studies from the University of Cambridge, Faculty of Education. This entailed an introductory 3-day workshop held in Ghana, individual study and writing of assignments and a 10-day summer school in Cambridge. The summer school included visits to local schools, contributions by other faculty staff, detailed planning of sessions for the forthcoming headteachers’ workshop and practice in leading sessions followed by feedback. Modelling was a central feature of the PDLs’ preparation, with PDLs experiencing many different activities designed to facilitate learning so that they were well prepared to use these approaches subsequently with headteachers. Critical friendship was also an integral part of the preparation of PDLs – among themselves, between the Cambridge team and the PDLs – and as a concept and process to introduce to the headteachers.

Legacies of colonial influence were almost immediately apparent in the initial contact with the PDLs at the introductory workshop. They came expecting traditional teaching approaches, exhibited what they considered ‘good pupil behaviour’ by trying to make a neat record of the sessions in their notebooks and deferred to the perceived status of Cambridge academics. However, their openness to learning meant they were soon engaged in dialogue in pairs and small groups and enthusiastically participating in a whole range of active learning exercises. At the end of 3 days, a PDL reflected:

Before coming I thought there were going to be lectures after lectures, and rigid type of thing. I like the way the whites teach. They make everyone feel relaxed. All the tensions and presumptions we had in mind have been removed. ... if we practised this type of approach in our classrooms everyone would find it easy. Everyone is relaxed, and contributing, and at the end of the day you have learnt without realising that you are learning. It makes learning enjoyable. I like it so much.

Whilst physical movement and varied learning activities were quite readily adopted and gave an immediate visual impression of a different learning environment, shifting mindsets inevitably takes longer. In particular, moving away from an unquestioning echoing back of notions of leadership and learning inherent in the

LfL framework to a more critical and challenging stance proved a more gradual and lengthier proposition. Warm, friendly relations and genuine collegiality with our Ghanaian partners developed quickly, accompanied by mutual respect for individual expertise.

At every stage, contextualisation of the principles has been emphasised. An early assignment in the PDLs' course built on in-class dialogue and asked them to consider the opportunities and challenges presented by introducing the LfL principles into Ghanaian schools. These assignments, structured research activities including questionnaires and interviews, and indeed all our interactions with the PDLs, developed and deepened our own contextual understanding. We used the insights gained and specific examples given to write a document introducing and placing the LfL principles within the Ghanaian context.

At an early stage in discussions about the whole LfL programme, it had been agreed that the focus would be headteachers of 'basic' schools – in other words, kindergarten, primary and junior high schools. Secondary school leaders were not considered a priority as, in comparison with basic school headteachers, they had and have greater professional development opportunities through other initiatives. Headteachers were chosen as the 'entry point' for the programme not only because of their professional development needs but also because 'past reform initiatives have not considered the head teacher's pivotal role' (Zame et al. 2008, p. 126). Headteachers are also important role models for their teachers, pupils, parents and community leaders.

The ambition of the LfL programme in Ghana is eventually to reach all basic school heads throughout the country, so there were choices to be made about which geographical areas to include in the initial stages of the programme. Historically there has been a tendency for projects to privilege areas in the south of the country close to the capital Accra and for the regions in the centre and particularly the north to be neglected by comparison. In order to include all, rather than alienate some areas of the country, it was decided that the first phase would involve headteachers in equal numbers from all ten regions of Ghana. Whilst exemplifying a principle of equity, this arrangement created greater logistical problems than if the initial stages of the programme were concentrated on a small area close to the centre of government in Accra and near the University of Cape Coast. There are also issues about whether it is better for subsequent development to spread initial effort relatively thinly throughout the country or to focus on small pockets concentrated in the extreme south.

District directors were asked to identify headteachers to participate in the first phase of the LfL programme. One hundred twenty-four were chosen in pairs, a man and a woman from the same circuit (a subdivision of a district), to create a gender balance and to provide each head with a local colleague for support. Headteachers were identified for their leadership skills and commitment to school improvement. As individuals then the first cohort of heads were not representative of basic school leaders across the country in that they were judged to display particular qualities that set them apart from their peers. In terms of programme design, the selection and calibre of the first group of participants are perennial issues: it could be argued that

seeking out high-quality committed individuals can lead to an overly positive view of the effectiveness of the programme. There were several reasons for purposefully selecting the first group of heads, one being that the applicability of the LfL ideas and approaches to the Ghanaian context was largely untested (beyond the 15 PDLs), and the programme needed to be approached in a spirit of collaboration and enquiry. It was hoped that the first group would trial and develop LfL practices in their schools, creating multiple illustrations of LfL in practice as well as exemplars of difficulties encountered and ways in which they could be overcome. Also, it was anticipated that the early adopters would become leaders and catalysts for the subsequent extension of the programme, so again the calibre of the first participants was important. Whilst the selected heads were unrepresentative in terms of all basic school headteachers in Ghana, their schools did reflect the full geographical and social diversity of the country: urban and rural, coastal and inland, forest and savanna, predominantly Christian and predominantly Muslim and relatively well endowed and extremely poor in terms of resources.

Professional Development Activities

The selected 124 headteachers were introduced to LfL by the PDLs and the Cambridge team at a three-week residential workshop in August/September 2009. For most of the time, they worked in five groups, each with three PDLs who exemplified teamwork in organising and leading the sessions. The LfL framework formed the core, with the key ideas and the five principles in particular being continually tested, contextualised and related to headteachers' experiences and developing understandings. Various forms of data gathering were integrated into the 3 weeks, including a baseline questionnaire, the findings from which we shared with headteachers and PDLs and which informed some of the subsequent sessions, illustrating the potential of enquiry in learning. Each evening we met with the PDLs to review progress, discuss issues arising and adjust plans as necessary. The latter part of the workshop focused on headteachers' plans for developing LfL practices in their schools, for supporting each other and for sharing the LfL framework with colleagues. The headteachers enthusiastically agreed to take the programme forward and to report back when they came together again for a second residential workshop 8 months later. However, they expressed concerns about how what could be perceived as quite radical changes in practice would be perceived by the GES officials who oversee their work. This resonates with Fertig's (2012) suggestion that headteachers in Ghana do not feel confident to initiate change unless it is endorsed by government.

In response, a workshop was arranged for the headteachers' circuit supervisors, which the director general of the GES also attended in order to assure the supervisors of national support for LfL. As the importance not only of GES written endorsement but also understanding of LfL for officials at all levels of the education service became increasingly apparent, additional workshops were arranged for district,

divisional, regional and national directors of education. Circuit supervisors also joined the two-week recall workshop for headteachers in April 2010, learning first-hand about developing LfL practice across the country and networking with their peers as they became clearer about their vital support role. Further sharing practice workshops were held in November 2011, and by this time headteachers and circuit supervisors had internalised LfL principles such that their differential status clearly evident in the April 2010 workshop was no longer visible.

Enthusiasm for the LfL programme resulted in a proliferation of workshops initiated and led by officers of the GES Teacher Education Division, PDLs and the initial group of headteachers and circuit supervisors. It is estimated that by the end of 2013, well over 3000 of the country's 18,000 basic school headteachers have learned about LfL in this way. The remaining heads will be introduced to LfL by GES district training officers, who themselves attended residential workshops to prepare them for this during 2013. The Cambridge team led and supported PDLs to develop the workshop in one region of the country before it was extended nationwide.

Workshops continue to be a key element in the LfL Ghana programme, but they are complemented by other strategies to support headteachers including various forms of documentation and networking. The GES included LfL as an integral part of its revised Headteachers' Handbook (Ministry of Education 2010) and followed this up with a manual for headteachers and supervisors with over 100 pages of guidance on LfL. In January 2011, colleagues at the University of Cape Coast started producing biannual newsletters which are distributed to headteachers, GES officers and other stakeholders, spreading ideas and sharing practice. Weekly text messages were initiated as a means of maintaining regular contact with 175 participants (predominantly the original group of headteachers and their circuit supervisors), regularly reminding them of LfL principles and sharing ideas generated (Swaffield et al. 2013). All this activity was made possible by the employment of a full-time Ghanaian co-ordinator from 2010 to 2013, who was also able to support headteachers by visiting schools.

Impact

Qualitative questionnaire and case study data point to impact in a number of areas (Malakolunthu et al. 2014; MacBeath and Swaffield 2011) that can be summarised as:

- Headteachers' knowledge, attitudes and behaviour
- Teachers' professionalism
- Pedagogical practices
- Pupil attendance and engagement
- Pupil attainment especially in reading
- Parental and community involvement
- School environment and learning opportunities

Quantitative data from a questionnaire completed on three occasions (August 2009, April 2010 and November 2011) by the first cohort headteachers give insights into changes over time in terms of their perceptions of the value and presence of 30 LfL-related practices (Jull et al. 2013). Headteachers repeatedly scored 29 items above the negative/positive threshold on the 'importance' and 'practice' scales, recording an increase in the importance of two-thirds of the items over time, but increases in practice with respect to only five items. Whilst on the face of it the limited reported changes in practice are disappointing, interpretation suggests that through engaging with the programme, headteachers developed a more informed understanding of the meaning of items and subjected practices to a more critical appraisal. Although wholesale changes in practice are difficult to achieve, the commitment to the values and five principles that the items represent (as demonstrated by initial positive and subsequent even higher ratings given to their importance) is a solid foundation for continued developments in practice.

Overall progress appears varied in respect of each of the original three aims of the programme. The leadership capacity of basic school headteachers who have benefitted from intensive exposure to LfL has definitely been strengthened, and it may be supposed that many other heads have been positively influenced by the workshops they have attended, but no comprehensive data on this are as yet available. Ghanaian educational policymakers have not as yet made leadership development a requirement for headteacher appointment, but the adoption of the LfL framework as national policy and the deployment of district training officers to support LfL are testimony to their commitment. Whilst recognising the gains that have been achieved, there is undoubtedly room for much more improvement in relation to the second, and arguably most important, aim of the programme, that of improving the quality of learning. Key to this are changes in learner attitudes and pedagogical practices, but as Maurice Galton has suggested (Galton and Hargreaves 2009), even in developed countries, group work, for example, is still a neglected art.

Future Developments

The LfL Ghana programme is now almost entirely in the hands of the Ghanaian partners, so future developments are largely their purview. Recent preparation of all district training officers to lead LfL workshops in every region testifies to continuing GES commitment. The Cambridge team's capacity to provide future support is reliant on securing funding, for example, from the Cambridge-Africa Alborada Research Fund. In 2014, this is enabling Ghanaian colleagues to learn to use a participatory monitoring and evaluation approach called the 'Most Significant Change' (MSC) technique which is particularly applicable for education development programmes (Davies and Dart 2005).

We are also working on extending the use of text messaging beyond the initial two-way hub model with all messages going from and to the centre (Swaffield et al. 2013) into a more self-sufficient networking model of direct communication among

the participants themselves. The aim is to establish groups of professional learners (primarily headteachers and circuit supervisors) directly exchanging ideas among themselves, but this again entails funding for text messages, support and research.

Change and Professional Development in Developing Countries

Issues of Transferability

The LfL framework and principles were created in the context of seven Western developed countries, yet have been sought out, welcomed and adopted by a developing country in West Africa. Indeed, to date, Ghana is the only country in the world to embed LfL in its national educational policy and has more school leaders conversant with its principles and committed to putting them into practice in their schools than anywhere else. Reflecting on the example of the LfL programme in Ghana raises issues of transferability more generally.

The locus of control seems critical. Change initiated by invitation from within the developing country is much more likely to be accepted and welcomed than initiatives where the impetus is external. In post-colonial times, independent countries can still experience an element of policy imposition linked to aid conditions. Yet when the details of a programme are arrived at through collaboration or completely determined locally, in-country decision-making prevails. Ownership and transferability are further enhanced by change being shaped by principles that have universal applicability and are tested locally before being translated into locally contextualised practice. LfL's five principles represent the field yet are captured in a few headline words. A parsimonious framework is powerful in that it is readily internalised, remembered and discussed. The notion of a programme rather than a project suggests long-term engagement with the issue and sustainable embedded change. It is also linked with ownership and the changing and diminishing role of the 'outsiders'. This reduced influence, together with contextualised practice, could be perceived by programme originators as threats to its fidelity, but unless ideas are adapted and owned, they will never truly travel and take root.

The mode of professional learning is an issue. Whilst not confined to developing countries, the tension between how educators are taught to teach and how they are themselves taught is pertinent (Buckler and Ibrahim AbdelGafar 2013). It seems particularly important when course participants are going to set up learning activities for others (as is the case with headteachers) that they should experience learning in the manner being advocated. Modelling learning and creating active learning experiences are not only effective but also build trust and respect. Trust is central to critical friendship and enables any difficult but necessary conversations to be held.

The LfL framework makes moral purpose explicit, and this seems to bolster individuals' commitment. We witnessed several occasions when participants were

called upon to put aside individual concerns, usually associated with payment, for the greater good of education. Headteachers were provided with travel expenses, board and lodging, but not given a workshop attendance or ‘sitting’ allowance that quite a few initially expected given the precedent set by some projects funded by aid agencies. When circuit supervisors responded to the GES director general’s invitation to open dialogue by confronting him over the slow payment of expenses and the consequent lack of petrol for their motorbikes needed for school visits, the director general personally undertook to get to the root of the problem whilst simultaneously appealing to the circuit supervisors’ sense of responsibility for supporting headteachers. The extent to which such appeals to moral purpose would be influential in other countries is questionable: religion is central to many Ghanaians’ lives, with the influence of Christianity particularly strong in the south and Islam in the north. Yet the commitment of many teachers and school leaders in the most challenging of circumstances across the globe has been acknowledged (Dladla and Moon 2013) and should not be underestimated. The LfL Ghana experience suggests that the explicit statement of moral purpose connects with individuals’ beliefs and commitment.

The Past, Present and Future of Support for Headteachers

The example of the LfL Ghana programme serves as an illustration of the progression of professional development for headteachers in developing countries. Its impetus was the very limited and narrow provision originally available, training that focused on management tasks with little connection to learning. So in some respects, any support and professional development could have been viewed as better than the previous dearth, but problematic experience with some aid projects had also indicated the kind of support to be avoided.

Many countries have a complete lack of professional development for school leaders. The Ghanaian government is committed to supporting headteachers through the LfL programme, working with the Institute for Educational Planning and Administration at the University of Cape Coast and the GES’s district training officers. Technology in the form of text messaging is already playing a part, and its role seems set to grow. In a very few years, basic mobile phones have become commonplace across much of the world, and their penetration and sophistication continue to increase. Simple texting is proving a viable means of support for headteachers, and the potential impact of smart phones is enormous. With reliable and cheap Internet access opening up everything the World Wide Web has to offer, including open education resources and massive open online courses, the possibilities are limitless.

No one constituency operates in isolation in an education system. Headteachers were selected as the entry point for the Ghana LfL programme, having substantial leverage in schools and being relatively close to pupils, but they themselves are subject to supervision and direction from superiors in the hierarchy. School

principals cannot operate in isolation from other pressures and influences in the system, all of which need to be aligned. Thus professional development for any group should be coherent with the understandings and expectations of other groups, who may in turn require professional development and support.

Conclusion

Professional development and support for headteachers and school principals, especially in terms of leadership, are in their infancy particularly in developing countries. From experience in Ghana, Leadership for Learning appears to have considerable promise as a framework, not least perhaps because of the widespread applicability of its principles. Educators everywhere can relate to focusing on learning, creating conditions conducive to learning, dialogue, shared leadership and shared accountability, especially when leadership and learning are conceived of as activity, and all is bounded by a sense of moral purpose.

Nevertheless, the challenges of supporting headteachers in developing countries, and the challenges facing school leaders at every level, are enormous. In another context of enormous challenge (the inclusion of pupils with special needs in English mainstream schools), Maurice Galton and colleagues (MacBeath et al. 2006b) looked for what was possible to achieve despite an unreasonable system and seemingly impossible tasks. Their precondition for change in such a situation has universal relevance: 'courageous teachers and courageous leaders who are able to expand the repertoire of thinking and practice' (p. 16).

References

- Antwi, M. K. (1992). *Education, society, and development in Ghana*. Unimax, Accra-North, Ghana.
- Bangs, J., MacBeath, J., & Galton, M. (2011). *Reinventing schools, transforming teaching*. Abingdon: Routledge.
- Buckler, A., & Ibrahim Abdel Gafar, A. (2013). Professional development and female teacher morale in rural communities. In B. Moon (Ed.), *Teacher education and the challenge of development: A global analysis*. Abingdon: Routledge.
- Bush, T. (2008). *Leadership and management in education*. London: Sage.
- Davies, R. & Dart, J. (2005). *The 'Most Significant Change' (MSC) technique*. RJ Davies & J Dart.
- Dempster, N. (2009). What do we know about leadership? In J. MacBeath & N. Dempster (Eds.), *Connecting leadership and learning: Principles for practice* (pp. 20–31). Abingdon: Routledge.
- Dempster, N., Lovett, S., & Fluckiger, B. (2011). *Strategies to develop school leadership: A select literature review*. Melbourne: Australian Institute for Teaching and School Leadership (AITSL).
- Dladla, N., & Moon, B. (2013). Teachers and the development agenda. In B. Moon (Ed.), *Teacher education and the challenge of development: A global analysis*. Abingdon: Routledge.
- Fertig, M. (2012). Educational leadership and the capabilities approach: Evidence from Ghana. *Cambridge Journal of Education*, 42(3), 391–408.

- Frost, D. (2006). The concept of 'agency' in leadership for learning. *Leading and Managing*, 12(2), 19–28.
- Galton, & Hargreaves. (2009). Group work: Still a neglected art? *Cambridge Journal of Education*, 39(1), 1–6.
- Huber, S. (2004). School leadership and leadership development – Adjusting leadership theories and development programs to values and the core purpose of school. *Journal of Educational Administration*, 6(42), 669–684.
- Huber, S. (2011). Leadership for learning – Learning for Leadership: The impact of professional development. In T. Townsend & J. MacBeath (Eds.), *International handbook of leadership for learning* (pp. 635–652). Rotterdam: Springer.
- Jull, S., Swaffield, S., & MacBeath, J. (2013). *Changing perceptions is one thing: Barriers to transforming leadership and learning in Ghanaian basic schools*. School Leadership and Management. <http://www.tandfonline.com/doi/full/10.1080/13632434.2013.849679>
- Kingsley, E. (2007, March 4). Ghana at 50. Ghana Web. Retrieved from <http://www.ghanaweb.com/GhanaHomePage/features/artikel.php?ID=120210>
- MacBeath, J. (2009). What do we know about learning? In J. MacBeath & N. Dempster (Eds.), *Connecting leadership and learning: Principles for practice* (pp. 4–19). Abingdon: Routledge.
- MacBeath, J., & Dempster, N. (Eds.). (2009). *Connecting leadership and learning: Principles for practice*. Abingdon: Routledge.
- MacBeath, J., & Swaffield, S. (2011, January 4–7). *Leadership for learning in Ghana*. Paper presented at the 24th International Congress for School Effectiveness and Improvement (ICSEI), Limassol, Cyprus.
- MacBeath, J., Frost, D., Swaffield, S., & Waterhouse, J. (2006a). *Making the connections: The story of a seven country odyssey in search of a practical theory*. Cambridge: University of Cambridge Faculty of Education.
- MacBeath, J., Galton, M., Steward, S., MacBeath, A., & Page, C. (2006b). *The costs of inclusion: A report commissioned by the National Union of Teachers concerning inclusion in schools*. Cambridge: University of Cambridge Faculty of Education.
- MacBeath, J., Swaffield, S., Oduro, G., & Ampah-Mensah, A. (2013). Building leadership capacity, enhancing learning and teaching in Ghanaian basic schools. In J. MacBeath & M. Younger (Eds.), *A common wealth of learning: Millennium goals revisited* (pp. 49–60). Abingdon: Routledge.
- Malakolunthu, S., MacBeath, J., & Swaffield, S. (2014). Improving quality of teaching and learning through 'Leadership for Learning': Changing scenarios in basic schools in Ghana. *Educational Management Administration and Leadership*.
- Ministry of Education. (1994). *Headteachers' handbook*. Accra: Ministry of Education.
- Ministry of Education. (2010). *Headteachers' Handbook* (2nd ed.). Accra: Ministry of Education.
- Obeng, C. S. (2002). *Home was uncomfortable – School was Hell: A Confessionalist-Ethnographic Account of Belief Systems and Socio-Educational Crises in the Schooling of Ghanaian Rural Girls*. Nova Science Pub Incorporated.
- Oduro, G. (2003). *Perspectives of Ghanaian headteachers on their role and professional development: The case of Keea district primary schools*. PhD thesis. University of Cambridge, UK.
- Oduro, G. (2010, January 18). *Headteacher development in Ghana: The Leadership for Learning (LfL) model*. Presented at the Commonwealth Secretariat School Leadership Review Workshop, London.
- Osei, G. M. (2006). Teachers in Ghana: Issues of training, remuneration and effectiveness. *International Journal of Educational Development*, 26(1), 38–51.
- Pont, B., Nusche, D., & Moorman, H. (2008). *Improving school leadership: Policy and practice* (Vol. 1). Paris: Organisation for Economic Development and Cooperation (OECD).
- Robinson, V., Hohepa, M., & Lloyd, C. (2009). *School leadership and student outcomes: Identifying what works and why. Best evidence synthesis iteration*. Wellington: Ministry of Education.

- Segura, C. C. (2009). *Lost in Translation: Why the Structures of Formal Schooling are not Translating in Rural Ghana*. PhD thesis, University of Toronto. <http://hdl.handle.net/1807/17583>.
- Sergiovanni, T. (1992). *Moral leadership: Getting to the heart of school improvement*. San Francisco: Jossey Bass.
- Swaffield, S., Jull, S., & Ampah-Mensah, A. (2013). Using mobile phone texting to support the capacity of school leaders in Ghana to practise Leadership for Learning. *Procedia – Social and Behavioral Sciences*, 103C, 1294–1301.
- Zame, M. Y., Hope, W. C., & Respress, T. (2008). Educational reform in Ghana: The leadership challenge. *International Journal of Educational Management*, 22(2), 115–128.

Chapter 18

From Exclusion to Connection

Colleen McLaughlin

Abstract There is much concern worldwide about the widening gap in terms of wealth and its relationship to educational outcomes for children, especially the vulnerable, for it is the marginalised who are not having access to education or success in education. There have been many radical changes in ideology and policy in education in the last two decades. This chapter examines who the vulnerable children are in our societies and schools and how their position has changed. The role of education and its contribution to the development and thriving of vulnerable young people is explored, and this includes the implications for classrooms. The general points are illustrated with two case studies of particular groups in two different settings in the final part of the chapter, i.e. the excluded in the UK and children living in poverty in sub-Saharan Africa. Many researchers in this field argue for a new way of thinking and a new focus of schooling based on relationships and connectedness. This argument is supported and examined in the final part of the paper. The research and scholarship drawn on is largely from the global north and so cannot claim to be representing all societies, although international literature is referred to.

Keywords Exclusion • Vulnerable young people • Relational

Introduction

There is much concern worldwide about the widening gap in terms of wealth and its relationship to educational outcomes for children, especially the vulnerable. There have been many radical changes in ideology and policy in education in the last two decades. This chapter examines who the vulnerable children are in our societies and schools and how their position has changed. I am drawing largely on research and scholarship in the global north and so cannot claim to be representing all societies

A person is, among all else, a material thing, easily torn and not easily mended. Ian McEwan, Atonement

C. McLaughlin (✉)

School of Education and Social Work, University of Sussex, Essex House, Brighton, UK
e-mail: C.M.McLaughlin@sussex.ac.uk

at all, although I have drawn on international literature. I explore the role of education and its contribution to the development and thriving of vulnerable young people, including the implications for classrooms. I illustrate the issues with two case studies of particular groups in two different settings in the final part of the chapter, i.e. the excluded in the UK and children living in poverty in sub-Saharan Africa. Many researchers in this field argue for a new way of thinking and a new paradigm of schooling based on relationships and connectedness. I support this argument in the final part of the paper. I begin by examining what we mean by vulnerable.

Who Are the Vulnerable Children?

Vulnerable children are those who cannot access education in various ways. In the many countries in the global north, they are often seen as those who need extra support or additional resources, as this definition by the Department for Education in England attests to. The Department defines vulnerable groups as ‘disadvantaged groups’, and they refer to vulnerable children as those ‘whose needs, dispositions, aptitudes or circumstances require particularly perceptive and expert teaching and, in some cases, additional support’ (Ofsted 2012). In the global south, it is often children who have no, or highly limited, access to any education (UNESCO 2013). Children who are so described are often those who are different from the majority: different in terms of their ability to achieve within schooling systems, different in terms of their behaviour, different in terms of their capacity to integrate into or identify with schools, different in terms of their ethnic group or culture and different in terms of material wealth. Within policy statements they are often labelled as children with special needs and/or disability, which include children with learning, emotional and behavioural difficulties, children from ‘minority groups’ or children who are seen to be disadvantaged or socially troublesome in some way, e.g. those who are highly sexually active or get pregnant very young. They are the marginalised.

Research studies in England which have focused on the vulnerable pupils and on ‘narrowing the gap’ have consistently identified certain characteristics and groups, and these have remained stable over the last 20 years at least (Kendall et al. 2008; Office of the Children’s Commissioner 2012). The groups of vulnerable are likely to be boys, pupils receiving free school meals (from low-income families), pupils with special educational needs and/or disability (SEND), pupils from certain ethnic groups, looked-after children (particularly those experiencing mental health difficulties) and previously excluded pupils. These pupils are significantly more likely than others to be excluded from school in all senses of the word (DfE 2012): they are the vulnerable in the education system. They are vulnerable in different ways, and this will be examined later in this chapter. There is a clear trend that globally if you are poor you are vulnerable in educational terms (UNESCO 2013). If you are in the global south, it will affect your access to participation and access to education. However, there is also a big debate about how we view the vulnerable, and

there have been big policy moves to engage with this. How the vulnerable are viewed is intimately connected to the view of an appropriate intervention, so the debates in this area are now discussed.

What Is ‘Vulnerable’ and Who Decides?

Vulnerability in schools is mainly defined in relation to attainment, engagement and risk. In current discourses within England, the focus is on narrowing the attainment gap, and the vulnerable are those who are not able to achieve within the system. There are those who are excluded through not meeting the behavioural standards, and there are those who exclude themselves. There are many children who absent themselves from school because they are bullied or because they feel that they do not have a valued place in school. Some use the phrase ‘invisible children’ to imply that they are children who are invisible to society’s concerns or priorities; they are in ‘Nomansland’ (Pye 1988). Vulnerability is also used to identify children at risk. In England it is often children in care.

There is also a debate around how we define the causes of vulnerability. Do we locate the ‘cause’ within the child, do we locate the cause in the social context (Florian 2013) or do we locate the issues in the school context and processes? Cochran–Smith and Dudley–Marling (2012 and 2013) summarise the first two different standpoints well. They see ‘fundamental differences’ between how different communities in education think about diversity and human difference. They characterise these as ‘a divide’. They frame two good questions, which summarise the difference in how school failure is thus attributed. The first question would be ‘What is there about this student that explains her or his failure in school?’ The second question is:

What is it about school that manages to transform children who are good at learning ... regardless of their economic and cultural differences, into children who not good at learning [especially] if they are poor or member of certain minority groups? (Gee 2004, p. 10 cited in Cochran-Smith and Dudley-Marling 2012, p. 280)

They view the dominant discourses in the special needs community as underpinned by ‘cognitive perspectives on teaching and learning which contract sharply with the sociocultural theories of learning that inform the work of many general teacher educators’ (Cochran-Smith and Dudley-Marling 2012, p. 279). The argument is that special education has relied heavily on the medical model and the ensuing process of diagnosis and treatment (Clark et al. 1998). Some vulnerability is defined by educational professionals on the basis of difference or deviation from the norm.

A third and important critique is of the framework of fixed ability on which our school systems have become so reliant. Hart et al. (2004) and Dweck (1999) depict, and have researched, two different viewpoints on learning. Dweck would call these the *entity* model of learning and ability, in which ability is seen as fixed and

determined, and the *growth* model, where ability is seen as malleable and able to develop through effort and learning. One view emphasises heredity and one education, as Brian Simon argued. The view of vulnerable pupils is clearly linked to these theories of ability and learning. One could argue that over time we have moved from the era of measuring intelligence and IQ to a more nuanced view of and emphasis upon learning, and to some degree this is true. However, the world of policy seems not to have done that. The increased emphasis upon measurement seems more based on an entity view. The world of policy is discussed in a later section.

So one view of the vulnerable, especially those with learning difficulties and disabilities, tends to rely on an emphasis on the individual and their deficit, what Cochran-Smith and Dudley-Marling (2012) characterise as the ‘Dis’ in Disability.

... a prefix which, at least in the sense of its dictionary definitions, has a negative connotation, as in ‘dis’ meaning deprive of (e.g., disqualify), ‘dis’ meaning to do the opposite of (e.g., disestablish), ‘dis’ meaning expel from or exclude (e.g., disbar), or ‘dis’ meaning the absence or opposite of (e.g., displeasure). Focusing on the dis fixes attention on what students cannot do well, at least compared with their peers. (p.239)

The other standpoint views the problem as a systemic or educational one, and adjustment will need to be made either to the classroom, the school or the surrounding community to improve matters. I now examine the policy, social and educational contexts and how the contexts within which vulnerable pupils are being educated have changed over the last 20 years.

Values and Vulnerability: The Contexts for Vulnerable Children

The Policy Context

There is a complex policy context in most countries. There are competing tensions and policy pulls. The UK is an example of such a country with a complex set of demands. In terms of values, there is an emphasis on learning as opposed to teaching; there is a strong emphasis on increased attainment, accountability and comparison as well as a standards framework. These values have interacted in complex ways.

In both the USA and UK, there has been curriculum change, and the changes to the standards and choice agendas have had consequences for vulnerable pupils (Norwich 2010). In 1988 in England and Wales, the government introduced a raft of different and radical educational reforms: a national curriculum; a programme of national testing and assessment, involving all pupils; league tables of schools based on performance; as well as a series of initiatives intended ‘to increase competition between schools and facilitate parental choice’ (Gray et al. 2011, p. 13). In the USA there was the introduction of ‘No Child Left Behind’ legislation in 2002. Norwich (2010) shows that writers have noted that ‘different students with disabilities can

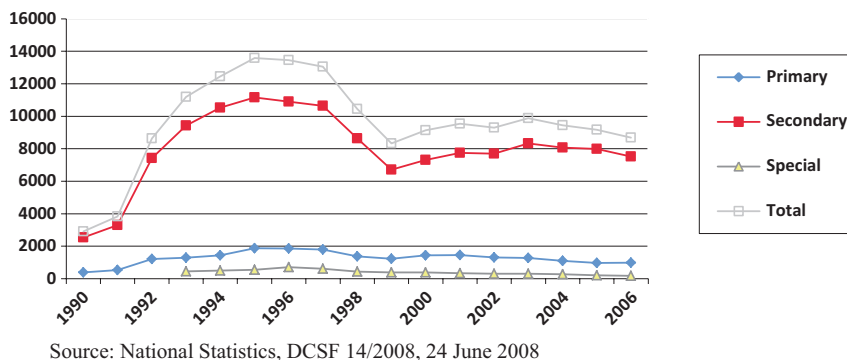


Fig. 18.1 Number of permanent exclusions in English schools 1990/1991–2006/2007 by school type (Source: National Statistics, DCSF 14/2008, 24 June 2008)

participate to different degrees in the common aspects of the standards oriented reforms’ (p.114). There was a charge that the standards agenda was in fact a standardisation of education aimed at the ‘norm’, partly due to the reduction of attainment measures to test numbering acceptable results. There was an increase in the performance levels in terms of the A*–C grades in GCSE examinations (Croxford et al. 2006), but the hopes of an increased entitlement for vulnerable pupils were not fulfilled and in many cases had unintended consequences. The increased marketisation and competition between schools seemed to produce an ‘undesirable product’ – the vulnerable child. Since schools were being judged on their examination performances and resources were often dependent on the league place position, the underachieving or difficult child became less than desirable. Figure 18.1, which takes the case of exclusions from school, illustrates this point.

Between 1991 and 1996, the annual rate of pupils being permanently excluded from state schools in England increased by approximately 400% with the 1997–1998 figure standing at 13041 (Parsons 1999). In response to government legislation to curb this rate, it has come down to 5080 in 2010–2011 and 5170 in 2011–2012, but rates have never returned to what they were prior to the Education Reform Act in 1988.

The values of the standards agenda and the marketisation of education have been dominant during the last two decades in the USA and the UK, and the model is being increasingly adopted internationally. In the global south, the focus is on increasing participation in and access to schooling.

Over 60 million children of primary school age are not in school. Most are in Sub Saharan Africa and South Asia. Access to basic education lies at the heart of development. Lack of educational access, and securely acquired knowledge and skill, is both a part of the definition of poverty, and a means for its diminution. Sustained access to meaningful learning that has utility is critical to long term improvements in productivity, the reduction of inter-generational cycles of poverty, demographic transition, preventive health care, the empowerment of women, and reductions in inequality. (Lewin 2011, p. 80)

The latest Global Monitoring Report (UNESCO 2013) shows that there are still approximately 250 million children without adequate access to basic education, and they are largely the disadvantaged.

There is a recognition in the face of substantial research studies that the needs of the vulnerable have to be addressed in education and that the attainment 'gap' has to be closed. In the UK there has been a raft of initiatives (Pirrie et al. 2011) under various governments designed to address the needs of the vulnerable children and their families in England. In 2007, Ofsted identified that:

...the biggest challenge continues to be narrowing the gap in opportunities and outcomes between most children and young people and those that are the most vulnerable or underachieving.

In the international context the establishment of the Millennium Development Goals to universalise access to education is part of that push to improve outcomes for vulnerable children. There has been progress in the engagement of girls in education in the global south but varies in parts of the world. The big issue is failure to enrol at secondary level. The gap between the low-enrolment countries and those that are rapidly developing is wide.

In reality there are far more than 60 million primary age children whose right to basic education is denied. Many fail to attend regularly, and are seriously over age for the grades they attend. Alarming numbers do not achieve basic skills after 6 years or more of schooling. If these 'silently excluded' children are counted then the numbers without meaningful access to primary schooling are well over 250 million. And, if the basic education cycle includes lower secondary, then this number is itself a substantial underestimate of the children whose right to education is compromised. (Lewin 2011, p. 8)

So the dominant policy discourse of competition, performance, standardisation and individualisation has been a problematic one for vulnerable children.

The Social Context for Vulnerable Young People

The third area in which there has been a big change is in the social position of young people in many societies. Social inequalities have remained constant and in recent times have gotten worse (Raffe et al. 2006; Wilkinson and Pickett 2010). There has been a growth in the divide between the rich and the poor in most countries in the world, and the position and opportunities of young people have changed as the rising rates of unemployment among young people show. This is an international pattern as the evidence below demonstrates:

The labour market outlook for young people worsened in nearly every region of the world. The global youth unemployment rate rose to 13.1 per cent in 2013, from 12.9 per cent in 2012 and 11.6 per cent in 2007. The largest increase occurred in the Middle East region... Central and South- Eastern Europe and CIS, East Asia, South-East Asia and the Pacific and North Africa all saw a substantial increase in youth unemployment rates ... In the Developed Economies and European Union, the region that registered the largest increase in youth unemployment rates over the period 2007–12, unemployment among young people rose

further to 18.3 per cent of the youth labour force. In total, 74.5 million young people aged 15–24 were unemployed in 2013, an increase of more than 700,000 over the previous year. There were 37.1 million fewer young people in employment in 2013 than in 2007, while the global youth population declined by only 8.1 million over the same period. (International Labour Organisation 2014, p. 21)

We know that there is a strong relationship between educational attainment and being not in education, employment or training (NEET). The most vulnerable groups feature most prominently in the NEET category:

There are big differences in the main activity at age 18 between young people with different Year 11 qualification levels, where 62% of the highest qualified (eight or more GCSEs at Grades A* to C) were in full-time education at age 18. This proportion decreases with lower attainment to just 18% of those who achieved between one and four GCSEs at Grades D to G. The latter group, and those with no qualifications at Year 11, were the most likely to be NEET at age 18 (42% and 51% respectively) as well as those that had been permanently excluded from school by Year 11 (47%). (DfE 2010, p. 5)

Other groups identified as being overrepresented in the NEET category in England are those not in the White ethnic group. Young people in the Bangladeshi and other groups were the most likely to be NEET, those who had been excluded from school and those who lived with neither a mother nor father. The Nuffield Review of *Changing Adolescence* (Hagell 2012) confirmed this as a key issue for youth in the UK. Other key social trends were how young people spent their time, education, shifts in substance use and changes in family life.

We know that there is a need for a clear structure from education to work, for managed transitions, and that this is not a straightforward pathway in the UK society. Transitions can be a time of vulnerability for young people and especially for those who are most vulnerable, and in this case that is those who are in the NEET category.

The Educational Context for Vulnerable Young People

The nature of school experience has also changed over the last 20 years. In the global north, there has been growing emphasis on testing and attainment, more participation in examinations and young people staying on at school longer. There are different implications for different groups, some of which I have explored. Much attention has been given to researching the effectiveness of schools in relation to attainment. Less attention has been given to studying other aspects. For example, young people in the UK today have higher levels of emotional and behavioural problems than in the past. The increase has begun to level off, but it is still significantly higher than in the 1970s and 1980s, and the UK is rated 16th out of the world's 29 richest countries in terms of well-being (Collishaw 2012; UNICEF 2013). About 10% of young people will experience serious emotional or behavioural difficulties (and we know this group will struggle more in school than their peers), but even more of them (between 20% and 30%) express worries about their

school experiences which can affect their well-being and achievement. 'Trends in child and adolescent mental health can be seen as a barometer of the success of society's efforts to improve children's well-being and life chances' (Collishaw 2012, p. 9).

If one considers access for vulnerable children, then some pupils have become less acceptable than others, and within the vulnerable groups there have been different trends. There has been an increase in the number of young people with a physical disability gaining access to education in mainstream settings, but there has been an increase in young people with emotional and behavioural difficulties being educated outside mainstream settings. There have been attempts to reallocate resources in different ways to try to address the most vulnerable group, those living in poverty. In England there has been the introduction of the pupil premium.

Many researchers are now arguing that the rather narrow and widespread model of education which is prevalent, what Sahlberg (2012) calls the GERM (Global Educational Reform Movement), is not fit for purpose for the changed social and global scenario in which young people find themselves and in particular for the vulnerable groups of young people. There are many arguments for a new vision of education and schooling.

From the Disconnected to the Connected School

Hagell (2012) argues that there needs to be attention to the well-being of young people in this changing social scenario, and this suggests a view of education which goes beyond the narrow view of education as being about testing and knowledge transmission alone. The world and the social trends for young people previously described show a world of increased time in education for the majority of young people in the global north. The world in which we live is more demanding, and managing and negotiating that world requires more complex decision-making and a well-developed ability to acquire and analyse new information and to adapt to changing circumstances. In such a society, the educationally disadvantaged are likely to be much more disadvantaged than in the past. They are also likely to find it even more difficult to benefit from and contribute of the complex societies in which we now live (UNICEF 2010; UNESCO 2013).

Having studied young people and their transition from school for 25 years, Wyn (2012, 2013) argues that there has been a failure in the recent model of education to deliver its promise and that the model of education and transition for young people as a linear process, i.e. from school completion to further study to secure work, is no longer tenable. It had been only disadvantaged and vulnerable young people who in the last 25 years had struggled to make this transition, but now it is more widespread. Therefore, she argues, we need a new metaphor and a new conception of education. She argues for a relational metaphor and one that helps young people and adults to build relationships of trust and connection, for there is a need for meaning and connection and control in young people's lives.

In a recent study focused on establishing the school's role or contribution to the well-being of young people, which I was involved in with Maurice Galton and John Gray for the Nuffield Foundation (Gray et al. 2011), we came to a similar conclusion. We concluded that relationships were key in many ways. First, relationships between people are central to the well-being in schooling, and second, the relationship between different elements of school experience matters greatly. Our review of the research evidence on school experience and well-being found that connectedness was key. By this we mean the connections between groups and activities and experiences, including relationships between peers and teacher, levels of pupil satisfaction with school experience, feeling of membership and belonging to the community of the school and classroom. Pupils who feel valued and connected have higher levels of educational well-being, and these experiences are also protective. School connectedness is related to later reduced violence, less risky sexual behaviour, less drug use, less dropping out and less antisocial behaviour. It is a protective factor for vulnerable young people.¹ This has been confirmed by a recent study of interventions that impacted positively upon excluded pupils or the process of exclusion (Gazeley et al. 2013). Central to these processes of connection are relationships with peers and between teachers and pupils. Some studies have suggested that attachment is the most significant factor. Young people who feel connected to their schools and classrooms and who have a sense of voice, agency and belonging are building a solid developmental basis and model for present and future well-being. This also connects to academic achievement.

The relationships that mattered had particular characteristics: that they were seen as supportive and fair, that they engendered feelings of competence, that they were respectful and included being listened to and that they involved young people in decision-making. The perception of support was the most important.

The second aspect of relationships was the way in which the different parts of school life and experience are connected. In the disconnected school, the various parts of teaching, learning and living were viewed separately and largely through the prism of attainment. The research evidence was that they were highly connected. For example, a high testing and performance environment impacted upon attainment and motivation, not always positively. The elements that seem most profitable to merit examination in terms of their connection and influence upon each other are assessment and testing; individual failure and how it is handled; extra support for learning and inclusive practice in the classroom; transitions from primary to secondary school, as well as from secondary to higher education, further education or vocational routes; and the impact of organisational and classroom structures.

The following section presents two examples of voices of the researched to illustrate connectedness and the relational approach.

¹ See Gray et al. (2011) *The Supportive School* and in particular chapters four, seven and nine for the detailed research.

Voices 1: The Move from Exclusion to Inclusion

Here are some of the voices of the young people in two case studies of practice in the field of exclusion and inclusion. The two studies are by Gazeley et al. (2013), which was a study of the effective measures being taken in schools, and by Cooper et al. (2000), which aimed also to examine inclusive practices. In both studies young people talk movingly about the importance of personal connection and being seen as a person and not ‘a case’.

Neil who has had a troubled past and ended up being excluded from school and leaving his family home in this short extract talks about his experience of a fresh start at a new school.

Before I got accepted here, I was out of school for about two and a half months. With my record I thought I might not get accepted by another school. And I wondered what would it be like if I don't get accepted anywhere. I like quite a lot of things in this [his new] school. I know a lot of people. I get on all right with the work and the teachers. It's all right. Here the teachers' sort of let you go at your own pace, but sort of push you as well. They help you a lot. At my grammar school it was a lot of pushing. Teacher were really hard on you. When I said: 'I don't know whether I'm capable of doing the work that you've set me because it's too hard', the teachers took it as a bad attitude towards them ... Here they are more understanding. (Cooper et al. 2000, p. 1–2)

The students talk about the importance of being listened to and the teachers attempt to empathise with the position of the student:

She like understands how I feel...and she'll say something, like that'll mean something. (Student interview – Cooper et al. 2000, p. 187)

The teachers believing me is the most important sort of help I could have. (Student interview, *ibid*)

I think he actually understands to a certain extent why he behaves the way he does. We actually said, 'Why do you do the things you do?' ...and he said he thought it went back to the time when was very small [explanation continues]...and it I think it is absolutely true. (Teacher interview. Cooper et al. 2000, p. 187)

It is a process aimed at helping the young person to improve but also one in which both parties are endeavouring to try to understand each other; it is a relational process. The complexity is best summarised thus. In asking what matters in an analysis of the dynamics of inclusion and exclusion, the team of researchers (Cooper et al. 2000) decided that ‘*everything* makes a difference. Every act of meaning making as student and staff process their school experience contributes in some to how they respond’ (p.186). In the inclusive school, there is a serious attempt to understand the perspective of the marginal and disadvantaged, to commit to their inclusion and to develop practices that are helpful and also to challenge the young people to accept their responsibility.

Voices 2: Developing a Sexuality Curriculum

The second extract is from work done in sub-Saharan Africa on the development of a sexuality curriculum over a period of 4 years. The development of curricula to educate around the problem of HIV/AIDS and related sexuality is a highly contentious issue and is a hard-to-handle topic. The traditional approach in many sub-Saharan countries, where the rates of HIV infection are very high indeed, is to provide a largely factual approach to the education of young people. The approach in this project was to argue that this was a sociocultural issue and could only be tackled by trying to find a process to negotiate the personal and social issues in order to educate young people. Young people were asked about where they gained their sexual knowledge from both in and out of school, how they were being educated and how would they like to be educated. This was done through the young people taking photographs, making videos and discussing them with the researchers. What emerged was that the primary school pupils lived in a highly sexualised world and one that was often hard to negotiate and even threatening to them. They longed for constructive and open discussions with adults. The adults felt the children should be treated as innocent and struggled with the social, religious and cultural restraints on talking openly with children on sexual matters.

Naledi: The teachers are careful with us because they think we are still young.

Buyelwa: I think we can be able to process these things in grade 7 or grade 8.

Sisa: [Last year] they said we were going to learn more in grade 6, but they have not taught us as much.

Pinky: They think we are too young to know.

(Focus group discussion. McLaughlin et al. 2012)

We used dialogue as a way through this complex terrain. The adults were shown the pictures and data collected from the pupils, and then the community stakeholders, the teachers and the pupils sat together to see if there was a way forward. In the following extract, a hard-to-talk-about topic has been opened up for discussion, and the elders in the community are talking with each other and arguing that they need to change their perspective and approach. They are also talking about difficult educational problems and working towards some agreement:

Grandmother: When a child says that he or she is used to having sex, this is as a result of mistakes we parents have made where our children are concerned. For example, a parent chooses to sleep in the same room with their 12-year-old son or daughter. Therefore the activities that take place between you and the man, our children are seeing far and wide whatever you are doing. That child is not sleeping. The child watches and sees 'what is my mother doing'. Such a child starts practising the same thing he or she has been watching. The duty of us parents is to protect our children even though we are poor. We should not wait when a child is 12 years to give them a room of their own, because at times when a child is just three years old, you find that such a child can be watching what takes place between the father and mother and starts practising that subject. Therefore

we parents should take that responsibility, placing our children in other rooms so that they do not see that activity.

Thank you.

Female chief: It has already been agreed that we should start teaching our children

...

Many: Yes!

Ms.Kerubo: What do I do? Or do I use the language we use like when we were being taught science, in standard 7 or in standard 8 or do we use jongo instead of telling them mtotoanaletwanandege [children are brought by aeroplanes]. May I know that one?

Many: [Group express surprise and laughter]

This dialogue prompts a young boy to ask a question that he has been wanting to ask for a long time:

Ms.Kerubo: ... And also when we are in school, during our discussions with our pupils – let us bring them close to us so that they are free to ask any questions they want.

Kustantu (boy): If a lady is a virgin or another can no longer have children, and they have sex with someone who has AIDS, will these two ladies get AIDS?

[Laughter then silence and murmurs in the audience].

The adults then go on to answer honestly the question.

I use this example, which is an unusual one, to show how adults and young people can come together to work towards mutual understanding and establishing relationships of trust, which are focused on the difficult educational tasks. In this setting education is literally crucial to survival. Education is now central to survival for all young people in the new knowledge-driven world. It is the vulnerable and the marginalised who are being shut out and partly due to the model of education we have operated on. If we are to address the needs of the vulnerable, then our classrooms need to be characterised by educational relationships of trust, dialogue-wide educational goals and a focus on the relational. We can address the needs of the vulnerable; we will raise the achievement of all.

References

- Clark, C., Dyson, A., & Millward, A. (1998). Introducing the issue of theorising. In C. Clark, A. Dyson, & A. Millward (Eds.), *Theorising special education* (pp. 1–5). New York: Routledge.
- Cochran-Smith, M., & Dudley-Marling, C. (2012). Diversity in teacher education and special education: The issues that divide. *Journal of Teacher Education*, 63, 237.
- Cochran-Smith, M., & Dudley-Marling, C. (2013). Crossing the divide? Diversity issues in teacher education and special education: A response to Leah Wasburn-Moses. *Journal of Teacher Education*, 64, 279.
- Collishaw, S. (2012). Time trends in young people's emotional and behavioural problems, 1075–2005. In A. Hagel (Ed.), *Changing adolescence: Social trends and mental health*. London: Nuffield Foundation.

- Cooper, P., Drummond, M.J., Hart, S., Lovey, J. and McLaughlin, C. (2000). *Positive alternatives to exclusion*. London: Routledge.
- Croxford, L., Iannelli, C., Shapira, M., Howieson, C., & Raffe, D. (2006). *Education and youth transitions across Britain 1948–2002*. Briefing no 39, Edinburgh. Centre of Educational Sociology.
- Department for Education (DfE). (2010). *Youth cohort study & longitudinal study of young people in England: The activities and experiences of 18 year olds: England 2009*. B01/2010.
- Department for Education (DfE). (2012). *Exclusion from maintained schools, Academies and pupil referral units in England*. London: Department for Education. Available on This document is also available at www.education.gov.uk Reference. DFE-57501-2012.
- Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality and development*. Philadelphia: Taylor and Francis/Psychology Press.
- Florian, L. (2013). Reimagining special education: Why new approaches are needed. In L. Florian (Ed.), *The SAGE handbook of special education*. London: Sage.
- Gazeley, L., Marrable, T., Brown, C., & Boddy, J. (2013). *Reducing inequalities in school exclusion: Learning from good practice. A report to the Office of the Children's Commissioner*. London: Office of the Children's Commissioner and University of Sussex.
- Gee, J. (2004). *Situated language and learning: A critique of traditional schooling*. New York: Routledge.
- Gray, J., Galton, M., McLaughlin, C., Clarke, B., & Symonds, J. (2011). *The supportive school*. Cambridge: Cambridge Scholars Publishing.
- Hagell, A. (2012). *Changing adolescence: Social trends and mental health*. Bristol: Policy Press.
- Hart, S., Dixon, A., Drummond, M. J., & McIntyre, D. (2004). *Learning without limits*. Maidenhead/Berks: Open University Press.
- International Labour Organisation. (2014). *Global employment trends 2014: Risk of a jobless recovery?* Geneva: International Labour Office.
- Kendall, S., Straw, S., Jones, M., Springate, I., & Grayson, H. (2008). *A review of the research evidence (Narrowing the Gap in outcomes for vulnerable groups)*. Slough: NFER.
- Lewin, K. (2011). *Making rights realities: Researching educational access, transitions and equity*. Project Report. University of Sussex, Brighton.
- McLaughlin, C., Swartz, S., Kiragu, S., Walli, S., & Mohamed, M. (2012). *Old Enough to know: Consulting young people about sex and AIDS education in Africa*. Cape Town: HSRC Press.
- Norwich, B. (2010). Dilemmas of difference, curriculum and disability: international perspectives. *Comparative Education*, 36(2), 113–135.
- Office for Standards in Education, Children's Services and Skills (Ofsted). (2012). *Good practice report on creating an inclusive school community*. London: Ofsted.
- Office of Research United Nations Children's Fund (UNICEF). (2013). *Child Well-being in Rich Countries: A comparative overview, Innocenti Report Card 11*. Florence: UNICEF Office of Research.
- Office of the Children's Commissioner. (2012). *They never give up on you: Office of the children's commissioner School exclusions inquiry*. London: Office of the Children's Commissioner.
- Parsons, C. (1999). *Education, exclusion and citizenship*. London/New York: Routledge.
- Pirrie, A., Macleod, G., Cullen, M.A. and McCluskey, G. (2011, June). 'What happens to pupils permanently excluded from special schools and pupil referral units in England?' *British Educational Research Journal*, 37(3), 519–538.
- Pye, J. (1988). *Invisible children: Who are the real losers at school?* Oxford: Oxford University Press.
- Raffe, D., Croxford, L., Iannelli, C., Shapira, M., & Howieson, C. (2006). *Social class inequalities in education in England and Scotland*. CES Briefing no 40, Edinburgh. Centre of Educational sociology.
- Sahlberg, P. (2012). Educational change in Finland. Published in The Washington Post on 29 June 2012. Available on line at. <http://pasisahberg.com/text-test/>

- United Nations Childrens Fund (UNICEF).(2010). The children left behind: A league table of inequality in child well-being in the world's rich countries, *Innocenti Report Card 9*. Florence: UNICEF Innocenti Research Centre.
- United Nations Educational, Scientific and Cultural Organisation (UNESCO). (2013). *The global monitoring report: Teaching and learning for development*. Paris: UNESCO.
- Wilkinson, R., & Pickett, K. (2010). *The spirit level: Why equality is better for everyone*. London: Penguin.
- Wyn, J. (2013, September). *Youth transitions in difficult times: Where and how do young people belong?* Keynote lecture at BERA conference, Brighton Sussex.
- Wyn, J., Lantz, S., & Harris, A. (2012). Beyond the 'transitions' metaphor: family relations and young people in late modernity. *Journal of Sociology*, 48(1), 1–20.

Chapter 19

If Student Engagement Is the Objective, the Engaged Teachers May Be the Answer

Kerry Kennedy and Keith Ki Chan

Abstract Student engagement is recognised as a key process that can assist students' learning. This paper reports a study in which three variables were examined to assess their potential in creating engaging and participative classrooms. The focus was on 'teacher engagement in the community', 'teacher engagement in school' and 'teachers' teaching confidence' and their impact on the way teachers perceive their classrooms. Data was drawn from the International Civics and Citizenship Study, and the views of over 1400 teachers in 90 Hong Kong schools were analysed.

The results of the study showed that teacher engagement is an important construct that directly supports teachers' positive descriptions of their classroom activities. At the same time, teacher engagement also influenced teachers' confidence in their teaching which in turn influenced the positive descriptions of their usual classroom activities. The theoretical foundations of these results are discussed as well as the implications for teachers' professional lives, for policymakers concerned with enhancing teacher quality and for school leaders with responsibility for teacher professional development.

Keywords Student engagement • Teacher engagement • Teacher self-confidence

This research reported in this chapter was supported by a General Research Fund project [EdUHK 842211] entitled 'Asian Students' Conceptions of Citizenship: Constructing Indigenous Views of Citizens, Citizenship Education and the State' (PI: Professor Kerry J Kennedy).

K. Kennedy (✉) • K.K. Chan

Department of Curriculum and Instruction, The Education University of Hong Kong,
10 Lo Ping Road, Tai Po, New Territories, 852 Hong Kong, SAR China

e-mail: kerryk@eduhk.hk; chank@eduhk.hk

Introduction

Classrooms are complex social environments, and no two are exactly the same. Yet the need to be aware of how best to promote students' learning in these multiple contexts remains a key objective for policymakers, researchers and teachers. Professor Maurice Galton, in whose honour this *handbook* has been compiled, knew this only too well and devoted a career to identifying those factors in classrooms that facilitated student learning – whether in England or in Hong Kong. At the core of his thinking was a belief in teachers as mediators in classrooms – students can certainly learn without teachers, but with teachers learning can be advanced. Galton was convinced that teachers make a difference. In the research to be reported in this chapter, we can only agree with Galton's view, and we would like to provide a new perspective on how teachers can engage students and provide some empirical evidence for that perspective.

Literature Review

Much of the literature on student engagement focuses on the effect of different characteristics of teachers. Assor et al. (2002) and Reeve et al. (2004) using self-determination theory found that where teachers encouraged student autonomy, there were higher levels of student engagement and suppressive behaviour's encouraged the reverse. Hughes and Kwok (2007) examined the quality of teacher-student relationships and their effect on student engagement. They found that where there were strong and positive relationship, students tended to be more engaged, and this was mediated by ethnic characteristics so that relationships tended to be better with Caucasian students rather than African American or Hispanic students and these latter were less engaged than the former. Hughes et al. (2008) in a longitudinal study also found that the quality of teacher relationships influenced student engagement and achievement in the early years for at risk students. What is more they also found that the achievement results in Year 3 were effected by Year 1 results being mediated by Year 2 results. Learning outcomes cannot be parcelled into discrete school units – they are related and dynamic across time.

Qualitative researchers have also contributed to the research on teachers and student engagement. Mahoney and Wheedon (1999) observed classrooms in early childhood settings and found that for teachers working with students with special learning needs, teacher directiveness was negatively related to student attention and initiation. More affective teacher behaviours, however, seemed to result in greater student attention. Dolezal et al. (2003) observed classrooms in eight schools and interviewed the teachers. They identified high, medium and low engagement classrooms. In the latter, teachers seemed to contribute to low academic motivation, but the opposite was the case in the higher engagement classrooms. In the highest

engagement classrooms, tasks were not only engaging but also challenging for students requiring considerable effort.

Reported studies of student and teacher engagement in settings other than those in Western classrooms are also instructive. Tsui and Kennedy (2009), for example, found that 'student engagement' could not be identified as a construct in a Chinese version of a teacher efficacy instrument. Their explanation was that in Asian contexts, teachers do not spend a great deal of time trying to engage students, they expect students to come to class already engaged and motivated. Yet Zhang et al. (2005), reporting on a cross-cultural study, found that teachers in Taiwan and the United States identified similar levels of engagement in self-determination activities, although Taiwanese parents had much lower levels of engagement in similar activities than US parents. This latter result suggests a cultural response to self-determination that may not be so strongly supported in Confucian heritage societies. Lo and Hyland (2007), undertaking action research in Hong Kong's primary classrooms, found that the adoption of more engaging writing tasks had a disparate effect: it increased the scores of students classified as low achievers and decreased the scores of the high achievers. This seems to be a salutary lesson about the unanticipated effects of change to instructional practices when students have a 'mindset' about task requirements and established strategies for successfully completing tasks.

Wong and Zhu (2013) drew on data from the International Civic and Citizenship Education Study (Schulz et al. 2011) to develop a model of teacher engagement and student motivational activities. They hypothesised that students' participation in class (SPC) (as reported by teachers) would be influenced by teacher characteristics such as teachers' teaching confidence (TTC), teacher engagement in school (TES), teacher engagement in the community (TEC) and class engagement in community activities (CEC). They hypothesised that SPC would be directly influenced by TTC, TES and TEC and CEC and indirectly influenced by TEC and TES through CEC. They applied their model to data from five Asian societies, Korea, Taiwan, Hong Kong, Thailand and Indonesia, and found that the variance in the dependent variables (SPC and CEC) accounted for between 29.5 and 31.8% of the variance in the independent variables across the five societies. In addition, as a measurement model, it met all the criteria specified by Byrne (2009).

The Wong and Zhu (2013) model sets a new direction in student engagement research. It links teacher engagement to student engagement even though the former is not in classrooms but in environments beyond the classroom and in some cases beyond the school. It seems intuitively correct that engaged teachers have both the experience of engagement and the personal benefits of engagement to guide them once inside the classroom. This gives it some advantage over more theoretical models described earlier or even the simple introduction of more motivating tasks the results of which can often be unknown. Yet despite these advantages and despite the measurement properties of the model, there may be some further theoretical considerations that can enhance it further. This is particularly so in relation to the variable TTC – teachers' teaching confidence – that has been an important component of

social cognitive theory (Bandura 1989) in which self-confidence and self-efficacy are seen to play fundamental roles in affecting behaviour.

Could TTC play a different role in mediating TES and TEC from the exogenous role assigned to it in the Wong and Zhu (2013) model? Additionally, can an equally efficient measurement model be developed with this different theoretical orientation? These questions will guide the remainder of this chapter.

Methodology and Methods

Following Wong and Zhu (2013), data will be drawn from the ICCS study, and secondary analysis will be used to explore the questions referred to at the end of the previous section. For reasons of convenience, Hong Kong teachers will be used, and later studies can follow up and test any resulting model with different data.

Sample

A stratified random sample of schools (with replacements) was initially selected resulting in 101 schools. Within schools, teachers were selected randomly from all teachers teaching regular school subjects to students of the target grade regardless of the subject or the number of hours taught during the ICCS testing period. At least 15 teachers were sampled from each participating school, where possible. There are 1446 teachers.

The percentage distribution of subject teachers of subjects related to language arts, human sciences, mathematics, sciences and others was 35.34%, 12.21%, 13.55%, 11.95% and 23.96%, respectively. More than one-thirds of teachers (35.34%) are teaching the subjects of language arts, and about a quarter of teachers (25.50%) are teaching the subjects of mathematics and sciences (Schulz et al. 2011).

Measures

All measures for this study were taken from the results of the Teacher Questionnaire administered as part of ICCS 2009 (Schulz et al. 2011). Four measures were used in the study.

Teachers' Teaching Confidence [TTC] (Cronbach's $\alpha = .734$)

Teachers were asked in eight questions concerning their confidence in using specific teaching methods and approaches (e.g. group work, problem-solving, role playing, classroom discussion, research work, lecturing, laboratory activities and ICT

activities). They responded using a four-point scale where *4 = very confident*, *3 = quiet confident*, *2 = not very confident* and *1 = not confident at all*; a higher score means a higher teaching confidence. Hence, the most positive responses are given, the highest score in which case high scores represent the most confidence.

Teacher Engagement in School [TES] (Cronbach's $\alpha = .826$)

Teachers were asked in seven items how they were engaged with reference to the current school year (e.g. support good discipline, work collaboratively, act to resolve conflict, take on tasks and responsibilities, take part in school development, encourage students' active participation and cooperate in school development). They responded using a four-point scale of *4 = all or nearly all*, *3 = most of them*, *2 = some of them* and *1 = none or hardly any*. A higher score means a higher teacher engagement. Hence, the most positive responses are given, the highest score in which case high scores represent high engagement.

Teacher Engagement in the Community [TEC] (Cronbach's $\alpha = .764$)

Moreover, teachers were asked how often in the last 12 months they have personally taken part in activities promoted by 11 organisations/groups in addition to the activities carried out as part of your school work (e.g. environmental organisations, cultural organisations, human rights organisations, political organisations, groups helping disadvantaged people, cultural groups, associations promoting culture in the local community, groups run by religious organisations, health/disability organisations, trade unions and teachers' associations). They responded in a four-point scale of *1 = never*, *2 = a few times*, *3 = about once a month* and *4 = more than once a month*. A higher score means a higher participation.

Students' Participation in Class [SPC] (Cronbach's $\alpha = .846$)

Furthermore, teachers were asked how many students in their lessons participating in class (e.g. suggest class activities, negotiate the learning objectives with the teacher, propose topics/issues for class discussion, freely state their own views on school problems, know how to listen to and respect opinions even if different from their own, freely express their opinion even if different from those of the majority, feel comfortable during class discussions because they know their views will be respected and discuss the choice of teaching/learning materials). They responded in a four-point scale of *1 = all or nearly all*, *2 = most of them*, *3 = some of them* and *4 = none or hardly any*. After recoding, *4 = all or nearly all*, *3 = most of them*, *2 = some of them* and *1 = none or hardly any*. A higher score means a higher students' participation. Hence, the most positive responses are given the highest score in which case high scores represent high participation.

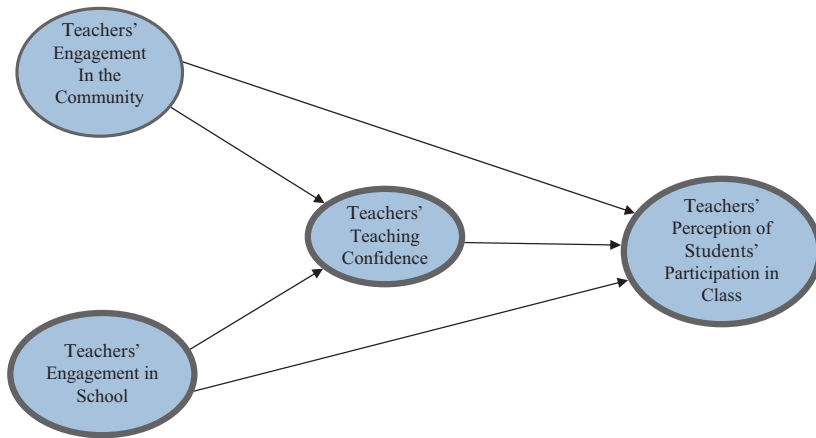


Fig. 19.1 Hypothesised measurement model for the effect of teachers' engagement on their perception of students' participation in class

Analysis

A hypothesised measurement model was developed using the scales from ICCS 2009 (Schulz et al. 2011) and referred to earlier in this chapter. The model was derived from previous research and theoretical consideration and is shown in Fig. 19.1. The main analytic technique adopted was SPS confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) using SPSS AMOS (Child 1990). CFA enables a model to be evaluated in relation to empirical evidence. As part of this process, statistics are generated indicating the extent to which the actual data fit the hypothesised model (Child 1990). Where the fit of the data to the model is not acceptable, it is possible to modify the model statistically by using modification indices (MI) so that the fit can be improved. In this process, any new model must be both statistically and theoretically sound. The MI process was used in this study as reported below.

The evaluation and further development of the model were conducted with three separate CFAs, and each time the model was further refined. The final model was subject to a bootstrap procedure to determine standard errors and significance levels for the direct, indirect and total effects of the independent variables in the model. While there are a number of statistics available to measure the extent to which the data fit the model, for the purpose of this study, two in particular were used. The first was the root mean square error of approximation (RMSEA), an absolute measure of fit based on the assumption that if the model fits the data perfectly, its fit will be zero. Therefore, the smaller the RMSEA, the closer the fit of the model to the data. The second was the comparative fit index (CFI), a comparative measure that assesses the fit of the model being tested to a null model. In this case, the larger the CFI, the better. Further information about different goodness of fit indices can be found in

Hu and Bentler (1999) and Byrne (2009) both of which offer some critical perspectives on the use of such indices.

Results

The *first evaluation* was performed on the model in Fig. 19.1. The RMSEA for the model was 0.055, and the CFI was 0.864. Taken together, these statistics suggest that the data is not a good fit for the measurement model even though the RMSEA is acceptable. Yet the CFI was very low as a figure greater than 0.90 is usually suggested (Hu and Bentler 1999).

In the second evaluation, the MI analysis indicated that there was a large MI (> 100) for what are called ‘residual errors’ in three observed variables (‘knowing how to listen to and respect opinions’, ‘freely expressing their opinion’ and ‘feeling comfortable during class discussion’) that make up part of the latent construct, ‘Teachers’ Perception of Students Participation in Class’. Error is a part of all measurement, and in this case, the error associated with each item represents what remains after the common variance that contributes to the latent construct has been extracted. In terms of model development, this suggests that if paths are added between these error terms, the model fit might be improved. When these paths were drawn and the model reanalysed, the RMSEA was 0.041, and the CFI was 0.932, the latter still not acceptable. Yet the process and outcomes of this second evaluation suggested a new direction for pursuing the modification and hence improvement of the model.

The third evaluation focused on correlated error terms. Brown (2006, p.181) has pointed out that in just such a case, ‘most of the shared variance may be due to an outside cause’. This reflects the fact that the errors themselves are unrelated to the factors in the model. The error correlations, therefore, may indicate that this ‘outside cause’ is a missing factor in the model. To test for the existence of a possible second factor, an EFA was carried out, and a two-factor solution was forced. The result was two clear factors – a five-item scale ($\alpha = .838$) and a three-item scale ($\alpha = .800$). The RMSEA for this solution was 0.052, and the CFI was .982 indicating a good fit to the data. The factor loadings on the respective scales were all significant ($p < 0.05$). A consideration of the two scales indicated that the first mentioned above should be named ‘Teachers’ Perception of Students’ Active Participation’ and the second ‘Teachers’ Perception of Students’ Freedom of and Respect for Open Expression’.

Having established that the dependent variable was better shown as two latent constructs rather than one, a CFA was performed on the revised model. The results produced an RMSEA of 0.029 and a CFI of 0.976. This was the best fitting model in the evaluation to date, and it met the criteria as an acceptable statistical model (Hu and Bentler 1999). The results are shown in Fig. 19.2.

Table 19.1 shows the direct, indirect and total effects of the independent variables on the two dependent variables with standard errors and significance levels

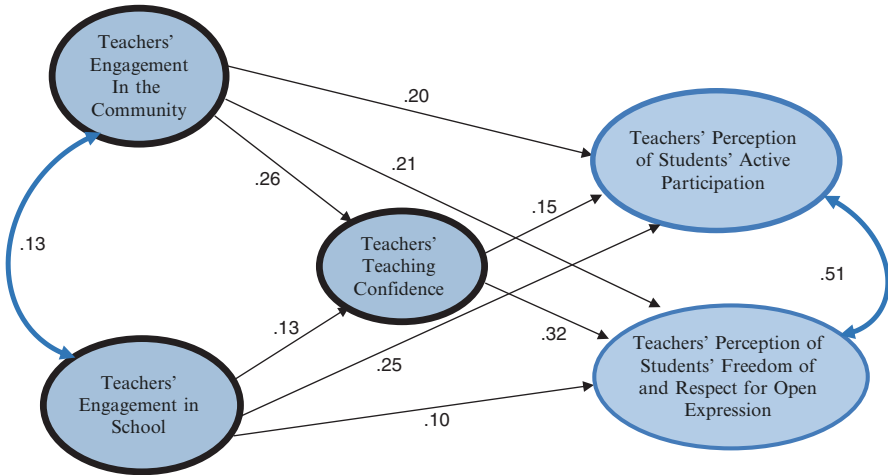


Fig. 19.2 Structural model for the effect of teachers’ engagement on their perception of student participation in class (RMSEA =0.029; CFI =0.976, R2: SFE =0.206, $p > .004$; SAP =0.166, $p > .002$; TTC = .008, $p > .004$)

Table 19.1 Direct, indirect and total effects of independent variables on the two dependent variables

Relationship	Direct effect		Indirect effect		Total effect	
	SAP	SFE	SAP	SFE	SAP	SFE
TEC	.203	.212	.038	.082	.241	.293
	(.031)	(.033)	(.011)	(.014)	(.005)	(.033)
	[.002]	[.003]	[.002]	[.002]	[.002]	[.002]
TES	.247	.091	.018	.039	.266	.130
	(.039)	(.034)	(.007)	(.014)	(.038)	(.037)
	[.002]	[.005]	[.005]	[.010]	[.001]	[.002]
TTC	.149	.319			.149	.319
	(.034)	(.032)			(.034)	(.032)
	[.002]	[.002]			[.002]	[.002]

Note: Standard Errors are in round brackets (); p values are in square

(p values) for each estimate. The strongest effect is exerted by the mediating variable, teachers’ teaching confidence (TTC) on Students’ Freedom of and Respect for of Expression (SFE) ($\beta = .319, p > .002$), but the effect of TTC on Students’ Active Participation (SAP) is less than half of that ($\beta = .149, p > .002$). TTC also exerts an influence as a mediating variable for teachers’ engagement in the community (TEC) with slightly more influence on SFE ($\beta = .293, p > .002$) than SAP ($\beta = .241, p > .005$). Teachers’ engagement in school (TES) also exerts a total effect on both SFE and SAP through TTC with the former being somewhat weaker ($\beta = .130, p > .002$) than the latter SAP ($\beta = .266, p > .001$). These results will be discussed in the following section.

Discussion

In this study, we have been interested in student engagement and the teacher characteristics that seem to influence it. We drew on the ICCS study (Schulz et al. 2011) to explore the issue with data from over 1400 teachers in more than 100 Hong Kong secondary schools. Using a teacher self-report measure for student engagement, we identified a number of factors based on previous literature that we hypothesised might influence the way teacher saw their classrooms and their students. Using a number of analytic techniques, we tested the initial model and developed a final model that was a good fit to the data we were using. As a result, we have identified three key outcomes of this study:

1. The role of teacher engagement both outside and inside the school and its direct effect on the way teachers perceive what happens in their classrooms.
2. The mediating role of teachers' confidence in their teaching on the way teachers see their classrooms and also its direct effect.
3. New conceptualisations of teacher engagement and open classroom environments.

Each of these findings will be discussed and implications will be drawn for teacher policy and practice.

Teacher Engagement: A New Way to Consider Teacher Effects on Classrooms

A unique feature of this study is that it has looked outside classrooms to identify those aspects of teachers' professional lives that impact on how they see those classrooms. The empirical results have indicated that teachers themselves who are engaged in both the professional work of their schools as well as in their communities will be more inclined to describe their classrooms as places for student participation and where students themselves feel free to speak and also listen to others. Intuitively, these empirical results make sense – if teachers themselves understand the importance of engagement from their own experience, it seems they will be more likely to seek a similar kind of engagement for their students. That is, engaged teachers are more likely to support learning environments in which students can be engaged. Yet there are some limitations on this generalisation that need to be noted.

The effects of different kinds of engagement are not the same. Teachers' engagement in the community (TEC) exerts a moderate, positive and significant effect on both of the latent constructs - Teachers' Perceptions of Student Active Participation (SAP) and Teachers' Perceptions of Student Freedom and Respect for Open

Expression (SFE). Teachers' engagement in school (TES) exerted a similar effect on SAP but not on SFE where the direct effect is quite small ($\beta = .091$). TEC and TES appear to be measuring distinct constructs since the correlation between them is small ($r = .13$) so that they exert different effects should not be so surprising. Yet it is not clear why teachers who are engaged in their schools do not describe their classrooms as open environments where views can be exchanged, and different opinions can be valued. Perhaps the culture of schools is not so amenable to the value of open communication, and while teachers remain wholly within the school, it may not become a value. It seems that it takes engagement outside the school to help them appreciate the value of openness. If this is the case, it is an important finding that requires further research.

There are some important lessons here for school principals. Given their role as instructional leaders in their schools facilitating student learning, principals need to take into consideration issues of school governance since teacher engagement in their schools is essentially a matter of how a school is managed. Top-down command and control style of leadership will not nurture teachers who will create participative environments in their classrooms. Governance structures need to provide opportunities for teachers to be involved in their schools, to influence decision-making and to have a real voice not just for their class but for the school as a whole. Such an approach to leadership is quite consistent with a recent emphasis on distributed leadership demonstrating how the engagement of teachers in their schools working hand in hand with principals can secure the best student learning outcomes (Spillane et al. 2004). The results of this study endorse this participative approach to school governance.

There are also important lessons here for how teachers, and their employers, conceive of and develop their professional lives. It is generally accepted that teachers need to update their content knowledge, hone their pedagogical skills and enhance their classroom management skills as part of ongoing professional development. The results of this study, however, suggest a new dimension to teacher professional development that can best be summed up as community engagement. Teachers who experience engagement in community service organisations appear to be more likely to encourage similar engagement in classroom contexts. That is to say, teachers' experiential learning in a community role has spillover effects in the classroom. This is in line with research on social capital that has shown, while the socialisation effects of participation may be one aspect of membership in voluntary associations that there are also external effects that have an effect in 'the wider polity or society' (Wollebæk and Selle 2003). It also seems such engagement may have external effects in the professional lives of those who are engaged. If this is the case, it is a powerful reason for encouraging teachers' engagement in the community.

Teachers' Confidence in Their Teaching: How It Is Affected and What It in Turn Affects

Teachers' teaching confidence (TTC) exerted a moderate and significant effect on Teachers' Perceptions of Students' Freedom of and Respect for Open (SFE) ($\beta = .319, p > .002$) and a small but significant effect on Teachers' Perceptions of Student Active Participation (SAP) ($\beta = .149, p > .002$). As shown in Table 19.1, TTC acted as a mediating variable that enhanced the effect of both TEC and TES. Yet TTC did not work in the same way for SAP and SFE. The direct effects of both TES and TEC are stronger for SAP than SFE, controlling for TTC, and there are stronger indirect effects for SFE. This suggests that the mediating effect of TTC is partial for both variables but stronger for SFE than SAP.

Mediated models such as the one reported here are often difficult to interpret. Yet the significant role of TTC is clearly highlighted, and its potential to work differently for SAP and SFE is clear. Teachers who are very confident about their teaching are more likely to have classrooms where open communication is valued, and this is facilitated by both TEC and TES. On their own, TEC and TES are less likely to lead to these kinds of classrooms. One explanation for these results comes from the work of Hoy (2000) who reported correlations between a teaching confidence scale and other measures of teaching efficacy suggesting that confidence in teaching can be regarded as a measure of teaching efficacy. Scheerens (2010) summarised a range of literature all of which pointed to the importance of teachers' efficacy beliefs for enhancing students' achievement including cognitive and skill-based outcomes. In the current study, teacher confidence or sense of efficacy in using a range of interactive pedagogical strategies appears to be supportive of teachers in developing open and participative classrooms. Looked at another way, if managing teaching strategies is under control presenting no problems for teachers, then they are freer to focus on other aspects of the classroom environment.

This result has significant implications for the professional preparation of teachers and for school leaders. Hoy (2000) reported that preservice teachers experienced a drop in confidence once they entered schools. This suggests that preservice teacher education programmes need to work on this aspect of teacher development to ensure that that beginning teachers have the requisite knowledge and skills to enable them to remain confident as they take on the task of teaching. Developing confident professionals needs to become an important objective for teacher preparation programmes. Yet once teachers are in schools, leaders need to ensure that they maintain confidence in their professional roles and that they constantly upgrade their knowledge and skills in order to maintain that confidence. Schools can be dispiriting places at times, and it is easy to lose a sense of agency and mastery that is essential to remaining confident. Scheerens (2010, p.28) goes so far as to say that 'teachers' sense of self-efficacy can influence the learning and motivation of students, even if students are unmotivated or considered difficult'. This study suggests that this same sense can contribute to the development of engaging, interactive and open classrooms, and therefore every effort should be made to develop and maintain teachers' confidence in their professional skills.

Conceptualising Teacher Engagement and Open Classroom Environments

Teacher engagement has been shown in this study to be two unidimensional constructs with one focusing on school engagement and the other on community engagement. There is ample psychometric evidence in this study to name the distinction between the two latent constructs. In addition, each construct is connected to a large theoretical literature – school engagement to distributed leadership (Spillane 2006) and community engagement to the external effects of social capital activities (Wollebæk and Selle 2003). Teacher professionalism, therefore, must be viewed as multidimensional involving teachers both in and out of school as teacher leaders and as community leaders. This is consistent with Kennedy's (2005) view of teachers' 'civic professionalism' and Sachs's (2003) view of teachers as 'active professionals'. Such a view may seem to add to the burden of teachers, but as shown in the study reported here, such professionalism is more likely to influence classrooms than one which is passive and withdrawn. How this professionalism can be enacted is a matter for ongoing debate and discussion involving teachers, their employers and school leaders.

Another major finding of this study was the identification of two latent constructs that characterised student engagement – active participation and respect for open communication. These two constructs were identified in the course of model building, and they suggest a somewhat more nuanced view of the ways students can be engaged. Active participation is more about student decision-making, while respect for open communication is about dialogue and respecting the views of others. It is quite possible to see how classroom could be characterised by one and not the other of these constructs. Nevertheless, the literature has tended to focus on a single construct such as open classroom climate (Torney-Purta et al. 2001, p. 43) or the democratic climate of civic education classrooms (Mappiasse 2006). Participation is often the main focus of these instruments as it is in the SAP used in this study. In addition, however, this study has suggested that an added dimension is related to whether students feel free to express themselves and whether they listen to others. This dimension is sometimes covered by a single item in a unidimensional scale (e.g. see Torney-Purta et al. 2001, p. 28), but here we are suggesting it is distinct enough to be separated out. Clearly further psychometric work needs to be done to confirm this finding, but it represents an important step forward in examining the characteristics of open classrooms.

A great deal of work has been done in area of defining the characteristics of an open classroom environment with research instruments purporting to tap into the 'constructivist classroom' (Johnson and McClure 2004), the social environment in the classroom (Ryan and Patrick 2001), the 'democratic classroom' (Parsons 2002), etc. The research reported here complements this broader field and suggests that broader theoretical considerations as discussed above might lead to different ways of considering the key components of an open classroom. Based on the results reported here, it is not only an environment in which students participate but also

one where they feel free to put forward their own ideas and where they are willing to listen to the ideas of others. This suggests that participation is a necessary but not sufficient condition for a classroom to be regarded as open – more is required if students are to be engaged in meaningful exchanges both with their teachers and their peers.

While this study has produced a new model that seeks to explain how teachers might develop their classrooms along lines that can better engage students, it is the beginning of such work. By focussing on those constructs directly affecting teachers and that can be used in practice (i.e. teacher engagement in the community and teacher engagement in schools), the study has sought to provide actionable constructs for teachers, policymakers and school leaders. By including a personal construct such as teachers' teaching confidence, the study has highlighted the importance of agency and teacher beliefs that they can influence the way classrooms are organised and developed. In the following section, directions for future research will be discussed so that what has begun here might be further developed and enhanced.

Future Research

From a measurement perspective, there are several ways to extend this study. First, using plausible values rather than point estimates for all of the key variables in would improve the accuracy of the measures and help to reduce the effect of measurement error. Second, using multilevel modelling would recognise the nested nature of the data (teachers are nested in schools in this study) and produce more reliable variance estimates and in particular whether the effects identified in the study are attributable to individuals or schools. Third, classical test theory has been used to construct the model in this study, and it would be useful to test the constructs using Rasch analysis in order to enhance their validity and test their dimensionality using an alternative metric.

The methodology of future studies could be improved by adding a measure of the way students see the same classrooms. This is possible given the secondary data we have used especially if we regard the variables in the study as school-level variables. That is to say, while we cannot identify the actual classes that the respondents taught, we do have students' perception of their classrooms, and since we only have one classroom for each school, these can legitimately be regarded as school-level variables. Such a measure would provide a validity check on teachers' perceptions of their classrooms and confirm that what they describe is an accurate reflection of their practice.

Additional work is needed on the two unidimensional constructs that seek to capture to teacher engagement. They are important because unlike many studies, they are more behavioural in orientation than personal or affective. Engagement is an active process – it is about what teachers can do enhance their professional skills and knowledge. Engagement is also a process that can be facilitated by policymakers and school leaders. This means we do not have to rely on the personal character-

istics of teachers or their orientations to certain kinds of pedagogical styles. Of course, the study shows the importance of teacher efficacy about their teaching, but the interesting finding is how engagement and efficacy are related in a synergistic way. Engagement enhances efficacy, and efficacy feeds directly into more engaging classrooms as does engagement itself. But more needs to be known about these constructs in measurement terms and also in practical terms – how such engagement works out in the professional lives of teachers in specific school contexts. This represents a significant research agenda for the future.

Finally, this study has been conducted with a sample of Hong Kong teachers. How generalisable is the model that has been produced? What would it look like with other Asian societies, European teachers, Latin American teachers, etc.? The secondary database from which the Hong Kong data was taken provides the opportunity for such cross-national comparisons. These are important considering the importance of variations in context, culture and professional standards and requirements. There is no reason to believe that the models reflecting Hong Kong teachers' professional attitudes and orientations will have any validity outside of that unique context. Thus, further trusting in other contexts is needed.

Conclusion

This study has sought to show how teacher engagement and student engagement are related. It has done so by examining how different kinds of teacher engagement affect the way teachers describe their classrooms, based on the assumption that what they are describing are their own specific work contexts. Teacher engagement of different kinds turns out to be a powerful construct influencing the way teachers see their classrooms and also influencing confidence in their teaching. Engaged who are confident about their teaching and are likely to create learning opportunities for their students that have the potential to engage them. Engaged teachers means engaged students.

It is now recognised that high-quality teachers are needed to support high-quality learning outcomes for students. The results of this study suggest that at least one aspect of teacher quality is related to their engagement in school and in the community. Such engagement can also support the development of teachers' self-confidence. Further studies on teacher engagement are well worth pursuing since they speak to teacher agency and influence in respect to teachers' core task of promoting student learning. It is hoped that the study reported here has provided the basis for new research that can enhance both teachers' professional roles as well as the learning of their students.

References

- Assor, A., Kaplan, H., & Roth, G. (2002). Choice is good, but relevance is excellent: autonomy-enhancing and suppressing teacher behaviours predicting students' engagement in schoolwork. *British Journal of Educational Psychology*, *72*, 261–278.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, *44*(9), 1175–1184.
- Brown, T. (2006). *Confirmatory factor analysis for applied research*. New York: The Guilford Press.
- Byrne, B. M. (2009). *Structural equation modeling with AMOS – Basic concepts, applications, and programming* (2nd ed.). London: Routledge.
- Child, D. (1990). *The essentials of factor analysis* (2nd ed.). London: Cassel Educational Limited.
- Dolezal, S. E., Welsh, L. M., Pressley, M., & Vincent, M. M. (2003). How nine third-grade teachers motivate student academic engagement. *Elementary School Journal*, *103*(3), 239–267.
- Hoy, A. (2000, April 28). *Changes in teacher efficacy during the early years of teaching*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.
- Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*(1), 1–55.
- Hughes, J., & Kwok, O. M. (2007). Influence of student-teacher and parent-teacher relationships on lower achieving readers' engagement and achievement in the primary grades. *Journal of Educational Psychology*, *99*(1), 39–51.
- Hughes, J. N., Luo, W., Kwok, O. M., & Loyd, L. K. (2008). Teacher-student support, effortful engagement, and achievement: A 3-year longitudinal study. *Journal of Educational Psychology*, *100*(1), 1–14.
- Johnson, B., & McClure, R. (2004). Validity and reliability of a shortened, revised version of the constructivist environment survey (CLES). *Learning Environments Research*, *7*, 65–80.
- Kennedy, K. (2005). Rethinking teachers' professional responsibilities: Towards a civic professionalism. *International Journal of Citizenship for Teacher Education*, *1*(1), 3–15.
- Lo, J., & Hyland, F. (2007). Enhancing students' engagement and motivation in writing: The case of primary students in Hong Kong. *Journal of Second Language Writing*, *16*, 219–237.
- Mahoney, G., & Wheedon, C. (1999). The effect of teacher style on interactive engagement of preschool-aged children with special learning needs. *Early Childhood Research Quarterly*, *14*(1), 51–68.
- Mappiasse, S. (2006). Developing and validating instruments for measuring democratic climate of the civic education classroom and student engagement in North Sulawesi, Indonesia. *International Education Journal*, *7*(4), 580–597.
- Parsons, E. (2002). Using comparisons of multi-age learning environments to understand two teachers' democratic aims. *Learning Environments Research*, *5*, 185–202.
- Reeve, J., Jang, H., Carrell, D., Jeon, S., & Barch, J. (2004). Enhancing students' engagement by increasing teachers' autonomy support. *Motivation and Emotion*, *28*(2), 147–169.
- Ryan, A., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal*, *38*(2), 437–460.
- Sachs, J. (2003). *The activist teaching profession*. Buckingham: Open University Press.
- Scheerens, J. (2010). Teachers' professional development: Europe in international comparison. In *An analysis of teachers' professional development based on the OECD's Teaching and Learning International Survey (TALIS), a secondary analysis based on the TALIS dataset*. Luxembourg: Office for Official Publications of the European Union.
- Schulz W., Ainley J., & Fraillon J. (2011). *ICCS 2009 Technical Report*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).
- Spillane, J. (2006). *Distributed leadership*. San Francisco: Jossey-Bass.

- Spillane, J., Halverson, R., & Diamond, J. (2004). Towards a theory of leadership practice: A distributed practice. *Journal of Curriculum Studies*, 36(1), 3–34.
- Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty eight countries: Civic knowledge and engagement at age fourteen*. Amsterdam: IEA.
- Tsui, K. T., & Kennedy, K. (2009). Evaluating Chinese teacher sense of efficacy scale (C-TSE): Translation adequacy and factor structure. *Asia Pacific Educational Researcher*, 18(2), 245–260.
- Wollebæk, D., & Selle, P. (2003). Participation and social capital formation: Norway in a comparative perspective. *Scandinavian Political Studies*, 26(1), m67–m91.
- Wong, K. L., & Zhu, J. X. (2013, September 2). *Predictors of students' participation in class activity: The teachers' perspective -two steps analysis using Mplus*. Presentation made at the Civic Education and Measurement Research Group, The Education University of Hong Kong.
- Zhang, D., Wehmeyer, M., & Chen, L. (2005). Parent and teacher engagement in fostering the self-determination of students with disabilities – A comparison between the United States and the Republic of China. *Remedial and Special Education*, 26(1), 55–64.

Chapter 20

Life in a Trilingual School: Perspective from Inner Mongolia

Yi Yayuan and Bob Adamson

Abstract Multilingualism is a growing trend around the world as local languages are complemented by national, regional and international languages in education systems as policy makers respond to the forces and impacts of globalization. This chapter explores the implementation of trilingual education in a primary school in the Inner Mongolian Autonomous Region in the People's Republic of China (PRC). The school aims to maintain the linguistic and cultural heritage of the Mongolians—one of the 55 officially recognized ethnic minorities in the PRC—while also preparing the students to participate in the social, economic and political activities of the country through strong propagation of standard Chinese. The third language is English, viewed by policy makers as an important tool to enable the PRC to play a prominent role in international affairs. We investigate the implementation of the policy within the context of major societal change, drawing on classroom observations, interviews and analysis of curriculum documents to capture a snapshot of how the school navigates often conflicting policy streams and social, political and economic forces. We distinguish the relevant status and roles ascribed to Mongolian, Chinese and English in pedagogical processes and look at some of the learning outcomes. The chapter concludes with a discussion of the facilitators and challenges for the sustainability of trilingual education in such environments.

Keywords Trilingual education • China • Mongolian • Chinese • English • Inner Mongolian Autonomous Region • Language policy • Language education

The research into trilingual education in the Inner Mongolia Autonomous Region reported in this chapter was funded by the Research Grants Council of Hong Kong (General Research Fund 840,012). Views expressed are those of the authors.

Y. Yayuan (✉) • B. Adamson

Department of International Education and Lifelong Learning, The Education University of Hong Kong, 10 Lo Ping Road, Tai Po, New Territories, 852 Hong Kong, SAR China
e-mail: [yyi@eduhk.hk](mailto:yayi@eduhk.hk); badamson@eduhk.hk

Introduction

Trilingual education is a growing and challenging phenomenon around the world. The forces of globalization encourage the learning of English as an international lingua franca, while many schools also teach a local and national language. This is the case in ethnic minority areas of China, where there are 56 officially recognized ethnic groups, including the majority Han Chinese. The 55 minority groups are very diverse in history, culture, language and assimilation into the mainstream society (Adamson and Feng 2009). Numbering some 113.79 million (National Bureau of Statistics of China 2011), many minority people live in the 155 designated ethnic regions, which are located to the southwest, west, northwest, north and northeast of China.

The relationship between the central government, which is Han Chinese dominated, and the ethnic minority regions, many of which have been granted a degree of autonomy, has varied over time, as both state and local policies have swung between coercive assimilation and promotion of diversity (Lam 2005; Adamson and Feng 2009). The national drive towards economic modernization in the past 30 years or so and the exploitation of the natural resources in the minority regions have exacerbated tensions arising from growing inequity of standard of living and a sense of external intrusion and imposition of mainstream language and culture. Chinese is propagated as “the language of power and access to economic well-being” (Tsong and Cruickshank 2009, p. 550), whereas minority languages are generally perceived to be “limited in use and of low social status” (Lin 1997, p. 196). English, which is important for academic and professional advancement (Adamson 2004), is also currently expected to be taught in schools from Primary 3, even though many schools in ethnic minority regions are ill equipped to teach the language.

In responding to the challenges of providing trilingual education during times of major societal changes and shifts in linguistic priorities, schools have adopted a variety of strategies that can be broadly categorized into four models (Adamson and Feng 2014). The first model, the accretive model, is relatively rare. It focuses strongly on the ethnic minority language and tends to be seen in minority-dominated contexts. Typically, the 9 years of compulsory education from Grade 1 in primary schools to Grade 3 in junior secondary schools is provided through the medium of the minority language. Chinese could be used as the medium of instruction for certain school subjects in late primary and secondary years. Chinese and English are taught as subjects in the curriculum. This model is intended to produce competent trilinguals. The second model, the balanced model, offers parallel tracks for Chinese and the minority language in terms of the medium of instruction. The model allows students to learn through their mother tongue (according to their ethnicity), while the other languages are learnt as subjects. The model occurs in contexts where minority and Han students are roughly equal in number. The third model, the transitional model, exists in two different forms. The first form is the reverse of the first model, that is, Chinese is used as the primary medium instruction and the major ethnic minority language is taught as a subject to all students in the school,

irrespective of their own ethnicity or mother tongue. The second form is found in many remote village schools in which one minority group dominates. In these schools, the minority language is used as the medium of instruction for the first 2–3 years with Chinese taught as a major school subject. Starting from Grade 3 or Grade 4, all school subjects are taught in Chinese, in preparation for a transition to Chinese-medium secondary education. In both variations of this model, English is taught as a school subject, with Chinese being used when necessary in those lessons. A fourth model, the depreciative model, is represented by schools that proclaim to be an ethnic minority language school but, in reality, do not use the minority language as the medium of instruction nor even teach it as school subject. Such schools also claimed to be bilingual, in the sense that Chinese and English are studied as languages in the curriculum and Chinese serves as the medium of instruction.

The study has a particular focus on life in the classroom in a primary school in a town in the Inner Mongolian Autonomous Region (IMAR) in northern central China. The school is the oldest Mongolian primary school in the IMAR and is famous as a bastion of the Mongolian language and culture. It offers a curriculum that corresponds to the accretive model of trilingual education in that all three languages are positively promoted in a symbiotic manner. The purpose of the chapter is to portray the grassroots reality of this ethnic minority school as it seeks to meet the challenges of trilingual education in an affirmative manner. The rationale underpinning the approaches adopted in this chapter is to acknowledge “the importance of understanding the local context in order to comprehend the processes and outcomes of learning, teaching and schooling” (Hargreaves et al. 2009).

Context of the School

The school is situated 150 kilometres from Baotou in the IMAR. Baotou is an important industrial city, being a major centre of production of rare earth metals. It lies in the west of Inner Mongolia, at the junction of two economic zones: the Bohai Economic Rim and the Upper Yellow River Natural Resources Enrichment Zone. Its administrative area borders the country of Mongolia to the north. The municipality of Baotou has a population of approximately 1.78 million, rising over 2.65 million when the counties under its jurisdiction are included. There are 43 ethnic groups in the city, with three dominant groups—Mongolians, Hui and Manchu. However these groups are dwarfed by the Han presence, which according to the 2010 census (National Bureau of Statistics of China 2011) make up 94.16% of the population. In comparison, only 2.98% are Mongolian. The town in which the school is located has a population of some 17,000 Mongolians and 120,000 Han.

These figures, which reflect the magnet effect of the towns and cities in the IMAR for external companies attracted by the natural resources of the region and for the Mongolians deracinated by the mining industry taking over their homelands, have negative implications for the sustainability of the Mongolian language. The closeness of Mongolia offers a lifeline, although that country uses a Cyrillic alphabet

while the IMAR uses the traditional Mongolian script. Nonetheless, while Mongolian families and communities may communicate in Mongolian, much of daily life in the town is conducted in Chinese. Official government documents and street signs are bilingual, but Chinese is the main language of commerce, mass media and social media. Students from the school say they experience prejudice if they use Mongolian, so they become accustomed to speaking in Chinese outside of the school:

Of course I would use Chinese outside of school. If I speak Mongolian, I can sense a kind of discrimination from the shopkeepers or waiters as if I were from a remote area, stupid or poor. (Primary 5 student, our translation from Mongolian)

As one teacher commented:

The environment has changed. It is impossible to go back to what it used to be like. Nowadays, rural people are not allowed to make a living in rural areas. Nomadic living has been banned by [government] policy. This is not the kind of living environment we used to have. If we want to communicate with each other, we send an SMS in Chinese. Even if we wanted to send it in Mongolian, there is no software to support it. ... If we had the pastoral life like we used to have, if the children could live in a pastoral setting, it would facilitate learning Mongolian. But the nomadic pastoral life is banned. All the villagers have left the grasslands, moved to towns and settled there. (Teacher 1, our translation from Mongolian)

The school was founded in 1974. It used to serve a nomadic area on the border with Mongolia until 1998, when it merged with a local primary school and became the only ethnic Mongolian primary school in the county. With newly built facilities and significant investment in resources, the school provides 9 years' primary and junior secondary schooling in line with the national policy on compulsory education. There are 576 students, 12 primary classrooms and 71 teachers in the primary school, all of them Mongolian. Over 90% of teachers hold bachelor degrees.

Despite (and maybe because of) the various social upheavals, the school maintains a relatively strong status in the local community. It plays a major role in preparations for the annual Mongolian cultural events staged in the town, as teachers instruct students in Mongol dance and traditional instruments. Every morning, the students gather in the playground and perform the traditional Andai Dance for 20 min, as a form of physical exercise. The school's extracurricular activities include lessons in Mongolian archery, boxing, traditional folk dance, chess, folk painting and horse-headed fiddle. Mongolian culture is clearly visible throughout the school, with a large sculpture and carvings decorating the centre of the playground and a picture of Genghis Khan on the top of the blackboard in classrooms. There are many posters of Mongolian proverbs, poems and pictures of traditional games and religion in the corridors. The school gate incorporates a sculpture of the ancient masterpiece, "The Secret History of the Mongols". At the same time, given the school's location near to the border with Mongolia, there are many posters depicting the Chinese army and Communist Party slogans encouraging patriotic awareness, cooperative citizenship and military pride. Meanwhile, some boards display notices in English, including proverbs and epigrams.

Table 20.1 Extract from Mongolian language lesson

<i>T:Oloong geser yu bal. no?</i>
If we read “Oloong” then what is it?
<i>S:Oloong Ubes.</i>
Dense grass.
<i>T:Oloong ubes geser yu gi yarj bain?</i>
What does it mean if one says “Oloong ubes”?
<i>S:Undur Ubes.</i>
Tall plant.
<i>T:Undur, dedur bubbles.</i>
Tall grass.
<i>Heqinen jil mal adgus iidee ugui unduur ubes ih Oloong Ubes gej bain, munu, Bixi yu?</i>
Grass that’s been there for many years and has not been eaten by animals, right? Yes or no?

The School Curriculum

The school offers languages, mathematics, science, music, art, PE and handicraft subjects. The design of the curriculum is based on national educational and assessment policies. This creates a tension between the aims of the school to foster the learning of the Mongolian language and culture and to enable students to achieve academic success:

Chinese is treated as a main subject, even though it is foreign language... The school emphasizes the equal importance of learning English, Chinese and Mongolian because of the requirements of the national entrance examination. (Teacher 2, our translation from Mongolian)

The time allocated to the three languages and Mongolian culture is shown in Table 20.1. As a recent innovation, Chinese and English are introduced to the curriculum from Grade 2, having previously been offered from Grade 3. The number of Chinese lessons has also been increased, above the level set out in the national curriculum. This change has impacted negatively on Mongolian:

The introduction of Chinese was moved from Grade 3 to Grade 2 because the school wanted to improve students’ Chinese ability. But since the change, their Chinese has improved and their Mongolian has suffered from concussion. (Teacher 1, our translation from Mongolian)

A later development is a Chinese lesson for Grade 1 students:

The Chinese reading class in Grade 1 aims to prepare students to learn Chinese. The school is worried that if we simply follow the national curriculum for Chinese, students may have difficulties coping with it because they were taught in Mongolian in pre-school. (Teacher 2, our translation from Mongolian)

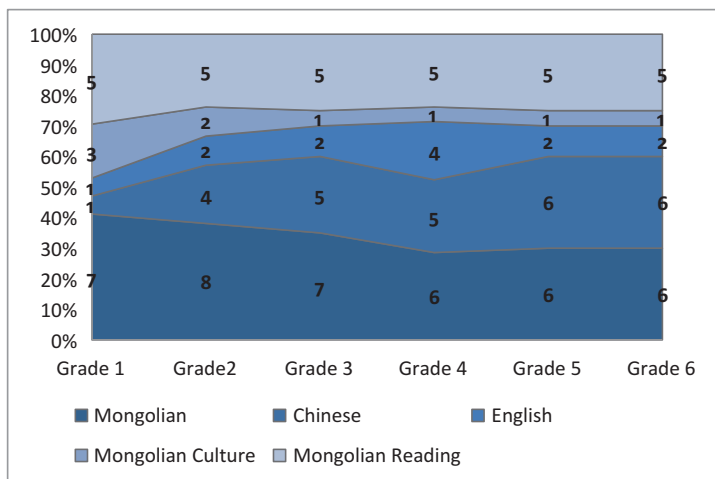


Fig. 20.1 Distribution of language subjects in the curriculum

Likewise, a preparatory lesson in English was added to Grade 1, to make use of a space in the timetable:

English lessons in Grade 1 and Grade 2 were all added to the curriculum by our school because there are not many subjects in those grades. There is one English lesson in Grade 1—just a communication lesson. We only teach little things to the students, such as “Hello” or English songs to let them form a sense of English. There are no textbooks; we teach them ourselves. (Teacher 3, our translation from Mongolian)

Figure 20.1 shows that the time allocation for Mongolian declines from a peak in Grade 2, while the allocation for Chinese increases. English becomes more prominent in Grade 4, after the students have had time master the basics in Mongolian and Chinese. The progression represents a developmental approach to the accretion of the three languages: the focus is on the students’ first language in the early years before it shifts to the second language and the third language is gradually introduced at a later stage.

The contents of the Mongolian language textbooks are closely related to the IMAR environment, with folktales, descriptions of the life of herdsmen, the seasons and natural scenery, introductions to the architecture of Mongolian yurts and cuisine and passages drawn from ancient books such as “The Secret History of the Mongols”. Chinese textbooks are standard volumes edited and written and published by the Educational Bureau in the IMAR. The textbooks for Chinese are bilingual, with Mongolian, and are pitched at a lower standard than the mainstream national textbooks to make allowances for the fact that Chinese is a second language for the Mongolian students.

The English resources, “Pan Deng English”, are produced in English and Chinese. They are based on the National English Standards curriculum published by the Ministry of Education and were produced through a cooperative project between

the local government and a university in Beijing to facilitate English teaching in schools. Teachers and students' feedback shows that these textbooks and associated multimedia are well received by students and teachers in the school:

Pan Deng English is pretty good. Every day we show [the students] short cartoons. It is all videos, in order to nurture interest in learning English. (Teacher 3, our translation from Mongolian)

Classroom Interactions

Our lesson observations revealed that Mongolian was the medium of instruction across the curriculum from Grade 1 to Grade 6, including Chinese and English classes. Teachers tended to use Mongolian to elaborate on learning points, to ask challenging questions and to translate issues when the students were confused.

An interesting facet of the Mongolian classroom discourse is the links made to Mongolian history, geography, morality, religion, folk tales and songs and values. Some examples of this phenomenon, found in a Mongolian language lesson, are shown in Table 20.1.

The reference to the grasslands reflects its integral role in the life of the Mongolian people:

Mongolian has a vocabulary of over 2 million words. The culture is rooted in the grasslands and the rural areas. Many words, proverbs, fables, idioms, allusions and folk stories are about prairie lifestyle, such as the law of nature and importance of keeping an ecological balance. The grasslands are Mongolian, Mongolian is the grasslands. Once the natural environment that carries the rich and complex ecology of Mongolian culture starts to fade away, Mongolian culture will be under severe threat. (Teacher 4, our translation from Mongolian)

Another Mongolian class included a traditional role play game ("Declaration of War") that dates back over 800 years. In the game, the players take on the roles of a meerkat and a wolf. The wolf is starving and sees the meerkat on a cold winter's day and decides to eat him. To gain the confidence of the meerkat, the crafty wolf pretends to be friendly by asking, "What are you waiting for?" The meerkat answers, "I am waiting for you Mr. Wolf, Mr. Wolf!" The wolf then asks, "Why are you waiting for me?" to which the meerkat responds, "I am lighting a fire of dried branches. Would you like to come nearer to get warm?" In the end, the meerkat turns the tables on the wolf and kills him through cunning, despite the odds.

Table 20.2 shows the class is a combination of entertainment, education, Mongolian traditions and war strategy, mixed with references to the modern ecological status of the IMAR. The students' reactions are very inquisitive and engaging. Their attention is swiftly and quickly drawn to focus the main learning points of the lesson, namely, understanding the law of the jungle, as well as cherishing the environment and the land they are living on. In addition to teaching specific grammatical items, this class stimulates the students' awareness of the need for ecological protection and arouses their awareness of the current situation through the entertaining traditional game.

Table 20.2 Extract from Mongolian language lesson

<i>T: Maneh ulamjlalte saihan toglam of nig. Maneh undusten ne udum a san ulamjlaj abqirsan nadam toglam.</i>
This game is one of our traditional and beautiful games. It was passed down from our ancestors in the form of a game.
<i>“Choon balod Haruu”</i>
<i>“Wolf and Meerkat”</i>
<i>Ja, Ujed Aba. Bi Choon boli, tanus Haruu bol a. Haruu gin yarih ugih tanus yar a, Choon nin yarih ugih bi yari.</i>
All right, have a look at the book. I play a wolf, you guys play a meerkat. You guys read what the meerkat says and I will read out what the wolf says.
<i>T: Yagu hulej baihi?</i>
What are you waiting for?
<i>S: Chon guai. Chon Guai. Temeh!</i>
Mr. Wolf, Mr. Wolf, that's it!

Table 20.3 Extract from Chinese lesson

<i>T: 今天我们学“的”，“地”，“得”的用法的区别。谁能告诉我这三个字的用法有什么区别？</i>
Today we are going to learn how to use “ <i>de</i> ”, “ <i>di</i> ” and “ <i>de</i> ”. Who can tell me the difference between these three words?
<i>S: (安静) silent.</i>
<i>T: 这个的用在什么词前？ Where can we put this word?</i>
<i>S: 名词。 [before a] Noun.</i>
<i>T: 那好，谁能告诉我什么的桥？ Then, who can tell me what kind of building?</i>
<i>S: 长长的。 A long one.</i>
<i>T: 对。 Correct.</i>
<i>S: 高高的桥。 A tall building.</i>
<i>T: 嗯好。 Ok.</i>
<i>T: 什么的书？ What kind of book?</i>
<i>S: 崭新的书。 A new book.</i>

Table 20.3 is an extract from a Chinese lesson focusing on grammar. Chinese classes were, to a large extent, textbook oriented, formal and didactic in nature, in contrast to the text-independent, informal and mutual knowledge-building that was characteristic of Mongolian lessons. The lessons mainly focused on helping the students to master *pinyin* (the romanized form of Chinese); enlarge their range of Chinese vocabulary; learn linguistic elements such as metaphor, simile, antonym, sentence structures and parsing; and understand and summarize the main ideas of a reading passage. They were largely taught through the medium of Chinese, with very occasional use of Mongolian for clarification.

Chinese writing lessons were concerned with the memorizing and accurate reproduction of Chinese characters and using them to write short passages describing a picture or expressing an opinion. Teachers of Chinese explained that greater exposure to Chinese was helping the students to learn the language, but barriers still remained:

Table 20.4 Extract from English lesson

T: Ok, now. I (will) continue to ask some questions. Ok?
How many, how many donkeys, how many donkeys on the farm?
What's mean? Ok? "How many"...
S: (Silent...) <i>Hedui?</i> (Mongolian for "how many")
T: What's mean "how many"?
S: <i>Hedui...</i>
T: Donkeys, how many donkeys on the farm?
Do you know "on the farm"?
"On the farm"? What's mean "on the farm"?
S: <i>Tarian dotur hedui eljig tai?</i> (How many donkeys on the farm?)

Nowadays, Mongolian students start to learn Chinese pinyin from pre-school, so compared with the past it is much easier to teach them now. But students are still too young, so there are difficulties in teaching them from Grade 2. Sometimes we resort to Mongolian to explain things to them. Their speaking skills are much better than their writing skills. They also do not check their work carefully after writing a draft. (Teacher 1, our translation from Mongolian)

In English lessons, it was observed that the teacher code-switched between Mongolian and Chinese and Mongolian and English. This did not seem to be a problem for the students, who switched from Mongolian to Chinese, Mongolian to English and Chinese to English with apparent ease. The lessons were teacher led; students were rarely seen to raise queries or make contributions other than responses to the teacher's questions about vocabulary and comprehension of textbook contents. Analysis of English classroom discourse shows that the teacher talk occupied approximately 81% of the classroom instruction. Among the total of 82 questions, teacher initiated 80 questions, and only two questions are raised by students.

Table 20.4 shows an excerpt from an English class in Grade 5. Here, the teacher encourages students to answer by repeating questions and key words. When focusing on "how many?", the teacher not only repeated the phrase several times, but she also pointed at pictures on the board of farm animals drawn by students themselves. She first gets the students to supply the translation of "how many" in Mongolian. Later, she asked them to supply the Chinese translation before she consolidated understanding by explaining the meaning in Mongolian. The communication pattern throughout was predominantly a teacher-centred question-answer-feedback interaction during which knowledge was displayed and evaluated.

In general, the teachers believed that the students could cope well in learning English as a third language:

Compared with rural schools, English in this school has improved a lot. Mongolian students in this school can understand the teacher even if the teacher only speaks in English. Grade 1 students can understand, Grade 6 students can understand too. (Teacher 1, our translation from Mongolian)

Learning Outcomes

Formal assessment is carried out at different levels, within the school, within the county and within the jurisdiction of Baotou educational authorities. The performance of the students from the school has been extremely impressive. In Mongolian, the students have often achieved the highest marks in county and city examinations across the four main skills areas of reading, writing, speaking and listening. In the other cultural subjects that are taught in Mongolian, such as nature, arts and music, students' examination results have also often ranked the highest. In informal evaluations, such as participation in festivals and competitions in storytelling, composition, speech-giving, reading competition, boxing and other traditional sports favored by the Mongolian people, students in this school all achieved very good results.

The results for Chinese are not as good, generally speaking, as those achieved by Han students in the city, where Chinese is used as the medium of instruction across the curriculum and the students encounter the language more frequently in their daily life, but the school's results are not poor:

The examination results for Chinese Language are not as good as results for the schools in the city. However the gap is not huge. (Teacher 1, our translation from Mongolian)

Similarly, the examination performance by students from this school in English is not as strong as those of counterparts in more urban settings, possibly because the relative affluence of city dwellers allows them to access tutorial services and other resources. Nonetheless, some students from the school have excelled in events such as English speech competitions that are informal indicators of performance. Teachers attribute the success to the students' motivation and learning strategies:

Students are more interested in learning English than learning the other subjects. English is not taught every day, unlike the other subjects such as Mongolian, which has classes daily. Plus it is simple: if students can memorize the reading passages from the textbook and the vocabulary items, they can get quite a high score in the examinations. (Teacher 5, our translation from the Mongolian)

The same teacher argued with confidence that the students from the school would soon surpass Han students in mainstream schools in English:

Our students' English examination results are almost as good as those of the Han students in this county. Not better than them, but not lower overall than their results either. We have not compared our results with schools in the city or the other places in the IMAR. But we only started to emphasize English learning in the past two years. Now the trend is that we are getting better than Han Chinese students in English, Maybe in the future we would be better than the other schools in the IMAR. (Teacher 5, our translation from the Mongolian)

The longer-term prospects for the students to sustain their emergent trilingual competence give less cause for optimism. Although the students from the school are mastering different languages and the attention given to Mongolian strengthens their own sense of ethnic identity, they come under social pressure and competition to concentrate on Chinese as the national language and English as a global language. The education system and job market both prioritize competence in these two languages, which weakens the viability of Mongolian. Hence, even though some Mongolian students have the opportunity to further their studies of and through Mongolian in high school and even in tertiary education, the social capital attached to the language is much smaller than Chinese or even English.

Some teachers have not only shown concern about Mongolian's future but also showed concern that there was a marked decline in young Mongolian competence in their mother tongue, due to the changes in the economic and sociolinguistic environment:

I do not know what will happen in the future—maybe in 10 years' time, Chinese will become a global language. (Laughs) But Mongolian students must learn Mongolian. It is their mother tongue. If we Mongolians begin to think that learning Mongolian is not necessary...then no one would speak the language, I mean, nowadays, students' Mongolian ability is already lower compared with students in the past. Their speaking ability, Mongolian comprehension skills and other aspects are lower. What if slowly we are assimilated by the Han? (Teacher 5, our translation from the Mongolian)

One important factor that is affecting the sustainability of Mongolian is the local policy of banning nomads from the countryside. With many Mongolians now living in towns, the chances for students to experience and witness Mongolian traditional customs such as the worship of Obboo, Shang Shen Mod (an old willow tree), Tengir (God) and the God of Fire, Mongolian Nadam (a sports event), the Mongolian New Year Festival, Mongolian weddings, the memorial celebrations of Genghis Khan and other cultural phenomena have become slim or nonexistent. All these activities and traditions and customs form the soul and heart of Mongolian philosophy and values, so their loss is a major blow to the Mongolian language and culture:

Nowadays, if we want to see something about Mongolian culture or history, we have to go to the museum. How many students in our school have seen a camel? Camels have almost completely disappeared. There were so many wild camels, cows, sheep, and horses on the grasslands in the past. When I was young, I used to ride a horse, watch over sheep and take care of various animals for my family. But now the government has built immigration areas and people are banned from living a nomadic life in the countryside. (Teacher 6, our translation from Mongolian)

In addition to Mongolian, teachers also expressed doubts at the prospects for the students to sustain their ability in English:

Mongolian will not be lost, as they have learnt it from primary school. They can speak Mongolian, although they might not be able to write in Mongolian; at least they will speak the language. English does not have a supportive environment...In the future English will not be used. (Teacher 5, our translation from Mongolian)

Discussion and Conclusions

The data gathered in the classroom and discourse analysis from lesson observations clearly indicate that Mongolian language and cultural subjects benefit the most from the curriculum design and implementation processes in the school. Mongolian forms the backbone of the students' experience, supported by the strong Mongolian cultural and linguistic vitality in the school. However, the broader context reveals major challenges if strong trilingualism is to be attained and sustained. It is clear that even in the curriculum in this school, Mongolian slowly gives way to Chinese as the students prepare to enter secondary school. Meanwhile English remains as a major academic subject but lacks ethnolinguistic vitality resources to sustain it. It is clear that Chinese will become dominant in the lives of the students.

The pressures of rapid economic development mean that Mongolian has become and will remain a marginalized minority language, and the pace of marginalization is accelerating. Even a Mongolian-oriented Model 1 school such as the one described in this chapter subtly reflects this reality in the curriculum. The minority language education policies, schools' names or even school buildings and decoration may look very beautiful on the surface, but beneath all of these beautiful images, there is a process of assimilation into the mainstream Han majority. There are national policies promoting the national language, and key schooling events, such as the high-stakes university entrance test, concentrate hearts and minds on proficiency in Chinese. Economic modernization is replacing the nomadic way of life that supported Mongolian was a more cosmopolitan lifestyle that leaves schools such as the one described in this chapter as an island of Mongolian in an ever-encroaching sea of Chinese.

Drawing on the positive lessons of this school, an important strategy to develop good trilingual students is first to nurture pride in their Mongolian identity, but not in an isolationist sense. The students should be encouraged to become proud trilingual Mongolians who are academically strong and professionally competent. They should be able to spread knowledge of Mongolian culture and traditions, history and values in and through all three languages while, at the same time, perceiving no major contradiction between their Mongolian identity and Chinese citizenship. Key factors in achieving this goal are coordinated and coherent policies supporting strong models of trilingual education, community support, high-quality bilingual and trilingual teachers, professional development and appropriate teaching resources.

From the perspective of a teacher of Mongolian, all is not yet lost:

Based on my observations, the Mongolian language is not becoming extinct that fast. But yes, Chinese has become the most widely used language, even worldwide. I assume that in the future the global language will be Chinese. But if each and every Mongolian really dedicates themselves to sustaining our culture, and put all their strength into protecting our language and culture, Mongolian will not die out. (Teacher 4, our translation from Mongolian)

References

- Adamson, B. (2004). *China's English: A history of English in Chinese education*. Hong Kong: Hong Kong University Press.
- Adamson, B., & Feng, A. (2009). A comparison of trilingual education policies for ethnic minorities in China. *Compare*, 39(3), 321–333.
- Adamson, B., & Feng, A. (2014). Models for trilingual education in the People's Republic of China. In D. Gorter, V. Zenotz, & J. Cenoz (Eds.), *Minority languages and multilingual education: Bridging the local and the global* (pp. 29–44). Dordrecht: Springer.
- Hargreaves, L., Kvalsund, R., & Galton, M. (2009). Reviews of research on rural schools and their communities in British and Nordic countries: Analytical perspectives and cultural meaning. *International Journal of Educational Research*, 48(2), 80–88.
- Lam, A. S. L. (2005). *Language education in China: Policy and experience from 1949*. Hong Kong: Hong Kong University Press.
- Lin, J. (1997). Policies and practices of bilingual education for the minorities in China. *Journal of Multilingual and Multicultural Development*, 18(3), 193–205.
- National Bureau of Statistics of China. (2011). *Tabulation on the 2010 population census of the People's Republic of China*. Retrieved November 5, 2013, from <http://www.stats.gov.cn/english/statisticaldata/censusdata/rkpc2010/indexce.htm>
- Tsung, L., & Cruickshank, K. (2009). Mother tongue and bilingual education in China. *International Journal of Bilingual Education and Bilingualism*, 12(2), 549–563.

Chapter 21

Understanding Traditional Classroom Culture and Student Behaviour: The Know-How of Being a Foreign Teacher in Hong Kong

Ho-Kong Christopher Au-Yeung

Abstract In this chapter, the author, educated and trained in the UK, shares his experience of teaching first language Chinese students in Hong Kong. There is little doubt that there are many talented students in Hong Kong, who are industrious and are driven towards their work. However, at the same time, students from local Hong Kong schools may also appear as quiet and introverted compared with their Western counterparts, and they tend to keep themselves to themselves. Although not unique to Hong Kong, it is not uncommon for a teacher to meet with total silence when raising a question or inviting comments in Hong Kong classrooms. However, this does not necessarily mean students are mentally disengaged but, rather, just being reluctant to speak out. Hence, the question is, why do Hong Kong students appear to be shy? Silence may not be golden in a classroom environment nowadays, where enquiry-based learning is becoming more accepted in Hong Kong international schools. Whereas, Hong Kong students from local schools are still being bounded by traditional Chinese classroom culture, in which the teacher would do most of the talking, while the students maintain their attentive nature and intensive learning required of them. This is further exacerbated by the lack of confidence some students have in their use of English. Foreign teachers wishing to teach in Hong Kong need to adapt their Western teaching model and have an appreciation of the differences of language structure and cultural backgrounds.

Keywords Hong Kong • Native English teacher • Foreign teacher • TEFL • Chinese classroom culture

H.-K. Christopher Au-Yeung (✉)
General Education Office, The Education University of Hong Kong,
10 Lo Ping Road, Tai Po, New Territories, 852 Hong Kong, SAR China
e-mail: cauyeung@eduhk.hk

Introduction

Being a former British colony for over a century since 1842, Hong Kong is a place in Asia where “East meets West”, reflecting on the cultural mix of the territory’s traditional Chinese roots with influences from its colonial past. In the beginning, Hong Kong’s education system was introduced by the British based on their own model (Tse et al. 2007). However, changes had been gradually introduced in the post-colonial era, such as replacing the Hong Kong Advanced Level Examination (HKALE) with the Hong Kong Diploma of Secondary Education (DSE) (HKEAA 2013). English has undoubtedly long played an important role in Hong Kong and enjoyed a high status in society. Despite the handover in 1997 and the influence of China in Hong Kong, which has gradually made the national language of China, Putonghua, more important nowadays, English still enjoys a premier status in Hong Kong. Unlike some Asian countries, standard English is frequently heard all over Hong Kong, and road signs, government buildings and most of the public transports are all bilingual with English translations. As a co-official language with Chinese, all legal and government documents are also available in English. Civil service positions of degree or professional grades require the applicant to possess both Chinese and English proficiencies, and these are tested by the Common Recruitment Examinations (CRE) (CSB 2012). Depending on the position, applicants are expected to have already achieved a certain level in the CRE prior to their applications (CSB 2013). English is seen as a key to success, and the government has been actively promoting English language proficiency in Hong Kong. Schools and parents alike are well aware of the language’s importance, and this has attracted native-speaking English teachers to seek for career opportunities in Hong Kong. There are over 40 international primary and secondary schools in Hong Kong (EDB 2013a) that use English as the medium of instruction (MOI). In addition, the Hong Kong Government’s Native-speaking English Teacher (NET) scheme provides opportunities for qualified native-speaking English teachers to teach in public sector primary and secondary schools (EDB 2013b). The purpose of the scheme is to increase Hong Kong students’ exposure to English as well as to enhance the quality of the teaching of English language at local schools. There are also private agencies that will assist foreign teachers in coming to Hong Kong to teach at a cost. Approximately 94% of Hong Kong’s population are ethnically Chinese (C&SD 2012), and most of their children will attend local schools with either English or both Chinese and English as the medium of instruction. In international schools, approximately 25% of the students are local Chinese, though this has been increasing rapidly in recent years (Wong 2013). Nevertheless, international schools are still mainly comprised of L1 (first language) English speakers, and because their teachings are based on overseas models instead of the local Hong Kong syllabus, foreign teachers working in those schools should face little problem with their day-to-day teaching. However, for EFL (English as a foreign language) teachers working in local schools, such as those in the NET scheme where local students dominate, the scenario would be very different. This chapter would serve as a beginner’s guide and provide advice to

those who would be, or are considering, coming to Hong Kong to teach in public schools.

The Characteristics of Hong Kong Students

The differences in cultural background would be quite challenging for a new teacher who is used to the Western way of teaching, which often involves a significant amount of inquiry-based learning and collaborative work. In contrast, learnings in Hong Kong are textbook based and there is little room for spontaneity. In terms of characteristics, Hong Kong students are generally industrious, devoted and well disciplined. This is because competition is very fierce in Hong Kong where exams are tough and the stakes are high. University entrance is determined by a single set of exams, and only the elite with excellent exam results and language proficiencies in both English and Chinese would be able to enter the top universities/courses in Hong Kong, which more or less would guarantee their future career success. In contrast, those with a more mediocre performance would see their years of effort dissolve into nothing and bring shame to themselves and their families and crippling any bright career future they could have had. Students in Hong Kong therefore face immense pressure not only from their schools but also from their parents, from their peers and even from themselves. As a result, learning in Hong Kong is often exam or result driven, and with the exception of the few brightest, the average Hong Kong student would have to rely on their memories and cram as much information as possible and “regurgitate” it word by word at the right place in an exam question. It is also common to see students taking extra after-class tutorials in one or more of the many cram schools in Hong Kong, with their movie star-like casts who often guarantee success in local examinations. For school holidays such as the summer break, those too were the times for more extra tutorials as students start to prepare for their future exams the following year, or simply to catch up on areas that they were lagging behind.

One major difference in learning English in Hong Kong when compared to the West is that grammar and vocabulary learning are more significant in the former, in which students are required to memorise different structures of words, phrases and sentences. Even at a young age, they are already expected to be able to recall the different forms of a verb which sometimes seem to bear no direct relationship with the base word. It is evident that both grammar and vocabularies are explicitly taught in local schools, which is in contrast to English education in the UK, for example, where much of the content is taught incidentally. When I was a teenager, I received 4 years of secondary education in a UK public school. Apart from the EFL classes which I attended with my fellow Hongkongers, I was required to take classes and to sit exams for both GCSE English Language and English Literature just like the other local students. The content I learnt back then was very different from Hong Kong, in which our teacher Mr. Harrison spent little time, if not none at all, in teaching us grammar and spelling. Interestingly, during our English composition

exercises, it was often we the Hong Kong students being asked by the local students about the correct way of spelling a word or “what is the past tense of X?” That truly amazed (and, in certain extent, amused) me as being a non-native English speaker I would never dream of the day when I would be correcting mistakes of a native English speaker, though to be fair I was in a “lower English class” and my classmates were not exactly elite.

Hong Kong parents also take particular interests in their children’s learning. As parents understand the importance of academic performance to their children’s future, they would spend much time, effort and money to ensure that their children get a head-start, which often includes private tuitions as well as intensive and repetitive exercises. I recall a friend of mine, who was a native English teacher at an international school in Hong Kong, told me that parents of some of his local students had complained about the lack of after-class exercises and demanded more homework for their children. In recent years, overseas study tours aiming to enhance students’ English skills have also gained popularity in Hong Kong, and tours had been organised for children as young as kindergarten age. However, they do not come cheaply and usually have a hefty price tag of several thousand US dollars. Furthermore, as they are not governed by any official bodies, their qualities might vary greatly, and thus their effectiveness remained questionable. For those who could not afford or are unwilling to part with the cash, there are always alternative choices. For example, with over 100,000 Filipino domestic helpers working in thousands of families in Hong Kong, sometimes even they are drafted in to become domestic English tutors. Nowadays it is also quite common to see local parents speaking nothing but English to their children, in order to maximise their exposure to the language. While this might not necessarily be a bad thing, its long-term developmental effects on the children, in terms of their language abilities and cultural adaptation, are unknown. After all, Hong Kong is a society with deep Chinese roots and Cantonese is still the preferred first language, and unlike countries like Singapore, Hong Kong does not frequently use English outside of the formal sectors such as the government, business and education. Furthermore, Hong Kong is closely connected to China, where Chinese is the official language. Thus, Chinese is still an essential language in Hong Kong and should not give way to English completely. Competency in both languages would help local children to adapt to the Hong Kong environment more effectively. I have once read an article in a local newspaper showing the potential problems of putting too much emphasis on English alone. “Tommy” was born to Chinese parents in Hong Kong, but he was raised using English; he attended international schools as a child and later went abroad to study. After graduating from a university, he returned to Hong Kong but faced immense difficulties finding a job because of his limited knowledge of Chinese. Due to his failures at job interviews, Tommy developed anxiety and stuttering and was unable to converse in Chinese in his daily life. He later required psychological counselling, and when his condition improved, he started learning Chinese from the beginning again. Obviously that was an extreme case but Tommy’s situation would definitely not be unique.

Another characteristic of local Hong Kong students is that, despite the influence of western ideas and teaching on their education, they remained culturally Chinese in the classroom environment. As mentioned previously, education in Hong Kong is more memory oriented, and, compared to the West, Hong Kong students are more passive and obedient in the classroom. The high demands of the Hong Kong educational system mean that they are required to listen attentively in class, take detailed notes and spend even more time trying to memorise all the materials on the notebook after school. In addition to those, they also have homework to do and to prepare for the upcoming quizzes that take place fairly frequently. Such differences in classroom culture meant that local students are more used to teacher-directed instructions than classroom discussions and interactions. “Stay quiet and listen carefully in class” is what most parents would tell their children to do at school. Therefore, when these students finish high school and enter university, it is unsurprising to see that they often stay quiet in group discussions and are reluctant to engage and openly share their thoughts, simply because they are not culturally accustomed to it. In order to examine this phenomenon, I recently carried out a series of focus group interviews involving several groups of first year degree-level students (unpublished data), as I was interested in knowing what made them so quiet in in-class discussions. Culture definitely played a significant role, as students said that they were used to the traditional form of classroom arrangement in which they all sat in rows facing one direction and as usual listened to their teachers quietly while actively jotting down important points. Hong Kong students are not used to interacting with either the teacher or their peers, and they tend to avoid disagreement and confrontation in the classroom. Students expressed their fear of speaking out in class, even if they know the answer. In fact, they would seldom do so unless being called by the teacher. When asked to explain the nature of the fear, they often associate it with “face”, which they interpreted as a strong sense of not to be embarrassed, or to embarrass others, in public. They are afraid of becoming the laughing stock (i.e. “losing face”) if they answered a question incorrectly or raised a “stupid question”. They also fear to be seen as “teacher’s pet” or someone who likes to show-off if they frequently respond to the teachers’ questions.

In traditional Confucian societies, students are taught to respect their teachers and revere virtue, and this can be traced back to ancient times as illustrated in the *Classic of Rites (Lijing)*:

In pursuing the course of learning, the difficulty is in securing the proper reverence for the master. When that is done, the course (which he inculcates) is regarded with honour. When that is done, the people know how to respect learning. (Legge 1990, p. 88)

Because of that, teachers in Hong Kong are often treated with respect and sometimes even with fear. Teachers have the highest status in the classroom and are regarded as the ultimate authority. Students would be surprised to hear their teachers admitting mistakes or that they do not know the answer to a question. This further explains why Hong Kong students would rarely challenge or question their teachers, let alone openly in front of the entire class.

The language barrier is another reason why students are fearful of speaking out in class. Although as mentioned previously Hong Kong students have spent a good deal of effort and time trying to master English, it is still not uncommon to see some of them struggling with or felt hesitant to express themselves in spoken English. In the past, I have seen students who were reasonably good with their written English faced difficulties during exchanges in class and presentations. A number of factors might have contributed to that. First of all, the way most Hong Kong students learned English could be described as systematic, where they tried to painstakingly memorise numerous vocabularies and grammar rules and worked on repetitive written exercises. Such intense learning method might have improved their reading and written skills in English but probably at the expense of spoken English or even their listening skills. Language is a flexible tool, and one could not simply master English by memorising it alone without actually using it. This brings us to the second point: even though English can frequently be heard in Hong Kong, there is still a general lack of exposure to English outside schools and at home. For some, the only opportunity to speak English would probably be limited to their English language lessons (or perhaps more in schools where English is the MOI). However, we should not forget that in local schools most students are likely to assume the role of a listener and in an average class size of 40 students, the chance of practising oral English would be very limited. Unlike Singapore, where intra-ethnic use of English is very common amongst the local Chinese population, Hongkongers rarely speak English to each other in their daily lives (Chen 2005). In fact, locals seem to have resentment against speaking English when both speakers are capable of speaking/understanding Cantonese. In this case, the old saying “if you don’t use it, you lose it” might be proven true. Local students are in desperate need of the opportunity to practise their English, and this can only be done through increased exposure. Thirdly, Hong Kong people are used to code-switching and the use of Hong Kong English (HKE). Code-switching, which sometimes is also refer as code-mixing, is defined as the alternate use of two linguistic systems within a clause (Bhatt 1997). Although it has been argued that both terms should not be used interchangeably (Bokamba 1988), for the ease of understanding the term code-switching will be used throughout this chapter, to represent the insertion of English into an otherwise pure Cantonese sentence. Hong Kong people code-mix frequently, and the amount of code-mixing in their conversations is dependent on the background characteristics of the speaker, such as age, educational level and occupation (Chen 2005). My code-mixing behaviour had never failed to amaze my English-speaking friends in UK, when they were able to pick out several English words from a totally undecipherable conversation between two Cantonese speakers. The reasons behind code-mixing in Hong Kong had been studied extensively by linguists. For example, Tse (1992) identified several factors for code-mixing in Hong Kong including:

1. A solidarity marker of group membership.
2. To fill a lexical gap in one’s first language for concepts involving technical or culture-specific terms.
3. To show-off.
4. To serve as a euphemism in place of sensitive words in Cantonese.

Although there was no apparent evidence that code-mixing was consciously learnt by Cantonese-English bilinguals (Chan 1998), it had been shown that the more bilingual a speaker was, the more cautious she/he would be in retaining the original phonetic, syntactic and semantic forms of the inserted items (Tse 1992). Based on this observation, we could assume that code-mixing amongst Hong Kong students would probably involve the incorrect use or pronunciation of the inserted English words, due to their yet to be fully developed proficiency of the language. HKE refers to the localised variety of English used in Hong Kong, though it is not widely recognised and accepted like other Asian English such as Singapore English and Indian English (Wong 2009). Furthermore, local people's attitude towards HKE is less than positive as it is often linked with the falling levels of English proficiency amongst local students, English language teachers and workers (Wong 2009). Cultural slang words and sayings are often incorporated into HKE, in which, although some may find acceptable in a casual setting, its use in standard English is often regarded as incorrect. For example, Hong Kong people like to greet each other by asking whether they have eaten yet (a direct translation from Cantonese would be "have you eaten yet?"). One must be aware not to misinterpret that as an invitation to a meal, but rather that should be regarded as loosely equivalent to "how are you?" in English, and it is often used to initiate a casual conversation. Another example would be telling people to "walk slowly" as a courteous way of saying goodbye. While both phrases are grammatically correct, their use should not go beyond a casual conversation between two acquaintances. In contrast, Singaporeans have a wider repertoire of English, and unlike Hongkongers they are able to switch between colloquial Singapore English (i.e. Singlish) and standard English depending on the education of the speaker and the formality of the situation (Deterding 2007). To determine whether code-mixing is advantageous to someone who is bilingual or whether the status of HKE deserves recognition as a variety of English is beyond the scope of this chapter. However, one thing could be certain is that code-mixing might lead to the distortion of the original forms of the inserted items that students might not be able to differentiate. Hence, as students are becoming confused, it resulted in the frequent misuse of localised English in standard English in the formal setting.

Tips for New Foreign Teachers in Hong Kong

When working as a teacher in Hong Kong where everything is not quite the same as they used to be, sometimes even the experienced ones would have difficulties adapting to the new environment. The following are some handy tips for those who wish to teach or will be teaching in Hong Kong. In fact, they might perhaps even be useful in the schools of the Greater China region. However, nothing could prepare one from everything she/he might encounter in the future, and therefore the key is to be flexible and improvise as you go along.

Learn Before You Teach

One of the challenges Hong Kong students face in class is the use of English as MOI. My students often express concerns having to openly speak in English during class discussions, and given the choice they would prefer to use Chinese instead. English and Chinese are very different languages that almost share no common features. For example, students often have difficulties with spelling English words correctly due to the fact that Chinese uses a logographic system for its written language, which contrasts the phonogram system of English. This means each “symbol” (i.e. Chinese character) represents the words themselves and much emphasis is placed on the precision and placement of each stroke and slash. The phonology of English also presents a problem to L1 Chinese speakers because some phonemes (i.e. speech sound) do not exist in Chinese. Being a tonal language, Chinese uses subtle differences in high and low pitches to distinguish meanings of words, as opposed to expressing emotions or placing emphases like English. Mispronunciation of English words amongst L1 Chinese speakers is well documented (Zhang and Yin 2009), such as a phenomenon known as lallation, where the speaker experiences difficulty in distinguishing the /l/ and /r/ sound (hence the slang term “Engrish”). Other examples include the mispronunciation of vowels such as *dip/deep* and *ship/sheep* and also the difficulties in distinguishing /n/ and /l/ such as *name/lame* and *nine/line*. Another distinctive feature of the Chinese language is the lack of reference to time, and therefore tense does not exist. Mispronunciation of words might also become an obstacle to spelling, such as writing “brackboard” instead of blackboard.

Students should be encouraged to use English-to-English dictionaries and to develop a habit of using English to explain the meaning of an English word. This is because the subtle differences of certain English words, such as “see”, “look”, “watch” and “read”, may not be accurately differentiated by a Chinese equivalent that simply does not exist in the language. The above examples are only a few of the challenges Hong Kong students face when they try to master English. Foreign teachers who wish to teach in Hong Kong should appreciate the differences between the two languages. Having a basic understanding of the structure and characteristics of the Chinese language would enable foreign teachers to be more effective in guiding their students and tackling the root cause of the problem.

The Classroom Environment

Hong Kong is a relatively small city with a population of just over 7 million people. As land is scarce, it is therefore a frequent sight to have school classrooms that are not particularly large in size, packed with 30–40 students sitting in rows facing one direction. Such a kind of seating arrangement naturally directs all attention to the front of the classroom, and because the students are unable to see each other’s faces, they are discouraged from communicating with each other. On the other hand, if students are seated in a circle with the teacher, it would facilitate exchanges between

students as the speaker would be able to see his/her audience and vice versa. Under such arrangement, students do not just learn from the teacher, but they also learn from other students and at the same time have been given the opportunity to raise questions and to challenge each other. Thus, students would be working together to solve problems, and through collaborative learning, they would be able to develop a close rapport with both the teacher and their peers over time. Of course the facilitation of such kind of arrangement would depend on the number of students in the class and the amount of available space. Teachers would need to improvise and perhaps seek alternative arrangements, such as having the students seated in small groups around the walls, where they could still see each other. Groups could shift position and focus their attention on the speaker at any time. In this way students would still be able to interact with each other via both inter- and intra-group exchanges. Furthermore, students could gain confidence through the support of their group and thus be less afraid to speak out in class.

Closing the Gap Between Teacher and Students

As mentioned previously, teachers in Hong Kong are treated with respect by their students but, and sometimes, even with fear. Students have to be extremely cautious and are forced to constantly display their best behaviour and performances. While such hierarchical relationship has its merit, students especially the younger ones might fail to understand and appreciate such formal and rigid teacher-student relationship. On the other hand, a friendly teacher, who acts like a friend to his/her students, would help to remove the barrier between teacher and students. Because of the teacher's friendly attitude, students would not feel subdued to engage in open discussions, and they could even be encouraged to candidly discuss their concerns and other issues (Subramaniam 2013).

Hong Kong students generally lack confidence in speaking English because they are afraid of making mistakes, and by trying to avoid mistakes, they avoid using English and therefore miss the opportunities to practise their skills. A friendly teacher who would never bluntly criticise his/her students and humiliate them in front of the class could help breaking the vicious cycle or even turning it into a virtuous cycle. She/he would give confidence to the students to get involved in discussions and "give it a try", because they could simply laugh off any mistakes they made and learn from them. The key is to build a safe learning environment, and in a community of inquiry, no members should feel worried or threatened to take part and to express their viewpoints openly. Words of encouragement would be extremely useful especially at the beginning stage, but do bear in mind that Chinese people are traditionally very modest about compliments and would often respond to praises with denial. Most importantly, as with any culture, it is not useful to show preferential treatment for good students as it might provoke rivalry between students.

Teacher-student relationships in Hong Kong are usually quite distant, and students are not used to having casual or personal conversations with the teachers. One

way to open up to your students would be to talk about what they like and to show interests in their lives. Do not feel ashamed of asking things that are not familiar to you, such as those about Hong Kong or Chinese culture. Not only would you understand the students better, it would also provide opportunities for the students to get used to speaking to you. You may also be able to relate your teaching to their interests at a later date, which could become extremely handy. In my experience, I also found role playing games popular amongst students, and they could easily spice up an otherwise dull lesson or discussion. However, before you rush into the classroom and wanting students to like you, there are two important points to consider, and they need to be delicately balanced; on the one hand, you want to form a close bond with your students and be treated as their friend, and on the other hand, you need to maintain your proper position as a teacher; otherwise, you would soon find it difficult to control the class and assert your authority (Rodabaugh 2004). The key is to build a mutual respect and trust for each other and serve as a mentor to your students, rather than like a “cool friend” to hang out with.

Lifelong Learning

Hong Kong students tend to treat English as a subject similar to maths and science, misbelieving that they could master the language through memorising and repetitive exercises. Students should be made aware that learning English is not just for passing an exam or getting a better job, but it is also a form of personal development. There is only so much a teacher could do with the students in the classroom every week; thus, the key is to develop students' interests in learning English. Nothing could motivate an individual better than his/her own interests and enthusiasm, especially when it is closely related to his/her life. For example, a teenager interested in Japanese pop would most likely also be interested in learning the Japanese language and culture. English could also have the same effect, as it is a useful tool to help students to reach upward and outward and to enjoy things that would otherwise be unavailable to them if they did not know English. Through lifelong learning, which is an ongoing, voluntary and self-motivated pursuit of knowledge, would students take the opportunities and initiations to continue to learn English outside their classrooms? That would definitely be better than any English lessons they could ever receive in the classroom.

The Future

In the future, foreign teachers would face two new kinds of challenges while teaching in Hong Kong, namely, the influx of new immigrants from Mainland China seeking education in Hong Kong and the so-called digital natives and app-generation children and teenagers. Since the transfer of sovereignty over Hong Kong to China in 1997, tens of thousands of Mainland Chinese had come and legally settled down

in Hong Kong via the one-way permit (OWP) scheme. In 2012 alone, 54,600 (of which approximately 25% aged ≤ 15 years) arrived in Hong Kong (HAD & ID 2012), and this number is expected to rise more rapidly in future years. Amongst these immigrants are children and teenagers with limited knowledge in English, while some even lack the ability to speak fluent Cantonese. Of course there have been success stories of how some of these new immigrants overcame their problems. However, the reality is that they often come from vulnerable families that are unable to provide much financial or intellectual support. This represents a huge challenge for their teachers and schools as their cultural background and characteristics can be quite different from their local counterparts.

In the future, digital natives and the app generation would present yet another challenge for Hong Kong teachers. As Gardner and Davis (2013) pointed out, the current generation of youth are completely involved with digital media, and the authors expressed concerns in three vital areas of adolescent life including identity, intimacy and imagination. Professor David Abulafia of Cambridge University described essay skills as “going down the plug hole” because of Twitter and Facebook (Henry 2013). He said, “What they do write tends to be short messages in a sort of meta-language, with meta-spelling, on Twitter and Facebook”. Indeed, in digital media, words are often shortened for brevity, and rules of the English language are rarely followed. Because of that, students of Hong Kong are being exposed to yet another type of informal English, which could have negative impact on their language skills, and not only English but also their Chinese. In addition, the frequent use of smartphones by teenagers to communicate with each other could also weaken their social skills. Even though they are now able to develop a very large network of acquaintances through their digital devices, the ties are often weak. They are also getting used to connecting with their friends via digital media rather than meeting face to face. Their weakened social skills could possibly make it even more difficult to communicate with the already shy and introvert individuals in real life. However, the overdependency of teenagers to new media is not all doom and gloom, for it could be turned into something beneficial. For example, I often communicate with my students via smartphones and realised that they were more willing to open up and share their inner thoughts through words on their smartphones rather than face to face. New media could also help to extend the class outside the classroom, as long as both you and your students abide to a set of pre-agreed rules, such as the prohibition of text language and the use of proper grammars at all times.

Teaching in Hong Kong would be a great experience for any foreign teachers, and it could be rewarding, both in terms of personal development and career prospect. Hong Kong is constantly in great demand for native English teachers to enhance the English proficiencies of its students, which is said to be declining in recent years. Students would benefit from the knowledge and new pedagogies these foreign teachers would bring, and they would realise learning English is not just about memorising grammar and vocabularies, but it could also be full of fun and games. Apart from work, Hong Kong is also a fun place to live, and there are lots of things and places for you to explore and discover. For those of you who are considering teaching overseas, I have no hesitation in recommending Hong Kong to you.

References

- Bhatt, R. M. (1997). Code-switching, constraints, and optimal grammars. *Lingua*, 102(4), 223–251.
- Bokamba, E. G. (1988). Code-mixing, language variation, and linguistic theory: Evidence from Bantu languages. *Lingua*, 76(1), 21–62.
- Census and Statistics Department. (2012). *Hong Kong 2011 Population Census* (summary results). Hong Kong: 2011 Population Census Office.
- Chan, H. S. (1998). How does Cantonese-English code-mixing work? In M. C. Pennington (Ed.), *Language in Hong Kong at century's end* (pp. 192–216). Hong Kong: Hong Kong University Press.
- Chen, K. H. Y. (2005). The social distinctiveness of two code-mixing styles in Hong Kong. In J. Cohen, K. T. McAlister, K. Rolstad, & J. MacSwan (Eds.), *ISB4: Proceedings of the 4th International Symposium on Bilingualism* (pp. 527–541). Somerville: Cascadilla Press.
- Civil Service Bureau. (2012). *Common Recruitment Examination and Basic Law Test* (Degree/Professional Grades) (CRE and BLT). Available via <http://www.csb.gov.hk/english/recruit/cre/949.html>. Accessed 19 Dec 2013.
- Civil Service Bureau. (2013). *List of grades and entry ranks requiring CRE results*. Available via http://www.csb.gov.hk/english/recruit/cre/files/common/List_of_grades_and_entry_ranks_requiring_CRE_results_Eng.pdf. Accessed 19 Dec 2013.
- Deterding, D. (2007). *Dialects of English. Singapore English*. Edinburgh: Edinburgh University Press.
- Education Bureau (EDB). (2013a). *Education for Non-Chinese Speaking Children*. Available via http://www.edb.gov.hk/attachment/en/student-parents/ncs-students/overview/Information_Notes_NCS_2013_position_as_at_Sep_2013_-_2910pl.pdf. Accessed 19 Dec 2013.
- Education Bureau (EDB). (2013b). *Native-speaking English Teacher (NET) Scheme*. Available via <http://www.edb.gov.hk/en/curriculum-development/resource-support/net/index.html>. Accessed 19 Dec 2013.
- Gardner, H., & Davis, K. (2013). *The app generation: How today's youth navigate identity, intimacy, and imagination in a digital world*. New Haven: Yale University Press.
- Henry, J. (2013, January 20). *Art of essay-writing damaged by Twitter and Facebook, Cambridge Don Warns*. The Telegraph. Available via <http://www.telegraph.co.uk>. Accessed 19 Dec 2013.
- Home Affairs Department (HAD), Immigration Department (IM). (2012). *Statistics on new arrivals from the Mainland* (fourth quarter of 2012). Available at http://www.had.gov.hk/file_manager/tc/documents/public_services/services_for_new_arrivals_from_the_mainland/report_2012q4.pdf. Accessed 19 Dec 2013.
- Hong Kong Examinations and Assessment Authority (HKEAA). (2013). *Hong Kong Diploma of Secondary Education (HKDSE)*. Available at <http://www.hkeaa.edu.hk/en/hkdse/introduction/>. Accessed 19 Dec 2013.
- Legge, J. (1990). The Li Ki. In M. Müller (Ed.), *The sacred books of China* (p. 88). New Delhi: Atlantic Publishes.
- Rodabaugh, R. (2004). Closing the gap between students' and teachers' expectations. *Teaching & Learning News*, 13(4), 1–7.
- Subramaniam, A. L. (2013). The need for a friendly teacher at all levels of education. *Journal of School Social Work*, 10(2), 11–14.
- Tse, A. (1992). Some observations on code-switching between Cantonese and English in Hong Kong. *Languages Linguistics*, 4, 101–108.
- Tse, S. K., Shum, M., Ki, W. W., & Chan, Y. M. (2007). The medium dilemma for Hong Kong secondary schools. *Language Policy*, 6(1), 135–162.
- Wong, M. L. Y. (2009). *Concord Patterns with Collective Nouns in Hong Kong English*. With illustrative material from the International Corpus of English (Hong Kong Component). *Linguistik Online* 37(1/09):59–68. Available via http://www.linguistik-online.de/37_09/wong.pdf. Accessed 19 Dec 2013.

- Wong, MY. (2013, November 11). 家長盲捧英文 港生佔國際校1/4 [Parents are blindly pursuing English. Local students comprised ¼ of the international schools in Hong Kong]. Hong Kong Economic Times. Available via <http://www.hket.com>. Accessed 19 Dec 2013.
- Zhang, F., & Yin, P. (2009). A study of pronunciation problems of English learners in China. *Asian Social Science*, 5(6), 141–146.

Part VI
**Changing Teaching: School Leadership
and Teachers' Professional Development**

Chapter 22

Leadership for Learning: What Else Could Leadership Be For?

John MacBeath

Abstract While the phrase ‘leadership for learning’ has become common currency, what meanings and implications does it conceal? What else might leadership be for and to whom does the ‘learning’ apply? How to revive and revisit the essence of learning-led leadership buried beneath the legacy of managerialism, narrow conceptions of accountability and performativity? Drawing on a number of studies of head teachers’ and teachers’ lives primarily in England and Scotland, this article explores the insidious influence of policies which have disempowered teachers and considers what may be done to reignite the ‘passion’ which so many teachers initially brought to the job. With an eye to the future and the issue of sustainability, the article finishes with the ecology of learning and teaching and the dilemma space between the probable and the desirable. Quoting the Futures Forum the educational challenge is to ‘keep the lights on today and to find a way of keeping them on a generation from now in very different circumstances’.

Keywords Leadership • Learning • Policy • Accountability • Trust • The future

Leadership for Learning. In an educational, or school, context what else could leadership be for? The answer is ‘a lot of things’ – for power, for self-aggrandisement, for competitive advantage, for monetary gain or profit or, perhaps, exercised as service to others.

In an educational context, leadership for learning would most obviously refer to pupils, or students, as this is the primary purpose of schools and educational institutions. Yet, can children learn with interest if that process is not modelled by their teachers and school leaders? How do organizations learn without a continuing discourse among their members about learning and about the informal, and often uncelebrated, learning that takes place in the external environment? Who leads such inquiry and self-evaluation?

J. MacBeath (✉)

Faculty of Education, University of Cambridge, 184 Hills Road, Cambridge CB2 8PQ, UK
e-mail: jecm2@cam.ac.uk

Questions such as these are not of a kind that would have been routinely posed a few decades ago, in part due to a changing social climate and in part due to changing foci of research and an accompanying emergent literature. In part, questions such as these also arise when there are policy imperatives which require more distributive forms of leadership and engage those who lead learning.

The phrase 'leadership for learning' has only become common currency in the last decade or so. Leadership for Learning: the Cambridge Network, established in 2000, was one of the earliest adopters of the phrase and the attendant set of principles which were then developed over a 4-year period through a sustained international discourse. The seven key features, or principles, of leadership for learning were then explored and developed over the next decade and tested in highly challenging circumstances in Ghana, Tanzania and the Caribbean along with other countries who continue to play a part in a major Cambridge-led commonwealth initiative.

If not for learning what else could leadership be *for*? Perhaps there is clue in the American terminology of 'administrators' and the reference to senior leaders as 'managers'. The change of emphasis in the public and academic discourse from 'management' to 'leadership' has slipped under the radar, but has been made visible in a change of terminology among some leading education journals.

It is not, however, simply a question of terminology, as leadership, and in particular leadership for learning, marks a shift from a more or less regulatory function to an inspirational values-driven role. The introduction of 'mission' and 'vision' statements bears testimony to the cultural shift from managing to leading. Nowhere has that been more symbolically illustrated than by the London head teacher who replaced the nameplate on her office door from 'head teacher' to 'head learner'. It was a sign of the times.

While such declaration of intent may be of its time, it may also be seen as a revisiting of a former age when 'headmasters' such as Sanderson of Oundle, Arnold of Rugby or Neill of Summerhill, leaders of learning, could never have been described as administrators or managers. They left a deep imprint on the culture and values of the schools and on the staff and the young people they led and encouraged to lead.

The flirtation with managerialism over the decades of the 1980s and 1990s and into a new millennium has, however, left its own insidious legacy. With its emphasis on legal-rational authority, efficiency and effectiveness, it introduced us to objectives (sometimes behavioural), outcomes, measurement of achievement and indicators of comparative performance, competition, incentives and 'incentivization'.

Numbers are like people; torture them enough and they will tell you anything', writes Gorard (2010) in his critique of the ways quantitative methods have been used and interpreted. 'Blinded by pseudo-science', he argues, people have 'not really thought about the process and have simply bought into what appears to be a scientific and technical solution to judging school performance, reducing complexity to simplistic formulae'.

Measurement of achievement and ‘value added’ simply cannot deal with the complexity of learning, reducing it persistently to the lowest common denominator. When schools are not alive to their incipient agency, the everyday discourse among staff is, by default, shaped by policy pressures, constrained by the demands of organisational convenience, and slowly and insidiously absorbed into the intellectual and emotional bloodstream. Learning comes to be seen as what happens in classrooms as the result of teaching and leadership is seen as the province of those who make the big decisions about the future. All too easily, learning as a vibrant shared activity, ceases to be the main consideration. All too easily, the potential to lead learning is left to others. (MacBeath and Cheng 2008, p. 8)

Finnish Lessons

What can the world learn from educational change in Finland? is the subtitle of Pasi Sahlberg’s recent book, *Finnish Lessons*. The central message of the book is that Finland’s high-performing education system is owed to adopting policies counter to that of most Western education systems such as the standardization of teaching and learning, measured by common criteria with reliance on equivocal data; increased focus on core subjects, particularly literacy and numeracy; prescribed curriculum; transfer of models of administration from the corporate world; and high-stakes accountability policies – control, inspection, division between schools and an ethos of punishment (for educators). He writes:

As Finnish teachers were exploring the theoretical foundations of knowledge and learning and redesigning their school curricula to be congruent with them, their peers in England, Germany, France and the United States struggled with increased school inspection, controversial externally-imposed learning standards, and competition that disturbed some teachers to the point that they decided to leave their jobs. (Sahlberg 2011, p. 5)

Over a period of 5 years, these were the recurring themes in research with Maurice Galton in English primary and secondary schools. The title *Teachers under Pressure* was chosen for the series of research reports and for the book published by Sage in 2000, as the narrative was one of unrelenting demands on teachers’ time and goodwill, sapping energy and sense of ownership in their classrooms.

The study focused on children with special educational needs, and entitled *The Costs of Inclusion*, was met with letters and emails from around the world claiming that the issues raised were being played out with similar problematic effects in their own countries. A premise of the report was that inclusion is not only desirable but an imperative if the goal of equality is ever to be achieved. However, it was argued that this goal was not served by physical inclusion, simply placing children in mainstream classrooms alongside their same age peers without the appropriate resourcing, support and professional development. As the report concluded, doctrinaire and under-resourced ‘inclusion’ could exacerbate inequality by depriving children of the kind of informed support they deserved. Nor did it do much for the morale of teachers who recognized their inability to give the kind of expert help that was needed, often expressing a sense of inadequacy and guilt.

I think, it's a funny thing to say, I think they (children with special needs) add guilt to my job. I go home sometimes and feel I haven't done a good job because I haven't given them enough time. (Reception Class Teacher)

The *Costs of Inclusion* ended with this paragraph:

There is an unarguable case for more intelligent and targeted resource provision. But resources on their own will not bring about change. The issues run deeper and challenge the very nature of current policy. Inclusion can only work in a culture of collaboration in which there is sharing of resource and expertise. Competitive market-driven policies impact on the most vulnerable of children and penalise the most dedicated of teachers. The most striking aspect of this study is the goodwill of teachers who believe in inclusion and try to make it work but do not find their goodwill repaid by the level of professional support they deserve. (p. 68)

While the 'big' solution lies with leadership at policy level, as the study found it was the quality of leadership at school level that was critical in creating a culture in which the cost of inclusion were repaid with a richer inclusive culture.

In a Culture of Unhappiness

In an article entitled *The Leadership of Learning communities in a culture of unhappiness*, Bottery (2003) writes that:

It is currently fashionable to call for leaders of educational organisations to be leaders of 'learning communities'. Yet there are at least two ways in which such calls may fail. One stems from the definition of a 'learning community', which, whilst usually seen as non-problematic, raises difficult and sensitive questions. The second potential failure stems from the fact that whilst it may be possible to conceptualize the leadership of a learning community, it may nevertheless be impossible to realize it because of a failure to see and counter an ecology of the forces which surrounds leadership and learning communities, forces global, national and local. These forces combine to create a low-trust culture of unhappiness, which in turn generate crises of teacher morale, recruitment, and retention. The result, is that whilst educational leaders work within such counterproductive parameters, educators are likely to continue to work from predominantly negative states of mind and many kinds of learning communities are unlikely to be realized. (Galton and MacBeath 2008, p.187)

The ecology of the forces to which Bottery refers is the densely interwoven skein of accountability measures which have so reduced trust in the profession that deception has become an inevitable corollary. In her 2002 Reith lecture, entitled *A Question of Trust*, Professor O'Neill argued that professional trust had been eroded by simplistic accountability measures. 'I think we may undermine professional performance and standards in public life by excessive regulation, and that we may condone and even encourage deception in our zeal for transparency'.

In our zeal for 'transparency' (a perhaps unfortunate term for what policy actually conceals), deception has now assumed new and alarming forms. In Chicago, as Levitt and Dubner wrote in 2005, teachers' cheating on tests was now widespread,

not because teachers were intrinsically untrustworthy, but because a high-stakes environment had destroyed trust and collegiality.

The famous ‘Texas miracle’ under Governor George W. Bush was shown to be a deception of a high order. An analysis by Boston College’s Walt Haney in 2000 showed a sharp decrease in test results despite heavy coaching for the test. Among the many exposés, an 800-page report in Atlanta in July 2011, documenting the wide-scale alteration of students’ test scores, concluded that cheating had been going on for nearly a decade. It first came to light when the state noticed an alarming number of erasure marks on students’ answer sheets. Teachers and principals were rubbing out the wrong answers and filling in the right ones, the report said. At one school, the faculty even held weekend pizza parties to correct answers before turning them in. Over the course of a single year, scores at the school had jumped 45%.

Similar stories with a similar underlying cause are told in England and Wales. Newspapers have carried stories of teachers changing pupils’ work after tests and fabricating coursework in an attempt to drive up grades, with one pupil claiming that teachers entered the hall during a GCSE exam, prompting students to change their answers. Exam boards were accused of being complicit with two examiners being secretly filmed briefing teachers at paid-for seminars, during which they gave advice on exam questions and the exact wording pupils should use to obtain higher marks. In November 2012, the Qualifications Office (Ofqual) reported on unusual patterns of test scores indicating subversive ploys by teachers in England to allow marginal students to creep over the boundary between a C and a D. They concluded that there was ‘so much weight on one grade in one subject as part of accountability and performance measures created perverse incentives for schools’ (Cook 2012).

A range of devious ploys described by head teachers prior to an Ofsted inspection include, as one English head described it, ‘burying the bodies’, for example, by benevolent discouragement of some pupils’ attendance on inspection days, perhaps by sending them on work experience or community projects.

In a top down politically driven climate, the role of school leaders as ‘insulators’ is a relatively new phenomenon or as the buffer between teachers and students on the one hand and the inspectorate on the other, depicted by David Hargreaves as ‘flying below the radar’. To add a further metaphor, leadership in an unfriendly policy climate has been described as ‘a subversive activity’, guided by principles rather than dictate, with Lutheran conviction and principled obstinacy, ‘here I stand I can do no other’.

A 2009 study of school leadership in Scotland (MacBeath et al. 2009) identified the defiant risk-takers and the bullishly self-assertive, experienced enough and long enough in the job to assert their principles to adopt the Lutheran stance. These were two of five archetypes which we characterized as:

- Dutiful compliance
- Cautious pragmatism
- Quiet self-confidence
- Bullish self-assertion
- Defiant risk-taking

The bigger story was of an oppressive policy climate which made recruitment to headship highly problematic given the demands and, often, unrelieved stress of the role. Feelings of being ‘done to’, ‘put upon’ and ‘hemmed in’, without the latitude to make decisions and to ‘have responsibility without control’, were a primary source of stress. Some heads spoke of a reluctance to speak openly with their local authorities for fear of reprisal, while for more than half of those interviewed, their experience of inspection was described as ‘adversarial’, ‘undermining’ or ‘stigmatizing’. This upward accountability was described as in tension with the immediate and ‘downward accountability’ to pupils and staff. For heads new to their post, walking the tightrope of ‘complex and multiple accountabilities’ (to staff, to teacher unions, the school board/parent council, the local authority, the HMIE, the Scottish Government and parents), while continually ‘watching your back’, was described in interview as a new and ‘scary’ experience.

The dutifully compliant mortgaged their energy and time to their role demands, with the tendency not to experience autonomy nor to exercise much personal latitude in decision-making. This often came at a heavy price in terms of bureaucracy, paperwork and onerous workloads. Recognizing that such an open-ended commitment could be detrimental to both private life and well-being, while learning how to prioritize, characterized the cautiously pragmatic. Where head teachers had a sense of being on top of their work, it allowed them to go about their business with a quiet self-confidence and a sense of mastery, modelling what it means to have taken active steps to deploy time and energy to their advantage, on terms which were theirs, while not overtly pushing against the tide. The ability to thrive on challenges with high levels of self-confidence was the antidote to the toxic performativity culture.

In Charles Hampden Turner’s terminology, there is a ‘dilemma space’ which occurs between the rock and the whirlpool. The rock values of consistency, transparency, reliability and comparison of performance, he counterpoints with the whirlpool values of choice, diversity, dynamism, spontaneity and autonomy. There are inevitable tensions between certainty and uncertainty and between individuality and collectivity. In the absence of prescient and confident leadership, compromise offers the line of least resistance so suppressing the tension without addressing it. Living with uncertainty, exploring understandings, and listening to the discords as well as harmonies in the acoustic of the school are what distinguish the activity of leadership.

Leadership for Learning: Five Principles

The five leadership for learning principles are as follows:

- A focus on learning
- An environment for learning
- A learning dialogue
- Shared leadership
- Mutual accountability

These five principles may appear as obvious and uncontentious but do acquire meaning when terms such as ‘learning’, ‘environment’, ‘dialogue’ and ‘leadership’ are discussed and problematized.

What could be more simple and commonsensical than ‘learning’, yet still a subject of intense research with almost daily new insights into the mysteries of the brain, the role of emotions, what we understand or fail to understand, about ‘ability’ and ‘disability’, ‘special needs’, ‘gifted and talented’, ‘genius’, ‘learned helplessness’, ‘self-fulfilling prophecies’ and the power of place or context.

What could be simpler than the concept of ‘leadership’, so embedded in our daily discourse, in national and world events and made visible in hierarchical institutions, lessons learned early in the very first days of school. Immediate associations are with big leaders, sometimes a literal physical description as height and stature are often implicitly associated with institutional authority. Two examples illustrate both the power and shrinking of power distance. Both are stories of larger than life head teachers in a physical as well as in a charismatic sense.

In Scotland, Dick Lynas, a secondary school head, cast a long shadow wherever he ventured around the school, a towering figure, six and a half feet of awe-inspiring authority. He was singularly unimpressed by the invitation from a French teacher to visit her first year class and talk to pupils in their new-found language. ‘But I know no French’, he pleaded. ‘I can’t speak a word of it’. ‘That’s why I want you to come’, the teacher replied, ‘I want these kids to see that, in some respects, they are more competent than their big powerful head teacher’. To his credit Dick Lynas accepted the invitation and was, in his own words, ‘shown up’ and ‘embarrassed’. But it not only gained him new respect but proved to be a significant learning experience for that group of 12-year-olds – and for him.

When an equally charismatic authority figure, William Atkinson, broke down in tears at a morning assembly, he also gained a new respect from his pupils and staff. It was a very human response to the death of a popular student stabbed to death on his doorstep in Hammersmith in London. While William confessed to acute embarrassment at this apparent loss of status and control, it was, nonetheless, a powerful lesson for teachers and pupils alike as to the caring empathic quality of leadership.

In a 2002 paper, Beatty argues that the technocratic emphasis on ‘an emotionally cleansed world’ of standards, performance and line management amplifies a resounding silence about emotions and about the importance of acknowledging that emotional insight is integral to learning, teaching and leadership. The emotional aspect of leadership has been subject to much less research than the ‘strong’ directive qualities, but it is the human aspect of leadership, the empathy and the genuine concern for others that defines, in many respects, what it means to lead. Ackerman and Maslin-Ostrowski (2002) counsel ‘wounded leaders’ who are hurt by their disappointments, by the deaths of students or colleagues or by the bullying and betrayals of superiors to accept and express rather than deny their vulnerability. In this way, they argue leaders become more human, more open to being cared for as well as caring, more connected to and therefore even more capable of leading others around them.

In a Cambridge seminar in 2012, Jonathan Jansen, South Africa's first black dean, referred to the vulnerability and the risks of caring, a word that Margaret Thatcher had asked to be expunged from the education vocabulary as a sign of weakness. In an extended dialogue with those present, his response to questions such as the following reveals the humanity, the sense of hurt and the 'deeply emotional' nature of leadership.

What have been the most formidable obstacles you have faced in trying to achieve your vision?

Dealing with myself. I do not lead outside of my own emotions, hurts, experiences and troubles. Leading is a deeply personal and indeed emotional experience. Knowing yourself, being open to change and adjustment even as you lead, and yet knowing what is worth pursuing, are critical elements in credible and effective leadership. I often find myself "surprised by joy" (CS Lewis) as the people I am privileged to lead respond with enthusiasm to what we set out to do. The problem is not the followers.

Within the emotional repertoire is the nature of trust. There is nothing as corrosive within an organization as mistrust and nothing more destructive within a school than a lack of trust between those who lead and those who follow, teachers and pupils, teachers and their colleagues, teachers and parents and teachers and senior leaders.

In his book *The Speed of Trust*, Stephen Covey (2006) argues that in organizations in which there are high levels of trust, business is affected faster, more effectively and more productively. Where there is high trust, there is much less need for the tedious bureaucracy, supervision, accounting and accountability. With high levels of trust, there is an implicit sense of mutual accountability – what we owe to others in return for the trust invested in us. This is the hallmark of 'distributive' leadership, not as roles and responsibilities 'distributed' by generous strategic leaders but as spontaneous, shared activities flowing through the organization.

In Senge's (1990), the complexity of skills which teachers draw on routinely is not easy to discern or measure because they lie in the 'deep structures' of school and classroom activity. These are tacit beliefs, values and assumptions that underpin the day-to-day experiences not always visible in the surface structures – in the observable rules, policies, procedures and explicit behaviours which can be counted and 'inspected'.

Caring about ideas and values is, writes Robert Fried (2001), the hallmark of *The Passionate Teacher*:

Of some of our teachers we remember their foibles, their mannerisms, of others their kindness and encouragement, or their fierce devotion to standards of work we probably didn't share at the time. But of those we remember most, we remember what they cared about and that they cared about us and the person we might become. It's this quality of caring about ideas and values, this depth and fervor. (p. 5)

Understanding what Andy Hargreaves (2001) describes as 'the emotional geographies of teaching' offers a 'counter discourse' to 'the technical science-driven conceptions of teaching that dominate the language of educational policy and administration'. He also takes issue with explanations of teachers' emotional

responses in terms of their personal, psychological or individual dispositions rather than explanations which lie within contextual factors, shaping identities, motivation, emotional and professional energy and relationships with colleagues, children and parents in distinctive ways.

Trust and Accountability

The leadership discourse returned persistently to the issue of trust, counterpointed with the imperative of accountability. Together these defined the most acute of dilemmas. While there was an almost reflex insistence on the importance of trust, senior leaders struggled with the resolution between a commitment to trust as growth promoting juxtaposed with the constraining nature of external accountability. The government mantra of 'raising standards', portrayed by politicians as accountability to pupils, did not sit easily with school staff who saw the narrow standard agenda as disenfranchising young people and disenfranchising teachers too, distorting their work, undermining their professionalism and eroding trust at every level from the micro interaction in the classroom to the macro decision-making of school policy and priority.

Without mutual trust among teachers, the latitude for a more opportunistic or cultural forms of distributed leadership is undermined. Getting people to participate in leadership activity and to share ideas and adventure into pedagogic territory can prove problematic. For senior leaders in the leadership for learning research, these issues presented a dilemma. How could they create a culture of mutual trust within a distrustful policy environment? Some have had too many experiences of trust betrayed or misplaced.

The dilemma was portrayed as a 'force field' or a push-pull of factors, volatile and shifting, pushing leaders back to more coercive styles when trust had been betrayed or when risk-taking proved too risky. In differing ways, in different countries involved in the study, these push and pull factors applied to members of school leadership team, among staff generally, with pupils, between pupils and teachers, between teachers and support staff with governors and with the parent body. Conversations in interviews and workshops depicted a continually shifting balance in relationships in which confidence and trust were in constant and precarious balance.

This was in large part a reflection of policy and accountability pressures, but this was not the whole story. How leaders struggled with these issues was relevant to the form or stage of distribution in a school. In what we have described as 'distribution formally' trust was balanced by systems of control and by what Bottery (2003) describes as 'calculative trust' – a considered weighing up of the measure of trust that could be allowed to any individual in any given context. This may also be the form of trust characteristic of pragmatic and incremental distribution. Bottery's notion of 'professional trust' – a confidence in the role someone is expected to

fulfil – comes into play more obviously in strategic distribution. Here trust is invested in role and status with a presumption of competence, until proved otherwise. As distributed leadership matures and evolves into ‘distribution culturally’, it would be reasonable to expect a high level of mutual trust in the school at least among staff, what Bottery described as ‘identificatory trust’. This describes an ability and willingness to put oneself in other people’s shoes, to realize the moral imperative (do unto others as you would have them do unto you) and to treat others with integrity. This latter level of trust may be more aspirational than real, but it is a goal towards which many leaders strive.

So, while working to generate trust, at the same time senior leaders tried to convey the message that holding staff to account through monitoring, scrutiny of data and performance management could build, as opposed to eroding, trust. To accomplish this, however, implied creating opportunities for lateral learning and collegial exchange, peer mentoring and evaluation and a greater openness to critique and challenge, modelled by those in senior and middle leadership positions. It rested on trustworthiness at the individual level, trust at the organizational level and alignment at leadership level – alignment being measured by the congruence that exists between individual trustworthiness and organizational trust.

Without a strong sense of internal accountability, accountability to external agencies will always run at cross-purposes to the generation of trust and distributed leadership. What is at stake is, in Elmore’s words, how leaders account for their work and how they frame and tell their story, to one another, to their students, to parents and to the larger world outside.

The most notable trait of great leaders, certainly of great change leaders, however, is their quest for learning. They show an exceptional willingness to push themselves out of their own comfort zones, even after they have achieved a great deal. They continue to take risks, even when there is no obvious reason for them to do so. And they are open to people and ideas even at a time in life when they might reasonably think – because of their success – that they know everything. (Hesselbein, et al. 1996: 78)

David Frost (2003) has argued that ‘in spite of breakthroughs in practice and theoretical understanding, narrow conceptions of school leadership still persist and colour the way we see ‘distributed leadership’, a continuing legacy of structuralist organizational science with its legacy of assumptions continues to support the belief that leadership requires the kind of authority that flows from a designated position in the organizational hierarchy. He concludes:

If beliefs about leadership lead to a perspective that is leader-focused (position or role-based leadership) rather than leadership-focused – there is a serious obstacle to the cultivation of shared leadership. The language chosen – in particular the constant use of the word ‘leader’ – is inhibiting and reinforces the assumption that it is about special people with particular role designations and authority bestowed by officialdom. (2001, p. 4)

In Peter Senge’s 1990 treatise on organizational learning disabilities, pre-eminent place is given to the inhibiting posture ‘I am my position’. As people define themselves by their status, he contends, they deny themselves and others opportunities for boundary crossing - ‘I am the director’, ‘I am the principal’, ‘I am a basic rank teacher (as they are called in Hong Kong), ‘I am [only] a pupil’.

Ann Liebermann has written extensively about the clash between teachers who aspire to lead and the bureaucratic norms of their schools. She found that, in addition to (or as a concomitant of) pressure from above, strong teacher norms of egalitarianism in the teacher culture inhibited anyone from sticking their neck out too far, reluctance to exercise leadership without formal invitation or sanction. In the writing projects which she initiated, the dormant qualities of leadership suddenly found expression. She cites the cases of teachers who ‘re-ignited their desire to do something to address issues of gender and race respectively, their ‘burning passion’ for the cause leading them to devise a number of strategies in their own classrooms and to build alliances that became the impetus for change within their schools’ (p. 189, cited in Davies and Brighouse 2008).

Sackney and Mitchell (2007) describe the essence of successful schools as releasing the creative energy of teachers:

We have found that, in successful schools, learning leaders know the people, the organisations, the communities, and the contexts; they ask questions rather than provide answers; and they know what is happening with teaching and learning. Most importantly, they find ways to release the creative energy of teachers and students, for this is the force that fosters experimentation and that breathes life, excitement, and enthusiasm into the learning environment for students and for teachers. This implies, of course, that leaders are comfortable with ambiguity, that they are more interested in learning than in outcomes, and that they trust teachers and students to work their magic in the classrooms. (p.87)

They refer also to the creative energy of students as allied to the creativity and energy of their teachers, one feeding, and feeding off, the other.

Do Schools Have a Future?

Those who write and speculate about preparing children for life in the twenty-first century contemplate a different and even unimaginable future yet have to be acutely aware that looking forward also means looking back. In addressing the following question of the OCED/CERI programme, the implicit question is: where do transformation and conservation meet?

How can today’s schools be transformed so as to become environments of teaching and learning that makes individuals lifelong learners and prepare them for the 21st Century?

Perhaps as the traveller asking for directions was advised, ‘I wouldn’t have started from here’, an education system fit for the future would not have started with the structures, curricula and testing into which we seem to be inescapably locked.

‘Nothing fails like success’ wrote Peter Senge, in 1990. The more success a teacher, a department and a school experience within the bounded criteria of exam passes and Ofsted inspections, the less likely they are to question it. ‘There is nothing like success to breed complacency or arrogance, because being the best means not looking for the inconsistencies or deep seated assumptions which prevent radical change’ (Hammond and Mayfield 2004).

For those who lead learning in and out of school, coming to terms with the changing world of childhood means addressing the conjunction between what is happening in the economic world, in the social world, in family, in street and in peer groups and what takes place in the classroom. A transmission model (those who know telling those who do not know) is not only increasingly limited in effect but serves to simply reinforce and replicate a model of proven fragility.

In the Highland Region of Scotland, where schools are separated by hundreds of miles and stretches of water, students are able to download videoed lessons in all school subjects and view them at home or on their mobile phones. On a 2-hour bus or ferry journey, a pupil may review work again or catch up on lessons missed. For teachers as well as for their pupils, the off-site availability of increasingly sophisticated and interactive resources raises a challenging question for the future of this scattered Scottish community: is your journey really necessary? It is a question that will have much wider applicability for the future. The more learning crosses spatial boundaries, the more it begins to challenge the physical structures which try to contain and limit it. As the legacy of old buildings and old ways of thinking conspires against new forms of learning, so it implies the dismantling of dividing walls, first in the metaphorical sense, in turn stimulating a re-examination of the physical structures.

Sustainability, says Andy Hargreaves, relies on seven key factors, on systems which:

1. Create and sustain learning. Focusing on learning that matters, that is lasting and engages students intellectually, socially and emotionally.
2. Secure success over time. Ensures succession by building capacity, grooming others and 'letting go'.
3. Sustain the leadership of others. Distributes leadership and provides opportunities for others to exercise initiative.
4. Address issues of social justice. Recognizes that schools are interconnected and does not seek to improve itself at the expense of others.
5. Develop rather than depletes material resources. Careful husbanding of resources and nurturing of talent comes from collaboration rather than competition.
6. Develop environmental diversity and capacity. Standardization is the enemy of diversity because different and challenging practices are the root of growth.
7. Undertake activist engagement with the environment. Impacting on the local and wider environment requires confidence in asserting values.

As Ken Robinson suggested: 'I believe our only hope for the future is to adopt a new conception of human ecology, one in which we start to reconstitute our conception of the richness of human capacity'.

The ecology of learning and teaching is the subject of the Futures Forum (Leicester et al. 2009) in which the dilemma space between the probable and the desirable is elaborated, positing three possible 'horizons' described as 'a useful framework both for understanding the deeper processes of long term societal change, and for designing more effective policy interventions' (p. 3).

The first horizon is ‘business as usual’ represented by ‘standard-based systematic reform’, a highly influential model of how to get the most out of the system as it exists but condemned to ‘go on measuring the wrong things as a misleading proxy for the right ones’ (p. 18). This highly influential model – ‘more of the same but better’ – has considerable appeal to politicians and policymakers as its purpose is to get the most out of the system as it exists without disturbing public opinion, vested interests or straying too far from the comfort of ‘the way we do things round here’.

As this dissonance becomes more apparent, however, the ‘business as usual’ model will, it is argued, be gradually superseded by new ways of doing things. So, as the shortcomings of the first horizon system become more and more conspicuous, a second horizon is formed – ‘a moving border between past and future’. The second horizon is the ‘Cinderella zone’, struggling for recognition as it moves away from the comfortable familiarity of the first horizon. It will inevitably be judged by the conservative standards of the first horizon and so carries within it inherent risk: ‘It is clear that the challenge lies in the transition zone, the second horizon. This is the risky space. It can be chaotic and confusing with so many ideas competing for attention’ (p. 26). In response to threats to the status quo, even if only temporarily, the system will, it is conjectured, respond with a ‘capture and extend’ scenario in which ‘innovations in H2 [horizon 2] are mainstreamed’ in order to prolong the life of the existing system against the grain of a changing world’ (p. 4).

To move to the third horizon (H3) – ‘the ideal system we desire’ – requires a distinction to be made between innovations that are essentially technical, serving to prolong the status quo and those that are transformative and help to bring the third horizon vision closer to reality. H3 represents a ‘mature perspective’ in which ‘we can identify elements in the present that give us encouragement and inspiration’ (p. 5), addressing the challenges to the first horizon *and* nurturing the seeds of the third. There is a need to ‘keep the lights on today and to find a way of keeping them on a generation from now in very different circumstances’ (p. 5).

Three years ago at the OECD/CERI conference in Finland, Timo Lankinen outlined 11 aspects of what he saw as a third horizon:

- Ubiquitous technology and ubiquitous opportunity
- Collaborative, social-constructivist learning
- Problem-based teaching
- Progressive inquiry and experimental study
- Peer feedback and peer cooperation
- Contextual, authentic learning sites
- Networked local, technological and social forums of learning
- Hands-on, on-the-job, real-life learning arrangements
- On-line study in virtual environments through social media, with mobile tools
- Blended teaching methods and hybrid learning resources
- Public-private partnerships (Lankinen 2008)

Starting from here to what extent are these incipient in the present or apparently beyond reach without radical change? OECD’s Andreas Schleicher believes there is much to learn from the most effective systems that already exist. Comparing the

THE PAST	THEME	THE MOST EFFECTIVE SYSTEMS
Some students learn at high levels	<i>Student inclusion</i>	All students learn at high levels
Routine cognitive skills for lifetime jobs	<i>Curriculum instruction and assessment</i>	Learning to learn, complex ways of thinking, ways of working
Taught to reach established content	<i>Teacher quality</i>	High-level professional knowledge workers
'Tayloristic' hierarchical	<i>Work organization</i>	Flat, collegial, differentiated and diverse careers
Primarily to authorities	<i>Teacher evaluation and accountability</i>	Also to peers and stakeholders

Fig. 22.1 Traditional and effective models of schooling

traditional model of schooling with 'the most effective', he identifies key features which do, or will in the future, characterize those systems which promise more complex ways of thinking, being in flatter and more collegial cultures. How they may be realized in practice will depend on the extent to which school leaders and teachers are in the driving seat of change (Fig. 22.1).

The recent Australian Council for Educational Leaders Capability Framework (ACEL, online) has three major sets of roles for school leaders:

- Leads self for learning
- Leads others for learning
- Leads the organization for learning

Within these three areas, they identify 11 different specific capabilities with 34 separate indicators designed to enable school leaders to map their own level of performance. School leaders can judge their own current capability using a rubric with four different ways of considering their performance:

- Influencing within and beyond classroom
- Influencing within and beyond team
- Influencing within and beyond school
- Influencing within and globally beyond school

What the optimistic trust literature may fail to take into account enough is the policy climate within which schools are located and may struggle to survive, often by tactical, strategic and forms of game-playing deemed necessary to navigate the around punitive policy measures.

And in the Future?

From this massive set of expectations about what might happen for leadership within schools in the future, we also need to recognize that the task of educational improvement can no longer be given to just one individual, the ‘heroic leader’ turning around failing schools, if we expect schooling for all students to be successful in this rapidly changing environment. This notion of the ‘heroic leader’ was mentioned by eight of the authors who wrote a chapter for the recent *International Handbook of Leadership for Learning* (Townsend and MacBeath 2011), yet none of them felt that this was a viable concept in today’s schools.

Whereas much of the instructional leadership literature reduces learning to ‘outcomes’, leadership for learning embraces a much wider, developmental view of learning. Nor is its focus exclusively on student achievement. It sees things through a wide angle lens, embracing professional, organisational and leadership learning. It understands the vitality of their interconnections and the climate they create for exploration, inquiry and creativity. Its concern is for all of those who are part of a learning community.

Leadership for learning has to be seen as a nested concept with pupil learning at the core of a concentric circle of leadership activities, or as depicted by the four-layered ‘wedding cake’, each layer integrally connected to the one below.

References

- Ackerman, R. H., & Maslin-Ostrowski. (2002). *The wounded leader: How real leadership emerges in times of crisis*. Jossey: Bass.
- Beatty, J. (2002). *Emotions of educational leadership*. www.meganbolter.net. Last Accessed 10 Sept 2013.
- Bottery, M. (2003). The leadership of learning communities in a culture of unhappiness. *School Leadership and Management*, 23(2), 187–207.
- Cook, C. (2012, November 2). Perverse incentives for schools to cheat. *Financial Times*. p. 4.
- Covey, S. (2006). *The speed of trust: The one thing that changes everything*. New York: Simon and Schuster.
- Davies, B., & Brighouse, T. (2008). *Passionate leadership in education* (pp. 129–150). London: Sage.
- Fried, R. L. (2001). *The passionate teacher*. Boston: Beacon Press.
- Frost, D.. (2003, January). ‘Teacher leadership: towards a research agenda’, a paper within the symposium ‘Leadership for Learning: The Cambridge Network’ at the International Congress for School Effectiveness and Improvement Sydney, Australia.
- Galton, M., & MacBeath, J. (2008). *Teachers under pressure*. London: Sage.
- Gorard, S. (2010). Serious doubts about school effectiveness. *British Educational Research Journal*, 36(5), 745–766.
- Hammond, S. A., & Mayfield, A. B. (2004). *The Thin Book of Naming Elephants: How to surface undiscussables for greater organisational success*. Bend: Thin Book Publishing Company.
- Haney, W. (2000). *The myth of the Texas Miracle in Education*. Education policy Analysis archives. on line- serial 8(41). <http://epaa.asu.edu/epaa/v8n41/>. Last Accessed 15 Aug 2013.
- Hargreaves, A. (2001). The emotional geographies of teaching. *Teachers College Record*, 108(6), 1056–1080.

- Hesselbein, F., Goldsmith, M., Beckard, R., & Drucker, P. (1996). *The leader of the future*. San Francisco: Jossey-Bass.
- Lankinen, T. (2008, October). *Pedagogy for tomorrow: The view from Finland*. OECD/CERI Schooling for Tomorrow, Conference, Finland.
- Leavitt, S. D., & Dubner, S. J. (2005). *Freakonomics*. London: Allen Lane.
- Leicester, G., Bloomer, K., & Stewart, D. (2009). *Transformative innovation in education: A playbook for pragmatic visionaries*. International Futures Forum, Triarchic Press Ltd. See at <http://triarchypress.co.uk/pages/book21.htm>
- MacBeath, J., & Cheng, Y. C. (2008). *Leadership for learning: International perspectives*. Amsterdam: Sense Publishers.
- MacBeath, J., Gronn, P., Forde, C., Howie, Lowden, K., & O'Brien, J. (2009). *Recruitment and retention of head teachers in Scotland*. Edinburgh: Scottish Government.
- O'Neill. (2002). *A question of trust. (Reith lectures)*. London: BBC.
- Sackney, L., & Mitchell, C. (2007). Leadership for learning: A Canadian perspective. In J. MacBeath & Y. C. Cheng (Eds.), *Leadership for learning: International perspectives*. Amsterdam: Sense Publishers.
- Sahlberg, P. (2011). *Finnish lessons, what can the world learn from educational change in Finland?* New York: Teachers College Press.
- Schleicher. (2011). *Building a high quality teaching profession: Lessons from around the World*. New York: Teachers Summit.
- Senge, P. M.. (1990). *The fifth discipline*. Doubleday/Currency.
- Townsend, T., & MacBeath, J. (2011). *The international handbook of leadership for learning*. Amsterdam: Kluwer.

Chapter 23

Linking Learning: Developing Cross-Sector Policies for Transitions to School

Tess Boyle and Susan Grieshaber

Abstract This chapter presents data from a teacher participatory action research project about transitions between the year before compulsory schooling and the first year of schooling in the state of New South Wales, Australia. The participants include four teachers (two from each sector) and four executive staff, all of whom are supported by the education authority through the provision of release time to engage in a professional learning community (PLC). The project aims to enhance understanding from both the compulsory and pre-compulsory sectors by enabling participants to identify areas of convergence and divergence, specifically curriculum and pedagogy. The ultimate goal is to improve transitions for children from preschool to the first year of school by developing transitions statements that link learning from one educational setting to the other. The chapter analyses data from individual interviews and meetings of the professional learning community. It makes a case for the way in which cross-sector policy development might occur so as to move towards the aim of improving transitions for children.

Keywords Critical theory • Participatory action research • Policy development • Professional learning community • Transitions to school

T. Boyle (✉)

School of Education, Beachside TGC Campus, Southern Cross University,
Southern Cross Drive, Bilinga, Gold Coast, QLD 4225, Australia
e-mail: Tess.Boyle@scu.edu.au

S. Grieshaber

Faculty of Education, Monash University,
Peninsula Campus, Frankston, VIC 3199, Australia
e-mail: sue.grieshaber@monash.edu

Introduction

The Australian education system is currently undergoing major reform in the compulsory and pre-compulsory sectors. Amongst other things, these reforms include a national curriculum, assessment and reporting framework for the compulsory sector called the *Australian Curriculum* (Australian Curriculum Assessment and Reporting Authority 2012) and a nationally mandated learning framework from birth to 5 years titled *Belonging, Being & Becoming: The Early Years Learning Framework for Australia* (the Framework) (Department of Education, Employment and Workplace Relations [DEEWR] 2009). Despite this, the structural context of the education system is differentiated across the six states and two territories. Thus Australian state and territory governments hold authority for the organisation of education in the pre-compulsory and compulsory sectors and of their respective workforces. So while federal investments and initiatives such as the development and implementation of the Australian Curriculum have been agreed upon by the states and territories through the Council of Australian Governments (COAG) (2009), the Australian Curriculum is open to interpretation and modification. The complex and varied structural contexts of the Australian education system present particular challenges to the development of policy.

The importance of continuity between prior-to-school and school sectors is emphasised within recent policy documents, which are guided by the Melbourne Declaration on Educational Goals for Young Australians (Ministerial Council on Education, Employment, Training and Youth Affairs [MCEETYA] 2008). According to Connor (2012), educators now have ‘golden opportunities’ (p. 3) for establishing continuity between the sectors. Yet in the state of New South Wales, the site of the study reported in this chapter, there is no mandate for the sectors to engage with each other or their respective policies. The absence of policy to assist teachers to implement transitions programmes that enhance continuity is anomalous with the body of transitions research and social policy initiatives that confirm the importance of continuity.

While the recently released Australian Curriculum (ACARA 2012) and the Framework (DEEWR 2009) do not provide explicit links across the pre-compulsory and compulsory sectors, they do encourage discussion of continuity and alignment. The Framework supports curriculum decision-making ‘to extend and enrich children’s learning from birth to five years and through transitions to school’ (DEEWR 2009, p. 5). This inaugural federal policy endorses play-based pedagogies, including intentional teaching and outcome-based assessment. In doing so, it presents challenges and opportunities to well-established practice in this sector, including continuity during transitions (Grieshaber 2010). In the compulsory sector, the Australian Curriculum mandates curriculum content and a standard-based approach to assessment but does not endorse any particular pedagogical framework. Both policies recommend teachers align curriculum and pedagogy across the sectors to enhance continuity during transitions. However, there is no mandate at a federal level for both sectors, and little evidence of support, to date, to achieve this (Barblett et al.

2011). The introduction of these policy documents provides teachers in both sectors with more consistent touchstones upon which to consider transitions. For the first time, teachers in the school sector have the opportunity of linking planning with a Framework (DEEWR 2009) that provides a consistent set of outcomes and principles. In the state of New South Wales (NSW), the organisation of the education system and workforce is split across the pre-compulsory and compulsory sectors, and different authorities hold governance of curriculum, student assessment and teacher quality (education and accreditation) in each sector. This has resulted in teachers having limited engagement with cross-sector policies guiding practice.

Transitions Literature

The term ‘transitions to school’ has been defined in many ways and from many different perspectives. For the purposes of this chapter, it is identified as ‘the process of moving from one setting to another, often accompanied by a move from one phase of education to another’ (Fabian 2007, p. 6). The importance of making a positive start to school has been researched extensively and linked to later success in life by Galton and many others (Alexander et al. 2001; Bohan-Baker and Little 2002; Dockett et al. 2012; Galton and Hargreaves 2002; Pianta and Kraft-Sayre 2003). Findings confirm that the greater the alignment between the sectors, the fewer problems children face during transitions (Barblett and Maloney 2010; Brostrom 2005). Achieving alignment in Australian states and territories is made more challenging by the historical development of the pre-compulsory and compulsory sectors (Wong 2007). This challenge is exacerbated by the legacy of philosophical and pedagogical differences (King 2011). In recent years, the pedagogical divide has widened as play-based activities in the compulsory sector of some Australian states have declined (Boyle and Grieshaber 2013). While relationships between the pre-compulsory and compulsory sectors vary across and within states, such relationships are influenced by theoretical perspectives that inform research about transitions to school, specifically maturational, ecological and sociocultural theories. Critical theory informs the research discussed in this chapter, but little research about transitions has adopted this perspective.

The relationship between the pre-compulsory and compulsory sector is evident in the transitions literature notably that which addresses school readiness. Child developmental theory regards childhood as a period of natural and universal growth and maturation, a state of becoming (Vogler et al. 2008). While adults may prompt or nurture maturation, development is portrayed as an interactive endeavour. Maturational perspectives view the relationship between the sectors through a lens of readiness, where children are measured against norms of social, emotional and cognitive skills that have been clustered into stages. Transitions to school are constructed as the movement from one stage to another and as a linear and hierarchical process (Corsaro 2011). The relationship between the pre-compulsory and compulsory sector is represented as ‘senders and receivers’, and the role of the former

sector is to prepare children for progression to the latter (Moss 2013). Power and authority are incrementally attributed in this hierarchal structure with the before-school sector positioned at the bottom of the ladder (Moss 2013). This division is reflected in the use of language such as preschool and big school (Petriwskyj and Grieshaber 2011).

From an ecological theoretical perspective, the concept of readiness acknowledges the interrelated influences of home, school, peers and neighbourhood (Rimm-Kaufmann and Pianta 2000). The relationship between the sectors is constructed as a 'partnership' as the provision of support for children and their families combines the resources of all these influences. 'Ready' children are considered to demonstrate specific skills and dispositions: 'physical wellbeing and motor development, social and emotional development, approaches to learning, language development and cognition and general knowledge' (Emig et al. 2001, pp. 3–4). Ecological perspectives adopt the position that children can be made 'more ready' to start school by participating in programmes that support the development of skills and dispositions required to do well at school. Such programmes typically deliver a play-based integrated curriculum that addresses key domains (standards) of readiness, against which children are assessed (Office of Head Start 2012). The relationship between the sectors from this perspective is seen as more collaborative, dynamic and bidirectional (Dockett and Perry 2007).

Sociocultural theories of transitions emphasise the importance of multilayered relationships and suggest children acquire cultural collateral through active and passive participation. Alignment of the cultures between the child's home, school and community during transitions can enhance continuity or highlight discontinuity as their prior experiences prepare or prime them for this significant change event (Corsaro 2011; Rogoff 2003). Attempts to achieve alignment are evident in preparatory or priming events (Corsaro 2011) such as long-term transitions programmes that provide opportunities for respectful and reciprocal relationships between all stakeholders (Chan 2009). Respect can be demonstrated through multidirectional collaborations such as reaching out to communities in preference to school-specified events and agendas (Dockett and Perry 2009). The *Starting Strong I* Report (OECD 2001) supports this approach and advises that relationships based on a partnership model should not only be strong but equal. The achievability of such a partnership has been questioned by Moss (2013), who suggests that the culture of the dominant context is likely to be positioned as having more power.

Perspectives of transitions informed by critical theory are represented in a small yet emerging body of literature. Critical perspectives of transitions offer opportunities for the pre-compulsory and compulsory sector to consider how current practices include or exclude the voices of stakeholders and, in doing so, offer more respectful and balanced approaches to power dynamics (Petriwskyj and Grieshaber 2011). A critical approach to transitions requires cross-sectoral perspectives that interrupt stereotypes of readiness and homogeneity and to challenge the assumed consensus (Grieshaber 2008). Binary constructions of readiness that measure children against norms and standards which render them either 'ready' or 'not ready'

perpetuate unidirectional approaches to transitions that privilege the compulsory sector (Moss 2013).

Theoretical Perspective and Methodology

This study is informed by the theory of communicative action (Habermas 1984, 1987) and models of participatory action research (Carr and Kemmis 1986; Kemmis and McTaggart 2003). The theory of communicative competence (Habermas 1984) provides a framework by which the relationship between theory and practice can be mediated, by opening communicative spaces in which ideal speech situations can be facilitated. Communicative action requires participants to reach intersubjective agreement as a basis for mutual understanding, so as to reach an unforced consensus about what to do in a particular situation (Kemmis and McTaggart 2005). This opens communicative spaces for the development of relationships where norms are negotiated that seek to ensure all participants have an equal voice and rights (Habermas 1984). The idea is for individual participants to negotiate a response to the issue being investigated (Kincheloe and McLaren 2005). This process is consistent with the form of participatory action research adopted in this study and requires participants to think critically (dialectically) about pedagogy and the key concepts of transitions. Participants created and engaged in what turned out to be a collective, collaborative, self-reflexive and critical professional learning community (Dufour et al. 2010). Participants were encouraged to examine their own knowledge about transitions, to reflect critically on how this knowledge impacts their daily actions and to work towards improving interactions across the sectors.

Methods: Participants, Data Collection and Analysis

Purposive sampling (Creswell 2012) was used to intentionally select a context within the jurisdiction that co-locates school and prior-to-school services on the same site. The participants are representative of both sectors, participated in the pilot study and were enthusiastic to continue involvement. They include four teachers: two from the preschool room in a long day care centre (Penny and Peta) and two from the kindergarten room in a primary school (Karen and Kris). Four executive staff were also involved: the director of the long day care centre (Paula), the principal (Kevin) and assistant principal (Kate) of the primary school and the assistant director (David) of the systemic authority within the region in which the site is located. All participants are either directly or indirectly involved in transitions practices and policies and have been identified using pseudonyms.

Although survey questionnaires were used, data reported in this chapter are drawn from the PLC meeting notes and semi-structured interviews (Kvale 2007). Participants meet together in the PLC to plan, reflect, critique and collaborate.

Teachers are released from teaching commitments to attend these one-day (9 am–3 pm) meetings. Following the format of the pilot study (Boyle 2012), the meetings follow an agreed agenda, which is distributed to participants for consideration prior to the meeting date. The conversations are recorded and transcribed, and whiteboard summaries are photographed. The meeting notes and summaries record details of activities undertaken in each (action research) cycle and inform the negotiated action plan. The negotiated action plan is circulated to participants for confirmation of accuracy after the meetings. The meeting notes and photographic summaries are available for participants to access electronically if required. Key actions (professional learning, transitions activities, teacher exchanges and future planning) are noted within the action plan.

The semi-structured interviews offered participants an opportunity to share their lived experiences (Flick 2009) of transitions in a one-on-one situation, providing a communicative space not afforded in the group PLC situation and one where contentious or dissenting views could be expressed in confidence. The interviews occurred in April and May 2013, after the first PLC meeting of the year. Interview questions were informed by an online survey and data from the first PLC meeting. Each participant was asked five generic questions and two questions drawn from data that related specifically to issues raised or comments made by them in the PLC. The interviews lasted between 40 and 80 min and were scheduled at times and locations that suited participants. All were audio recorded and transcribed fully. Participant validation (Kvale 2007) was undertaken by providing each participant with a copy of the transcribed interview to check and amend if required.

During the first phase of data analysis, all of the evidence was descriptively coded (Saldāna 2009), collated into a table, and analytic memos written. Recurring codes within the data corpus (including memos) were colour coded and frequency noted. The second phase involved ‘clumping’ the codes into categories (Gibbs 2007). At the end of this phase, five key categories had emerged (design, implementation, dialogue, networks, professional learning), each with five subcategories. The evidence was then pattern coded (Miles and Huberman 1994), revealing three emergent themes (relationships, shared understandings, change). One topic that reflected these three emergent themes was what could broadly be called assessment. In what follows, we provide an analysis of key events related to assessment that shows how relationships and shared understandings about assessment in both contexts were developed and how the development of transitions statements occurred as a result of this.

Findings: Relationships, Shared Understandings and Transformative Change

Following the pilot study, the participants chose to continue involvement in the professional learning community (PLC). Within this space, they agreed to resume strengthening cross-sectoral relationships and the negotiation of differences with a

view to creating new understanding, thinking and practices. At the first meeting of the PLC in 2013, the group negotiated four goals, one of which was ‘To define and develop transitions statements’ (PLC Meeting Notes, 7 March 2013). This aspiration reflects the intention to negotiate shared understandings about the way information about children commencing school is ‘sent and received’, with a view to making transformative changes to policy and practice. From the data related to the development of transitions statements, we identified three actions undertaken by the PLC which were fundamental in the process: negotiating understandings and relationships, reviewing the assessment of children’s readiness for school and teacher professional learning about approaches to assessment. We discuss each to provide an analysis of how these actions produced shared understandings, which in turn strengthened relationships amongst members of the PLC and resulted in changes to practice and policy. The teachers in the first year of compulsory school teaching children aged 4.5–6 years are referred to as kindergarten teachers and those in the before-school sector teaching children aged 4–5 years are referred to as preschool teachers.

Negotiating Understandings and Relationships

Despite that fact that the school and long day care centre are co-located, prior to the PLC, movement between the sites had been limited to a few activities designed to orientate the children to school. This is consistent with Galton’s (2000) investigation, who noted that ‘teachers are often reluctant to engage in forms of collaboration with colleagues ... unless evidence exists that the colleague’s view on practice is similar’ (p. 200). The participants recognised that they had very little knowledge about or understanding of the settings of each other or of policies that guide practice. Kate (assistant principal) talked about the importance of ‘understanding ... where these kids have come from’:

You know Karen [kindergarten teacher] hadn’t really been to a preschool to see them in action until last year. And she’s been teaching kindergarten for most of her career. I think [it’s important] if you’ve got an understanding of where these kids have come from in terms of their space, so where they live in their preschool. (Kate; Interview, 6 May 2013)

Here Kate recognised one of the key differences of the two systems (space and how it is used) and that up until the initiation of the PLC, opportunities to build relationships and negotiate shared understandings of the two worlds children traverse during transitions had been limited. This is consistent with the findings of Hopps (2004) who noted that communication between the sectors in the state of New South Wales ‘does not occur very often or very well’ (p. 8). Observation of and discussions about differences in practice and policy were noted as participants visited classrooms across the sites. The children also engaged in regular exchanges which provided them and their teachers with more opportunities to observe difference and, for teachers, to further discuss difference in the forum of the PLC.

Systemic differences were often raised as the source of significant divergence. These included structural dissimilarities such as the physical environment; however, it was contemplations of practice, in particular the philosophies that inform practice, that resulted in the most robust conversations. Different theoretical perspectives underpinning the philosophies held by teachers within each sector are evident in practice and in policy. In her interview, Paula (preschool director) talked about 'holding firm to our own philosophies of early childhood' (Interview, 24 April 2013). This comment was made in defence of the centre's programme, which, in comparison with that of another local preschool, was perceived as being less structured, less like school. In this conversation, Paula confirmed her conviction of resisting the push-down of more formal approaches to education into preschool. This phenomenon is identified in the Starting Strong II Report (OECD 2006) as the 'schoolification' (p. 62) of the sector. The participants also identified the tension between philosophical understandings of pedagogy and of readiness reflected in this global phenomenon. The preschool programme was seen by Karen, a kindergarten teacher, as requiring firmer expectations to help prepare children for school, such as completing 'the activity before they actually move on' (Interview, 6 May 2013). Alternatively, the kindergarten programme at the school was identified by Penny, a preschool teacher, as being very different because of the regulation and the speed with which children change their behaviour:

...it never ceases to amaze me how they can so quickly get these little armies of children in groups that march from one thing to another. It was halfway through first term and they were like these little robotic things...I could never teach like that, I couldn't make myself do it. (Interview, 24 April 2013)

Preschool teachers had little knowledge about or understanding of the historical, theoretical and systemic conventions informing programmes in the school sector and vice versa. It became an objective of the group (also articulated as a goal) to know more about the differences and how they might establish shared understandings. Within the PLC, such understandings were negotiated through a professional learning workshop, presented by representatives of each sector with explanations about the philosophies informing their respective pedagogies and curriculum. In the time available, differences in systemic policies and demands were acknowledged and understood as the basis of changes to practice within both sectors (PLC Meeting Notes, 23 October 2013).

Recognition of difference and being prepared to engage in cross-sectoral dialogue led this group of teachers to navigate differences; to accept reasons for these, including that they are immutable; and to find ways to build connections between the two sectors in order to assist children transitioning from one to the other. The following comment from Kris reflects the positive tone of the PLC and the motivation of members to work with commonalities:

We're understanding the two settings and the expectations of the two settings and yes, there are lots of differences but there are also commonalties [and] where we can build on those commonalties for the children to help them make that big step from the preschool setting to school. There's lots of things that can still happen and we can further develop. (Kris, kindergarten teacher; PLC Meeting Notes, 19 September 2013)

During the second PLC meeting, the group read and discussed a chapter by Dunlop (2007) in which she states that ‘The two worlds of preschool and school are both important, and have identities that should not be lost, the bridge between them is important, a recognisable landscape on each side of the gap helps’ (p. 165). This statement formed the platform on which participants came to the shared understanding that alignment or continuity between their two worlds did not mean yielding ground or trading philosophical standpoints. Rather, it required learning about the landscape on either side, and the negotiation of shared understandings if the goal of writing transitions statements, a major change, was to be achieved. Continuity is presented as a desirable attribute of transitions, yet empirical evidence shows that children are excited about the change transitions afford (Galton et al. 2003).

Establishing a space in which a relationship of respect and open dialogue about difference has been created (see Habermas 1984) enabled these teachers to engage with long-held practices, assumptions and beliefs about transitions to school. Gathering information about children commencing school was one practice that was reviewed in the quest to develop the transitions statements.

Reviewing Assessment of Children’s Readiness for School

In the March 2013 PLC meeting, talking about linking learning led the group to discuss and reflect on current transitions practices, including the ‘Ready for School’ checklist. The checklist is a document developed by the kindergarten teachers that sets out specifications or indicators of readiness under the headings Literacy, Numeracy, Social, Emotional and Fine/Gross Motor Skills. Until 2012, it had been used by the school to gather information about children enrolling and was completed by the kindergarten teachers based on information provided by the preschool teachers when they met in the August prior to the children beginning school in January. It is informed by a maturational approach because it measures children against norms of social, emotional and cognitive skills that are clustered into stages (Katz 2010). Discussion of the checklist in the PLC revealed significant differences in philosophical approaches about the information that preschool teachers wanted to share with the kindergarten teachers and the information required by the kindergarten teachers:

In the past two years or so they [kindergarten teachers] have...come in with a much more prescriptive list...can they write their name, can they count to five, do they know colours and I’m...thinking well, yes...but I’m not looking simply at those sorts of things...I don’t like that, I don’t like it at all. I much preferred when I would talk and they would make notes because I would talk about things like revealing some personalities... (Penny, preschool teacher; Interview, 24 April 2013)

Preschool teacher Penny sees information such as children’s personalities as important, yet she understands the kindergarten teachers to be interested mostly in what might be called academic skills such as children being able to write their name, know colours and count. This excerpt provides an example of the unidirectional

nature of recent practice, the contrast in concepts of readiness and divergence in how learning is understood. These illustrations are consistent with research by Dockett and Perry (2007) and Timperley et al. (2003) that shows a scarcity of knowledge of the other, and a dearth of communication between the two educational contexts, which in turn produces different expectations. The changes in the school's information gathering activities over the past couple of years (referred to by Penny) are reflective of a move in the school sector to a standard-based approach to assessment. For example, in New South Wales, teachers use the Best Start Kindergarten Assessment (New South Wales Department of Education and Communities 2013), a standardised measure to assess entry-level literacy and numeracy skills of the children commencing kindergarten. This assessment is typically undertaken before children commence classes in January or in the first few weeks of the first school term. The unidirectional and hierarchical nature of the approach adopted by the school in taking sole responsibility for deciding what information is gathered highlights an existing tension between the settings and the potential of this assessment artefact to destabilise relationships established within the PLC.

While the preschool teachers appreciated the fact that the kindergarten teachers took the time to talk with them about the children commencing school (others do not), they were troubled by the lack of alignment between the information required by the kindergarten teachers and the outcomes of the learning Framework (DEEWR 2009) with which they are required to work. The standards (expressed as indicators) on the Ready for School Checklist used by the kindergarten teachers, the decision to change the format of the checklist to include literacy and numeracy indicators and the presumption that the preschool teachers would be able to provide evidence of children's progress against these exemplify what has been called a 'readiness for school model' in which the school holds the authority (OECD 2006, p. 63). Discontinuity between the information required for the Ready for School Checklist and that of the five outcomes in the Framework (DEEWR 2009) began to emerge as a significant point of divergence and a potential 'road block' to the development of the transitions statements:

You know how there's been the suggestion of changing the...checklist...I'm not sure how that's going to pan out...the whole notion is great, but is it really going to tell them [kindergarten teachers] what they want to know about a child and their particular skills?... but they're talking can children count to 10, can children count to 20, can children recognise their own name, are they writing letters? How are we going to write that under an outcome when we're actually saying...for each individual child we're writing almost a narrative to say where they're at within that outcome. It's not 'checklisting' enough...I didn't know how they were going to actually get the information they've got [to have] in their checklists. I don't know how they think they're going to get it out of some information under the EYLF [outcomes from the Framework]. (Paula, Preschool Director; Interview, 24 April 2013)

In this excerpt, Paula stated explicitly the issue of the lack of alignment between the requirements of the school checklist and the outcomes of the Framework. Discussions about these differences informed the actions of a subsequent meeting by including a professional learning session about assessment, presented by teachers

from each sector. The presentations about how learning is assessed in each sector proved to be a turning point in the development of shared understanding about assessment, which has since been reflected in the design of the transitions statements.

Teacher Professional Learning About Approaches to Assessment

The provocation of difference in the form of the Ready for School Checklist used by the school to gather information about children enrolling presented a challenge to the negotiation of shared understandings and to the established relationships within the PLC. The Ready for School Checklist reinforces the idea that transitioning to school is movement from one stage to another and a linear and hierarchical process (Corsaro 2011). If learning is to be linked across the sectors, in this case in the form of transitions statements, these differences needed to be identified and negotiated successfully. To enhance understanding of approaches to assessment, Paula (preschool director) presented about the prior-to-school sector and Kate (assistant principal) about the school sector. They both provided the group with an overview as well as details of the principles and processes of assessment.

What resulted was an understanding that the preschool teachers gather and document evidence of learning using the five outcomes statements in the Framework (DEEWR 2009). The evidence is based on observations of individual children and reported to parents as narratives (PLC Meeting Notes, 9 March 2013). The kindergarten teachers gather and document evidence of learning using standards based on cohort comparative assessments and report to parents by comparing children against their cohort on a three-point scale ('at', 'above', 'towards'), which is usually recorded as a profile that gives teachers and parents a visual overview of areas of strength and those requiring further attention. Consensus was reached that the differences in practice that caused consternation amongst participants were grounded in a paucity of understanding of the other (PLC Meeting Notes, 9 March 2013). Having agreed to use the outcomes of the Framework (DEEWR 2009) as the basis for the transitions statement (PLC Meeting Notes, 7 March 2013), the challenge was to include a profile (similar to what was used by the kindergarten teachers) that would facilitate comparison of the cohort. The inclusion of the profile was considered by the group to be an important design element because it provided a visual overview of children's strengths and areas that required further elaboration, a structure for large amounts of information to be presented succinctly, and it reflected the assessment practices of both sectors, which was a desirable attribute (PLC Meeting Notes, 27 June 2013).

Reaching consensus about the eventual format required teachers from both sectors to challenge existing understanding and thinking and to make concessions that included different perspectives: 'We've always gone and gathered information, we're just respectful of the fact that these are the outcomes you work towards and we would like to bring that more in line with how you work' (Kate, Assistant

Principal. PLC Meeting Notes, 9 May 2013). The eventual design was seen to be considerate of both sectors because it included the language of the Framework (DEEWR 2009) used by the preschool teachers and the language of the profile used by the kindergarten teachers (PLC Meeting Notes, 23 October 2013).

Towards the end of the process of developing the transitions statements, participants acknowledged a deeper understanding of the two sectors and of the need to gather information about children starting school that links leaning through a bidirectional relationship:

I guess then it's all of those things that we can go forward with in relation to our profession and our understanding of education, from the early years through to school, a wonderful deeper understanding of how pedagogy and how pedagogical practices from the Early Years Learning Framework can marry together with, but is different to the pedagogy of curriculum based learning and teaching, and I would not have come to the knowledge or the beliefs that I currently do [have], as you put it Kate, saying it's now become part of my conversations with parents and our educators in the centre, had I not had that opportunity to be part of this project and to have had that time to have those professional conversations. (Paula, Preschool Director. PLC Meeting Notes, 23 October 2013)

Having established shared understandings about transitions, the practice of 'gathering information' was changed to reflect the bidirectional relationship between the two settings established within the PLC. The transitions statement, which has replaced the checklist, includes evidence-based information about children's prior knowledge according to the outcomes of the Framework (DEEWR 2009) in a succinct cohort comparative profile.

Conclusion: Changing Policy and Practice

The success of this ongoing PLC can be judged by the sustainability of the group, the outcomes achieved and the continuing support of the jurisdiction. In terms of sustainability, the PLC will continue to meet in 2014 (without funding) to try and learn more about the other sector and develop further shared understandings. The PLC members will be also involved in developing transitions to school *policies* in an effort to ensure continuity of the practices that were established in 2013. These include changes to enrolment practices such as the transitions statements and meetings with parents, as well as long-term transitions activities between the two sites such as regular visits to the library and events such as the Teddy Bears' Picnic designed to bring the kindergarten and preschool children together. Attention to detail such as inserting the transitions activities into the diaries of the programmes for both settings for 2014 is reassuring in terms of commitment. It also suggests confidence in the practices to be enacted and trust on the part of teachers in both settings. Thus the outcomes achieved during 2012 (pilot study) and 2013 are being expanded in ways that will not only preserve continuity of practice but will also foster opportunities for others in the jurisdiction to enrich their professional learning about transitions to school. The outcomes of 2013 are also being put to good use

in terms of developing transitions to school policies, which will guide future transitions practices between the two sites involved in the PLC in 2013. In terms of broadening the scope of what has been achieved, a professional partnership project called Transitions to School will be funded by the jurisdiction in 2014 and will include current PLC members, participants from one other school and four other preschools (PLC Meeting Notes, 23 October 2013). The focus of this professional partnership project will be sustaining the transitions practices developed in the PLC (e.g. opportunities for cross-sectoral professional learning) and wider adoption of the transitions statements, that is, to negotiate shared understandings about differences between the sectors and to negotiate mutually respectful transitions practices. These significant achievements in navigating the landscape of difference has enabled participants to change policy and practice beyond what is often called technical or means-to-end change (Macintyre Latta and Kim 2010). Negotiating shared understandings has led to change that is 'a part of who we are and how we act' (Karen, kindergarten teacher. PLC Meeting Notes, 23 October 2013). This comment from Karen suggests that such change is likely to be enduring as it was not 'top-down' and imposed from above. Participants in the PLC were 'repositioned from receiver of knowledge to active participant in its creation' (Taylor 2013, p. 10).

Our position is that through the development of shared understandings about the differences in their daily work and contexts, the nature of relationships amongst the preschool and kindergarten teachers and administrators changed. In turn, these remade relationships opened the possibility for a 'makeover' of practice and policy. The data suggest that the opportunity for developing greater understanding of the other has produced lasting and stable relationships because of the common goal of improving children's experiences of transitions to school. Initiating practices such as teacher classroom exchanges (preschool and kindergarten), presentations about assessment in each sector and the transitions curriculum at the beginning of the kindergarten year are examples of how participants enhanced their own understandings of transitions and continuity; how transitions and continuity operate in the respective settings in regard to philosophical, policy and systemic differences and curriculum and assessment; and possibilities for how they might operate differently. In other words, participants developed shared understandings of these differences and why they exist, which paved the way for sustainable change in policy and practice. As part of the PLC, participants talked about the concept of readiness, but the evidence suggests shared understandings of this concept has not yet occurred.

Changes to policy occurred with the creation of transitions statements, which gather information from the preschool teachers about prior learning according to the Framework outcomes (DEEWR 2009). In addition, parent/child statements have been developed to ensure the information gathered includes the perspective of the child and their parents. While they are yet to be written, there is a commitment by staff in both sectors to write joint transitions policies recognising the importance of sustained transitions practices. These will be endorsed by the administrators of both jurisdictions.

The data indicate that what was created in the PLC was similar to what Dahlberg and Lenz-Taguchi (1994, cited in Moss 2013) describe as a meeting place where

cross-sectoral relationships can be formed and thrive. In developing these relationships, attention is paid to the significance of ‘the traditions of educational institutions and their workforces that find expression in values, social constructions, identities and practices’ (Moss 2013, p. 22). The relationship of a meeting place is ‘a close and productive relationship, avoiding the domination of one sector by the other, starts with co-constructing new and shared understandings’ (Moss 2013, p. 24). Recognition and acknowledgement of differences in traditions form the foundations for building such a relationship. The space of the PLC produced some deep insight about difference, including this from Kate: ‘We’ve come to some mighty realisations, acknowledging that it’s okay to be different, there are reasons why we’re different, and there’s research that supports the differences in the two settings’ (PLC Meeting Notes, 19 September 2013). When transitioning from one setting to another, Galton et al. (2003) recommend considering a balance of the continuities and discontinuities change affords. But we leave the last word to David, the assistant director of the jurisdictional authority of the school, who came to a profound realisation about transitions and teachers:

The more and more I talk about this...transitions...it’s more about teachers than students. In the past we’ve put a lot of money into transitioning students...Wasted. Stuff happens but it’s effectively wasted. I think transitions is more about teachers than it is about kids. So if you’ve got teachers talking to each other, like what has happened here, then you will help the transitions. (PLC Meeting Notes, 19 September 2013)

References

- Alexander, K. L., Entwisle, D., & Kabbani, N. S. (2001). The dropout process in life course perspective: Early risk factors at home and school. *Teachers College Record*, 103, 760–822.
- Australian Curriculum Assessment and Reporting Authority. (2012). The shape of the Australian curriculum. Canberra: Australian Curriculum Assessment and Reporting Authority. http://www.acara.edu.au/verve/_resources/The_Shape_of_the_Australian_Curriculum_v4.pdf. Accessed 26 Oct 2012.
- Barblett, L., & Maloney, C. (2010). Complexities of assessing social and emotional competence and wellbeing in young children. *Australasian Journal of Early Childhood*, 35(2), 13–18.
- Barblett, L., Barrett-Pugh, C., Killgallon, P., & Maloney, C. (2011). Transition from long day care to kindergarten: Continuity or not? *Australasian Journal of Early Childhood*, 36(2), 42–50.
- Bohan-Baker, M., and Little, P. (2002). *The transition to kindergarten: A review of current research and promising practices to involve families*. Cambridge Harvard Family Research Project.
- Boyle, T. (2012). *Building Bridges Project Report*. Lismore: Southern Cross University.
- Boyle, T., & Grieshaber, S. (2013). Teacher understandings of orientation and transition programs from action research in five schools. *International Journal of Curriculum and Pedagogy*, 19(3), 15–27.
- Brostrom, S. (2005). Transition problems and play as a transitory activity. *Australian Journal of Early Childhood*, 30(3), 17–26.
- Carr, W., & Kemmis, S. (1986). *Becoming critical*. Melbourne: Deakin University Press.
- Chan, W. L. (2009). The transition from kindergarten to primary school, as experienced by teachers, parents and children in Hong Kong. *Early Child Development and Care*, 180(7), 973–993.

- Connor, J. (2012). *Foundations for learning: Relationships between the early years learning framework and the Australian curriculum*.
- Corsaro, W. (2011). *The sociology of childhood* (3rd ed.). Thousand Oaks: Pine Forge Press.
- Council of Australian Governments (COAG). (2009). *Investing in the early years – A national early childhood development strategy*. http://www.coag.gov.au/coag_meeting_outcomes/2009-07-02/docs/national_ECD_strategy.pdf. Accessed 20 May 2010.
- Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston: Pearson.
- Department of Education, Employment and Workplace Relations [DEEWR]. (2009). *Belonging, being and becoming: The early years learning framework for Australia*. Canberra: Commonwealth of Australia.
- Dockett, S., & Perry, B. (2007). *Transitions to school: Perceptions, expectations, experiences*. Sydney: University of New South Wales Press Ltd.
- Dockett, S., & Perry, B. (2009). Readiness for school: A relational construct. *Australasian Journal of Early Childhood*, 34(1), 20–26.
- Dockett, S., Perry, B., & Kearney, E. (2012). Family transitions as children start school. *Family Matters*, 90, 57–67. Retrieved from <http://www.aifs.gov.au/institute/pubs/pubsyear.php>.
- Dufour, R., Dufour, R., Eaker, R., & Many, T. (2010). *Learning by doing: A handbook for professional learning communities at work* (2nd ed.). Bloomington: Soution Tree Press.
- Dunlop, A.-W. (2007). Bridging research, policy and practice. In A.-W. Dunlop & H. Fabian (Eds.), *Informing transitions in the early years: Research, policy and practice* (pp. 151–169). New York: Open University Press.
- Emig, C., Moore, A., & Scarupa, H. (2001). *School readiness: Helping communities get children ready for school and schools ready for children*. Washington, DC: Child Trends Research Brief.
- Fabian, H. (2007). Informing transitions. In A.-W. Dunlop & H. Fabian (Eds.), *Informing transitions in the early years: Research, policy, practice* (pp. 3–20). New York: Open University Press.
- Flick, U. (2009). *An introduction to qualitative research* (4th ed.). London: Sage.
- Galton, M. (2000). Big change questions: “Should pedagogical change be mandated?” ‘Dumbing down’ on classroom standards: The perils of a technician’s approach to pedagogy. *Journal of Educational Change*, 1(2), 199–204.
- Galton, M., & Hargreaves, L. (2002). *Transfer from the primary classroom 20 years on*. London: Routledge Falmer.
- Galton, M., Gray, J., & Ruddock, J. (2003). *Transfers and transitions in the middle years of schooling (7–14): Continuities and discontinuities in learning*. Nottingham: Department for Education and Skills: Queen’s Printer.
- Gibbs, G. (2007). *Analyzing qualitative data*. London: Sage.
- Grieshaber, S. (2008). Interrupting stereotypes: Teaching and the education of young children. *Early Education and Development*, 19(3), 505–518.
- Grieshaber, S. (2010). Departures from tradition: The early years learning framework. *International Journal of Child Care and Education Policy*, 4(2), 33–44.
- Habermas, J. (1984). *The theory of communicative action: Volume 1 – Reason and rationalisation of society* (T. McCarthy, Trans.). Boston: Beacon Press.
- Habermas, J. (1987). *Theory of communicative action: Volume 2: Lifeworld and system: A critique of functionalist reason*. (T. McCarthy, Trans.). Boston: Beacon.
- Hopps, K. (2004). Teacher communication across the preschool-school boundary. *Australian Journal of Early Childhood*, 29(1), 8–13.
- Katz, L. G. (2010). A developmental approach to curriculum in the early years. In S. Smidt (Ed.), *Key issues in early years education* (pp. 11–18). London: Routledge.
- Kemmis, S., & McTaggart, R. (2003). Participatory action research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Strategies of qualitative inquiry* (2nd ed., pp. 336–396). Thousand Oaks: Sage.

- Kemmis, S., & McTaggart, R. (2005). Participatory action research: Communicative action and the public sphere. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (pp. 559–604). Thousand Oaks: Sage.
- Kincheloe, J. L., & McLaren, P. (2005). Rethinking critical theory and qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 303–342). Thousand Oaks: Sage.
- King, M. A. (2011). Transition in the classroom: The teacher. In D. M. Laverick & R. M. Jalongo (Eds.), *Transitions to early care and education: International perspectives on making schools ready for young children* (Vol. 4, pp. 87–92). New York: Springer.
- Kvale, S. (2007). *Doing interviews*. London: Sage.
- Mcintyre Latta, M., & Kim, J. (2010). Narrative inquiry invites professional development: educators claim the creative space praxis. *The Journal of Educational Research*, 103, 137–148.
- Miles, B. M., & Huberman, A. M. (1994). *An expanded sourcebook: Qualitative data analysis* (3rd ed.). Thousand Oaks: Sage.
- Ministerial Council on Education, and Training and Youth Affairs [MCEETYA]. (2008). *Melbourne Declaration on Educational Goals for Young Australians*. Melbourne: Curriculum Corporation.
- Moss, P. (2013). The relationship between early childhood and compulsory education: A properly political question. In P. Moss (Ed.), *Early childhood and compulsory education: Reconceptualising the relationship* (pp. 2–51). New York: Routledge.
- New South Wales Department of Education and Communities. (2013). *Best start kindergarten assessment*. <http://www.curriculumsupport.education.nsw.gov.au/beststart/assess.htm>. Accessed 1 Oct 2013.
- Office of Head Start. (2012). *Head start approach to school readiness*. <http://eclkc.ohs.acf.hhs.gov/hslc/sr/new>. Accessed 13 Sept 2012.
- Organisation for Economic Co-operation and Development. (2001). *Starting strong I: Early childhood education and care*. Paris: Organisation for Economic Co-operation and Development.
- Organisation for Economic Co-operation and Development. (2006). *Starting strong II: Early childhood education and care*. Paris: Organisation for Economic Co-operation and Development.
- Petriwskyj, A., & Grieshaber, S. (2011). Critical perspectives on transition to school: Reframing the debate. In D. M. Laverick & R. M. Jalongo (Eds.), *Educating the young child* (pp. 75–86). New York: Springer.
- Pianta, R., & Kraft-Sayre, M. (2003). *Successful kindergarten transition: Your guide to connecting children, families, and schools*. Baltimore: Paul H. Brookes.
- Rimm-Kaufmann, S., & Pianta, R. C. (2000). An ecological perspective on the transition to kindergarten: A theoretical framework to guide empirical research. *Journal of Applied Developmental Psychology*, 21(5), 491–511.
- Rogoff, B. (2003). *The cultural nature of child development*. Oxford: Oxford University Press.
- Saldana, J. (2009). *The coding manual for qualitative researchers*. London: Sage.
- Taylor, L. (2013). Lived childhood experiences: Collective storytelling for teacher professional learning and social change. *Australian Journal of Early Childhood*, 38(3), 9–16.
- Timperley, H., McNaughton, S., Howie, L., & Robinson, V. (2003). Transitioning children from early childhood education to school: Teacher beliefs and transition practices. *Australian Journal of Early Childhood*, 28(2), 32–38.
- Vogler, P., Crivello, G., & Woodhead, M. (2008). *Early childhood transitions research: A review of concepts, theory and practice*. Working paper No 48, The Hague.
- Wong, S. (2007). Looking back and moving forward: Historicising the social construction of early childhood education and care as national work. *Contemporary Issues in Early Childhood*, 8(2), 144–156. doi:10.2304/ciec.2007.8.2.144.

Chapter 24

Sustaining the Profession

Ronald Thorpe

Abstract Within the USA and across nations, there seems to be consensus around the belief that teacher quality is the most important school-based variable in determining how well a child learns. While such an observation hardly sounds like headline news, it is, in fact, a milestone in the development of teaching as a profession. It is also an important place to start any discussion about teaching. For one thing, it suggests where investments should be made if people really are serious about student learning and explains why both policy makers and the public should care. For all of these reasons, we need to seize this moment to rethink every aspect of the profession itself, especially what the trajectory people follow in order to become accomplished teachers. Getting that path right, and making sure all teachers follow it, is the surest way to create and sustain a workforce that is defined by the same consistent quality that is the hallmark of professions.

Keywords Teaching profession • Comparison to medicine • Accomplished practice

Is Teaching a Profession?

Before addressing the trajectory and the need to build a coherent continuum of experiences that all teachers should follow as they proceed toward becoming accomplished, there is a more basic question: Is teaching a true profession? If it is, it should hold itself to the same standards as other professions when it comes to the quality of its practitioners; if not, then such expectations are nice but not necessary.

Throughout his book, *Schoolteacher: A Sociological Study*, Dan C. Lortie put forward a series of reasons why teaching, which has the potential to be a profession, does act like one (Lortie 1975). For example, there is no period of mediated entry into practice that all new teachers follow. Perhaps more importantly, teaching does

R. Thorpe (✉)
National Board for Professional Teaching Standards,
1525 Wilson Boulevard Suite 500, Arlington, VA 22209, USA
e-mail: rthorpe@nbpts.org

not assert that there is a base of knowledge and skills that all practitioners should have, nor has it created many of the internal structures, common in other professions, such as a standards-based assessment created by the profession to certify when people have acquired the knowledge and skills.

Given the focus on education since Lortie's book was published – the high-profile reports and initiatives such as *A Nation At Risk*, *A Nation Prepared*, the reauthorization of the Elementary and Secondary Education Act as “No Child Left Behind,” Race to the Top, and all that has been learned through OECD's Programme for International Student Assessment (PISA) – one might assume that the education community would have made some fundamental changes. With one major exception – the creation of the National Board for Professional Teaching Standards – much has changed in American education policy, but little has changed that would signal teaching becoming more of a profession. In fact, the policy community – at the state and local levels and in some way at the federal level, too – seems to have outstripped the profession's voice and has deployed an agenda that in many ways treats teachers less like professionals and more like traditional blue-collar workers. Evidence for such a shift can be seen in the proliferation of alternate routes into teaching, an increase in accountability systems that focus on the most narrow measures of effectiveness, and a move toward more non-educators defining terms that would normally be the sole province of the profession.

What are the characteristics of a “profession”? As Lee Shulman, Marc Tucker, Lortie, and others have described in various places, a distinguishing operating principle of a profession is that those who are in it define the key terms. Those terms include:

- What a person has to know and be able to do to begin formal preparation.
- How aspiring practitioners are prepared and who prepares them.
- How they are mediated into the workforce through the induction and novice years.
- What the trajectory of development is beyond the novice phase.
- What practitioners must know and be able to do at the accomplished level.
- How practitioners demonstrate when they have reached that level.
- What the industry standards are for success.
- What the expected code of behavior is for people in the profession.
- How people are removed from the profession if they don't measure up.
- How changes are made with the advent of new learning and new tools.

Any assessment of teaching against these terms reveals that it does not fare well. But teaching's failure to meet these conditions does not mean that it does not deserve to be a profession, only that it hasn't coalesced around making that happen. Teaching is a complex undertaking. It almost certainly has an identifiable body of knowledge that is connected to content, the teaching/learning process, and the nature of children. There are also skills that must be acquired in order to help students develop in ways that prepare them for further study and life, including certain habits of mind that will serve them throughout their lives. Many teachers have this knowledge and skills, but their numbers do not define the teaching workforce, and the profession

has not done what other professions have done to ensure the public of consistent quality. This is especially true in American schools serving large numbers of poor children, where the job of teaching is more difficult and requires even greater skills and knowledge to be successful. It may also be equally true in schools serving more affluent children, but in those cases other factors may be compensating for the lack of consistent teaching quality.

Can teachers and those who are devoted to education create the conditions that lead to accomplished practice becoming the norm rather than the exception? The answer to that question is “yes.” In fact, the better answer is: “They must!”

The need for good teaching in all classrooms – in small towns, rural areas, large cities, and everything in between, in wealthy, moderate, and poor communities, and for all children regardless of their age and mental capacity – is equal to, if not more compelling than, what is required for other professions. The negative long-term consequence when poor or mediocre instruction of children is the norm is clear: no society can prosper if it fails to develop its most important asset. Just as nations can’t become great or even good without healthy populations and dependable infrastructure, neither can they do it without an educated citizenry.

There are some people who think it is not possible for teaching to reach such a level. After all, we are talking about a mostly female, middle-class workforce that takes care of children. Those are not exactly the ingredients that go into other professions. Furthermore, teachers do work that most people believe that anyone can do. That belief stems in large part from the fact that today almost all adults in the USA have spent 15,000 h as students watching teachers. No other occupation is observed so extensively, and this familiarity undoubtedly adds to the belief that teaching just is not that hard. Also, there are great numbers of people who consider themselves successful in life who did not have a particularly positive experience in school, which raises the question whether school really matters or whether it is just a rite of passage that young people have to get through.

There are still others who do not want teaching to be a profession. They pursue strategies designed to “teacher-proof” schools, and they imagine classrooms being led primarily by young people who “do” teaching for 2–5 years on their way to a real job. Such a scheme makes sure that salaries stay low and retirement costs mostly disappear. Such an attitude toward teachers should be unmasked for what it is: a thinly veiled effort to make sure that poor children never get the education they need.

Then there is the long-standing debate over whether teaching is a science or an art. The implication is that if it is a science, it can be learned and measured, but if it is an art, it cannot be. One either has the “gift” or not. In the current environment of excessive accountability and policies that advocate lockstep approaches to teaching, it is not unusual even for teachers to weigh in passionately on the side of “art.” Putting aside for a second how strongly artists would object to the idea that their skill comes from something innate rather than something gained through hard work, the truth is that the art-science debate is just one more false dichotomy that plagues education. Teaching is clearly both a science and an art, and it shares this duality with the other professions.

But there is some good news. No profession ever sprung like Athena fully formed from the head of Zeus. Professions are more like Michelangelo's figures waiting to be released from a great hulk of stone. Each enterprise that we now consider a profession is the result of a mighty and sustained struggle, the work of many who chiseled away until the profession emerged.

In other words, having the primal stuff of a "profession" does not ensure that the profession itself ever sees the light of day. That happens because and when the people in those professions – the practitioners – take deliberate steps to make it happen. They fight over important points; they build and rebuild coalitions of like-minded colleagues; they have the longer view in mind; and they are in it for the long haul. Government policies at every level can hinder or help them in their efforts, but in the end, professions are built by those within the profession.

Those same practitioners also recognize the need for the profession to continue to evolve as new knowledge and skills are constantly being developed. There is no final state of perfection. Moreover, within the culture of each profession, there is the expectation that all of its practitioners will be accomplished and that they will arrive at that level of skill and knowledge by following essentially the same path that their colleagues followed. In many ways, the path is not a neutral agent of the profession; it is an integral part of the preparation and what it means to be a member of the profession. Such universality is necessary because the authority of any professional comes not from what the individual knows and is able to do, but from what the collective knows and is able to do (Starr 1982). We will come back to the topic of authority and its role in professions later.

Medicine as a Model

While there are many differences between medicine and teaching, there is much to be learned from the similarities between the two and the basic lessons of how the medical profession evolved. Not the least of these is the journey that medicine took to get where it is today.

In his Pulitzer Prize winning book, *The Social Transformation of American Medicine: The rise of a sovereign profession and the making of a vast industry*, Professor Paul Starr writes:

In the nineteenth century, the medical profession was generally weak, divided, and insecure in its status and its income, unable to control entry into practice or to raise the standards of medical education. In the twentieth century, not only did physicians become a powerful, prestigious, and wealthy profession, but they succeeded in shaping the basic organisation and financial structure of American medicine. (Starr 1982)

That is a summary of an amazing story. Most people in the USA do not realize that not long ago the practice of medicine was a mess, if not a disgrace, and that those who practiced it were held in low esteem. Many doctors probably do not know that full history. But 100 years ago, doctors were not what they are today, and nei-

ther was the practice of medicine. Throughout the nineteenth century, there were some very accomplished physicians, but they tended to come from wealthy families, were educated at elite universities, and had a patient base with the same pedigree. Dependable health care was the exception, not the norm, and it was often connected to people whose life situation already put them in a healthier position. The challenge for the medical profession in the twentieth century was to establish what accomplished practice was and then to take that practice to scale.

While there is no single moment, person, or act that explains how medicine made the pivot Starr refers to, historians frequently point to 1910 as an important stroke on the timeline. In that year, Abraham Flexner delivered his famous “Bulletin #4,” *Medical Education in the United States and Canada*, which outlined what medical education needed to be if medicine were ever to become a true profession. Commissioned by the Carnegie Commission for the Advancement of Teaching, the Flexner Report recommended that all medical training be moved to research universities, that it be driven by science, and that only individuals who graduated from these institutions could become physicians. To take one measure of what this report has meant to the medical profession, one only needs to consider that in the late nineteenth century, there were more than 300 so-called “medical schools” in the USA, many of which were for-profit. Today, there are 141 medical schools. That reduction is even more impressive when one realizes that the USA population in 1900 was 76 million and today it is over 330 million people. Those who believed medicine deserved to become a profession felt that the surest way to make that happen was to take on the unregulated free-for-all of medical schools and rebuild it according to a standards-based vision.

Despite how history regards the Flexner Report and its importance, reports by themselves do not have the power to change things. They certainly do not shut down medical schools! At their best, reports can rally like-minded people and serve as a road map for action. In the end, it takes the concerted effort of many individuals for such change to occur. That effort must be monumental in order to counter the prodigious force of those who have a vested interest in the status quo, and it must be sustained over years, if not decades. Thousands of people made their living in those places that needed to be shut down. Thousands more received their “credentials” in those institutions and risked losing their livelihood if they were discredited. All of them undoubtedly were connected to powerful people in business as well as in local, state, and national government where policies were created that could either stand in the way of what the profession needed or help move it forward.

There are two other important inflection points in the history of medicine as it evolved in the twentieth century. The first was the development of “board certification,” the profession’s effort to identify accomplished practitioners in a way that went beyond a degree (issued by a college or university with permission from the state) and a license to practice (issued by the state). At its base, this kind of certification recognizes that aspiring practitioners at the end of their undergraduate or even graduate degree programs cannot be accomplished professionals no matter how brilliantly they have performed. These young practitioners simply have not had enough time with patients or clients to meld knowledge and skills in the context of

autonomous practice. “Practice” matters in professions, and one hears it in the language: the practice of medicine, the practice of nursing, the practice of law, etc. In other words, since a profession is defined by accomplished practice, rather than by initial preparation, it must have a way to assure the public that a person delivering these services has reached such a level.

The first medical specialty to create Board standards and a certification process was ophthalmology. In 1916, 6 years after the Flexner Report, the first physicians took their “boards.” Ten showed up for the exam, and only five passed. It was a modest beginning to say the least. The next set of Board standards was created for otolaryngologists (1924), followed by obstetrics and gynecology (1930). In 1933, various groups came together to form the Advisory Board for Medical Specialties, which in 1976 became the American Board of Medical Specialties. Today nearly 115,000 physicians sit for their boards each year in more than two dozen specialty areas, while thousands more pursue certification in more advanced areas known as subspecialties. Most impressive is that more than 90% pass their boards, which is clear and irrefutable proof that medicine has built a trajectory of preparation exquisitely engineered to move its practitioners from preservice to accomplished practice according to standards set by the profession.

The other change consciously orchestrated by the medical profession is connected to residency, that period of time after medical school when new MDs work under the close supervision of accomplished physicians in order to deepen their knowledge and develop their skills in the crucible of clinical practice. Residency, and its precursor internship – now largely merged into the residency model – has been part of medical education for many years, but it became more universal following World War II, when additional developments in science made it increasingly difficult for physicians to know all they needed to know to provide the best possible care for their patients. Prior to WWII, the General Practitioner was the norm among physicians. Since that time, most physicians move into residencies, which vary in length from 3 to 7 years depending on the nature of the specialty. These are intense phases of training during which time new physicians see both the breadth and depth of situations presented by patients. It is a time when the knowledge and skills learned in medical school become anchored in practice but under close supervision of more experienced physicians. In this way, each generation of physicians takes responsibility for bringing along the next generation, ensuring the public a consistent quality of service, and providing the profession the authority it deserves and needs. Not all new physicians pursue residency. In fact, there is a certain culling process within the profession at this point of transition because there are fewer residency spots than there are new doctors to fill them.

While the cost of medical school education is born largely by individuals, the cost of residency – at least since 1965 – has been covered by taxpayers, mostly through Medicare and Medicaid. Given that the average investment per resident is \$500,000, and that there are more than 100,000 residents working in teaching hospitals at any one time, the total taxpayer investment in this phase of medical education comes to more than \$50 billion per year. (Health Policy Brief, Robert Wood Johnson Foundation, August 31, [2012](#)) The medical profession is involved in

ongoing discussions about the length of residencies – are some too long and others not long enough? – And the conditions that shape the residency experience, but no one debates the value of residency. From the profession’s perspective, it is an essential part of medical education, the keystone that holds together an arch of accomplished practice that safeguards the health of patients. Apparently, policy makers and the public share that perspective because one never hears the value of the federal investment in residency questioned. There must be widespread agreement that the \$50+ billion annual cost provides a necessary assurance for the American people that they are receiving the finest possible medical care. (It is also fair to say that the average taxpayer probably has no idea that his/her tax dollars are supporting this part of medical education.)

Improving Teaching: Lessons Learned from Medicine

While we can never know all the individual and collective efforts that forged medicine into what it is today, we can rest assured that they occurred. We can be equally certain that the same will be true for teaching if it is ever to achieve similar status.

One often hears that education needs a “Flexner Report,” but that is only a beginning, and one could argue that we already have that in *A Nation Prepared* and many other equally thoughtful pieces published over the years. What education needs more is a coalition of those at its core – especially the two national teacher unions and their affiliates, the associations responsible for teacher education and the institutions that provide that preparation, and the National Board for Professional Teaching Standards – to get behind a proactive agenda designed to build a coherent continuum from teacher preparation through accomplished status. Furthermore, over time, the coalition must insist that all teachers follow that trajectory.

Because teaching is as complex as medicine, if not more so, and therefore just as worthy of being a profession, and because we know that a rag-tag group of people who called themselves doctors were able to organize over time into the profession we have today, there is every reason to believe that teaching can do the same thing. The medical profession not only provides guidance on what education needs to do; it also provides hope that such a thing can be done.

There are many arguments for why medicine is a bad model for teaching. Indeed, the differences between the two pursuits are great. Looking solely at the differences, however, forecloses on the opportunity to learn from the similarities. Furthermore, many of the differences are not as “different” as they first appear, and others simply do not matter.

One of the most cited differences is how the money flows from “patient/student” to practitioner. In public schools, that money comes from local, state, and federal sources rather than individuals.

On its face, this argument is unpersuasive because it speaks primarily to the means, not the ends. If the profession can come together around what those ends must be, then the way in which schooling is paid for may have to change to meet

those ends just as it has changed to pay for health care. It was not long ago that most doctors were paid directly by patients; today, that has shifted strongly toward third-party payers and tax dollars.

Another difference that surfaces in any such discussion is the tenth amendment of the US Constitution, the so-called “reserve clause.” This amendment says that anything that does not appear in the Constitution “is reserved to the states or the people.” The word “education” does not appear in the Constitution, which is the basis for why the states – not the federal government – have primary responsibility for schooling. This means that in the USA, there are 50 different “systems” for delivering education, rather than a single ministry. Those who doubt the medical model’s usefulness to education like to point to the state’s responsibility delegated to them by the Constitution.

This argument is not convincing. As it happens, the word *medicine* also does not appear in the Constitution, and therefore, it, too, is reserved to the states. This is why states have the exclusive right to issue licenses to physicians and why medical schools also fall under the jurisdiction of the states. Interestingly, states seldom venture beyond those two areas when it comes to regulation of medicine, and they do very little to prescribe what goes into the education of physicians from medical schools through residency. This lack of political control is particularly interesting because a substantial portion of the costs of medical education and the lion’s share of the costs of residencies are born by taxpayers. One reason that medicine has transformed into a true profession is that it has been able to transcend state boundaries even though key aspects of its delivery fall within the states. While there are undoubtedly numerous reasons for this transcendence, at the very top of that list must be the way states regard and respect the medical profession. Also on that list is the fact that in 49 of the 50 states, the majority of members on the state boards that license physicians are physicians themselves. This is in stark contrast to similar bodies responsible for issuing teaching licenses.

It is also fair to say that the medical profession also has transcended the federal government. It is national (and even international) in its scope, and much of what it does in terms of meeting the needs of patients is subject to the profession’s decision-making process, even though it must work within the laws that are issued by the federal and state governments.

There are other basic lessons from the way medicine has developed that can inform the development of the teaching profession.

Possibly the most critical element in the rise of the medical profession was its ability over the years to define and implement a trajectory from preservice to accomplished practice and then to insist that everyone in the profession follows that path. It was essential that the trajectory be coherent, each step building directly on the previous one. It was also essential that there be no back doors or side doors. Either everyone followed the same path or the whole thing would collapse.

To establish such a trajectory, one begins with the end point because people must have a clear view of the target if they are going to hit it, and the training must prepare them to be able to do such a thing. That means articulating what an accomplished practitioner should know and be able to do and being very clear about what

the standards are that define the necessary knowledge and skills. Moreover, there must be a process to certify when those standards have been met.

The next step is to map backward from those standards through the novice and induction phases, entry, and preparation to ensure the coherency and maximize the chances that those who remain in the profession become accomplished practitioners. In a highly functioning system, there is a small sorting process at each juncture to help filter out those who do not have the requisite skills and knowledge. Perhaps even more important, as the work of preparation gets deeper into what accomplished practice actually demands, both the profession and the aspiring practitioner get a clearer picture of those who may not have the right disposition to be successful. The goal must be to make sure that the required investment of time and money goes largely to those who have the greatest chance of becoming accomplished. In other words, the profession must also seek out certain efficiencies so that it is working with the smallest possible number of candidates needed to populate a quality workforce and meet society's needs.

The National Board for Professional Teaching Standards

In 1987, teaching took a bold step toward building such a trajectory when the National Board for Professional Teaching Standards was created. The board came together in the wake of the 1986 report, *A Nation Prepared: Teachers for the 21st Century*, which called for the National Board as a key strategy for improving the quality of teaching (Carnegie Forum on Education and the Economy). That challenge had been at the center of an earlier report, *A Nation at Risk* (1983), which, as its subtitle described, was intended to be “An Imperative for Educational Reform” (National Commission on Excellence in Teaching). Its publication reverberated like a fire bell in the night throughout the profession.

A Nation Prepared and Marc Tucker, who had been hired by the Carnegie Corporation of New York to prepare the final report on the findings of the Task force on Teaching as a Profession, often are given credit for the creation of the National Board, but the first person to call for the board was actually Al Shanker during a speech at the National Press Club in 1985. Shanker, the legendary president of the United Federation of Teachers and eventually the American Federation of Teachers, had sat on the original commission, appointed by President Reagan that produced *A Nation at Risk*. While most of the profession denounced that document as an unfair indictment of teachers and the profession, Shanker was perhaps the most prominent American educator to endorse it. He believed deeply that the profession ultimately would be built on the shoulders of accomplished practitioners, and he looked to the medical model as his guide in how to get there.

The National Board was launched with a 63-member board of directors, led by James B. Hunt, Jr., the governor of North Carolina. Both Shanker and Mary Hatwood Futrell, his counterpart at the National Education Association, were appointed to the board. Today the board of directors is smaller (29), and at least 50% of its members

must be Board-certified teachers, but the presidents of the two national teacher unions have the only guaranteed seats on the board according to the organization's bylaws.

The educators who have worked on the National Board have done an amazing job establishing standards of accomplished practice in 25 different certificate areas and overseeing the assessment process that asserts whether or not a teacher has met those standards. In fact, teaching developed these standards far more quickly and comprehensively than the medical profession, which took several decades.

For the most part, however, that is where the effort has remained. The profession has not come together to map backward from those standards so that the trajectory of preparation, licensure, mediation into the field, and advanced development coheres in ways that move the majority of teachers toward board certification. In fact, instead of 90% or 60% or even 30% of America's teachers being Board certified, today fewer than 3% have earned such status, and that number is only as large as it is because of three states – North Carolina, South Carolina, and Florida – which created early financial incentives for those who pursued the credential.

The profession also has not created the value proposition that would help lead practitioners to such a goal. Part of that proposition needs to be extrinsic. That means financial, but it also means opportunity for different levels of work and responsibility. An equal measure of the proposition needs to be intrinsic. That means that the culture of teaching – the norms of behavior of those who teach – must encourage movement toward accomplished practice as defined by the profession. One cannot underestimate the power a profession has over its own members when there are clear expectations that are universally understood and accepted. When a medical student first dons that white coat, it is woven with far more than cotton thread. The Hippocratic oath is more than just an ancient document. It binds a physician to unmeasurable habits of mind shared with colleagues everywhere.

There is also an undeveloped value proposition for the profession itself and the system in which it works. Very few principals, superintendents, or school boards look to National Board-certified teachers to take on leadership roles in schools and districts. One might imagine, for example, that superintendents confronting the difficulty of embedding a working knowledge of the Common Core State Standards into the teaching workforce would turn to Board-certified teachers as agents for this work. After all, Board-certified teachers have demonstrated that they know how to teach to high and worthy standards and are in a good position to coach their peers in doing the same. In most cases, schools now look at Board-certified teachers as an additional cost to them rather than as a resource that could be deployed for school- or district-wide improvement.

The National Board is as much at fault as anyone for this lack of progress. Over time it became satisfied living on an island where it safeguarded the standards and assessments. The board did not seem to care that it was increasingly removed from the rest of the profession even though its experience provided a vantage point that could have been very useful in helping the profession develop.

One strong example is the board's potential contribution to teacher preparation. Over the years only 40% of teachers who attempt board certification achieve it on

the first try, and only 70% of the initial cohort achieve by the third try, which is the last opportunity a candidate has before having to start over again. The National Board used these numbers as evidence that its standards were high and rigorous, when it could have used the low rate of success as the catalyst for a profession-wide discussion about the inconsistent way teachers are prepared and how disconnected licensure and development are from the profession's own standards of accomplished practice.

Here, again, the medical model provides an important guide. Physicians achieve board certification at a rate of over 90%. This success is not because the profession has low standards; it speaks directly to a carefully aligned series of steps that begins on the first day of medical school and continues through residency, with each step designed to result in board certification. That alignment might appear simple, but it requires a number of conscious decisions, and it requires forging alliances among disparate partners. The curriculum in medical school must be connected to the same standards that are reflected in the boards. (Of course, that connection also guarantees consistency across medical schools, which is essential to producing a workforce of consistent quality.) The faculty in the medical schools know those standards because they themselves are Board certified and therefore are prepared to move aspiring doctors in that direction. Similarly, the requirements for receiving a license to practice – even though such requirements are the responsibility of each state – are aligned to Board standards, as are requirements for the residency phase of work. Physicians sit for their boards immediately following residency, and certification tends to be the “seal of approval” at the end of the process rather than an additional course of study one pursues on top of that process.

This description of the coherent continuum from preparation to accomplished practice seems to assign a level of privilege to board certification both in medicine and in teaching. In theory, that is true, but the continuum has to be fluid with information going up and down the chain as new knowledge and skills are developed. In teaching, the National Board standards are strong and have been well tested by independent research. They also go through regular review by standards committees, comprised primarily of Board-certified teachers and others with expertise in that particular content area and whatever developmental level of students is connected to that content. The profession must own that continuum, and the culture of teaching must expect that most practitioners will travel that path.

As previously stated, research must play a role in confirming the validity and reliability of the National Board. From the earliest days when teachers became Board certified, the process has been studied over and over again. The most comprehensive study was done by the National Research Council (2008). That report found the Board's standards and process to be generally promising and in many ways compelling. A number of recommendations were made in that report on how to improve board certification, but nowhere did the panel suggest that the board was not on the right track. Over the years, other studies have found statistically significant impact of National Board-certified teachers on student learning and achievement. Others have found no difference. All studies indicate that Board-certified teachers tend to

remain in the profession longer, which itself is a good thing for schools assuming that the teaching quality remains strong.

Most recently, researchers at Harvard's Strategic Data Project looked at the impact of teachers on student learning in Los Angeles Unified School District in California (2012) and in Gwinnett County, Georgia (2012). In both studies, National Board-certified teachers were the only identifiable group of teachers who had a statistically significant impact on student learning. That impact translated into two additional months of instruction in math and one additional month in English language arts. That difference may not be earth shattering, but it points in the right direction.

The research results raise two issues worth considering. First, given that every teacher knows that his or her work is never independent from the work of every other teacher in a school and given how few National Board-certified teachers there are in any one school, it is hard to know what measurable impact any one or two teachers should or even could have on student learning or achievement. This is especially true if those teachers are in a high school or middle school where they not only interact with students for a small part of the school day, but they also may be dealing with students who bring to them a shaky base of knowledge and skills depending on the quality of instruction they had in previous years. The fact that researchers can find any difference may be more remarkable than it first appears.

The challenge then is to look at the impact of Board-certified teachers in schools where they make up a critical mass or where they are concentrated specifically in elementary schools where teachers have longer time with students and where the students themselves may have had less exposure to weak or mediocre teaching. While there are such schools where such concentrations are found – for example, Mitchell Elementary School in Chicago and Julius Corsini in Desert Palm Springs – there aren't enough of those schools for researchers to control for other factors so they can know for sure if it is Board-certified teachers who are making the difference or some other reason. Still, when the Mitchell Elementary School goes from having only 8% of students performing at the top level to 24% and reduces those in the lowest tier from 12% to only 3% during the same period when the faculty went from 0% Board certified to 70%, common sense suggests that something important has happened as a result of that change in the workforce (www.nbpts.org/mitchell-elementary-school).

The second issue is more rooted in the culture of schools or at least the culture of those who make policy about schools. We have a strong and mostly unhelpful tendency in education to reject the good and promising because it is not perfect. How much better, how much smarter, and how much less expensive is it to improve something that is promising rather than to throw it out and start over again or even worse to perpetuate multiple and competing models that ensure there is little consensus around what the teaching profession stands for? The National Board falls into this category. With more than a quarter century of investment and promising results and a model borrowed from other professions that have used it to great benefit, one would hope that the profession would choose to find ways to make the

National Board process better rather than to keep it at arm's length because it is not perfect.

Finally, the question is often raised: does becoming Board certified make a person a better teacher, or does it just put a "seal of approval" on people who are already accomplished? The answer is: it doesn't matter. What's important is that the profession has a valid and reliable way to identify for the public people who are accomplished teachers.

What is interesting about the question, however, is that it is connected to the assertion made by many National Board-certified teachers that the process was the best professional development of their lives. One even hears this same claim made by those who fail to achieve certification. National Board by itself was not supposed to be a professional development. Indirectly, it had the potential to shape professional development and preparation because the experiences people have during those phases should be designed to prepare people to become Board certified. Teachers specifically mention how powerful it is to prepare the videos and reflective papers that are central to the portfolio part of the certification process. When asked, many admit that the first time they ever did such a thing was when they prepared to sit for the boards. Ideally, aspiring teachers and practicing teachers should be doing that kind of work continuously. By the time a person sits for the boards, it should be the eighth or tenth time they have had such an experience, not the first. Such realities, however, emphasize how poorly constructed the continuum is from preservice to accomplished. When the profession gets the trajectory right, teachers will sit for their boards with no more additional preparation than doctors currently do.

If teaching is to become a true profession, that trajectory must be clearly articulated and universal. It cannot mean one thing in Florida and something else in Massachusetts. A profession must transcend states or it is not a profession. States can have their individual differences, but a profession at its base must stand for the same thing wherever its practitioners are trained or do their work.

The National Board's standards and assessment have been created by the profession, tested, and revised over time, and the process is both performance based and peer reviewed. Those are good things. If the profession carefully, consciously, and with fidelity mapped backward from board certification, embedding the standards and the process, even as they are now, into the steps every teacher takes from preservice on, teaching in general would be stronger, and the profession would have put down a sturdy base on which it could build its future.

What matters are the continuum and the agreement within the profession that there can be only one. That's been the key to the success of every other profession. It is the underpinning of a profession's authority, and there is no reason to think teaching will ever achieve the same status without it.

Again, Paul Starr is helpful in understanding the importance of these structures and expectations. He writes:

Doctors and other professionals have a distinctive basis of legitimacy that lends strength to their authority. They claim authority, not as individuals, but as members of a community that has objectively validated their competence. The professional offers judgements and

advice, not as a personal act based on privately revealed or idiosyncratic criteria, but as a representative of a community of shared standards. (Starr 1982, pp. 79–80)

In other words, in every profession, there is a culture that is shaped by a shared experience that in turn is defined by the profession's standards and expectations. The experience must be universal, and it requires everyone to travel the same path into and through the profession. Teachers complain that they do not receive the respect they deserve, but respect is seldom the result of asking for it, it is hard earned, and as Starr reveals, it comes not from what one member of the profession does, but what they all do.

Four Recommendations for Sustaining the Profession

With all of this as foundation, I would like to end this piece with five recommendations that I believe are essential for creating the profession and sustaining it. The list may not be complete, but if we were able to have success in these areas, the teaching profession would be transformed at the same depth and breadth that medicine achieved during the twentieth century.

Connecting Teacher Preparation to Accomplished Practice

Preparation must be grounded in the principles of accomplished practice and designed to move people in that direction. The National Board is sitting on thousands of videos and reflective papers submitted by teachers who have achieved certification. These videos and papers will be placed into a searchable electronic database and licensed to teacher preparation programs across the country. The resource is called ATLAS: Accomplished Teaching, Learning, and Schools. It is essential that this resource has both the videos and the reflective papers that put the video into context. The video alone is not sufficient because it only shows what a teacher does without revealing how the teacher thinks.

Thanks to a federal grant, the National Board is working in partnership with Stanford-based edTPA and six institutions of higher education in three states to test a prototype of ATLAS. Faculty in these institutions are helping to figure out what the resource needs in order to be the most useful to them and their students. They also are developing strategies on how to use the resource effectively in teacher preparation programs. The hope is that ATLAS will be embedded in all teacher programs as a first step in providing a common understanding of what accomplished practice requires and setting aspiring teachers on a path toward such achievement. If teacher preparation programs put ATLAS at their core and if teacher educators developed effective ways to use the resource, I believe ATLAS could be a game changer

because we would be building teacher preparation around images of accomplished practice.

In other professions, not only is the content of preparation programs standardized around principles of accomplished practice, but those who deliver that content and engage students in acquiring the requisite knowledge and skills are themselves accomplished. In medicine, for example, the overwhelming majority of medical school faculty are Board certified in the area they are teaching either in medical school or residency. That expectation does not exist in teacher preparation programs, even for those who are clinical faculty. How will undergraduates know about Board standards, and what it means to become Board certified if their faculty do not have first-hand knowledge themselves? Medical students understand from Day 1 that they are aiming not just for their MD degree and their state-issued license to practice; they are aiming for board certification, and they get that understanding from their faculty as well as from the knowledge and skills they master. Teacher preparation programs need to start recruiting more faculty who are Board certified, especially in clinical programs. I believe one of the best levers for such change is an organization like CAEP that accredits teacher preparation programs.

Aligning Licensure with National Board Standards

Each state in the USA has some sort of licensing board for teachers. These bodies are formed in different ways and have different reporting paths, but in one way or another, they assume the responsibility for issuing a license to teach and oversee whatever the process is in that state to keep those licenses current. Currently, the requirements for earning a license to teach have little if any conscious connection to what the profession has determined to be standards of accomplished practice. In a carefully engineered career path, young teachers would recognize that the steps toward licensure are similar to and build toward board certification.

Again, medicine provides a good model because state medical licensing boards are closely aligned to the profession's specialty boards which control board certification. Aspiring doctors do not pursue one set of activities to become licensed and another, completely unrelated, to become Board certified. The licensing requirements are carefully engineered so they are an appropriate step along the way to board certification even though the state is responsible for the license and the profession is responsible for the certificate. The profession has consciously made that happen through long negotiations with the states. It is also worth noting that medical licensing boards tend to be made up of physicians who themselves are Board certified. That is not the case for those who sit on state licensing boards for teachers.

The Need for Universal Residency Programs

While teacher preparation programs in the USA can and must become much better than they are now, they ultimately are only one step in the path toward accomplished practice. There are very few 22-year-olds who can be good at their job, let alone accomplished, directly out of college no matter how strong the teacher preparation program was. Teaching is too complex and cannot be mastered without strong clinical experience that comes after formal study and student teaching. How people are brought into teaching matters, and we must reimagine that period of induction that precedes autonomous practice.

There is a reason why most doctors in the USA spend between 3 and 7 years in a residency program on top of their undergraduate work and on top of 4 years of medical school before they go out on their own. It helps the profession guarantee to patients that the physician is going to provide a level of care that the profession stands for.

I believe the time has come for the teaching profession to demand a similar experience for new teachers. The initial goal should be to expect that all new teachers will spend at least 1 year in a “residency school,” similar to teaching hospitals, where they would work under the close supervision of Board-certified teachers. These residencies should not be an entitlement, but earned through a competitive process designed to support perhaps 75% of all newly licensed teachers. Approximately 5000 residency schools would be needed to accommodate this number of teachers. While some residency schools could be created anew, the overwhelming majority would be existing schools that have met certain standards determined by the state in consultation with the profession. A state would figure out how many such schools it would need and their geographic placement to meet the anticipated openings at the elementary, middle, and high school levels and within the various academic disciplines and student service areas. Each residency school would get somewhere in the range of \$500,000 per year (in addition to its other normal revenue) to cover the costs associated with residents, such as their salaries. Schools would have to “win” their position as a residency school and meet ongoing expectations to maintain that status. This entire network of residency schools could be funded almost entirely with the \$2.5 billion in Title II of the Elementary and Secondary Education Act, especially if similar funds in the Higher Education Act were added to the pool to cover costs of residency schools operated by colleges and universities.

Introducing such an experience into the teaching profession would have a seismic and measurable impact on the culture of the profession and the quality of teaching and learning in schools. Imagine what it would be like on college campuses for seniors during their spring semester as they compete for residencies. Imagine how different residency schools would develop reputations for being “the place” to go for special education, for example, or elementary reading or high school physics. Some places would become strong in urban education and others in rural. Different supervising teachers would arise as experts, creating new pathways for teachers

desperately in search of professional opportunities that keep them directly connected to teaching, and they might well further those reputations by being the principal investigators on clinically based research programs that will ultimately inform practice. Principals and superintendents interviewing candidates would ask “Where did you do your residency?” or “Who supervised your residency?” making this an important part of the hiring process. And university-based preparation programs would be judged, at least in the court of public opinion, on how many of their graduates were admitted into residency programs. Over time, it is likely that the profession will decide – as medicine has – that a person cannot prepare sufficiently for certain kinds of teaching in a single year of residency. ESL might need a second year, for example, or urban elementary school work might require even more. If residency requirements ever differentiated in these ways, one could expect that pay, too, would naturally differentiate.

The impact of such changes would be felt quickly. Given the current rate of people entering the profession combined with the aging out of the baby boomers, within 5 years of introducing such nationwide and state-based residencies, 25–35% of all teachers would have entered the profession through this experience. Within 10 years, a majority of teachers would have started their careers in this way. At that point, the profession would be almost unrecognizable by today’s standards, attracting and retaining high quality practitioners, well prepared to serve the needs of children in a consistent and dependable way. There would still be differences, of course, but they would fall within a much smaller variance range. I believe there is no other single thing that would have a greater, more systemic, and more sustainable impact on forging teaching into a true profession and improving student learning and achievement.

Teacher Leadership

Perhaps the most talked about topic in education today – besides evaluation – is teacher leadership. In fact, it is so prevalent, that its meaning is beginning to be lost. We have to remember that at the heart of teacher leadership is the recognition that we simply are not deploying the talent of teachers to make schools the best they can be for students. Essentially, the way we regard teachers is a vestige of the industrial model where teachers are plugged in to certain classrooms and groups of students, expected to work within conditions that someone else controls, and held to accountability standards that assume they are not doing what they should and therefore need to be carefully supervised. That is where their responsibility begins and ends, and there is little opportunity for them to immerse themselves in the various dimensions that define any vibrant learning environment. In the early years, one’s own classroom provides sufficient stimulation, but in time growth is more dependent on a larger context of peers and challenges.

The seriousness of this situation came home to me when I had the chance to meet with five National Board-certified teachers who were completing their year in

Washington as Einstein Fellows, a special program that recognizes people who are arguably the best science and math teachers in the country. The conversation was exhilarating. Here were real STEM teachers, the kind that I would have wanted for myself as a student and certainly for my daughter. But as the conversation came to a close, they reluctantly revealed the bad part of the story: not a single one was looking forward to returning to their schools and classrooms. Why? Because they had just experienced – perhaps for the first time in their professional lives – what it is like to be treated as a real adult with real knowledge, skills, and opinions that people working at the National Science Foundation, NASA, and other places wanted to shape their policies. That would not only never happen back in their schools, but there might even be resentment toward them directed at them from colleagues and administrators.

What a tragedy! If I were a principal or superintendent, I would meet with these Fellows returning to my school before the new school year even began, eager to hear what they learned and what ideas the experience gave them for changes to the curriculum or even broader things. And depending on what I heard, I would immediately figure out a way to adjust their teaching load so they could use some of their time to lead these other efforts.

The bottom line is that if our schools cannot reabsorb the small handful of Einstein Fellows and give them more responsibility for improving teaching and learning, there is no hope for our profession and our schools. All of the recommendations posed above, if implemented, would set people up for disappointment rather than growth. Everyone involved with schools and districts must find ways to use the talent they have among their teachers to the greatest advantage. Holding them in lockstep positions forces the best people out of the profession and undoubtedly convinces many people not even to explore the possibility of teaching.

Strengthening the Profession's Culture

Finally, if teaching is going to join the ranks of other professions, it must embrace the same basic expectation for its workforce that every other profession has: accomplished practitioners must be the norm, not the exception. We need to create a culture in which all teachers aspire to be Board certified, and the profession itself must be designed to support that aspiration. If we are going to be a true profession and claim the authority that professionals enjoy, we simply cannot accept the assertion: "I'm not Board certified, but I'm just as good." National Board certification is peer reviewed and performance based, and its standards and certification process have been created by teachers and for teachers. For whatever weaknesses it might have, it stands alone as the profession's clearest statement of what the profession stands for.

Coda

I want to end by returning to that first paragraph I read from Paul Starr's book. This time, I've exchanged some keywords:

In the 20th century, the teaching profession was generally weak, divided, insecure its status and its income, unable to control entry into practice or to raise the standards of teacher education. In the 21st century, not only did teachers become a powerful, prestigious, and wealthy profession, but they succeeded in shaping the basic organisation and financial structure of American education.

I am convinced that someday we or our successors will read a paragraph like that in a book possibly entitled: *The Social Transformation of American Education*. The government cannot do it. Business cannot do it. Only educators can make it happen, and we need to seize the opportunity we have now to do just that.

References

- Lortie, D. C. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.
- National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform*. Washington, DC: The Commission on Excellence in Education.
- National Research Council of the National Academies. (2008). *Assessing accomplished teaching: Advanced-level certification programs*. Washington, DC: National Academies Press.
- Robert Wood Johnson Foundation. (2012, August 31). *Health policy brief: Graduate medical education, health affairs*. Princeton: Robert Wood Johnson Foundation.
- Starr, P. (1982). *The social transformation of American medicine*. New York: Basic Books.
- Strategic Data Project. (2012). *SDP human capital diagnostic: Los Angeles unified school district*. Boston: Center for Education Policy Research, Harvard University.
- Task Force on Teaching as a Profession. (1986). *A nation prepared: Teachers for the 21st century*. Washington, DC: Carnegie Forum on Education and the Economy.

Part VII
Changing Teaching: School Based
Professional Development: Sustaining
Communities of Practice

Chapter 25

Developing Learning-Centred Classrooms and Schools

Chris Watkins

Abstract This chapter examines the issues and processes in developing more explicit focus on learning in classrooms and schools. It brings together the author's experience of development projects in England and international research. It starts by examining the major forces which have kept classrooms teacher centred for 5000 years, moves on to suggest some important starting points for the journey from teacher-centred to learner-centred classrooms, and then identifies the sort of language for learning which will go on to develop learning-centred classrooms. Also considered are the ways in which teachers can be learners themselves, and how the culture of a learning-centred school is created and maintained. Positive effects on pupils' engagement, motivation and attainment are summarised.

Keywords Learning • Classroom • Change • Agency • Learning orientation • Classroom culture • School culture

Introduction and Context

One of the most curious things about life in classrooms and schools is how little it focuses on learning. Since classrooms appeared on this planet 5000 years ago, they have been characterised by teacher-driven activity systems. In those Sumerian classrooms where boys were learning cuneiform writing, the teacher inscribed syllables into the first rows of tablets of clay; the boys then had to inscribe their version, at which the teacher corrected their attempt, turned the tablet over and did some more. That form of relationship is described as the IRE cycle, initiation-response-evaluation, and research of the last 50 years continues to find it as a dominant pattern in current classrooms (Bellack et al. 1966; Cazden 2001).

C. Watkins (✉)

London Centre for Leadership in Learning, Institute of Education, University of London,
20 Bedford Way, London WC1H 0AL, UK
e-mail: C.Watkins@ioe.ac.uk

Another puzzle about classrooms is how much they stay the same. Despite changes in rhetoric over decades and centuries, the dominant patterns return to reflect long-standing and dominant cultural beliefs: “teaching is telling, learning is listening, knowledge is subject matter taught by teachers and found in books” (Cuban 1993). Even across the varying country cultures of our world, patterns of classroom interaction are so similar that a video study found no one country was different on all the aspects observed (Hiebert et al. 2003). And in recent decades in the UK, the introduction of national curriculum, national strategies and controlling inspection has led the patterns of classroom interaction to become even more teacher centred (Galton et al. 1999).

The persistence of such simple ways of running classrooms perhaps reflects the lack of widespread understanding that classrooms are one of the most complex situations on the planet. Doyle (1986, 1990) helped us to see that classrooms are busy and public places and classroom events are multidimensional, simultaneous and unpredictable. Another insight comes from those who have studied constancy: one element which contributes to things staying the same is the idea in teachers’ minds that the current situation is not ideal but “good enough”.

The effects of these patterns on learners are significant. Their experience as learners is hidden. After four decades of studies of classroom learning issues using hidden microphones and video cameras, Nuthall’s final (Nuthall 2007) book was given the title *The Hidden Lives of Learners*. As he had summarised earlier: “Whether a student learns or not reflects the students’ understanding of classroom tasks, management of social relationships, and the extent to which the student shares the cultural understandings and background knowledge of the teacher and other students” (Nuthall 1999, p. 213).

These introductory points not only explain why the development of learning-centred classrooms might be less widespread than we might expect but also start to identify some of the issues that have to be addressed in such development.

Starting the Journey

The term journey is used to signify that changing classrooms is not likely to be a simple or single event. In different contexts with different histories and cultures, the process of development is likely to take a different journey. But there are some general patterns and issues.

One of the important first understandings in developing learning-centred classrooms is that teachers would not wish classroom effects to be as described above. One of the early enquiries in developing a focus on learning is to ask your pupils what they mean by the word “learning”. When a 5-year-old answered “Learning is being good and not being naughty”, his class teacher was clearly surprised and disappointed but later reflected “I suppose we’ve socialised them into schooling and not socialised them into learning”. As more voices from her class show, we can

expect a range of answers in any group, but the range has been put in a deliberate order here:

- Being good and not being naughty.
- When you go to PE, don't make silly noises otherwise you are going to get sad faces.
- When you're sitting on the carpet, listen to the teacher.
- When Miss is reading a book, you have to listen.
- You have to listen to Miss – every day.
- Learn to listen to teacher because when you start your work, you won't know what you're doing.
- Learn to ride on a horse or ride on a donkey.
- Learning about snooker.
- Learning to drive a car.
- Share toys with other people.
- Learning's about doing things on your own.
- That there's something you haven't done before and you're learning it.
- When you know, that means you've learned it.
- Learn about some words you don't know.

The order used here reflects the development we seek, from “thin” conceptions of learning (compliance, teacher driven) to richer conceptions (active, collaborative, cognitive, etc.). And such development can be promoted in primary or secondary school to avoid the situation described by Devlin (2002) about university students, whose “conceptions of learning were essentially quantitative in nature and were at the lower levels of complexity”.

Having identified the need for such a journey of enrichment, part of the process includes identifying the forces which work against us, so that their negative effects may be spotted and minimised. For the past decade in the context of the school system in England, I have been working with teachers on the following three “space invaders” – themes which take up the space which we would wish to give to a focus on learning (Watkins 2003, 2006).

Space Invader 1: Teaching

In recent years, phrases such as “teaching and learning policies” or “teaching and learning strategies” have been used more and more. But close examination suggests that they might better read “teaching and teaching”, since the real attention given to learning is minimal. And the phrase is also often pronounced as “teaching' n' learning” rather like “fish' n' chips” – the “and” is almost missed, implying that they simply go together, whereas that small word “and” captures both the challenge and achievement of the teaching profession: to make teaching lead to learning. So it becomes clear that we need a richer articulation between teaching and learning, and this means separating the two before articulating their connection more effectively.

Sometimes this is interestingly started by discussing the question “which do you think happens more often: teaching without learning or learning without teaching?”. This regularly raises issues about the classroom context in contrast to other contexts and often leads to clarifications or definitions.

Space Invader 2: Performance

In current times where politicians and policy-makers make schools focus on measurable outcomes of a limited sort, performance comes to be a poor proxy for learning. We have performance tables, performance pay and performance management. And when schools are placed under performance pressure, the risk is that teachers just pass it on into the classroom culture. But performance is not learning, though it may develop from learning. So understanding the connection between performance and learning is crucial. In a review of 100 classroom studies (Watkins 2010), one of the key messages is “a focus on learning can enhance performance, a focus on performance can depress performance”.

Space Invader 3: Work

This is the word most often heard in the classroom when we listen for the word “learning”: “get on with your work”, “homework” and “have you finished your work?”. As Marshall (1988) pointed out “Teachers often assume that if students do their work, learning will occur automatically”. This discourse can be changed collaboratively by a teacher and class agreeing that every time they seemed about to use the word “work”, they would try the word “learning” instead. The change in atmosphere is significant. In a classroom review, one 7-year-old put it this way: “Work is something you do for somebody else. Learning is what you do for yourself - and your friends” (Marshall 1988).

This last change emphasises a parallel point for pupils as has already been made for teachers – they do not want the current dominant patterns to continue. An illustration comes from a primary school where the head teacher, knowing that dominant cultures are very resilient, gave a whole school an assembly announcing that from this day on, there was no more work in the school: it was all learning. The 5-year-olds ran back to their classroom to enthusiastically ask their teacher “Is it true?”. The fact that even young children can identify the difference that this change of language makes, and are keen for it, is another starting support for change.

Changing the Classroom

As mentioned above there are many studies giving evidence of constancy in classrooms, and many reform attempts do not change the basic patterns (Payne 2008). Even when change attempts use the best collaborative and inquiry methods of teacher development, they may be consolidating the focus on teaching rather than learning.

A resolution to this comes from an approach to change the so-called appreciative inquiry (Hammond 2000; Cooperrider et al. 2003) in which people are invited to:

- *Inquire* into their best experiences.
- *Imagine* what might be if more of these occurred.
- *Innovate* by identifying how to get more.
- *Implement* changes in this cycle.

Appreciative inquiry could be applied to any aspect of teachers' professional practice or to school practice.

If appreciative inquiry is used to ask teachers to identify their best experiences of learning in classrooms, the results are affirming and enthusing. Having now done this with thousands of teachers, the first observation is that everyone has had such an experience – in whatever role (teacher, student and observer) they have, all had direct experience of a classroom which was associated with exceptional learning, and they can identify key elements which created it. Indeed they are eager to talk with each other about those experiences. More than that, when I invite them to indicate the degree to which those classroom experiences reflect key elements from research (outlined below), around 85% of teachers indicate a high degree of match with the first three. So the research headings can become a consensus for the development agenda.

The four headings which follow were developed from much thinking about research on learning in classrooms (Watkins et al. 2007) and are intended to reflect what we know about environments which can promote effective learners.

From our understanding of learning, learning is:

- An activity of construction.
- Handled with (or in the context of) others.
- Driven by learner's agency.

Effective learning is all of these at their best, plus the monitoring and review of whether approaches and strategies are proving effective for the particular goals and context.

So an effective learner is someone who knows (and acts accordingly) that:

- It's their actions (not other people's) which are crucial for their learning.
- Interaction with colleagues can be a resource for their learning.
- They can plan, monitor and review their learning.
- They can learn about and experiment with their learning.

So the headings – here phrased as questions for the classroom – are:

Active

Are learners invited and helped to plan their approach to any activity, review the activity, make meaning from the experience and think ahead to other situations?

Collaborative

Are learners invited and helped to complete tasks which require higher-order thinking, necessitating something different from all, develop their collaborative skills through prompts and review and operate in a range of participant structures?

Learner Driven

Are learners invited and helped to view themselves as driving the learning; contribute their own questions, strategies and explanations; choose their challenges; develop their criteria; and assess their progress?

Learning Focused

Are learners invited and helped to view themselves as learners, notice their own learning, story and discuss their own experiences of learning, share their best approaches in order to improve learning and review their learning and its progress over time?

The first three of these four headings seem to connect as a cluster. When classrooms are more active, collaborative and learner driven, they have moved from the dominant teacher-centred model and can be called learner centred. But they are not yet learning centred: that is where the fourth heading is crucial. On the journey of development, it is necessary for the first phase (teacher centred towards learner centred) to have made progress before the second phase (learner centred towards learning centred) can happen effectively. This view comes from having noticed many occasions when change towards learning-centred classrooms is rushed and is not effective. On such occasions a language for learning (usually from some external source) is introduced into a classroom, by the teacher, but the students are not yet in a position where their lived identities in that classroom are those of learners: they may still be receivers, performers, workers, etc. So their response to this

introduction of new language is often “Hello - teacher’s been on a course”. If learning-centred change is applied to a classroom which does not have a degree of learner-centredness, the change will not stick.

The Language of Learning

How can we best talk about learning? Is it a matter of “learning styles” or “learning skills”? Bruner (1985) made a very important distinction which helps us see that such approaches reflect a paradigmatic way of understanding – the use of general theories and formal systems based on categorisation. The contrast is a narrative way of understanding, which is more particular and time sensitive and involves human action and intent. And if at the most general level we view learning as the human process of making meaning from experience, then it is crucial to note that the only form of language humans have for relating experience is narrative (Ricoeur 1984).

Learning is more than experiencing. Simply having an experience is not enough for someone to learn without reflecting upon this experience. And a narrative approach is helpful in building that key element of reflection. As we relate experiences to each other through the medium of stories, we can “rise above” the immediate experience, notice and create meaning. Activities such as having pupils tell each other the story of some good learning experiences lead to engaged and enriching exchanges – and no conflict. The narrative form communicates the ownership of the experience in such a way that disagreement does not enter.

Here too, appreciative inquiry can play a very constructive role, asking pupils to give an account of some of their best learning experiences and developing an analysis from those accounts. Some “scaffolding devices” may help, such as a simple storyboard of three frames, beginning, middle and end, into which pupils draw the situation and then describe in words each frame of the story. Storyboards may have a general or particular theme: examples such as “Some learning I’m proud of” or “My most impressive learning” developing towards more particular themes such as “A time when I learned really well with others” or “A time when I took charge of my learning”. When the story is drawn, pupils are invited to distil their own contribution to the process and project it forward by completing a prompt such as “I can help myself be proud of my learning by ” or “I can help myself learn well with others by ”

Other practices which support the process of narrating and reviewing learning might include the use of learning journals, especially if the classroom has developed the use of the metaphor of a journey to talk about learning. When we’re on a journey, we take a journal to record the highlights.

As the process of storying experiences develops, a richer understanding of learning develops with it. Through the process, learners rise above the particular stories to develop a richer understanding of learning. This also helps them to develop the metacognitive skill in their learning of noticing more about what they are doing while they are doing it. And in the process, a richer understanding of learning in

classrooms can develop. This was illustrated in a review conversation with a class of 8-year-olds when the teacher prompted “What’s the difference between learning and work?”. One student replied “I don’t think there is a difference, because when you’re working as a teacher you can learn from your students”.

Teachers Make the Change

In the UK a recent large development and research project was led by expert pioneers in “Assessment for Learning”, but perhaps in recognition of the evidence that this concept had been distorted by the “space invaders” in around 80% of classrooms (Marshall and Drummond 2006), they called the project “Learning How to Learn” (James et al. 2007). This team investigated what had actually helped those teachers where a learning-centred classroom had developed. Their questionnaire offered a range of the interventions and supports that the project knew were operating: the results showed that the only school practice which helped teachers develop an explicit focus on learning in their classrooms was inquiry (Pedder 2006).

The message here is in direct contrast to the packaging of classroom change – it indicates that schools as organisations have to treat their teachers as learners too. Packages are likely to revert to teacher-centred patterns of classrooms. For decades, people who have developed learning-centred classrooms have found that other people come along, package the developments and in the process package surface procedures rather than the principles of learning. As one of the earliest writers to notice this put it: “Some modifications so depart from the original philosophy that they can be termed ‘lethal mutations’” (Brown and Campione 1996).

If we treat teachers as learners, then staff development activities for teachers should display the same characteristics as were listed above for effective learning in classrooms: active, collaborative, learner-driven and learning focused. When these processes are in place, teachers start to make changes in their classrooms which are against the grain of the dominant patterns. The power and responsibility shift, the view of learning enriches, and teachers begin to experience important changes that have been identified in the literature (Weimer 2013).

Part of the journey is that teachers find their predictions about possible negative trends that are not founded. Classroom behaviour does not become a problem, and (as outlined in a later section) results certainly do not go down as feared. But for teachers to be effective on their own learning journey, their school as an organisation needs to support.

The Learning-Centred School

The learning-centred school is a rare place and quietly striking. The students are composed and engaged – with each other, with their teachers and with their products. The teachers are thoughtful learners too. So how is such an organisation created?

Two key elements strike me: the focus on learning for all and a well-developed awareness of culture. In a learning-centred school, it has become a kernel activity to talk about learning – one’s own learning, no matter what one’s role in the organisation may be. School leaders in such schools talk about their own learning journeys – in appropriate ways to their colleagues and to their students. They also initiate conversations and appreciative reviews of how everyone else’s learning is going. Leadership is seen as an aspect of many people’s roles in different contexts. This is described as “distributed leadership” and the evidence is clear: “School leadership has a greater influence on schools and students when it is widely distributed” (Leithwood et al. 2008).

In learning-centred schools, to lead means to support the learning culture. Such schools recognise that classrooms and schools are at their best when they are in charge of themselves and encouraging the same in others. So the sense of agency, which is such a key element of self-regulated learning at the individual level, also characterises the other levels of the organisation, the classroom and the school (Watkins *forthcoming*).

Learning-centred schools have moved away from the dominant stereotype, and the evidence is that schools which make this “second-order change” (in other words, think differently about their task and take actions which are a departure from the normative behaviour in the environment) do so by leading the culture of learning. And they get better results (Taylor 2010).

The context for such schools matters, and they may have to find themselves working explicitly to counter the forces from the wider context, if those forces represent the “space invaders” of teaching, performance and work. Currently, in countries where politicians exert a controlling influence on schools, learning-centred schools have to be effective in driving their own agenda rather than being driven from the outside. In the current context of England, schools that are learning centred will remain a minority because the current pattern of forces suits the interests of the powers that be. In countries such as Singapore, where the ministry leads a project “Teach Less, Learn More”, there might be improved conditions for learning-centred schools to develop. In Thailand, where the central government has mandated a more learner-centred approach (Phungphol 2005), the culture of leadership at school level is shown to be crucial in making this a success (Hallinger and Bryant 2013).

Effects

When classrooms become more learning centred, a range of positive changes follow. I include here some illustrative comments from school development projects, alongside some findings from research projects (including research in the USA where the term learner centred incorporates some elements of the metacognitive learning about learning which characterise what has been called learning centred in this chapter).

A large meta-analysis, bringing together the findings of 119 research studies, concluded “Overall, learner-centered teacher variables have above-average associations with positive student outcomes” and are “above average compared with other educational innovations for cognitive and especially affective and behavioral outcomes” (Cornelius-White 2007).

Certainly classroom teachers report “I have seen a massive improvement in the class’s motivation to learn and their behaviour. In fact, I am no longer ‘managing’ behaviour! Children are motivated, engaged and responsible”. Improved engagement has also been found at later age levels: a study of high school students who are at risk of dropping out of school concluded “a learner-centred environment yields significantly higher achievement scores and a somewhat higher internal motivational orientation” (Alfassi 2004).

The change in motivational orientation is central. Students increase their learning orientation, in which they seek to develop their competence by acquiring new skills and mastering new situations. When a head teacher says “The children are more self-motivated, active, pushing themselves to achieve more”, they are making the connection with the fact that learners who are experiencing agency are also more motivated to learn. A study of a large sample of middle and high school students assessed the connections with students seeing their teachers as using learner-centred practices in the classroom and said that, most importantly, individual perceptions of learner-centred teaching practices positively predicted learning orientation (Meece et al. 2003).

Teachers report “Children are more able to talk reflectively about their learning; when they learn best and what helps them to achieve this: they can identify how they learn best at school and beyond the classroom”. Others say that students “are happy to celebrate their mistakes and how they’ve learnt from them”. And yet others report that the reference to learning becomes heard more from pupils in the classroom: “We’re learning from Emily now”...“Let’s put into practice what we just learnt from Dylan”.

When engagement and motivation become learning centred, attainment improves as a bonus. Schools report their best-ever performance in national tests, including those schools who were well below national average. This reflects research in other countries, where national samples showed that as teachers’ classroom practices became more learner centred, academic performance increased as assessed by both teacher-classroom grades and standardised achievement tests (Weinberger and McCombs 2001).

An extra bonus in performance measures is increased equity. Classroom teachers report that previously underachieving children are amongst those progressing at twice the national average. And schools in very disadvantaged areas have doubled the proportion of pupils who achieve nationally prescribed levels in tests so that these schools now “perform” above the national average. On other dimensions of potential disadvantage, research in the USA on minority groups showed that “minorities in schools and classrooms with higher learner-centered orientations not only have test scores statistically equal of those from their white peers, but also that students in learner-centered schools have higher scores in the non-traditional measures, including tolerance and openness to diversity” (Salinas and Garr 2009).

The only intervention which achieves both equity and excellence is one that is learning centred.

In terms of the headings used in this chapter to describe the phases in the journey, the link with performance can be summarised as:

- *Teacher-centred classrooms* create a culture which tests the motivation of predictable groups of learners to the limit and a pattern of performance in which the long-standing patterns of school achievement remain.
- *Learner-centred classrooms* create a more engaging culture for a wider range of learners but may not generate a widely shared wish to achieve.
- *Learning-centred classrooms* create an engaging culture and an identity as learners for all their participants. Enhanced thinking, challenge and agency can lead to pupils making double the progress in measured performance.

Conclusion

Has this chapter added anything new? With reference to the book title “Life in Schools and Classrooms: Past, present and future”, I see the development of learning-centred classrooms as a past, present and future vision, at least for the last four centuries. As Jan Amos Comenius (1592–1670) put it, “Let the beginning and the end of our didactics be: seek and find the methods where the teacher teaches less but they who sit in the desks learn more. Let schools have less rush, less antipathy and less vain effort, but more well-being, convenience and permanent gain” (*The Great Didactic*, 1632). Nonetheless, I recognise that it has been a minority vision, held back by other cultural dynamics.

In this chapter, I hope to have indicated some current processes by which the vision becomes a reality that provides a future possibility of the vision being realised more widely.

References

- Alfassi, M. (2004). Effects of a learner-centred environment on the academic competence and motivation of students at risk. *Learning Environments Research*, 7, 1–22.
- Bellack, A. A., Kliebard, H. M., Hyman, R. T., & Smith, F. L. (1966). *The language of the classroom*. New York: Teachers' College Press.
- Brown, A. L., & Campione, J. C. (1996). Psychological theory and the design of innovative learning environments: On procedures, principles, and systems. In L. Schauble & R. Glaser (Eds.), *Innovations in learning: New environments for education*. Hillsdale: Lawrence Erlbaum Associates.
- Bruner, J. S. (1985). Narrative and paradigmatic modes of thought. In E. Eisner (Ed.), *Learning and teaching the ways of knowing. 84th yearbook of the National Society for the Study of Education, Part 2*. Chicago: University of Chicago Press.
- Cazden, C. B. (2001). *Classroom discourse: The language of teaching and learning* (2nd ed.). London: Heinemann Educational.
- Cooperrider, D., Whitney, D., & Stavros, J. M. (2003). *Appreciative inquiry handbook*. Bedford Heights: Lakeshore Publishers/McGraw Hill Europe.
- Cornelius-White, J. (2007). Learner-centered teacher-student relationships are effective: A meta-analysis. *Review of Educational Research*, 77(1), 113–143.
- Cuban, L. (1993). Computers meet classroom – classroom wins. *Teachers College Record*, 95(2), 185–210.
- Devlin, M. (2002). Taking responsibility for learning isn't everything: A case for developing tertiary students' conceptions of learning. *Teaching in Higher Education*, 7(2), 125–138.
- Doyle, W. (1986). Classroom organisation and management. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.). New York: Macmillan.
- Doyle, W. (1990). Classroom knowledge as a foundation for teaching. *Teachers College Record*, 91(3), 347–360.
- Galton, M., Hargreaves, L., Comber, C., Wall, D., & Pell, T. (1999). Changes in patterns of teacher interaction in primary classrooms: 1976–1996. *British Educational Research Journal*, 25(1), 23–37.
- Hallinger, P., & Bryant, D.A. (2013). 'Synthesis of findings from 15 years of educational reform in Thailand: Lessons on leading educational change in East Asia'. *International Journal of Leadership in Education (ahead-of-print)*:1–20.
- Hammond, S. A. (2000). *The thin book of appreciative inquiry*. Bend: Thin Book Pub. Co.. www.thinbook.com.
- Hiebert, J., Gallimore, R., Garnier, H., Givvin, K. B., Hollingsworth, H., Jacobs, J., Chui, A. M.-Y., Wearne, D., Smith, M., Kersting, N., Manaster, A., Tseng, E., Etterbeek, W., Manaster, C., Gonzales, P., & Stigler, J. (2003). *Teaching mathematics in seven countries: Results from the TIMSS 1999 video study*. Washington, DC: US Department of Education National Center for Education Statistics.
- James, M., McCormick, R., Black, P., Carmichael, P., Drummond, M.-J., Fox, A., MacBeath, J., Marshall, B., Pedder, D., & Procter, R. (2007). *Improving learning how to learn: Classrooms, schools and networks*. London: Routledge.
- Leithwood, K., Harris, A., & Hopkins, D. (2008). Seven strong claims about successful school leadership. *School Leadership and Management*, 28(1), 27–42.
- Marshall, H. H. (1988). Work or learning: Implications of classroom metaphors. *Educational Researcher*, 17(9), 9–16.
- Marshall, B., & Drummond, M. J. (2006). How teachers engage with assessment for learning: Lessons from the classroom. *Research Papers in Education*, 21(2), 133–149.
- Meece, J. L., Herman, P., & McCombs, B. L. (2003). Relations of learner-centered teaching practices to adolescents' achievement goals. *International Journal of Educational Research*, 39(4–5), 457–475.

- Nuthall, G. (1999). Learning how to learn: The evolution of students' minds through the social processes and culture of the classroom. *International Journal of Educational Research*, 31(3), 141–256.
- Nuthall, G. (2007). *The hidden lives of learners*. Wellington: NZCER.
- Payne, C. M. (2008). *So much reform, so little change: The persistence of failure in urban schools*. Boston: Harvard Education Press.
- Pedder, D. (2006). Organisational conditions that foster successful classroom promotion of learning how to learn. *Research Papers in Education*, 21(2), 171–200.
- Phungphol, Y. (2005). Learner-centered teaching approach: A paradigm shift in Thai education. *ABAC Journal*, 25(2), 5–16.
- Ricoeur, P. (1984). *Time and narrative* (Vol. I) (Trans. McLaughlin K., Pellauer D.). Chicago: University of Chicago Press
- Salinas, M. F., & Garr, J. (2009). Effect of learner-centered education on the academic outcomes of minority groups. *Journal of Instructional Psychology*, 36(4), 226–237.
- Taylor, R. T. (2010). Leadership to improve student achievement: Focus the culture on learning. *Journal of Scholarship and Practice*, 7(1), 10–23.
- Watkins, C. (2003). *Learning: A sense-maker's guide*. London: Association of Teachers and Lecturers.
- Watkins, C. (2006). When teachers reclaim learning. *Forum for Promoting 3–19 Comprehensive Education*, 48(2 Summer), 121–129.
- Watkins, C. (2010). *Learning, performance and improvement. Research matters series*. London: Institute of Education, International Network for School Improvement.
- Watkins, C. (forthcoming). We need to get three as– Appropriate agency for all. In G. Norman (Ed.), *Matthew Moss High School: A learning-centred school*. London: IoE Press.
- Watkins, C., Carnell, E., & Lodge, C. (2007). *Effective learning in classrooms*. London: Paul Chapman/Sage.
- Weimer, M. (2013). *Learner-centered teaching: Five key changes to practice* (2nd ed.). San Francisco: Jossey-Bass.
- Weinberger, E., & McCombs, B. L. (2001). *The impact of learner-centered practices on the academic and non-academic outcomes of upper elementary and middle school students*. Paper presented at the annual meeting of the American Educational Research Association, Seattle.

Chapter 26

Sustaining the Effect of Professional Development on Small-Class Teaching: Self-Owned Model of School-Based Teacher Development

Kam Wing Chan

Abstract Reduced class sizes have a positive impact on pupil achievement and classroom processes. Pupils receive more individual attention and are better behaved and more on-task in small classes. In Hong Kong, small-class teaching has become a major government policy in primary schools. It is being implemented in phases, beginning in the 2009–2010 school year in Primary 1. Research shows that the benefits of a small-class environment are not automatic if teachers do not make changes to their teaching practice; hence, various types of campus-based professional development programmes have been organised for teachers to adapt their teaching in the small-class environments for the purposes of optimising the student learning. However, teachers tend to revert to their usual teaching practice soon after undertaking the relevant professional development training. School support is essential to provide encouragement for continuous improvement in order to sustain the effect of the campus-based professional development programmes. This article begins with an overview of the research on class size, then describes the implementation of small-class teaching policy in Hong Kong, compares the campus-based with school-based professional development programmes in small-class teaching, analyses the weakness of the existing school-based professional development programmes and finally argues that a self-owned model of school-based teacher development can be effective in sustaining the effect of the professional development programmes that teachers have undertaken.

Keywords Class size • Small-class teaching • Professional development • Self-owned model

K.W. Chan (✉)

Department of Curriculum and Instruction, The Education University of Hong Kong,
10 Lo Ping Road, Tai Po, New Territories, Hong Kong, SAR China
e-mail: paulchan@eduhk.hk

Introduction

A number of studies on class size have been conducted since the 1980s, including a number of large-scale projects in the United States such as the Student-Teacher Achievement Ratio (STAR) conducted in Tennessee in 1985–1989, the Student Achievement Guarantee in Education (SAGE) conducted in Wisconsin in 1996–2001 and the Class Size Reduction (CSR) of California. In STAR, a difference in student performance between small and regular classes has been confirmed (Goldstein and Blatchford 1998). Children who are members of minority groups benefit most from small classes (Finn and Achilles 1999; Nye et al. 2000). Small classes can offer opportunities for teachers to teach more effectively (Anderson 2000; Benwell 2008), or they can create facilitating conditions for teachers to teach and students to learn (Wang and Finn 2000). For example, findings from the SAGE project suggest that small classes allowed more knowledge to be gained by students, reduced problems with classroom discipline and made available more time on instruction and more individualisation (Molnar 2000; Finn et al. 2003). This was further confirmed by Zahorik et al. (2003), who found that maintaining a harmonious classroom and using a combination of strategies of direct instruction and individualised instruction was effective in enhancing the academic performance of the students.

During the 2000s in the United Kingdom, a study on class size, Class Size and Pupil Adult Ratio (CSPAR), was conducted to investigate the effects of class size on pupils' learning in their original classroom setting. CSPAR broadly confirmed the result found in the United States regarding the negative correlation between pupil achievement and class size (Achilles 1996; Blatchford 2003; Blatchford and Mortimore 1994; Blatchford et al. 2003; Pate-Bain et al. 1999). Through classroom observation, a number of effects of class size have been found, including an impact on teaching practice, learning and behaviour of pupils. According to Blatchford et al. (2005, 2008), pupils in large classes are more likely to simply listen to the teacher, whereas, in smaller classes, pupils interact in an active way with teachers by initiating, responding and sustaining contact. In the recent years, places in Asia such as Shanghai, Nanjing, Taiwan, Macau and South Korea have been reducing their class sizes to optimise learning and teaching despite a lack of local empirical data to support their class size reduction policy.

Small-Class Teaching in Hong Kong

Class size in Hong Kong schools used to be relatively large. This has negatively affected the classroom teaching not to mention the problem of catering for diversity. After much struggle and negotiation by the education sector with the government, a study on small-class teaching (SCT) was launched by the Education Bureau in 2004 to assess the benefits of SCT and to identify the teaching strategies and support

necessary for maximising the benefits of SCT. Although the result of the study did not suggest that pupils perform significantly better in small classes, it was found that teachers were changing their practices, which consequently helped pupils to develop higher levels of problem-solving questioning and a greater range of feedback responses. For various reasons, such as social, political and demographic changes, the Hong Kong Chief Executive Donald Tsang, in his 2007–2008 Policy Address, announced that starting the 2009–2010 school year, SCT would be implemented in the Primary 1 level in public schools in phases. By the 2014–2015 school year, this initiative has been extended to all classes from Primary 1 to 6. Nevertheless, studies show that the benefits of a small-class environment do not come automatically if teachers do not change their teaching styles and classroom organisation (Evertson and Randolph 1989; Wilson 2006). With the implementation of SCT, the government and many schools focused on how teachers teach in small-class settings to optimise the learning of their students. In accordance with previous research recommendations (Blatchford 2003; Graue et al. 2007; Ogawa and Huston 1999; Stecher et al. 2001), a programme of professional development training was instituted for teachers to help them bring about desired changes in teaching practices in small classes.

Various modes of professional development on SCT in Hong Kong are provided by the Education Bureau. These include, for example, part-time workshops, full-time courses, fostering communities of practice programmes and a seconded teacher's scheme. However, research concludes that teachers tend to remain unchanged in their teaching practice even after participating in professional development training until they see improvement in students' learning (Guskey 1989). Professional development must therefore be seen as a progress, not an event (Loucks-Horsley et al. 1998). To sustain the impact of the professional development training on teachers, continuing follow-up and support are essential (McLaughlin and Marsh 1978). Galton and Pell (2009) recommend, in their Final Report of the Study on Small-Class Teaching in Primary Schools in Hong Kong, that teachers should not only be provided with effective professional development training, they should also be given sufficient school support to help them to implement SCT in their schools.

Campus-Based vs. School-Based Professional Development Programmes in SCT

In a Hong Kong study, Chan (2013) has found that in addition to encouraging teachers to participate in those campus-based professional development trainings organised by the Education Bureau, some school principals also provide school support to their teachers in order to sustain the impact of their professional development training on SCT. Of the various types of school support provided, Chan discovered that only a small proportion of schools (15.9%) reduced the teaching load of their teachers to assist them to prepare their lessons for SCT as this would incur

additional funding. Most of the schools (95.4%) invited staff developers to conduct school-based professional development training to follow up the training organised by the Education Bureau, but teachers did not find this support as valuable as they expected.

Lyons and Pinnell (2001) found that campus-based professional development programmes are less effective because teachers' knowledge, background and experiences vary and the schools they teach in are different. Knowledge acquisition and skills development should be more directly related to the substantive problems faced by teachers in their individual schools (Mangayer and Ayaduray 2000). Chan and Lai (2007) found that teachers showed greater preference for school-based professional development programmes than the campus-based ones because the former is seen as more relevant to the needs of the individual school. School-based professional development programmes therefore should be flexibly designed to meet the needs of the school and to enhance their teachers' knowledge and skills in tackling their teaching problems (Tubin and Chen 2002). However, Luke and McArdle (2009) argue that there is little evidence that school-based programmes are effective in raising student outcomes unless colleagues can collaborate with their peers in developing strong learning communities to sustain the various suggested developments and changes to existing practice (Salpeter and Bray 2003).

Weakness of Existing School-Based Teacher Development Programmes in SCT

In general, there are two main types of SCT school-based teacher development programmes in Hong Kong. The first type is called 'one-off mode' in which a staff developer and, an outsider with the relevant expertise, conducts only one workshop for the teachers without any follow-up. Teachers are left to decide on their own whether or not to try out the innovations suggested in the workshop. The second type is called the 'multimode model' which consists of some introductory talks and workshops, followed by lesson planning, lesson observation and post-lesson sharing. *Prima facie*, there is little problem with the design of this type of model. The design of the model seems to have been adapted from the Multidimensional Approach on Training which consists of four components, theory, modelling, practice and peer coaching, as suggested by Joyce and Showers (2002). The introductory talks correspond to the first component which is the exploration of the theory through readings and discussions. The workshops correspond to the second component which is the demonstration of the skill in a simulated or the real workplace. Lesson planning, lesson observation and post-lesson correspond to the third and fourth components which refer to the trying out of the skill in the real workplace and the mutual help between teachers during implementation.

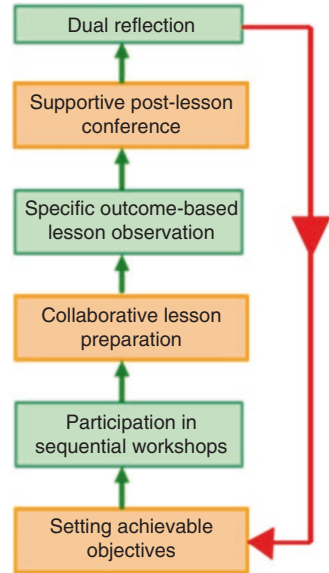
However, failure to identify an area of teacher professional development that meets the needs and interest of both the teachers and the school is one of the factors

which contributes to the ineffectiveness of this ‘multimode approach’ (Day 1986; Fullan and Hargreaves 1992). Very often, the decision to implement a particular initiative that has direct effect on teachers’ teaching rests with the senior management of the school. Choosing an area of which the teachers have little knowledge and interest may not always be appropriate, as the magnitude of change is too challenging and overwhelming (Brownell et al. 1999). Teachers will rather choose to undertake professional growth in the teaching strategies that they are using, instead of trying some alternative new ones. When forced to do something that runs contrary to their interest, teachers tend not to engage whole-heartedly which then affects the success of implementation. In this way, teachers may hope that the resulting negative feedback may force the senior management to reconsider the value of continuing with the implementation programme.

Another contributing factor to the ineffectiveness of these school-based teacher development programmes is the reservations held by the teachers about the wisdom of frankly expressing their views in the post-lesson sharing. The frustration that results can lead teachers to adopt an antagonistic approach towards the staff developers in the concluding review sessions. The fact that teachers tend to have reservation in telling each other their genuine views during post-lesson sharing is closely related to the Chinese culture. Chinese social interaction is regarded as collectivistic (Bond and Hwang 1986; Earley 1989). Collectivism occurs because Chinese people believe ‘the futures of individuals from the same in-group are inter-related and that each person’s well-being depends upon the results of collective effort’ (Leung 1996, p. 258). It is very important, therefore, to give face to each member of the in-group in order to continue their relationship (Bond and Hwang 1986). In such situations, conflict and confrontation tend to be avoided or compromised as they disrupt the harmony of the in-group (Bond 1991). Reservations of this kind which prevent teachers expressing views frankly in post-lesson sharing thus reduce the likelihood of bringing about a change in their teaching practice.

At the end of the staff development programme, staff developers will usually share with the teachers what they have observed during the implementation of the innovation. An external staff developer is regarded as an outsider relative to the teachers of a school. Hwang (1987) classified relationships into three categories: expressive ties, mixed ties and instrumental ties, representing relationships between family members, friends and out-group members, respectively (cited in Gabrenya and Hwang 1996). The Chinese are often co-operative with members of the first and second categories, but their interaction may change to become antagonistic or competitive when faced with members of the third category. When a negative comment is received by the teachers, they tend to protect themselves and react antagonistically to the staff developer. Even a comment of goodwill can be interpreted as sarcasm wrapped up in a positive tone.

Fig. 26.1 Self-owned models of school-based teacher development



Self-Owned Model of School-Based Teacher Development

To enhance the effectiveness of school-based teacher development programmes, Chan (2010) has developed a ‘*Self-owned Model of School-based Teacher Development*’ (The Model) to assess the self-efficacy of teachers when trying out an innovation in the classroom. The Model (Fig. 26.1) is made up of six phases in a cycle:

1. Setting achievable objectives
2. Participation in sequential workshops
3. Collaborative lesson preparation
4. Specific outcome-based lesson observation
5. Supportive post-lesson conference
6. Dual reflection

The Model can have more than one cycle depending on whether the objectives have been achieved in the previous cycle. At the end of each cycle, teachers are interviewed to provide feedback to the staff developer. The feedback contributes to the revision of the objectives and the contents of the workshop of the next cycle. This provides a sense of ownership of the teachers in the teacher development programme.

Setting Achievable Objectives

This is one of the most important phases of the model as it determines the content of the teacher development programme, as well as the pace of implementation. However, this phase is often not given enough emphasis in many of the current school-based programmes, and the lack of sufficient time spent on this phase tends to correlate with the overall failure of the programme. The school must convey clearly to the staff developer the objectives that they wish to be attained to help the staff developer design an effective programme. To increase the feasibility of the teacher development programme, it is necessary for the staff developer to find out from the senior management basic information about the school, such as pupils' learning ability, class size, the scope of implementation in relation to the budget available and the pace of implementation in relation to the readiness of the teachers. Based on the information obtained and guided by the objectives of the staff development programme, the staff developer then drafts a plan and requests the teachers' feedback. Having a sense of ownership in the design of the staff development programme, teachers will be more likely to actively participate in the workshops.

Participation in Sequential Workshops

It is important that teachers participate in each and every workshop conducted by the staff developer. Setting an appropriate time for the workshops can increase the degree and rate of participation. Workshops should be arranged within the school hours to make sure that no one teacher will be left out and that teachers will not be overloaded. This can be done on the school development days or on school days at the time when the pupils are having their extracurricular activities conducted by external helpers. The workshops should provide opportunities for the teachers to experience the innovations instead of passively listening to the staff developers. Evaluation should also be done on completion of each workshop to assess their usefulness to the teachers.

Collaborative Lesson Preparation

As in participation in the workshop, it is important that schools can arrange some common time within school hours for teachers to meet and plan lessons together. It will have less effect on students' learning if part of the teachers' timetable can be taken up by the teacher assistants to release a few teachers at a time for collaborative lesson preparation. After attending a workshop, teachers teaching the same school subject should be provided with a common time within school hours to plan a lesson

together. The lesson plans should then be sent to the staff developer for advice or revision.

Specific Outcome-Based Lesson Observation

Peer observation provides an opportunity for teachers to learn from each other by observing the class teaching of one another. Observers should consist of mostly the colleagues who are teaching the same subject and level and have participated in the collaborative lesson preparation. They know the objectives of the lesson well and are able to see how the plan can be carried out in different classes. A standard lesson observation form should be used to ensure that the essential things are recorded for comparison between classes. It is important to stress to the teachers that the purpose of this kind of peer observation is for professional development growth, not for appraisal. The whole lesson should be recorded for teachers' subsequent reflection.

Supportive Post-lesson Conference

The post-lesson conference provides a platform for teachers to exchange their views about the lesson in a collegial manner. Arrangements should be made to enable the post-lesson conference to be done soon after the lesson while the memory is fresh. As a standard lesson observation form has been used in the lesson observation, this will enable the teacher to receive feedback on the same point from different observers. The staff developer who will be present in the post-lesson conference can provide feedback and see how teachers feel and talk about the lesson.

Dual Reflection

Reflection helps teachers to analyse the lesson taught and to assess what has done well and what should be done better and in what ways. Teachers should be encouraged to conduct two kinds of reflection: self and group reflection. Self-reflection is to be done as often as necessary at any time after the lesson, as and when an opportunity occurs. Group reflection is done at a common time arranged by the school with the reflection team consisting of the colleagues who have taken part in collaborative lesson preparation and possibly in the lesson observation. During group reflection, it is recommended that videotaped segments of the lesson be played back for the teacher and observers to go over the teaching point in question. The reflection team then brainstorm, with reference to the comments received in the post-lesson conference, what could be done better in future lessons.

Conclusion

SCT is being implemented in the Hong Kong primary schools to enhance the quality of teaching and learning. Teachers have to adapt their teaching practice in order to optimise the effects of SCT, and they need professional development training to facilitate the change in their teaching approach. At present, much of the professional development training is in the form of campus-based programmes in which teachers of various schools come to attend in a tertiary institution. These programmes have their value, but the problem is that their contents are not tailor-made to meet the needs and interests of individual teachers and schools. Even if teachers find the programmes useful in bringing about changes in their classroom practice, they tend to revert to their usual teaching style soon after undertaking the professional development training. In order to sustain the effect of the professional development courses, school support is pivotal to provide encouragement and motivation to seek continuous improvement.

However, the alternative, existing school-based staff development programmes have their weaknesses. Either these programmes are short-term or the teachers do not feel a sufficient sense of ownership in the programmes and in the process of making a change in their teaching practice.

In this chapter, a six-phase model of school-based teacher development is proposed to sustain the effect of the campus-based professional development courses that teachers have undertaken. The phases of the model include setting achievable *objectives, participation in sequential workshops, collaborative lesson preparation, supportive and specific outcome-based lesson observation, post-lesson conference and duel reflection*. The strength of the Model is that it provides opportunity for teachers to reflect on their teaching practice both individually and with their collaborative peers and gives ownership to teachers in working collaboratively with their peers, as well as with staff developers in planning and implementing an innovation.

Chan (2008) has compared the effectiveness of the self-owned model with the one-off and multimode models in terms of the teachers' self-efficacy in trying out an innovation using a five-point (0–4) Likert scale. Fig. 26.2 shows that both the one-off and multimode models are not effective in increasing the teachers' self-efficacy which decreases during the process of implementing the innovation. The degree of the decrease is more rapid in the one-off mode than the multimode as there is no peer support. As for the self-owned model, although the teachers' self-efficacy also decreases in the process of the implementation of the innovation, the decrease is gradual and less acute. Moreover, after duel reflection, the teachers' self-efficacy increases to the highest level compared with the other five phases of the model.

The above result seems, intuitively, to make sense, in that during the early phases involving planning teachers are likely to grow in confidence. However, during the peer observation and subsequent post-lesson conference, teachers may have to accept their colleagues' constructive criticisms of the lesson, and this may have a

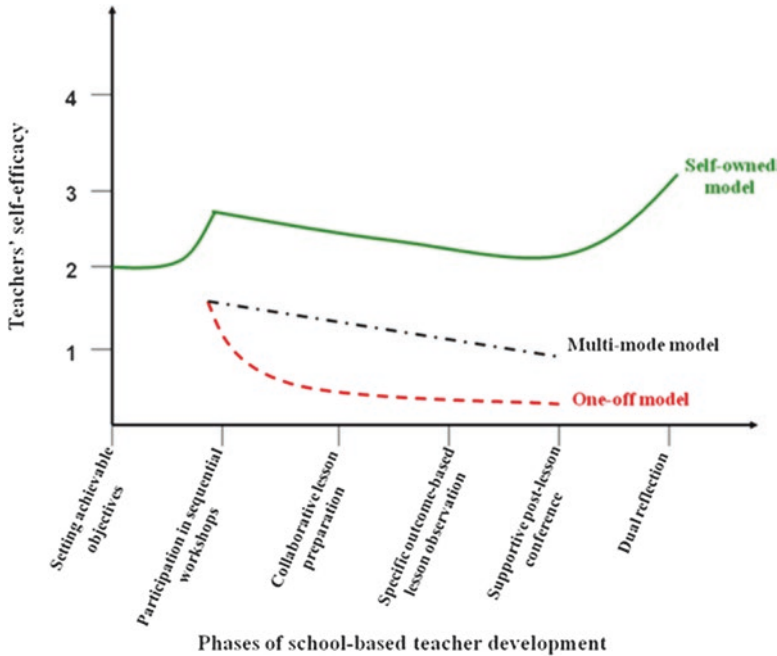


Fig. 26.2 Comparison of teachers' self-efficacy regarding one-off, multi-mode and self-owned models of school-based teacher development

negative effect. The final phase, involving both individual and group reflection, is designed to leave the teacher with a sense of being in control, and with control comes a sense of achievement and a growing measure of self-efficacy.

References

- Achilles, C. M. (1996). *Summary of recent class-size research with an emphasis on Tennessee's Project STAR and its derivative research studies*. Nashville: Center of Excellence for Research and Policy on Basic Skills, Tennessee State University.
- Anderson, L. W. (2000). Why should reduced class size lead to increased student achievement? In M. C. Wang & J. D. Finn (Eds.), *How small classes help teachers do their best*. Philadelphia: Temple University Center for Research in Human Development.
- Benwell, T. (2008). *Teaching small classes*. <http://edition.tefl.net/ideas/teaching/teaching-small-classes>
- Blatchford, P. (2003). *The class size debate: Is small better?* Maidenhead: Open University Press.
- Blatchford, P., & Mortimore, P. (1994). The issue of class size for young children in schools: What can we learn from research? *Oxford Review of Education*, 20(4), 411–428.

- Blatchford, P., Bassett, P., Goldstein, H., & Martin, C. (2003). Are class size differences related to pupils' educational progress and classroom processes? Findings from the institute of education class size study of children aged 5–7 years. *British Educational Research Journal*, 29(5), 709.
- Blatchford, P., Bassett, P., & Brown, P. (2005). Teachers' and pupils' behaviour in large and small classes: A systematic observation study of pupils aged 10–11 years. *Journal of Educational Psychology*, 97(3), 454–467.
- Blatchford, P., Bassett, P., and Brown, P. (2008). *Do low attaining and younger students benefit most from small classes? Result from a systematic observation study of class size effects on pupil classroom engagement and teacher pupil interaction*. Paper presented at the American Educational Research Association Annual Meeting, New York.
- Bond, M. H. (1991). *Beyond the Chinese face: Insights from psychology*. Hong Kong: Oxford University Press.
- Bond, M. H., & Hwang, K. K. (1986). The social psychology of the Chinese people. In M. H. Bond (Ed.), *The psychology of the Chinese people* (pp. 213–266). Hong Kong: Oxford University Press.
- Brownell, M., Ross, D., Sindelar, P., et al. (1999). Research from professional development schools: Can we live up to the potential? *Peabody Journal of Education*, 74(3/4), 209–224.
- Chan, K. W. (2008). *Cooperative learning in Hong Kong basic education: An overview*. Paper presented at the international conference “Cooperative Learning in Japan and the World”, Chukyo University, Nagoya, 6–8 June 2008.
- Chan, K.W. (2010). A self-owned model of school-based teacher development. *Journal of Early Childhood*, 9(2), 75–78
- Chan, K. W. (2013). *Small class teaching and professional development: Perceptions of teachers*. Paper presented at the Centre for Small Class Teaching seed grant seminar, the Education University of Hong Kong, 23 May 2013.
- Chan, K. W., & Lai, K. C. (2007). *Professional development needs in small class teaching: Perceptions of teachers*. Paper presented at the 3rd International Symposium on Quality Education, Macau, 13–15 November 2007.
- Day, C. (1986). *Staff development in the secondary school: Management perspectives*. London: Croom Helm.
- Earley, P. C. (1989). Social loafing and collectivism: A comparison of the United States and the People's Republic of China. *Administrative Science Quarterly*, 34, 556–581.
- Evertson, C., & Randolph, C. (1989). Teaching practices and class size: A new look at an old issue. *Peabody Journal of Education*, 67(1), 85–129.
- Finn, J. D., & Achilles, C. M. (1999). Tennessee's class size study: Findings, implications, misconceptions. *Educational Evaluation and Policy Analysis*, 21(2), 97–109.
- Finn, J. D., Pannozzo, G. M., & Achilles, C. M. (2003). The 'why's' of class size: Student behaviour in small classes. *Review of Educational Research*, 73(3), 321–368.
- Fullan, M. G., & Hargreaves, A. (1992). Teacher development and educational change. In M. G. Fullan & A. Hargreaves (Eds.), *Teacher development and educational change* (pp. 1–9). London: Falmer Press.
- Gabrenya, W. K., & Hwang, K. K. (1996). Chinese social interaction: Harmony and hierarchy on the good earth. In M. H. Bond (Ed.), *The handbook of Chinese psychology* (pp. 309–321). Hong Kong: Oxford University Press.
- Galton, M., & Pell, T. (2009). *Study on small class teaching in primary schools in Hong Kong Final report*. Hong Kong: University of Cambridge and Education Bureau.
- Goldstein, H., & Blatchford, P. (1998). Class size and educational achievement: A review of methodology with particular reference to study design. *British Educational Research Journal*, 24(3), 255–268.
- Graue, E., Hatch, K., Rao, K., et al. (2007). The wisdom of class-size reduction. *American Educational Research Journal*, 44(3), 670–700.
- Guskey, T. R. (1989). Attitude and perceptual change in teachers. *International Journal of Educational Research*, 13(4), 439–453.

- Hwang, K. K. (1987). Face and favour: The Chinese power game. *American Journal of Sociology*. doi:10.1086/228588.92:944-974.
- Joyce, B., & Showers, B. (2002). *Student achievement through staff development*. Alexandria: ASCD.
- Leung, K. (1996). The role of beliefs in Chinese culture. In M. H. Bond (Ed.), *The handbook of Chinese psychology* (pp. 247–262). Hong Kong: Oxford University Press.
- Loucks-Horsley, S., Hewson, P., Love, N., et al. (1998). *Designing professional development for teachers of science and mathematics*. Thousand Oaks: Corwin Press.
- Luke, A., & McArdle, F. (2009). A model for research-based state professional development policy. *Asia-Pacific Journal of Teacher Education*, 37(3), 231–251.
- Lyons, C. A., & Pinnell, G. S. (2001). A framework for the effective professional development of literacy. In C. A. Lyons & G. S. Pinnell (Eds.), *Systems for change in literacy education: A guide to professional development* (pp. 11–21). Portsmouth: Heinemann.
- Mangayer, K., & Ayaduray, J. (2000, December). *PBL in learning circles for teacher professional development*. Paper presented at the 2nd Asia Pacific Conference on PBL, Temasek Polytechnic, Singapore.
- McLaughlin, M. W., & Marsh, D. D. (1978). Staff development and school change. *Teachers College Record*, 40, 69–93.
- Molnar, A. (2000). *Vouchers, class size reduction, and student achievement: Considering the evidence*. Bloomington: Phi Delta Kappa Educational Foundation.
- Nye, B., Hedges, L. V., & Konstantopoulos, S. (2000). The effects of small classes on academic achievement: The results of the Tennessee class size experiment. *American Educational Research Journal*, 37(1), 123–151.
- Ogawa, R. T., & Huston, D. (1999). California's class-size reduction initiative: Differences in teacher experience and qualifications across schools. *Educational Policy*, 13(5), 659–673.
- Pate-Bain, H., Fulton, B. D., & Boyd-Zaharias, J. (1999). Effects of class-size reduction in the early grades (K3) on high school performance. In *Preliminary results (1999) from Project STAR, Tennessee's longitudinal class-size study*. Lebanon: Health and Education Research Operatives Services (HEROS) Inc.
- Salpeter, J., & Bray, B. (2003). Professional development: 21st century models. *Technology and Learning*, 24(1), 34–50.
- Stecher, B., Bohrnstedt, G., Kirst, M., et al. (2001). Class-size reduction in California: A story of hope, promise, and unintended consequences. *Phi Delta Kappan*, 82(9), 670–674.
- Tubin, D., & Chen, D. (2002). School-based staff development for teaching within computerized learning environments. *Journal of Research on Technology in Education*, 34(4), 517–529.
- Wang, M. C., & Finn, J. D. (Eds.). (2000). *How small classes help teachers do their best*. Philadelphia: Temple University Center for Research in Human Development.
- Wilson, V. (2006). *Does small really make a difference? An update: A review of the literature on the effects of class size on teaching practice and pupils' behaviour and attainment*. Glasgow: The SCRE Centre, University of Glasgow.
- Zahorik, J., Halbach, A., Ehrle, K., et al. (2003). Teaching practices for smaller classes. *Educational Leadership*, 61(1), 75–77.

Chapter 27

Effects of Professional Learning Community and Collective Teacher Efficacy on Teacher Involvement and Support as well as Student Motivation and Learning Strategies

Zhonghua Zhang and Hongbiao Yin

Abstract This study explores the connection between professional learning community and collective teacher efficacy from the perspective of teachers. It also explores student perceptions of teacher involvement and support as well as their motivation and learning strategies across different schools in the context of Hong Kong. Based on our earlier studies, this study was framed to forge a link between school- and student-level factors and employed multilevel modeling analysis. The findings revealed a positive relationship between collective teacher efficacy as well as teacher involvement and support with student motivation and learning strategies. Nonetheless, the findings suggest that student test anxiety was present across schools whereas certain schools emphasized developing the intrinsic values of students. Two pathways toward enhancing student outcomes in schools are proposed. One pathway is providing supportive conditions and structures to the professional learning community. The other pathway is to promote collective learning and application among teachers and to explore ways of enhancing collective efficacy of teachers in terms of instructional strategies.

Keywords Collective teacher efficacy • Hong Kong • Learning strategies • Professional learning community • Student motivation

Z. Zhang (✉)
University of Melbourne, Melbourne, VIC, Australia
e-mail: zhonghua.zhang@unimelb.edu.au

H. Yin
The Chinese University of Hong Kong, Hong Kong, SAR China
e-mail: yinhb@cuhk.edu.hk

Introduction

A number of studies have shown a positive relationship between professional learning community (PLC), collective teacher efficacy, and student achievement (Donner et al. 2008; Goddard and Goddard 2001; Goddard et al. 2000; Hoy et al. 2002; Pancucci 2008; Thompson et al. 2004; Tschannen-Moran and Barr 2004; Vescio et al. 2008). However, whether a link exists between these factors and student motivation and use of learning strategies, which may be significant conditions that shape the success and failure of students, has not been demonstrated (Hidi and Harackiewicz 2000).

Regarding teacher efficacy, which is grounded in social cognitive theory (Bandura 1997), Bangs et al. (Bangs et al. 2011, p. 66) referred to the Teaching and Learning International Survey study, which states:

Teachers with high self-efficacy expect to succeed in teaching and to handle students well, and this influences their interpretation of successes and disappointments, the standards they set and their approaches to coping with difficult instructional situations. Strong self-efficacy beliefs can prevent stress and burn-out and teachers' self-efficacy beliefs and their job satisfaction are linked to instructional practices and student achievement.

Numerous studies have repeatedly emphasized the powerful role of teacher efficacy. Teacher efficacy has a positive effect on the academic climate of schools (Chong et al. 2010). Even when controlling for the previous achievement levels of students, researchers have found that the personal efficacy of teachers continue to significantly affect the academic achievement of students (Caprara et al. 2006). Synergistic and group agency results when teachers, as members of the school organization, display beliefs shared by the group and join capabilities, which lead to collective efficacy (Goddard et al. 2000). This outcome hinges on whether schools provide conditions conducive to organizational learning and building of PLC among teachers.

Student motivation and learning strategies were perceived as among the most powerful determinants of student success and failure in school (Hidi and Harackiewicz 2000). Research indicated that both teacher-student relationships and peer relationships were key factors that influenced student motivation in classroom learning (Hughes and Kwok 2007; Lee et al. 2003, 2009; Rovai 2002; Ryan and Patrick 2001; Turner and Meyer 1999; Yin et al. 2009). When a sense of community was incorporated into classrooms or schools, students were more likely to be intrinsically motivated toward learning (Watkins 2005). Eteläpelto et al. (2005) showed that when students were actively involved in helping build a learning community in classrooms, the community itself would function first and foremost as a source of motivation.

Based on the above-mentioned studies, this study built a student-level model that explored the influence of teacher support and involvement as well as learning community on student learning motivation and strategies. Student outcomes were the top priority of previous studies in the fields of PLC and collective teacher efficacy. However, few studies investigated how school level factors, including PLC and

collective teacher efficacy, affected student learning motivation and strategies, although most researchers would agree that motivation and strategies were strong predictors of student learning outcomes.

In Hong Kong, the former Advisory Committee on Teacher Education and Qualifications (2003) report *Towards a Learning Profession: The teacher competencies framework and the continuing professional development of teachers* referred to the development of schools as PLCs. Support for enhancing professional capacity has been ongoing. According to Chris Wardlaw, former Deputy Secretary for Education and Manpower in Hong Kong: “Probably since 2000 we’ve been emphasizing professional collaboration and I think it’s in terms of teachers going into each others’ classes, supporting each other and lesson planning outside the class, looking at the feedback from assessment data. I think these are the things that have been quite significant if we’re going to look now and then look at what’s different” (Bangs et al. 2011, p. 140).

As part of a project that aimed to investigate how school factors affect the teaching of teachers and the learning of students, this study was designed to build a link between school- and student-level factors. Earlier studies had indicated that teacher involvement and support were major factors that influenced student motivation and their use of strategies in classroom learning (Lee et al. 2009; Yin et al. 2009). In this previous study, it was found that both PLC and collective teacher efficacy could positively affect the commitment of teachers to students (Lee et al. 2011). Thus, both PLC and collective teacher efficacy were speculated to be able to influence student motivation and their use of learning strategies as a result of the connections between PLC, collective teacher efficacy, and teacher involvement and support.

The above studies led to a multilevel model (see Fig. 27.1) to investigate how the student perception of teacher involvement and support, motivation, and learning strategies, as well as the relationship between teacher involvement and support with student motivation and learning strategies varied across different schools in Hong Kong. We also investigated how school PLC and collective teacher efficacy accounted for these variances. Our principal research questions were:

1. How do student motivation and use of learning strategies vary across schools?
2. How does student perception of teacher involvement and support vary across schools?
3. How does the strength of the influence of teacher involvement and support on student motivation and use of learning strategies vary across schools?
4. How do school-level factors, such as PLC and collective teacher efficacy, account for the school-level differences in learning strategies and student motivation to learn?
5. How do school-level factors, such as PLC and collective teacher efficacy, account for the school-level differences in student perceptions of teacher involvement and support?
6. How do school-level factors, such as PLC and collective teacher efficacy, affect the strengths of the effect of teacher involvement and support on student motivation and use of learning strategies?

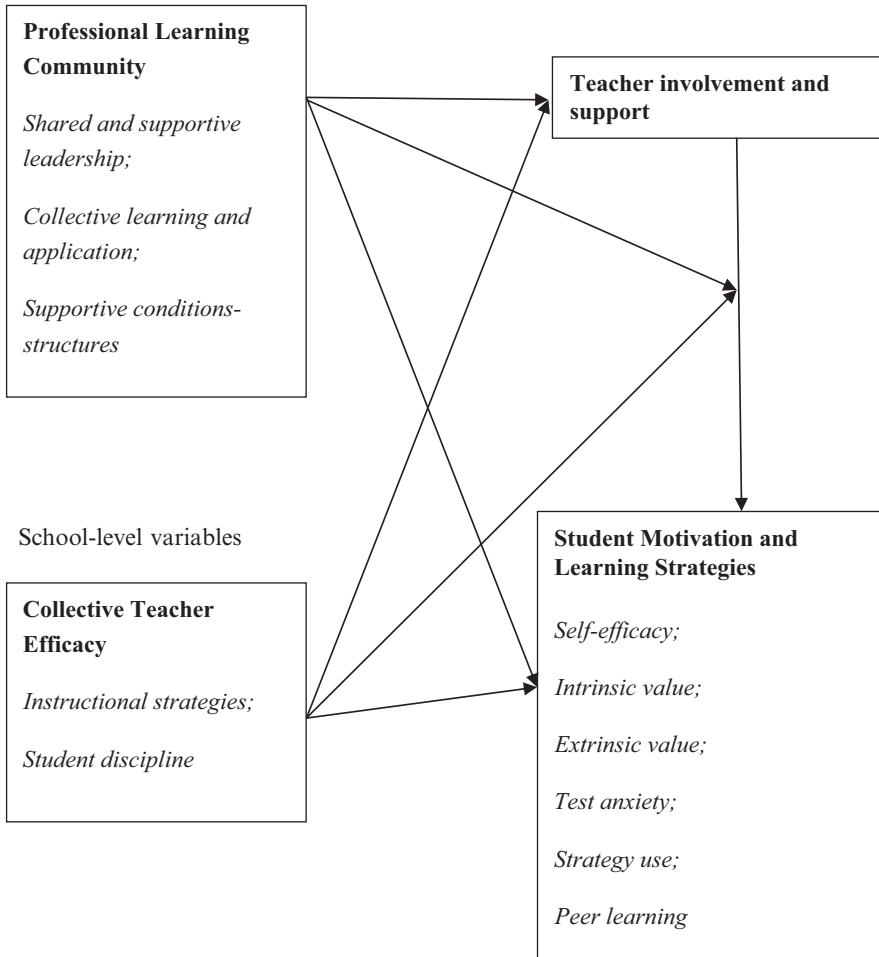


Fig. 27.1 A multilevel model describing the effects of PLC and collective teacher efficacy on the relationship between teacher involvement and support as well as student motivation and learning strategies

Methods

Participants

The datasets for multilevel modeling are based on earlier studies (Yin et al. 2009; Lee et al. 2011), which used data from 33 primary (Grades 4–6) and secondary (Grades 7–9) schools in Hong Kong. Twenty teachers were chosen from each school to participate in the questionnaire survey through an online submission system. To ensure that the responses of the teachers were confidential, the questionnaire data were handled anonymously, and the school administrators were unable to access the system. A total of 480 teachers from 33 schools returned completed questionnaires. The response rate was 73%.

For the student questionnaire survey, six classes of students were chosen from each school to complete the questionnaires. Two classes were selected from each grade. As the teachers, the students completed the surveys anonymously and submitted the survey questionnaire online. A total of 5403 students were involved in the questionnaire survey.

Measurements

Professional Learning Community

This study used the research instrument developed by Hipp and Huffman (2003), the Professional Learning Communities Assessment (PLCA), to measure the PLC of a school. The PLCA instrument was translated into Chinese and was composed of 45 original items designed to measure six dimensions, including *shared value and supportive leadership*, *shared values and vision*, *collective learning and application*, *shared personal practice*, *supportive conditions-relationships*, and *supportive conditions-structures*. Teachers were asked to rate the items on a four-point Likert scale anchored at 1, 2, 3, and 4 (strongly disagree, disagree, agree, and strongly agree). Lee et al. (2011) indicated that three of the six dimensions, which were measured by 20 items, could be extracted satisfactorily when PLCA was used in the Chinese context. These three dimensions were *shared and supportive leadership*, *collective learning and application*, and *supportive conditions-structures*. The first dimension, *shared and supportive leadership*, highlights the leadership of the principal and teachers in the school as well as how decisions were made and implemented. Examples of included items are “the principal incorporates advice from

staff to make decisions” and “opportunities are provided for staff to initiate change.” The second dimension, *collective learning and application*, emphasizes how staff members shared information with one another and collaborated in planning, solving problems, and enhancing learning opportunities at all school levels. Examples of included items are “a variety of opportunities and structures exists for collective learning through open dialogues” and “the staff plan and work together to search for solutions to address diverse student needs.” The final dimension, *supportive conditions-structures*, indicates the organizational conditions conducive to creating a PLC. Examples of included items are “fiscal resources are available for professional development” and “appropriate technology and instructional materials are available to staff.” The items reflected good internal consistency within each subscale, as evidenced by the Cronbach’s alpha coefficients of the reliabilities for the three subscales ranging from 0.84 to 0.90.

Collective Teacher Efficacy

This study adopted and translated the collective teacher belief scale developed by Tschannen-Moran and Barr (2004) to measure the collective efficacy of teachers. The beliefs of teachers about their collective capacity in a school with regard to teaching students and improving their learning achievements are assessed (Schechter and Tschannen-Moran 2006). A total of 12 items were used to measure the teacher perceptions of collective efficacy on two dimensions: *instructional strategies* and *student discipline*. Teachers responded to these items using a five-point Likert scale (nothing, very little, some degree, quite a bit, a great deal). The psychometric quality of the scale used in the Chinese context was examined and reported (Lee et al. 2011), thereby indicating that the two dimensions had good reliabilities as measured by ten items.

Teacher Involvement and Support

The items derived from the Hong Kong classroom environment scale (Lee et al. 2003) was used to measure teacher involvement and support. In the original questionnaire, nine items assessed teacher involvement, and seven items assessed teacher support. Students rated all of these items on a five-point Likert scale from “not at all true of me” to “very true of me.” Yin et al. (2009) used confirmatory factor analysis to examine the construct validity of the scale and found an extremely high correlation between the two factors. A single factor structure highlighting teacher involvement and support in the classroom was finalized and measured by ten items. A high Cronbach’s alpha coefficient (0.90) was obtained, which suggested that these items could reliably measure the factor.

Student Motivation and Use of Learning Strategy

The Motivated Strategies for Learning Questionnaire: Revised Chinese version adapted from Lee et al. (2010) was administered to students. A total of 40 items from the instrument were used to measure six factors: *self-efficacy*, *intrinsic value*, *extrinsic value*, *test anxiety*, *strategy use*, and *peer learning*. Students scored all of the items on a five-point Likert scale from 1 (not at all true of me) to 5 (very true of me). The first four factors measured student motivation beliefs, and the last two factors assessed the student use of learning strategy. The results from CFA and IRT analysis indicated that the construct validity was sufficient and that the corresponding items could reliably measure all six factors.

Statistical Modeling and Data Analysis

Unlike earlier studies, which focused either on data from teachers regarding their perceptions of PLC or data from students regarding their motivation and use of learning strategies, this study attempts to link teacher-level and student-level data and explore their possible relationships. In this section, PLC and collective teacher efficacy as perceived by teachers are shown to reflect school conditions. However, student evaluations of teacher involvement and support in the classroom and their motivation and use of learning strategies were primarily based on the individual level. Generally, the condition perceived by students within the same school was hypothesized to reveal more similar features compared with students sampled from the entire school population. Owing to the two-level character of the data, multilevel modeling or hierarchical linear modeling (HLM) (Raudenbush and Bryk 2002) was used to investigate the relationship between PLC, collective teacher efficacy, teacher involvement and support, and student motivation and use of learning strategies. The multilevel modeling or HLM statistical techniques can account for the shared variance and dependency in hierarchically structured or unbalanced data. They also allow us to break down the total variance of the outcome variable of interest into within- and between-cluster varieties as well as use the predictors at different levels to explain the variances in the outcome variable of interest (Raudenbush and Bryk 2002; McCoach 2010; Woltman et al. 2012).

Two-level HLM was employed in the study to investigate the relationship between school-level and student-level factors, which is shown by the theoretical model in Fig. 27.1. The level 1 (student-level) model was built to compare the differences in student motivations and use of learning strategies as well as student perceptions of teacher involvement among different schools. In addition, the predictions made by student perceptions of teacher involvement and support regarding student motivation and use of learning strategies as well as how the relationship differs across different schools were also examined in the level 1 model. The level 2 (school-level) model used PLC and collective teacher efficacy to examine how these

school-level factors explain variances across school levels. The computer program Mplus (Muthén and Muthén 2007) was used to calibrate the model.

Results

Proportions of the Variances Explained at the School Level

The unconditional model, which did not take any predictors at either the level 1 or level 2 models, was employed to examine how the total variances in student scores on motivation and learning strategies as well as teacher involvement and support were attributed to the school level. The bottom of Table 27.1 explains the proportions of total variances of student scores on motivation and use of learning strategies as well as their perceptions of teacher involvement and support explained at the school level. Generally, the results indicate that the majority of the total variances in student scores on these factors were accounted for at the student level. School-level factors explain approximately 13 % of the total variances in the student scores on *teacher involvement and support* and *intrinsic value*. Moreover, 8 % of the total variance in the student scores on *strategy use* was explained at the school level. For the factors *self-efficacy* and *extrinsic value*, approximately 7 % of the total variances were attributed at the school level. In addition, the school level explained only about 5 % of the total variances of *test anxiety* and 4% of the total variances of *peer learning*.

Predictions of Teacher Involvement and Support Regarding Student Motivation and Learning Strategies

The random slope HLM model, which allows the level 1 regression coefficients to be different at level 2 units, was employed to examine how student perceptions of teacher involvement and support predict student motivation and use of learning strategies as well as how the relationships differ across different schools. Table 27.1 shows the results of the influence of teacher involvement and support on student motivation and learning. The results indicate that teacher involvement and support could significantly and positively predict student *self-efficacy* ($\gamma = 0.329, p < 0.001$), *intrinsic value* ($\gamma = 0.466, p < 0.001$), *extrinsic value* ($\gamma = 0.363, p < 0.001$), *strategy use* ($\gamma = 0.390, p < 0.001$), and *peer learning* ($\gamma = 0.398, p < 0.001$). The parameters of the random coefficients derived from the HLM analysis also indicated that the relationships between teacher involvement and support as well as student motivation and use of learning strategies differed significantly across different schools and school-level predictors. PLC and collective teacher efficacy could be added to the level 2 model to explain these variances. However, a nonsignificant regression

Table 27.1 Effects of PLC and collective efficacy on teacher involvement and support and motivated strategies and learning of students

	Self-efficacy coef	Intrinsic value coef	Extrinsic value coef	Test anxiety coef	Strategy use coef	Peer learning coef	Teacher involvement and support coef
Student-level predictors							
Teacher involvement and support	0.329***	0.466***	0.363***	-0.050	0.390***	0.398***	-
School-level predictors							
PLC							
<i>Shared and supportive leadership</i>	-0.026	-0.009	0.121*	0.051	-0.011	-0.011	0.030
<i>Collective learning and application</i>	0.112	0.222***	0.142***	-0.114*	0.163***	0.096**	0.279***
<i>Supportive conditions-structures</i>	0.113	0.144**	0.107	-0.138*	0.107*	0.074	0.169*
Collective teacher efficacy							
<i>Instructional strategies</i>	0.094	0.177***	0.179***	-0.169**	0.127**	0.047	0.213***
<i>Student discipline</i>	0.070	0.142**	0.117*	-0.051	0.113**	0.091*	0.177**
Proportions of variances explained by between-level	7%	13%	7%	5%	8%	4%	13%

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

coefficient indicated that teacher involvement and support was not a significant predictor of student *test anxiety*.

Effects of PLC and Collective Teacher Efficacy on Student Motivation and Use of Learning Strategies

Table 27.1 reports the results from the conditional HLM, which considered PLC factors and collective teacher efficacy to explain the school-level variances in student motivation and learning strategies. The results indicated that none of the three PLC factors could significantly predict the school-level variances of student evaluations on *self-efficacy*. The PLC factor, *shared and supportive leadership*, was significantly related only to the scores of students on *extrinsic value* ($\gamma = 0.121, p = 0.044$). The PLC factor *collective learning and application* was identified as a key factor associated with student motivation and use of learning strategies. Student *intrinsic value* ($\gamma = 0.222, p < 0.001$), *extrinsic value* ($\gamma = 0.142, p < 0.001$), *strategy use* ($\gamma = 0.163, p = 0.001$), and *peer learning* ($\gamma = 0.096, p = 0.003$) were significantly and positively related to the PLC factor *collective learning and applications*. The PLC factor *collective learning and applications* significantly and negatively predicted student *test anxiety* ($\gamma = -0.114, p = 0.049$). Thus, the students in schools that score higher on collective learning and application in PLC tend to have less test anxiety. Another PLC factor, *supportive conditions-structures*, was identified as a significantly positive predictor of student *intrinsic value* ($\gamma = 0.144, p = 0.010$) and *strategy use* ($\gamma = 0.107, p = 0.046$) but a negative predictor of student test anxiety ($\gamma = -0.138, p = 0.034$).

The results of multilevel analysis also indicated that collective teacher efficacy could partly account for the school-level variances in student motivation and use of learning strategies. As shown in Table 27.1, the collective efficacy of teachers on *instructional strategies* could significantly and positively account for the school-level variances in the scores of students on *intrinsic value* ($\gamma = 0.177, p < 0.001$), *extrinsic value* ($\gamma = 0.179, p < 0.001$), and *strategy use* ($\gamma = 0.127, p = 0.003$). The collective efficacy of teachers was negatively related to student *test anxiety* ($\gamma = -0.169, p = 0.002$). Thus, the students in a school composed of staff with higher levels of collective efficacies on instructional strategies tend to have lower levels of test anxiety. The collective efficacy of teachers on *student discipline* were significant and positive predictors of student *intrinsic value* ($\gamma = 0.142, p = 0.006$), *extrinsic value* ($\gamma = 0.117, p = 0.045$), *strategy use* ($\gamma = 0.113, p = 0.003$), and *peer learning* ($\gamma = 0.091, p = 0.019$) but not significant for student self-efficacy and test anxiety.

Effects of PLC and Collective Teacher Efficacy on Teacher Involvement and Support

Table 27.1 presents the results of how PLC factors and collective teacher efficacy accounted for the school-level varieties of student perceptions of teacher involvement and support. Two of the three PLC factors, namely, *collective learning and applications* ($\gamma = 0.279, p < 0.001$) and *supportive conditions-structures* ($\gamma = 0.169, p = 0.015$), were significantly and positively related to teacher involvement and support. Another PLC factor, *shared and supportive leadership*, was not identified as a significant predictor of teacher involvement and support. In addition, collective teacher efficacy was positively related to student perceptions of teacher involvement and support. The positive effects on teacher involvement and support as a result of collective teacher efficacy on *instructional strategies* ($\gamma = 0.213, p < 0.001$) and *student discipline* ($\gamma = 0.177, p = 0.005$) suggested that teachers in a school composed of staff with high levels of collective efficacy would tend to be more involved in classroom teaching and more supportive of student learning.

Effects of PLC and Collective Teacher Efficacy on the Strengths of the Relationship of Teacher Involvement and Support with Student Motivation and Learning Strategies

The predictions of teacher involvement and support to student motivation and use of learning strategies were statistically significant across different schools. School-level factors PLC and collective teacher efficacy were also used to explain these variances. The results (see Table 27.2) indicated that the PLC factor *supportive condition-structures* could significantly and positively account for the school-level variances in the predictions of teacher involvement and support to student *self-efficacy* ($\gamma = 0.081, p = 0.050$), *intrinsic value* ($\gamma = 0.099, p = 0.003$), *strategy use* ($\gamma = 0.099, p = 0.026$), and *peer learning* ($\gamma = 0.100, p = 0.010$). Thus, in schools with well-developed *supportive conditions-structures* in building PLC, the influence of teacher involvement and support on student self-efficacy, intrinsic value, strategy use, and peer learning could be strengthened. Interestingly, the PLC factor *collective learning and applications* ($\gamma = -0.149, p < 0.001$) and teacher collective efficacy on *instructional strategies* ($\gamma = -0.118, p = 0.004$) could significantly but negatively explain the school-level variances in the predictions of teacher involvement and support to student *extrinsic value*. Thus, in schools with sufficient *collective learning and application* in developing PLC and composed of staff with high levels of collective efficacy on *instructional strategies*, the positive relationship between teacher involvement and support as well as student *extrinsic value* could be weakened.

Table 27.2 Effects of PLC and collective teacher efficacy on the predictions of teacher involvement and support to motivated strategies and learning of students

	Self- efficacy	Intrinsic value	Extrinsic value	Strategy use	Peer learning
	coef	coef	coef	coef	coef
School-level predictors					
PLC					
<i>Shared and supportive leadership</i>	-0.029	-0.038	-0.072	-0.021	-0.012
<i>Collective learning and application</i>	-0.041	-0.020	-0.149***	-0.020	-0.069
<i>Supportive conditions-structures</i>	0.081*	0.099***	-0.032	0.099*	0.100**
Collective teacher efficacy					
<i>Instructional strategies</i>	0.011	0.011	-0.118**	0.036	0.014
<i>Student discipline</i>	0.013	0.030	-0.070	-0.006	-0.012

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Discussion

Prevalence of Student Test Anxiety Across Schools

The findings of our study revealed that although curriculum reform in Hong Kong had promoted the means of “reducing excessive tests, examinations and dictations” (Curriculum Development Council 2001, p. 7), a negligible proportion of the total variances in student perceptions of test anxiety were contributed at the school level. This result suggested that examinations still played a significant role in generating student test anxiety across schools in Hong Kong. Despite the influence of academic performance, our results indicated that student development in terms of intrinsic value differed considerably across different schools. This finding might reflect a possible shift from an emphasis on the extrinsic value of students in teaching and student learning to an emphasis on stimulating the intrinsic interests of students within the ongoing curriculum reform process in Hong Kong. This reform has a “learning to learn” orientation that advocates “the development of students’ own interests and potential” (Curriculum Development Council 2001, p. 7). Several schools might have developed the interests of students better through the development of a school-based curriculum, whereas others have yet to pursue this direction.

Our study confirmed the positive effects of teacher involvement and support on increased student motivation and use of learning strategy. However, teacher involvement and support was uncorrelated with student test anxiety. This result may be explained by the fact that test anxiety for Hong Kong students is the result of heavy examination pressure, which is prevalent in the Chinese or Asian educational sys-

tem. Most students experience a similar degree of pressure related to test anxiety in the Chinese context.

Varying Importance of Collective Teacher Efficacy on Instructional Strategies and Student Discipline on Student Outcomes

The results of our study also support the positive relationship between collective teacher efficacy, teacher involvement and support, as well as student motivation and learning strategies. Collective teacher efficacy in terms of instructional strategies and student discipline directly or indirectly exerted positive effects on teacher involvement and support as well as influenced student motivation and learning strategies.

Interestingly, collective teacher efficacy in terms of instructional strategies rather than student discipline could significantly and positively explain the school-level variances in student test anxiety. Thus, students in a school composed of staff with a high level of collective efficacy in terms of instructional strategies would have a slightly lower level of test anxiety. Conversely, collective teacher efficacy in terms of student discipline rather than instructional strategies was identified as a significant predictor of school-level variances in student peer learning. Thus, students could effectively take part only in cooperative and peer learning in a well-disciplined learning environment. This finding partly reflects the situation in Hong Kong, in which increased student learning diversity and social emotional needs in the classrooms and schools have caused classroom management and guidance as well as counseling to become major aspects of teaching (Chan 2008). Problems in learning and disruptive behaviors have also become classroom constraints (Tam 2009).

Role of the PLC

The results of this study support the significant roles played by schools as PLCs in improving teacher involvement and support in classroom teaching, which positively develops student motivation and use of learning strategies, as well as lowering test anxiety. Two factors of PLC, namely, *collective learning and applications* and *supportive conditions-structures*, were identified as important PLC factors through their direct or indirect effects on teacher involvement and support, which in turn would influence student motivation and use of learning strategies. This result corresponds to the finding of Galton, which illustrates the adoption of learning circles in the context of teaching small classes in Hong Kong (Galton and Pell 2009; Galton and Pell 2012a). In learning circles, teachers take turns in adapting and teaching lessons, observing the classes of their peers, and reflecting on their own practices

through lesson studies (Robertson et al. 2008, p. 6). In the United Kingdom, Galton (2000) elaborated on clustering in small rural schools (Galton and Hargreaves 1995) where committed teachers in the cluster initially formed a “community of practice,” which they considered as an opportunity to promote student learning. However, limited information was known about “moving teachers along the continuum that begins with ‘*thinking about self*’ and moves through ‘*thinking about tasks*’ to ‘*thinking about the child*’” (Fuller and Brown 1975), which appears to be central to the creation of communities of practice that can sustain change. Insufficient knowledge is available about this developmental process at present (Galton 2000). Further research on the changing concerns, attitudes, and practices related to PLCs in Hong Kong schools could be conducted in the future.

The PLC Factor Shared and Supportive Leadership as a Nonsignificant Factor

Interestingly, the PLC factor *shared and supportive leadership* was not significantly related to teacher involvement and support when compared to most aspects of student motivation and learning strategies. To a certain extent, this finding indicates that empowerment or shared leadership with teachers when building a PLC in Chinese culture may not be an effective way to improve teacher engagement and student development in motivation and learning strategies. This result also represents the situation explained in a Hong Kong study on school-based management, which shows “a lack of collegiality and collaboration in teaching among teachers. Collaborative practices like co-planning, and sharing of professional experiences and pedagogical innovations were rare... [T]he school administrators were not good in leading teachers to share their values, beliefs and attitudes related to teaching and learning” (Yu 2005, p. 265).

In the context of Chinese culture and values, which emphasize respect for authority, obedience, loyalty, and harmony, teachers tend to regard themselves as followers instead of leaders, whereas principals are considered as directors and makers of final decisions (Wan 2005). In addition, teacher perceptions of leadership roles are still shaped by administrative positions in a hierarchy. As revealed by a Hong Kong study, “most perceived teacher leadership in terms of influence on their students and their colleagues in their subject departments/committees. Therefore, teacher leadership was confined to roles in the classrooms and their formal administrative and management responsibilities” (Ng 2006, p. 16).

Pathway 1 to Improve Student Outcomes (Intrinsic Values and Peer Learning) Through Positive Influence of the PLC Factor Supportive Condition-Structures

The developing PLC can strengthen or weaken the relationship of teacher involvement and support with student motivation and learning strategies. The findings of our study indicated that the PLC factor *supportive conditions-structures* could strengthen the predictive level of teacher involvement and support in terms of student self-efficacy, intrinsic value, strategy use, and peer learning. This finding corresponds partly to the midterm report by the Education Bureau (2008, p. 28) on curriculum reform, which revealed that although a large number of schools had begun building PLCs, government provisions for teachers, professional training in teaching methods, and lesson observations were still necessary.

The importance of supportive conditions-structures is obvious in the context of Hong Kong, where the heavy workload of teachers has been a long-standing problem (Lai 2011). Studies in Hong Kong have also noted that the ever-increasing workload caused teachers to have limited time for self-reflection and professional development (Ho and Tsang 2008). In another study on instructional changes in Hong Kong, school leaders were encouraged to establish PLCs and create “conditions of change through personal influence instead of domination... and a reduced workload for teachers so that they [would] have the time to experiment [with] alternative modes of instruction” (Tam 2009, p. 332).

Avalos (2011, p. 18) highlighted the widespread issue of “the effects of policy environments centered on standardized examination results and restricted notions of teacher accountability. This is not a minor issue, as these policies have travelled the world and penetrated more strongly in precisely those contexts where teachers, working under difficult conditions, have limited opportunity to renew imaginatively their teaching through collaborative work amongst themselves.” Galton also mentioned that the increase in the workload of teachers was experienced not only in Britain but also in North America, Singapore, Hong Kong, Japan, and other countries. According to Galton, “one finds a similar situation and attendant stoicism in Hong Kong schools where a powerful normative culture discourages teachers from departing from the mainstream of practice” (Galton 2008, p. 40).

Pathway 2 in Affecting Student Outcomes (Decreasing Extrinsic Values) Through the Influence of Collective Teacher Efficacy of Instructional Strategies and the PLC Factor Collective Learning and Application

Interestingly, both the PLC factor *collective learning and application* and collective teacher efficacy of instructional strategies were found to lower the strength of the relationship of teacher involvement and support with student extrinsic value, which focused on obtaining a good grade. A high level of teacher involvement and support had a significant and positive influence on student extrinsic value. However, the PLC factor *collective learning and application* and collective teacher efficacy of instructional strategies weakens this relationship. This finding may be partly caused by the transition from emphasizing extrinsic value to emphasizing intrinsic value in teaching and student learning under the current curriculum reform in Hong Kong, which declared that “learning: it’s more than scoring.” To a certain extent, this finding corresponds to the statement by Galton (2009, p. 161) that teachers should have high expectations for students, “which maximize the pupils’ own strengths and interests and attempt to motivate them to learn for intrinsic rather than extrinsic reasons.”

However, this shift in the learning and teaching paradigm might encounter different kinds of challenges. First, competition for academic excellence still prevails in Hong Kong, as is the case in all Asian schools. Teaching tends to highlight how students with different abilities and aptitudes adapt to common examinations and curriculums rather than the curriculum and teaching being provided in response to diverse student needs (Cheng and Wong 1996). Second, the emphasis on a harmonious school culture in the Chinese context might have a drawback because harmonious relationships could hinder the generation of new and progressive ideas among teachers. Such an emphasis may exert pressure on teachers to maintain the status quo, including the learning and teaching practices that focus on traditional pedagogy and academic performance (MacBeath 2002, p. 113). Third, in certain schools, the conversations among teachers tend to be superficial and filled with frustrations while having no real opportunity for learning and development (Tam 2009). Another possible explanation is that in Hong Kong, where collectivism dominates, people tend to resist change more than their Western counterparts. This situation is probably the case for teachers who resist focusing on changing learning practices, a phenomenon illustrated in another Hong Kong study on PLC, which showed that although more than 70% of the respondents thought that they took collective responsibility for student learning, only 30% and 15% of the primary and secondary school respondents perceived that nearly all of their teachers in their schools “*reported to be learning together with colleagues and learning from each other*” (emphasis in original; Stoll et al. 2006, p. 7).

Despite these entrenched challenges, scholars such as Head (2005, p. 101) have referred to the mediated learning experience based on the study by Haywood (1993), which consists of six key criteria: mediation for intentionality, transcendence,

communication of meaning and purpose, feelings of competence, regulation of behavior, and shared participation. Teachers should be advised to consider adopting an assertive discipline approach, which would give pupils a voice, or accommodate different learning styles to make pupils metacognitively wise (Galton 2007).

Conclusion

Generally, our findings indicate the significance of developing schools as PLCs and enhancing collective teacher efficacy to increase teacher involvement and support in student learning as well as to enhance their influence on the improvement of student motivation and use of learning strategies. The main findings of our study suggest the importance and positive effect of teacher involvement and support on student intrinsic motivation and learning strategies. However, the results also show significant differences in student perceptions regarding teacher involvement and support across different schools. To improve student motivation and use of learning strategies, schools may consider building PLCs as a means to improve teacher involvement and support for students in classroom teaching and student learning.

Several findings indicate that school examinations continue to be heavily emphasized across all the sample schools in the context of Hong Kong. Other interesting findings to a certain extent reflect the transition from the traditional method of motivating the extrinsic interest of students in learning to emphasizing the development of the intrinsic interests of students. The PLC may have partly contributed to this shift. The use of learning circles as an approach to the professional development of teachers and building a PLC within and across schools under the context of small class teaching in Hong Kong could be considered (Galton and Pell 2009). According to Galton, “learning circles have the capacity to bring about significant changes in practice but they need to be fully integrated within each participating school’s professional development if they are to realize their full potential” (Robertson et al. 2008, p. 7).

This study has certain limitations. First, the link between student data and teacher data could be improved by aligning and mapping teacher respondents that teach the student respondents in the same school so that the study would have fewer proxies and be more robust. Second, a common variable, such as classroom environment, should be used to measure the responses from both teachers and students to serve as the link between data from students and teachers. Regarding directions for further research, implementation of the small class policy in Hong Kong primary schools and experiments in small class teaching in selected secondary schools indicate that future studies may use a three-level model in which classes are nested within schools. Then, comparisons can be made across schools. The results may shed light on the effects of class size on the instructional practices of teachers and student use of learning strategies. Longitudinal studies, based on insights from the study by Galton and Pell (2012b), may also be adopted to estimate changes over time.

Acknowledgement We would like to thank the Education University of Hong Kong (EdUHK), Department of Curriculum and Instruction, and the Chinese University of Hong Kong for their support in preparing this manuscript.

References

- Advisory Committee on Teacher Education and Qualifications. (2003). *Towards a learning profession: The teacher competencies framework and the continuing professional development of teachers*. Hong Kong: The Government Logistics Department.
- Avalos, B. (2011). Teacher professional development in Teaching and Teacher Education over ten years. *Teaching and Teacher Education*, 27(1), 10–20.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- Bangs, J., MacBeath, J., & Galton, M. (2011). *Reinventing schools, reforming teaching: From political visions to classroom reality*. London: Routledge.
- Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, 44, 473–490.
- Chan, D. W. (2008). General, collective, and domain-specific teacher self-efficacy among Chinese prospective and in-service teachers in Hong Kong. *Teaching and Teacher Education*, 24, 1057–1069.
- Cheng, K.-M., & Wong, K.-C. (1996). School effectiveness in East Asia: Concepts, origins and implications. *Journal of Educational Administration*, 34(5), 32–49.
- Chong, W. H., Klassen, R. M., Huan, V. S., Wong, I., & Kates, A. D. (2010). The relationships among school types, teacher efficacy beliefs, and academic climate: Perspective from Asian middle school. *The Journal of Educational Research*, 103, 183–190.
- Curriculum Development Council. (2001). *Learning to learn: Life-long learning and whole-person development*. Hong Kong: Printing Department.
- Donner, A., Mandzuk, D., & Clifton, R. A. (2008). Stages of collaboration and the realities of professional learning communities. *Teaching and Teacher Education*, 24, 564–574.
- Education Bureau. (2008). *Improving learning, teaching and the quality of professional life in schools: A mid term report on curriculum reform to school heads and teachers*. http://www.edb.gov.hk/FileManager/EN/Content_2396/english_professional_report_final_v3.pdf
- Eteläpelto, A., Littleton, K., Lahti, J., & Wirtanen, S. (2005). Students' accounts of their participation in an intensive long-term learning community. *International Journal of Educational Research*, 43(3), 183–207.
- Fuller, F., & Brown, O. (1975). Becoming a teacher. In K. Ryan (Ed.), *Teacher education: The Seventy-fourth yearbook of the National Society for the Study of Education Part 2* (pp. 25–52). Chicago: University of Chicago Press.
- Galton, M. (2000, November). *Integrating theory and practice: Teachers' perspectives on educational research*. Paper presented at the ESRC Teaching and Learning Research Programme, First Annual Conference – University of Leicester. Retrieved 25th August 2013 from <http://www.leeds.ac.uk/educol/documents/00003247.htm>
- Galton, M. (2007). *Learning and teaching in the primary classroom*. Thousand Oaks: Sage Publications Ltd..
- Galton, M. (2008). Teachers under pressure: The impact of government policies on teachers' working lives. *Education Review*, 21(1), 39–48.
- Galton, M. (2009). One big family? Promoting harmony and resilience. In M. Galton, S. Steward, L. Hargreaves, C. Page, & T. Pell (Eds.), *Motivating your secondary class* (pp. 151–173). London: Sage Publications.

- Galton, M., & Hargreaves, L. (1995). 'Clustering: A survival mechanism for rural schools in the UK. *Journal of Research in Rural Education*, 11(3), 173–181.
- Galton, M., & Pell, T. (2009). *Study on small class teaching in primary schools in Hong Kong: Final report*. Hong Kong: Education Bureau and University of Cambridge.
- Galton, M., & Pell, T. (2012a). Do class size reductions make a difference to classroom practice? The case of Hong Kong primary schools. *International Journal of Educational Research*, 53, 22–31.
- Galton, M., & Pell, T. (2012b). Longitudinal effects of class size reductions on attainment: Results from Hong Kong primary classrooms. *International Journal of Educational Research*, 53, 360–369.
- Goddard, R. D., & Goddard, Y. L. (2001). A multilevel analysis of the relationship between teacher and collective efficacy in urban schools. *Teaching and Teacher Education*, 17, 807–818.
- Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). Collective teacher efficacy: Its meaning, measure, and effect on student achievement. *American Education Research Journal*, 37, 479–507.
- Haywood, H. C. (1993). A meditational teaching style. *International Journal of Cognitive Education and Mediated Learning*, 3(1), 27–37.
- Head, G. (2005). Better learning – Better behaviour. *Scottish Educational Review*, 37(2), 94–103.
- Hidi, S., & Harackiewicz, J. M. (2000). Motivating the academically unmotivated: A critical issue for the 21st century. *Review of Educational Research*, 70, 151–179.
- Hipp, K. K., & Huffman, J. B. (2003, January). *Professional learning community: Assessment – Development – Effects*. Paper presented at the International Congress for School Effectiveness and Improvement, Sydney.
- Ho, Y.-F., & Tsang, W. K. (2008). The besieged teaching profession and the corroded teachers' selves in the context of education reforms in Hong Kong SAR. In J. C. K. Lee & L. P. Shiu (Eds.), *Developing teachers and developing schools in changing contexts* (pp. 155–176). Hong Kong: The Chinese University Press and The Hong Kong Institute of Educational Research.
- Hoy, W. K., Sweetland, S. R., & Smith, P. A. (2002). Toward an organisational model of achievement in high schools: The significance of collective efficacy. *Educational Administration Quarterly*, 38, 77–93.
- Hughes, J., & Kwok, O. M. (2007). Influence of student-teacher and parent-teacher relationships on lower achieving readers' engagement and achievement in the primary grades. *Journal of Educational Psychology*, 99(1), 39–51.
- Lai, K. C. (2011). *Report on the workload of teachers in Hong Kong primary and secondary schools*. Education Planning Digest No. 3. Hong Kong: Strategic Planning Office, the Education University of Hong Kong.
- Lee, J. C. K., Lee, L. M. F., & Wong, H. W. (2003). Development of a classroom environment scale in Hong Kong. *Educational Research and Evaluation: An International Journal on Theory and Practice*, 9(4), 317–344.
- Lee, J. C. K., Yin, H. B., & Zhang, Z. H. (2009). Exploring the Influence of the Classroom Environment on Students' Motivation and Self-regulated Learning in Hong Kong. *Asia-Pacific Education Researcher*, 18, 219–232.
- Lee, J. C. K., Yin, H. B., & Zhang, Z. H. (2010). Adaptation of Pintrich's motivated strategies for learning questionnaire in the Chinese setting. *International Journal of Testing*, 10, 149–165.
- Lee, J. C. K., Zhang, Z. H., & Yin, H. B. (2011). A multilevel analysis of the impact of a professional learning community, faculty trust in colleagues and collective efficacy on teacher commitment to students. *Teaching and Teacher Education*, 27, 820–830.
- MacBeath, J. (2002). Leadership, learning and the challenge to democracy: The case of Hong Kong, the United Kingdom, and the United States. In A. Walker & C. Dimmock (Eds.), *School leadership and administration: Adopting a cultural perspective* (pp. 103–122). New York/London: Routledge.
- McCoach, D. B. (2010). Hierarchical linear modeling. In G. R. Hancock & R. O. Mueller (Eds.), *Quantitative methods in the social and behavioral sciences: A guide for researchers and reviewers*. New York: Taylor & Francis.

- Muthén, L. K., & Muthén, B. O. (2007). *Mplus (Version 5.1) [Computer program]*. Los Angeles: Muthén and Muthén.
- Ng, C.F.H. (2006). *Can teacher leadership contribute to secondary school revitalization in Hong Kong?* School Education Reform Series, Faculty of Education and Hong Kong Institute of Educational Research, The Chinese University of Hong Kong.
- Pancucci, S. (2008). A retrospective analysis of a professional learning community: How teachers' capacities shaped it. *International Journal of Social Science*, 3, 62–69.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks: Sage Publications.
- Robertson, M., Galton, M., Hardman, F. (2008). *Putting teachers in the front row: Building professional learning communities*. Paper presented at the British Educational Research Association conference. Edinburgh, UK.
- Rovai, A. P. (2002). Sense of community, perceived cognitive learning, and persistence in asynchronous learning networks. *The Internet and Higher Education*, 5(4), 319–332.
- Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal*, 38(2), 437–460.
- Schechter, C., & Tschannen-Moran, M. (2006). Teachers' sense of collective efficacy: An international view. *International Journal of Educational Management*, 20, 480–489.
- Stoll, L., Bolam, R., McMahon, A., Thomas, S., Wallace, M., Greenwood, A., & Hawkey, K. (2006). *Setting professional learning communities in an international context*. Nottingham: National College for School Leadership.
- Tam, F. W.-M. (2009). Sufficient conditions for sustainable instructional changes in the classroom: The case of Hong Kong. *Journal of Educational Change*, 10, 315–336.
- Thompson, S. C., Gregg, L., & Niska, J. M. (2004). Professional learning communities, leadership, and student learning. *Research in Middle Level Education Online*, 28, 1–15.
- Tschannen-Moran, M., & Barr, M. (2004). Fostering student learning: The relationship of collective teacher efficacy and student achievement. *Leadership and Policy in Schools*, 3, 189–209.
- Turner, J. C., & Meyer, D. K. (1999). Integrating classroom context into motivation theory and research: Rationales, methods, and implications. In T. Urdan & M. Maehr (Eds.), *The role of context: Advances in motivation and achievement* (pp. 87–122). Stamford: JAI Press.
- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24, 80–91.
- Wan, E. (2005). Teacher empowerment: Concepts, strategies, and implications for schools in Hong Kong. *Teachers College Record*, 107(4), 842–861.
- Watkins, C. (2005). Classrooms as learning communities: A review of research. *London Review of Education*, 3, 47–64.
- Woltman, H., Feldstain, A., Mackay, J. C., & Rocchi, M. (2012). An introduction to hierarchical linear modeling. *Tutorials in Quantitative Methods for Psychology*, 8, 52–69.
- Yin, H. B., Lee, J. C. K., & Zhang, Z. H. (2009). Examining Hong Kong students' motivational beliefs, strategy use and their relations with two relational factors in classrooms. *Educational Psychology*, 29, 685–700.
- Yu, H. (2005). Implementation of school-based management in Hong Kong: Recent development and future challenges. *Journal of Educational Change*, 6, 253–275.

Part VIII
Understanding Students and Pupils:
Psychological and Social Aspects of Pupils
and Young Persons' Development

Chapter 28

Children and Young People's Wellbeing in the School Context

Ros McLellan

Abstract Policymakers, academic researchers and the general public have become increasingly interested in wellbeing in recent years. Although there is consensus that wellbeing is important, there is considerable debate as to what exactly wellbeing is and hence how it might be enhanced. This chapter provides an overview of research on wellbeing and argues that the different disciplinary lenses generate unique insights that must be considered collectively for a cohesive picture of wellbeing to be developed. Furthermore, it is argued that research on adults' wellbeing cannot be unproblematically applied to children and young people. Substantially less research has focused on children and young people compared with adults' wellbeing, and even less work has considered wellbeing in the school context. The contribution of McLellan and Galton's work in this area is outlined, and outstanding issues about children and young people's wellbeing are raised.

Keywords Wellbeing • Children and young people • Subjective wellbeing • Eudaimonic wellbeing • Hedonic wellbeing • Social wellbeing

Introduction

In the early summer of 2010, Maurice Galton collared me in the staff social area and asked me whether I'd be interested in bidding for a project on wellbeing. We hadn't worked together before but had had chats over coffee during which we had identified our common interests in motivation and creativity and realised we were both interested in what actually happens in classrooms. He shared findings from the large-scale ESRC-funded SPRinG (Social Pedagogic Research into Group-work) Project, which culminated in the well-regarded book 'Motivating your Secondary Class' (Galton et al. 2009). He was also undertaking some work for the Arts Council and Creative Partnerships to explore the pedagogy of creative practitioners in schools and talked enthusiastically and entertainingly about the different approaches taken

R. McLellan (✉)

Faculty of Education, University of Cambridge, 184 Hills Road, Cambridge CB2 8PQ, UK
e-mail: rwm11@cam.ac.uk

by creative practitioners, compared to the classroom teachers (Galton 2010). When I first met him, I was working as the researcher on a Gatsby-funded project entitled ‘Subject Leadership in Creativity in Design & Technology’ so I in turn discussed with Maurice the emerging ideas the Principal Investigator and I were having about why young people were not being creative in their D&T work. Motivation is seen as one prerequisite for creativity (Amabile 1996), and as I had just finished my PhD exploring the role of motivation in student learning in science (McLellan 2006), the role of motivation was explored further in that work (McLellan and Nicholl 2013; Nicholl and McLellan 2009). Later on discussions with another colleague interested in teacher motivation and wellbeing (Demetriou and Wilson 2009, 2012) lead me to consider the close relationship between motivation and wellbeing. These ideas in turn were discussed over coffee with Maurice when we bumped into each other.

So it is perhaps not that surprising that Maurice sought me out when Creativity, Culture and Education, the charity administering the Creative Partnerships scheme, approached him to see if he was interested in bidding for a project examining the impact of Creative Partnerships on student wellbeing. I felt flattered to be asked to work alongside such a well-known and respected academic, and we were fortunate to be successful in our bid, completing that project in May 2012 (McLellan et al. 2012). We then embarked on a project funded by the Nuffield Foundation to examine the impact of transition from primary to secondary school on young people’s wellbeing, with additional funding from Creativity, Culture and Education to explore the relationship between wellbeing and health over that transition. I feel very privileged to have worked with Maurice over the last 4 years. Not only have we gone on a wonderful voyage of discovery about young people’s wellbeing, but I also feel I have grown as an academic moving from a position of legitimate peripheral to full participation (Lave and Wenger 1991) in the academic community under his expert, encouraging and watchful eye. Maurice is not only extremely sharp and academically stimulating but also amazingly energetic with a real zeal for research, which is infectious. He is talking about retirement but I’m hoping he might be persuaded to do one more project so we can continue our work in this area.

In this chapter I will draw on what Maurice and I have learned in our work together to consider what we know at the present time about children and young people’s wellbeing, particularly in the school context, but will also flag up areas where there is still much to be learned.

Introducing Children and Young People’s Wellbeing

It is interesting to note that developments in what we know about children and young people’s wellbeing in some ways run parallel to Maurice’s research career. Maurice’s first major contribution came with his work on the ORACLE (Observational Research and Classroom Learning Evaluation) studies, funded by the SSRC, which led to the major publication ‘Inside the Primary Classroom’ (Galton et al. 1980), and this work was so significant that a follow-up study was

commissioned 20 years later (Galton et al. 1999); however he was already an established researcher by then. His earlier work, with PhD supervisor Jim Eggleston in science education, had led to a number of publications in the early 1970s (Eggleston et al. 1973, 1976; Galton and Eggleston 1971), and in this period the methodological approach that is characteristic of his research, namely, classroom observation, was developed and honed. In comparison research on wellbeing, notwithstanding the contribution of ancient Greek philosophers, in modern times, can be dated back to a review on the correlates of happiness in the late 1960s (Wilson 1967), but the field did not develop significantly until the late 1970s when a number of empirical studies were undertaken (for instance, Andrews and Inglehart 1979; Campbell 1976) and then in the early 1980s when Ed Diener in particular started to theoretically conceptualise the notion of subjective wellbeing (Diener 1984).

Thus, in considering what we know about young people's wellbeing at the present time, I aim to provide an overview of the literature that has accumulated since Wilson's 1967 review before outlining the small contribution made by that the work Maurice and I have been doing recently. As will become apparent, there is no agreed definition of wellbeing, which tends to be conceptualised in slightly different ways in different disciplinary areas. For instance, sociological approaches tend to be more structural and objective, whilst psychological ones are more based on subjective reports of personal feelings and emotions (Fegter et al. 2010). Definitional variations of wellbeing have led to different studies measuring wellbeing in different ways, encapsulating different variables. In addition, studies into adult wellbeing cannot be extrapolated unproblematically to children and young people. In exploring these issues in the following sections, the complexity of the field will be conveyed, and gaps in understanding will become apparent.

I will start, however, by considering why it is important to consider wellbeing at all, particularly in the current context in English schools where wellbeing, which was previously considered a key issue in schooling with the launch of several government agendas including 'Excellence and Enjoyment: A Strategy for Primary Schools' (Department for Education and Skills 2003b) and 'Every Child Matters' (Department for Education and Skills 2003a) and the emphasis on Social and Emotional Aspects of Learning (Department for Education and Skills (DfES) 2005), no longer appears to be seen as important by the current government who has swept aside these initiatives in favour of a tighter focus on teaching and learning (see Bangs et al. 2011, p. 118 for a quote from an interview with the current Secretary for Education, Michael Gove, that explicitly states this) and has removed all traces of wellbeing from the school inspection framework (see Office for Standards in Education 2012).

The Importance of Wellbeing

Although empirical research on wellbeing is a relatively new phenomenon, philosophical debate on the importance of wellbeing for society dates back to the ancient Greeks. For instance, according to Waterman (1993), Aristippus of Cyrene decreed that pleasure was the sole good in life; therefore people should enjoy pleasurable activities to experience meaning in life. This view sits behind the principle of utilitarianism, introduced into public debate in the eighteenth century by economic philosophers Bentham and Stuart Mill, which states that governments should act to create the greatest good for the greatest number of people (Bentham 1781; Stuart Mill 1863).

More recently governments have realised that traditional indicators of economic development, such as gross domestic product, do not capture the progression and condition of societies. Myers (2000), for instance, had demonstrated that although personal income had grown in real terms between the mid-1950s and 1998 in the USA, the percentage of people indicating they were very happy had remained approximately constant. So although economic indicators suggested a positive development, as happiness had not changed, it could be argued that American society had not improved since the 1950s. The Beyond GDP conference in 2007, which brought together influential bodies including the European Commission, the European Parliament and the OECD to discuss such issues, can be seen as a seminal event in policy circles. Sarkozy subsequently hired Nobel Prize winning economists to lead a Commission on the Measurement of Economic Performance and Social Progress (Stiglitz et al. 2009). In criticising indicators such as GDP as measure of quality of life, a key message was:

The time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people's well-being. (Stiglitz et al. 2009, p. 12)

Public opinion in the UK supports the notion that government should be more concerned with wellbeing than economic wealth, with a relatively recent poll finding that 81% of respondents agreed that the prime government objective should be the 'greatest happiness' of its citizens rather than 'greatest wealth' (Michaelson et al. 2009). Interestingly, despite the lack of interest in wellbeing from the current Secretary for Education, other UK government departments are actively concerned with this issue. The Office for National Statistics has recommended that three broad types of subjective wellbeing measures should be used to capture wellbeing, tapping evaluation (global assessments), experience (feelings over short periods of time) and 'eudaimonic' (reports of purpose and meaning and worthwhile things in life) (Dolan et al. 2011). There has been public consultation about domains and headline measures (Corp 2013; Self and Beaumont 2011), although the actual indicators in use in panel studies at the present time are limited to four questions on life satisfaction, worthwhileness, happiness and anxiety (for instance, see Office for National Statistics 2013a).

This section has demonstrated the importance of wellbeing for society and provided a flavour of the political interest in the topic. It has also, in outlining some of the potential facets of wellbeing, begun to show the complexity of the construct both in terms of definition and measurement. Part of the complexity can be understood if the different disciplinary traditional conceptions that government statisticians have drawn on are unpacked and it is to this I now turn.

Conceptualisations of Wellbeing in Different Disciplines

Wellbeing has been traditionally conceptualised by economists in objective terms (i.e. economy, personal wealth, health, educational qualifications, environment, etc.), and whilst such indicators are important and indeed form part of current UK government thinking on wellbeing appearing in the National Well-being Wheel of Measures (Office for National Statistics 2013b), the argument advanced above makes it clear that such objective measures are only part of the story and indeed, given the apparent limited relationship between wealth and happiness and more specifically the suggestion that material goods do not ultimately make people happy (Kasser et al. 2007), subjective measures of wellbeing may be more important in understanding the human condition. Understanding subjective experience has long been the domain of psychology, so not surprisingly much of the thinking in this area has been developed by psychologists building on the work of philosophers. However other disciplines such as sociology and development studies have shed some insight. These contributions are reviewed below.

Psychological Conceptualisations of Wellbeing

At the beginning of my introduction to wellbeing, I indicated that modern interest in wellbeing really began in the late 1960s with Wilson's (1967) review on the correlates of happiness, with a steady trickle of empirical work amassing during the 1970s and 1980s. However it wasn't really until Ed Diener began to theorise the notion of subjective wellbeing (Diener 1984) and delineated this from happiness that interest in the concept was really sparked in the community of psychologists. Diener argued that subjective wellbeing comprised more than just momentary moods or emotions and described it as:

...a broad category of phenomena that includes people's emotional responses, domain satisfactions, and global judgements of life satisfaction... We define SWB [subjective wellbeing] as a general area of scientific interest rather than a single specific construct. (Diener et al. 1999, p. 277)

In this conceptualisation wellbeing comprises two main components, affect (i.e. feelings, emotions and mood) and life satisfaction, which factor analytic statistical

techniques identified as distinct constructs (Lucas et al. 1996). Subjective wellbeing is being experienced when there is a preponderance of positive over negative emotions (Diener 1984). Life satisfaction is a cognitive evaluation of how satisfied an individual is with their life. The notion of wellbeing in different domains is also highlighted, and of course as educationalists, the idea of wellbeing in school as a specific domain is important. Overall such a conceptualisation of wellbeing can be classified as hedonic as the focus is on considering what makes life pleasurable and what makes people feel good (Kahneman et al. 1999), and this harks back to the ideas first proposed by Aristippus of Cyrene described earlier.

The next important development was the naming of positive psychology as a distinct branch of psychology, launched by Martin Seligman in his inaugural address as president of the American Psychological Society in 1999 and quickly followed in 2000 by a special edition of the *American Psychologist* devoted to positive psychology. The guest editors, Seligman and Csikszentmihalyi, provided a comprehensive rationale for this new field in their introduction noting that:

The aim of positive psychology is to begin to catalyse a change in the focus of psychology from preoccupation only with repairing the worst things in life to also building positive qualities. (Seligman and Csikszentmihalyi 2000, p. 5)

With its focus on understanding issues such as what makes individuals satisfied with their lives, what brings them happiness and how wellbeing can be influenced to allow individuals to flourish, positive psychology provided a home for psychologists interested in wellbeing who might have previously felt marginalised. The introduction of new journals such as the *Journal of Positive Psychology* and the *Journal of Happiness Studies* provided publication outlets further legitimising the work. Consequently there has been a large volume of studies since 2000 badged as positive psychology.

Although hedonic conceptions of wellbeing still dominate the literature with much lively debate about conceptualisation and measurement (see, for instance, Eckersley 2013; Gadermann et al. 2010), there has been growing interest in alternative conceptions of what constitutes the ‘good life’, as hedonic approaches to wellbeing have begun to be seen as a bit limited (Vitterso 2004), as they focus only on what makes us feel good, which ultimately may not be good for us (think chocolate and obesity). In this respect, ancient Greek philosophy has again proved a fruitful vein to mine. In particular Aristotle rejected hedonism in favour of eudaimonia that is ‘activity expressing virtue’ (Aristotle 1985, p. 284; cited in Waterman 1993). Modern philosophers had developed these ideas arguing that eudaimonism requires people to recognise and live in accordance with the daimon or ‘true self’ (Norton 1976), which represents the potential or ideal of perfection, and provides meaning and direction in life. Thus Waterman (1993) argues that eudaimonia, which is associated with personal expressiveness and self-realisation, can be seen as a different way of conceptualising the ‘good life’ and, for him, happiness. Eudaimonic conceptualisations of wellbeing are therefore concerned with functioning well rather than feeling well. A special edition of the *Journal of Happiness Studies* devoted to the area (Deci and Ryan 2008b) demonstrates the level of interest in this conception;

however it is clear that much recent thinking is rooted in earlier ideas and theories, particularly from early humanistic psychologists (for instance, in Maslow's 1954 hierarchy of needs where self-actualisation is at the apex of the hierarchy).

A number of psychologists have put forward theoretical conceptualisations of eudaimonic wellbeing. Seligman (2002), for instance, has argued that there are three routes to happiness, namely, living the *pleasant life* (enabling the individual to experience high levels of positive emotion and gratification), living the *good life* (enabling the individual to experience absorption in activities, engagement and flow) and finally living the *meaningful life* (enabling the individual to deploy their strengths in the pursuit of something greater than oneself). Whilst the first conceptualisation is hedonic in nature, the latter two could be described as eudaimonic with their focus on functioning rather than feeling well. Csikszentmihalyi's theory of flow, the state characterised by absorption in an activity to the exclusion of anything else representing an optimal state of intrinsic motivation where a person is functioning to their fullest capacity (Csikszentmihalyi 1975, 1990), was originally developed as a theory of intrinsic motivation to explain the intense concentration artists displayed when working. However, with its focus on optimal functioning, flow has more recently been described as the source of happiness (Csikszentmihalyi 2002) and hence a eudaimonic conceptualisation of wellbeing. Ryff and colleagues have theorised psychological wellbeing as comprising self-acceptance, personal growth, purpose in life, positive relations, environmental mastery and autonomy (Ryff 1995; Ryff and Singer 2006), again focusing on functioning well. Finally, and perhaps most influentially, given the large volume of empirical work utilising this framework, self-determination theory, originally developed to understand motivation (Deci 1975; Deci and Ryan 1985), has been specifically recast as a eudaimonic conceptualisation of wellbeing (Deci and Ryan 2008a; Ryan and Deci 2000; Ryan et al. 2008). At the heart of self-determination theory lies the ontological belief that 'all individuals have natural, innate and constructive tendencies to develop an ever more elaborated and unified sense of self' (Ryan and Deci 2002, p. 5); thus the theory is actually concerned with the development of the self. Healthy development and hence eudaimonic wellbeing depend on the fulfilment of three core needs, namely, the need for competence, autonomy and relatedness, with humans possessing the capacity or 'will' to choose how to do this, with self-determination being the 'process of utilising one's will'. In fulfilling these needs, again an individual is functioning well (i.e. experiencing the sense of competence, autonomy and relating well to others).

Some of the most recent work has started to draw together hedonic and eudaimonic conceptions of wellbeing to create a more comprehensive picture of wellbeing. At a theoretical level, Seligman, for instance, has built on his earlier ideas described above to put forward the PERMA (P, positive emotions; E, engagement; R, relationships; M, meaning; and A, accomplishments) model of flourishing as a conceptualisation of wellbeing (Seligman 2011), which clearly comprises hedonic and eudaimonic elements. At the same time, at an empirical level, policymakers are also attempting to capture both types of wellbeing. As noted earlier the Office for National Statistics in the UK has recognised the need to include 'eudaimonic' as

well as subjective aspects of wellbeing (Corp 2013; Dolan et al. 2011) but has yet to put this into practice; however an additional module to the European Social Survey did include eudaimonic and hedonic indicators (Huppert et al. 2009; Huppert and So 2013; Michaelson et al. 2009).

Contributions from Other Disciplines

Psychological conceptions of wellbeing, with their focus on individual feelings and function, tend to under-theorise the role of the social context, and this is where sociology has a contribution to make. Keyes (1998) outlined five dimensions of social wellbeing: social integration, social contribution, social coherence, social actualisation and social acceptance, and these are strongly related to the concept of 'social capital', particularly the model developed by Robert Putnam, in his influential book *Bowling Alone* on the decline of social capital in America (Putnam 2000), where the social networks that an individual possesses are valuable not only to that individual but also to the community and wider society to which that individual belongs. This suggests that not only are individual indicators important for measuring wellbeing but that the more collective indicators of the extent of social ties within neighbourhoods, participation rates in community initiatives and how inclusive these are also need to be considered in a comprehensive model of wellbeing. Such a framework has been posited by La Placa et al. (2013), encompassing a range of domains beyond individual subjectivity, to incorporate the family, community and society as a whole.

A final useful contribution comes from development studies in the form of capabilities theory (Sen 1999), which has been developed and extended by Nussbaum (2000) in applying the approach to marginalised groups who she argues do not expect and demand basic what she terms 'central requirements of a life with dignity' (Nussbaum 2003, p. 40) which can be interpreted as necessary for wellbeing. The ten central requirements or human capabilities identified include elements such as bodily health, emotions, affiliation, play and control over the environment. Together these appear to include objective measures of wellbeing (e.g. health), subjective wellbeing (e.g. positive emotions) and eudaimonic wellbeing (e.g. control over the environment), and in capabilities theory all capabilities or entitlements need to be in place for a person to flourish and experience wellbeing. Some of these capabilities overlap with entitlements identified in the *UN Convention on the Rights of the Child* (United Nations 1989) which directly influenced the *Every Child Matters* reforms in England (Department for Education and Skills 2003a) discussed earlier.

Towards a Synthesis of Disciplinary Perspectives

This section has demonstrated the wide range of work that has been done in different disciplines to theorise and assess wellbeing. Psychological work, particularly from the field of positive psychology, has put a welcome focus on theorising wellbeing for all and legitimised work in this area, although the field is not without its critics (Kristjansson 2012; McNulty and Fincham 2012). Subjective wellbeing, with its components of affect and satisfaction, has tended to dominate but there is still ongoing debate into how best to assess this construct with question marks raised about existing measures. Growing interest in the concept of eudaimonic wellbeing, with its roots in philosophy and humanistic psychology, has provided an alternative way of viewing wellbeing from the predominately hedonic approach. A number of different eudaimonic approaches have been suggested which encompass different aspects, and it is something of a challenge to bring these together and see commonalities. Some, such as self-determination theory, are concerned with growth and meaning, whilst others such as flow are more concerned with self-actualisation raising the question of whether wellbeing is a process or outcome. The lack of clarity has led to some to suggest that the concept of eudaimonic wellbeing is in a bit of a mess (Boniwell 2008) and it is apparent that this construct needs much more unpacking and exploration.

Sociological work puts the spotlight on the social context, but social capital theorists do not always recognise the active role people, including children and young people, play in producing their own social capital and hence wellbeing (Holland et al. 2007). Nevertheless, speaking as a psychologist, it seems apparent that psychological conceptions would be enriched if the full complexity of the context is considered, and if frameworks such as that outlined by La Placa and colleagues were married with psychological theories, then a more sophisticated understanding of wellbeing might be realised. The relatively new field of complexity theory may have something to offer in this respect (Guastello et al. 2011) to consider the different levels and dynamic nature of the interaction between person and context.

Finally the capabilities approach reminds us of the need to consider objective as well as subjective elements of wellbeing although it is difficult to reconcile contradictions in objective and subjective elements of wellbeing (for instance, poor people being happy despite deprivation in say a slum) although some theorising around levels of inequality are beginning to help understanding of such issues (Wilkinson and Pickett 2010).

Overall the work in the different disciplines has been extremely helpful, particularly in recent years with the political impetus to conceptualise the construct of wellbeing in a more sophisticated way. However, as is also clear, the pockets of work in different fields means our understanding is patchy as it is difficult to synthesise ideas to reach a more nuanced understanding and many fundamental questions about the construct of wellbeing remain unanswered. Coupled with this is the fact that much of the work has focused on adults and we cannot assume that what is important for adults is also important for children and young people in terms of

wellbeing. I therefore now consider what we know specifically about the wellbeing of children and young people.

What Is Known About Children and Young People's Wellbeing?

Although in the past it might have been assumed that children and young people are just 'adults in the making', this view has now generally been disregarded as youngsters are now seen as a group in their own right (see James et al. 1998). This has implications for assessing children and young people's wellbeing as they need to be consulted (Ben-Arieh 2005), and whilst policymakers are increasingly interested in assessing young people's wellbeing and have noted the importance of consultation, in practice this is difficult to realise, particularly at the level of international comparison when definitions of wellbeing and approaches to data collection differ in different national contexts (Ben-Arieh 2008). Nevertheless there has been some empirical work to assess children and young people's wellbeing at both international and national levels.

Perhaps the most influential international work is the UNICEF *Index of Children's Wellbeing* (based around the *UN Convention on the Rights of the Child* and carried out in 21 industrialised countries) (see United Nations Children's Fund 2007). This recorded each country's score across six domains: material wellbeing, educational wellbeing, health and safety, family and peer relationships, behaviours and risks and subjective wellbeing. However this work was criticised amongst other things due to limitations of the data at its disposal (Statham and Chase 2010). Furthermore, in a follow-up study in 2009 across all OECD countries (OECD 2009), the domains included were altered to have an influence on policy to include housing, environment and quality of school life, but subjective wellbeing was removed. Although objective indicators of wellbeing are included that might be linked back to the capabilities approach outlined earlier, the removal of subjective wellbeing means that this approach does not provide a comprehensive picture of young people's perceptions of their wellbeing. From the UK perspective, however, the 2007 survey was important in putting the spotlight on the plight of children and young people in our country as it revealed that the UK was bottom of 21 industrialised societies, with children recording particularly low scores on the 'family and peer relationships', 'behaviours and risks' and 'subjective wellbeing' domains.

Another large-scale international survey is the *Health Behaviour in School-Aged Children*, carried out for the World Health Organisation. However this employed global measures of wellbeing such as 'life satisfaction' (part of subjective wellbeing) and attempted to relate this to other general perceptions such as 'liking of school' (Currie et al. 2008), and whilst as educators it is important to know how wellbeing relates to or is influenced by the school context, I would argue that the

partial measures of wellbeing deployed clearly do not capture the complexity of the construct and therefore understanding of this issue is necessarily limited.

In the UK, the Social Policy Research Unit at the University of York, funded by The Children's Society (and in the past by the charity Save the Children), has developed an overall 'index of children's subjective wellbeing in England' through consulting young people (see Rees et al. 2010). The index measures wellbeing across a range of domains identified as important to happiness with life as a whole, and these were reported in rank order in the Good Childhood Report, namely, family, choice, health, time use, friends, appearance, the future, money and possessions, home and school (Rees et al. 2012). The development of this index is a major step forward in understanding children and young people's wellbeing as it clearly identifies the domains that are important to them and as such is not only a comprehensive index of subjective wellbeing but includes sociological elements of context; however it does not capture eudaimonic aspects of wellbeing.

The findings emerging from the work of this group have been illuminating. Of the 30,000 children aged 8–16 years interviewed, only 1 in 11 was unhappy with their lives as a whole (Rees et al. 2012), painting a somewhat more positive picture than the earlier UNICEF study. However what was more interesting were the differences between different groups in the study. For instance, low wellbeing was found to dramatically increase with age (the percentages doubling between the ages of 10 and 15), and that children in families who had recently experienced a drop in income were more likely to report low wellbeing.

Furthermore in considering wellbeing in the school domain specifically, there was much more variation in young people's responses to this aspect of their lives than the other domains of importance. Almost half (49%) said there were aspects of school they did not like, and over a quarter would prefer not to go to school at all. But despite these negative feelings, many children were also committed to learning, with 80% indicating that good marks were very important. The overall wellbeing of the 3% who said marks were unimportant was significantly lower than that of other children. Another area of concern is that 25% of children said they had been unfairly treated by teachers on more than one occasion and had felt unhappy at school. Relative to other domains, children's wellbeing in school declined more rapidly with age, with scores on 'relationships with teachers' and 'feeling they are listened to' reducing the most (whilst relationships with peers showed less of a decline). Boys also reported lower wellbeing in school in relation to school work and relationships with teachers than girls.

A few studies have also investigated the contribution school makes to general wellbeing, and these were reviewed in another project Maurice Galton was involved in for the Nuffield Foundation's 'Changing Adolescence Programme' (Gray et al. 2011). Most studies have looked at mental health rather than wellbeing, but research in Belgium suggested that between 5% and 11% of the variation in wellbeing, depending on measure of wellbeing considered, was attributable to the school the student attends (Opdenakker and Van Damme 2000), whilst the only English study suggested that the figure was as low as 3% (Gutman and Feinstein 2008). This indicates that individual differences in wellbeing are more significant than school effects

and that children and young people may experience the same situation in school differently due to their individual differences, and this has the potential to manifest in different behaviour in terms of, for instance, their interactions with teachers and peers (Gutman and Feinstein 2008).

Overall, therefore, significant steps have been taken to understand and assess children and young people's wellbeing. There has been interest in the international community but there are significant difficulties in developing instruments that can be implemented in a standardised format that is interpreted in the same ways in different national contexts. At a national level in the UK, the Social Policy Research Unit at the University of York has made major inroads to developing a valid instrument capturing subjective wellbeing, and insights from the empirical work have suggested that there are students in UK schools that we need to be significantly concerned about. However their measure does not capture the eudaimonic element of wellbeing, which I would argue is also needed to provide a more comprehensive picture of wellbeing. Research is also beginning to accumulate to suggest that the school a student attends is not that influential on their overall wellbeing, but nevertheless there is significant variation in wellbeing in school, and this does seem to decline with age so this is an issue that warrants further investigation. This overall picture provides the backdrop to the work Maurice and I have done, which forms the focus of the final section.

The Contribution of Galton and McLellan to the Wellbeing Field

At this point I can only comment on the first project Maurice and I undertook in this area, as this is now complete. This focused on the impact of creative initiatives on wellbeing and involved 40 schools in England (half were participating in the Creative Partnerships Programme and an equal number of primary and secondary schools). In the first phase of the research, a survey was conducted, with students in Years 3, 6, 8 and 10. They completed a questionnaire, which was developed specifically for the study and drew on the literature reviewed above to assess aspects of subjective wellbeing and eudaimonic wellbeing (i.e. feelings and functioning) in relation to the individual and the social context and in the school and outside of school context. As the literature on creativity indicates that intrinsic motivation is a prerequisite for creativity (Amabile 1996) and, as has already been discussed, theories of intrinsic motivation have been recast as theories of eudaimonic wellbeing (Csikszentmihalyi 2002; Deci and Ryan 2008a), it was particularly important for our study that both hedonic and eudaimonic aspects of wellbeing were captured, as this link suggests that creativity might be more associated with eudaimonic than hedonic elements of wellbeing. In the second phase, nine schools (five primary and four secondary) that appeared interesting from initial analysis formed case studies. Interviews were conducted with a range of students and teachers involved in

relevant initiatives, activities (including ordinary lessons, work with creative practitioners and other initiatives) were observed and relevant documents were collected.

In terms of the survey data, we found some interesting interactions between age, gender and type of school attended (Creative Partnerships or not), and full details of this and the questionnaire we developed can be found in McLellan and Steward (2014). In general older children reported experiencing wellbeing less frequently than younger children, whilst boys were more positive than girls about their perceived competence (experienced more frequently) and negative emotion (experienced less frequently). Declines in wellbeing with age have been documented in other studies (Gutman et al. 2010; Tomy and Cummins 2011), and although some studies have shown that girls report higher levels of wellbeing in school (Gutman et al. 2010), the decline in girls' wellbeing during adolescence has been demonstrated in other studies (Tomy and Cummins 2011). Overall then, the findings of our study were broadly in line with the literature, but probably the biggest contribution of the work, as noted by one of the paper reviewers, was the development of an instrument to capture children and young people's wellbeing.

Somewhat disappointingly, there was no overall effect for the type of school attended on wellbeing in the survey data suggesting overall that Creative Partnerships did not have an overall effect on wellbeing; however there was evidence that the wellbeing of the youngest children was more positive in Creative Partnerships schools than in the other schools in the study. The qualitative data, which is discussed in detail in Galton and Page (2014), suggested that Year 6 children in all primary schools were being taught in a relatively didactic fashion as teachers felt compelled to prepare children for the SATS examinations (compulsory government tests) and such an approach was perceived as controlling, which accordingly to self-determination theory undermines intrinsic motivation and hence wellbeing (Deci and Ryan 1985). The secondary case studies revealed the difficulties in implementing a whole school creative approach in large institutions who are under extreme pressures in a performativity culture (Ball 1993). However, there was a different emphasis of approach in the primary Creative Partnerships schools, which on the whole (except during preparation for SATS) took a holistic approach where creative work permeated the curriculum and consequently promoted not only feeling well but also functioning effectively. In contrast the other schools tended to put a range of wellbeing strategies in place to make children feel better about themselves, but this did not relate to functioning. Thus our study has provided some evidence to suggest the mechanism through which creative initiatives impact on wellbeing is through intrinsic motivation and eudaimonic aspects of wellbeing.

This study raises further questions about the different facets of young people's wellbeing and the mechanisms through which creative initiatives enhance wellbeing. We are beginning to explore some of these issues in our current project which is examining changes in wellbeing over transition from primary to secondary school, where we are deploying the tool we developed to measure children and young people's wellbeing but also talking to young people and their teachers and observing what is happening inside the classroom. There is still much to learn about

children and young people's wellbeing both in terms of how best to conceptualise it, and hence assess it, and also in considering how it may be enhanced in the school context. Maurice and I believe we will not further our understanding unless we continue to focus on life in the classroom and will continue our journey in that respect.

References

- Amabile, T. (1996). *Creativity in context*. Boulder: Westview Press Inc..
- Andrews, F. M., & Inglehart, R. F. (1979). The structure of well-being in nine western societies. *Social Indicators Research*, 6, 73–90.
- Aristotle. (1985). *Nicomachean ethics* (T. Irwin, Trans.). Indianapolis: Hackett.
- Ball, S. J. (1993). Education markets, choice and social class: The market as a class strategy in the UK and USA. *British Journal of Sociology of Education*, 14, 3–19.
- Bangs, J., McBeath, J., & Galton, M. (2011). *Reinventing schools, reforming teaching*. Abingdon: Routledge.
- Ben-Arieh, A. (2005). Where are the children? Children's role in measuring and monitoring their well-being. *Social Indicators Research*, 74(3), 573–596.
- Ben-Arieh, A. (2008). Indicators and indices of children's well-being: Towards a more policy-oriented perspective. *European Journal of Education*, 43(1), 37–50.
- Bentham, J. (1781). *An introduction to the principles and morals of legislation*. London: T. Payne and Son.
- Boniwell, I. (2008). *Positive psychology in a nutshell*. London: Personal Wellbeing Centre.
- Campbell, A. (1976). Subjective measures of well-being. *American Psychologist*, 31, 117–124.
- Corp, A. (2013). *Measuring national well-being – domains and measures – September 2013*. London: Office for National Statistics.
- Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety*. San Francisco: Jossey-Bass.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.
- Csikszentmihalyi, M. (2002). *Flow: The classic work on how to achieve happiness*. New York: Harper & Row.
- Currie, C., Gabhainn, S. N., Godeau, E., Roberts, C., Smith, R., Currie, D., Pickett, W., Richter, M., Morgan, A., & Barnekow, V. (2008). *Inequalities in young people's Health: HSBC International Report from the 2005/2006 survey*. Copenhagen: World Health Organisation.
- Deci, E. L. (1975). *Intrinsic motivation*. New York: Plenum.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.
- Deci, E. L., & Ryan, R. M. (2008a). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology*, 49(1), 14–23.
- Deci, E. L., & Ryan, R. M. (2008b). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9(1), 1–11.
- Demetriou, H., & Wilson, E. (2009). Synthesising affect and cognition in teaching and learning. *Social Psychology of Education: An International Journal*, 12(2), 213–232.
- Demetriou, H., & Wilson, E. (2012). It's bad to be too good: The perils of striving for perfection in teaching. *Procedia – Social and Behavioral Sciences*, 46, 1801–1805.
- Department for Education and Skills. (2003a). *Every child matters: Green paper*. Nottingham: Department for Education and Schools.
- Department for Education and Skills. (2003b). *Excellence and enjoyment: A strategy for primary schools*. London: Department for Education and Skills.

- Department for Education and Skills. (2005). *Social and emotional aspects of learning*. London: Department for Education and Skills.
- Diener, E. (1984). Subjective wellbeing. *Psychological Bulletin*, 95(3), 542–575.
- Diener, E., Suh, E., Lucas, R., & Smith, H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(2), 276–302.
- Dolan, P., Layard, R., & Metcalfe, R. (2011). *Measuring subjective well-being for public policy*. London: Office for National Statistics.
- Eckersley, R. (2013). Subjective wellbeing: Telling only half the story. A commentary on Diener et al. (2012). 'Theory and validity of life satisfaction scales. *Social Indicators Research. Social Indicators Research*, 112(3), 529–534.
- Eggleston, J., Galton, M., & Jones, M. (1973). Interaction analysis and evaluation. *Paedagogica Europaea*, 8, 122–131.
- Eggleston, J., Galton, M., & Jones, M. (1976). *Processes and products of science teaching*. London: Macmillan.
- Fegter, S., Machold, C., & Richter, M. (2010). Children and the good life: Theoretical challenges. In S. Andresen, I. Diehm, U. Sander, & H. Ziegler (Eds.), *Children and the good life: New challenges for research on children*. Dordrecht/Heidelberg/London/New York: Springer.
- Gadermann, A. M., Schonert-Reichl, K. A., & Zumbo, B. D. (2010). Investigating validity evidence of the satisfaction with life scale adapted for children. *Social Indicators Research*, 96(3), 229–247.
- Galton, M. (2010). Going with the flow or back to normal: The impact of creative practitioners on schools and classrooms. *Research Papers in Education*, 25(4), 355–375.
- Galton, M., & Eggleston, J. (1971). Schools council project for the evaluation of science teaching methods. *Education in Science*, 8, 33–34.
- Galton, M., & Page, C. (2014). The impact of various creative initiatives on the wellbeing of children in English Primary Schools. *Cambridge Journal of Education*. doi:10.1080/0305764X.2014.934201.
- Galton, M., Simon, B., & Croll, P. (1980). *Inside the primary classroom*. London: Routledge and Kegan Paul.
- Galton, M., Hargreaves, L., Comber, C., Wall, D., & Pell, A. (1999). *Inside the primary classroom: 20 years on*. London: Routledge.
- Galton, M., Steward, S., Hargreaves, L., Page, C., & Pell, A. (2009). *Motivating your secondary class*. London: Sage.
- Gray, J., Galton, M., McLaughlin, C., Clarke, B., & Symonds, J. (2011). *The supportive school*. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Guastello, S. J., Koopmans, M., & Pincus, D. (Eds.). (2011). *Chaos and complexity in psychology: The theory of nonlinear dynamical systems*. Cambridge: Cambridge University Press.
- Gutman, L. M., & Feinstein, L. (2008). *Children's well-being in primary school: Pupil and school effects*. London: Department for Children, Schools and Families.
- Gutman, L. M., Brown, J., Akerman, R., & Obolenskaya, P. (2010). *Change in wellbeing from childhood to adolescence: Risk and resilience*. London: Centre for Research on the Wider Benefits of Learning, Institute of Education.
- Holland, J., Reynolds, T., & Weller, S. (2007). Transitions, networks and communities: The significance of social capital in the lives of children and young people. *Journal of Youth Studies*, 10(1), 97–116.
- Huppert, F., & So, T. (2013). Flourishing across Europe: Application of a new conceptual framework for defining well-being. *Social Indicators Research*, 110(3), 837–861.
- Huppert, F., Marks, N., Clark, A., Siegrist, J., Stutzer, A., Vittersø, J., & Wahrendorf, M. (2009). Measuring well-being across Europe: Description of the ESS well-being module and preliminary findings. *Social Indicators Research*, 91, 301–315.
- James, A., Jencks, C., & Prout, A. (1998). *Theorising childhood*. Cambridge: Polity Press.
- Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-being: The Foundations of hedonic psychology*. New York: Russell Sage Foundation.

- Kasser, T., Cohn, S., Kanner, A., & Ryan, R. M. (2007). Some costs of American corporate capitalism: A psychological exploration of value and goal conflicts. *Psychological Inquiry: An International Journal for the Advancement of Psychological Theory*, 18(1), 1–22.
- Keyes, C. (1998). Social well-being. *Social Psychology Quarterly*, 61(2), 121–140.
- Kristjansson, K. (2012). Positive psychology and positive education: Old wine in new bottles? *Educational Psychologist*, 47(2), 86–105.
- La Placa, V., McNaught, A., & Knight, A. (2013). Discourse on wellbeing in research and practice. *International Journal of Wellbeing*, 3(1), 116–125.
- Lave, J., & Wenger, E. (1991). *Situated learning*. Cambridge: Cambridge University Press.
- Lucas, R., Diener, E., & Suh, E. (1996). Discriminant validity of wellbeing measures. *Journal of Personality and Social Psychology*, 71(3), 616–628.
- Maslow, A. (1954). *Motivation and personality*. New York: Harper.
- McLellan, R. (2006). The impact of motivational ‘world-view’ on engagement in a cognitive acceleration programme. *International Journal of Science Education*, 28(7), 781–819.
- McLellan, R., & Nicholl, B. (2013). Creativity in crisis in design & technology: Are classroom climates conducive for creativity in English secondary schools. *Thinking Skills and Creativity*, 9, 165–185.
- McLellan, R., & Steward, S. (2014). Measuring student wellbeing in the school context. *Cambridge Journal of Education*. doi:10.1080/0305764X.2014.889659.
- McLellan, R., Galton, M., Steward, S., & Page, C. (2012). *The impact of creative partnerships on the wellbeing of children and young people*. London: Creativity, Culture & Education.
- McNulty, J. K., & Fincham, F. D. (2012). Beyond positive psychology? Toward a contextual view of psychological processes and well-being. *American Psychologist*, 67(2), 101–110.
- Michaelson, J., Abdallah, S., Steuer, N., Thompson, S., & Marks, N. (2009). *National accounts of wellbeing: Bringing real wealth onto the balance sheet*. London: New Economics Foundation.
- Myers, D. (2000). The funds, friends and faith of happy people. *American Psychologist*, 55(1), 56–67.
- Nicholl, B., & McLellan, R. (2009). This isn’t my project [work]. It’s...just do it...you just do research’. What student voice reveals about the nature of D&T lessons in English schools and the implications this has on their motivation and learning of complex tasks’. In A. Jones & M. de Vries (Eds.), *International handbook of research and development in technology education*. Rotterdam: Sense Publishers.
- Norton, D. (1976). *Personal destinies*. Princeton: Princeton University Press.
- Nussbaum, M. (2000). *Women and human development*. Cambridge: Cambridge University Press.
- Nussbaum, M. (2003). Capabilities as fundamental entitlements: Sen and social justice. *Feminist Economics*, 9(2–3), 33–59.
- Office for National Statistics. (2013a). *Measuring national well-being, personal well-being across the UK, 2012/13*. Retrieved 5 February, 2014, from <http://www.ons.gov.uk/ons/rel/wellbeing/measuring-national-well-being/personal-well-being-across-the-uk--2012-13/index.html>
- Office for National Statistics. (2013b). *National well-being wheel of measures*. Retrieved 5 February, 2014, from http://www.ons.gov.uk/ons/dcp171766_327867.pdf
- Office for Standards in Education. (2012). *The framework for school inspection*. Manchester: Ofsted.
- Opdenakker, M., & Van Damme, J. (2000). Effects of schools, teaching staff and classes on achievement and wellbeing in secondary education: Similarities and differences between school outcomes. *School Effectiveness and School Improvement*, 11(2), 165–196.
- Organisation for Economic Co-operation and Development (OECD). (2009). *Doing better for children*. Paris: OECD.
- Putnam, R. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon and Schuster.
- Rees, G., Goswami, H., & Bradshaw, J. (2010). *Developing an index of children’s subjective well-being in England*. London: The Children’s Society.

- Rees, G., Goswami, H., Pople, L., Bradshaw, J., Keung, A., & Main, G. (2012). *The good childhood report 2012: A review of our children's well-being*. London: The Children's Society.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, *55*(1), 68–78.
- Ryan, R. M., & Deci, E. L. (2002). An overview of self-determination theory: An organismic-dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3–33). Rochester: The University of Rochester Press.
- Ryan, R. M., Huta, V., & Deci, E. L. (2008). Living well: A self-determination theory perspective on eudaimonia. *Journal of Happiness Studies*, *9*(1), 139–170.
- Ryff, C. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science*, *4*(4), 99–104.
- Ryff, C., & Singer, B. (2006). Best news yet on the six-factor model of wellbeing. *Social Science Research*, *35*(4), 1103–1119.
- Self, A., & Beaumont, J. (2011). *Initial findings from the consultation on proposed domains and measures of national well-being*. London: Office for National Statistics.
- Seligman, M. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfilment*. New York: Free Press.
- Seligman, M. E. P. (2011). *Flourish: A new understanding of happiness and well-being – And how to achieve them*. London: Nicholas Brealey Publishing.
- Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5–14.
- Sen, A. (1999). *Commodities and capabilities*. Oxford: Oxford University Press.
- Statham, J., & Chase, E. (2010). *Childhood wellbeing: A brief overview*. In C. W. R. Centre (Ed.), IOE, Loughborough University, PSSRU University of Kent.
- Stiglitz, J., Sen, A., & Fitoussi, J.-P. (2009). *Report by the commission on the measurement of economic performance and social progress*. Paris: The Commission.
- Stuart Mill, J. (1863). *Utilitarianism*. London: Parker, Son and Bourn.
- Tomyn, A. J., & Cummins, R. A. (2011). The subjective wellbeing of high-school students: Validating the personal wellbeing index—school children. *Social Indicators Research*, *101*, 405–418. doi:10.1007/s11205-010-9668-6.
- United Nations. (1989). *The UN convention on the rights of the child*. www.unicef.org.uk
- United Nations Children's Fund. (2007). *Child poverty in perspective: An overview of child well-being in rich countries* (Vol Report Card 7). Florence: Unicef Innocenti Research Centre.
- Vitterso, J. (2004). Subjective wellbeing versus self-actualization: Using the flow-simplex to promote a conceptual clarification of subjective quality of life. *Social Indicators Research*, *65*(3), 299–331.
- Waterman, A. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (Eudaimonia) and Hedonic Enjoyment. *Journal of Personality and Social Psychology*, *64*(4), 678–691.
- Wilkinson, R., & Pickett, K. (2010). *The spirit level: Why equality is better for everyone*. London: Penguin.
- Wilson, W. (1967). Correlates of avowed happiness. *Psychological Bulletin*, *67*(4), 294–396.

Chapter 29

The Gender Agenda in the United Kingdom, 1975–2015: Searching for Balance in Policy and Practice

Mike Younger

Abstract The different educational opportunities offered to boys and girls over the last 40 years in the secondary schools of the United Kingdom, and the differential outcomes from such opportunities, have been the subject of robust and enduring debate. A focus on the gender agenda stimulates a feeling of *déjà vu*, a sense that we have been here before and are returning to a recurring theme. Thus, we have a search for equilibrium in policy and practice, as the pendulum has swung from a concern with promoting equal opportunities for girls, through a preoccupation with underachieving boys, to a renewed determination to ensuring justice, equality and fulfilment for girls and women. Many of the gains of the period through to 1990 were submerged over the next 20 years by the tide of recuperative masculinity; despite some schools' attempts to gender-relational approach which foregrounded the needs of girls as well as boys, short-term essentialist arguments came to the fore, myths and misconceptions about differential learning needs, and poor boys came to dominate the discourse, and girls became more invisible. More recently, as we move through the second decade of this century, there are optimistic signs (perhaps) that the pendulum is swinging gently back, of a more balanced debate with a returning focus on equal opportunities and of recognition of the needs of boys and girls who do not fit the normative stereotype. But we have had optimism before!

Keywords Equal opportunities • Boy-turn • Recuperative masculinities • Gender-relational policies • Glass ceiling

M. Younger (✉)

Faculty of Education, University of Cambridge, 184 Hills Road, Cambridge CB2 8PQ, UK
e-mail: mry20@cam.ac.uk

Gender Policy 1975–2015: Searching for Equilibrium

The years since 1975 have been a fascinating time for academics and policy-makers concerned with gender differences in education, as the debate across the English-speaking world has swung backwards and forwards, mirroring different concerns and responding to different interests. Throughout the 1970s and 1980s, the debate focused centrally on the unequal and discriminatory experiences of girls at school and within the labour market, with the spotlight on gender differences in terms of entitlement to education, contrasting and unequal opportunities and limited access resulting in differential levels of academic performance. Whether in North America, Europe or Australasia, there were concerns that education was not preparing girls well enough for the modern world, that too few girls were advancing to high-level tertiary education, that expectations and aspirations for girls were stereotypes and too narrowly confined and that a glass ceiling in post-16 education and employment continued to restrict access and opportunities for women. Classroom dynamics and teacher-pupil interactions were seen to favour boys, both in quantity and quality; the use of space in classrooms and play areas was seen to be dominated by boys; differential opportunities restricted girls' access to high-status curricula; the gender-exclusive language and the images of many textbooks and curriculum materials offered girls a stereotypical diet of restricted aspirations and expectations. Whether schools and teacher-training institutions ever *really* addressed these issues at a fundamental level is a moot point, and national educational policies were certainly slow to respond to these issues raised by academic scrutiny and concern, but eventually whole school equal opportunity policies began to develop, particularly in the 1980s, as a means of opening up equality of access to girls (Stanworth 1981; Mahony 1985; Arnot and Weiner 1987; Acker 1989).

This slow-paced, somewhat grudging response, certainly in contexts such as the United Kingdom, was in stark contrast to the obsession with boys' apparent underachievement which swept the Western world in the early 1990s. At a stroke, this consigned the equal opportunities for girls' debate to the sidelines, exacerbated girls' invisibility to educational policy-makers and precipitated the endgame for girls' national educational policies' as gender policies came to be seen as policies for boys (Lingard 2003). This spectacular reorientation of the gender equity debate saw the educational discourse about gender differences dramatically captured by those who were concerned about the apparently lower levels of academic achievements of boys (Sutherland 1999; Van Houtte 2004; Arnot and Miles 2005) and by boys' negative attitudes to and dislocation from their schooling (Gordon 1996; Kruse 1996; Ohrn 2001; Johannesson 2004). Weaver-Hightower (2003) has described this as the 'boy-turn', signalling an increasing preoccupation with boys' values, aspirations and disengagement from education. In the United Kingdom, there was much talk of 'a moral panic' as boys' academic achievements in national tests at 7, 11, 14 and 16 were seen to be below than that of girls, as unemployment grew in the early 1990s and as the numbers of boys excluded from school rose. It was as though the very successes of girls were seen as threatening and undermining

for boys in schools and for men generally (Warrington and Younger 1999). The responses by the government, nationally, regionally and locally, and by schools were immediate, frequently short term (e.g., *The National Education Breakthrough Programme for Raising Boys' Achievement in Secondary Schools*, DfES/NPDT, 2003) and ill conceived and usually involved the development of organisational and pedagogic responses within a framework of recuperative masculinity politics (Lingard and Douglas 1999), recognising boys as being disadvantaged in their schooling by feminist approaches and policies and attempting to rectify this through 'male-repair' agendas. A 'poor boys' discourse (Epstein et al. 1998) quickly evolved, with strategies which focused on the short-term essentialist policies related to boy-friendly pedagogies (Biddulph 1997; Pollack 1998; Hannan 1999), affirmative action for boys programmes (critiqued by Martino and Berrill 2003) and advocacy of teaching strategies which apparently favoured boys and 'guy-ified' schools (Pollack 1998, 250).

This approach did not go unchallenged (Francis 2000; Gilbert and Gilbert 2001; Frank et al. 2003; Mills 2003; Skelton 2003; Johannesson 2004; Younger et al. 2005a) by those who argued that this focus on this 'male-repair' agenda simply reinforced dominant versions of hegemonic masculinity, buttressed male stereotypes and assumed a homogeneity amongst boys which was difficult to recognise except at the most superficial of levels. Crucially, it was argued that the effectiveness of such strategies was unproven by research or in practice, and what was needed instead was an emphasis on gender-relational approaches, which incorporated notions of difference and agency, and placed the emphasis on boys *and* girls, developing pedagogic and sociocultural intervention strategies which recognised the diversity and the fluidity of gender, without reinforcing dominant versions of hegemonic masculinity in more subtle and sophisticated ways. Despite some government interest and sponsorship for such holistic approaches, however, it was clear that the agenda, throughout the last decade of the twentieth and the first decade of the twenty-first centuries, was dominated by an emphasis upon testing and performance, of schools competing within a market economy for pupils and being judged by parents on the basis of performance in local and national league tables. In the United Kingdom, as in Australia, Canada, the United States and parts of Europe, this crisis of masculinity dominated both media debate and educational policy-making agendas, with 'lost boys', 'boys in terminal decline' and 'the failing sex' as the prevailing themes. 'Is the future female?' has been a common preoccupation of the media. In the United Kingdom, this approach was summed up in a speech given by the then Prime Minister, Gordon Brown, in the Donald Dewar Memorial Lecture, 12 October 2006:

We need a personalisation of boys' needs to include greater use of computers, ... more sport and community service to encourage discipline and personal responsibility, ... a 'father's revolution' where dads take greater involvement in schooling and upbringing, ... to "tackle the gender gap in educational achievement and avert the prospect of a wasted generation of boys.

Significantly, however, the debate was showing signs of a further shift as we moved into the second decade of this century. In part, this reflected a recognition that the obsession with boys' underachievement concealed the persistent underachievement of some white working-class girls, whose subtle and veiled off-task behaviour was far less likely to be confrontational. Equally, the emergence of ladette culture (Jackson 2006) was highlighting the fact that some girls were as likely as some boys to be disengaged, uncooperative and challenging, passive and surly rather than active and interested (Jones and Myhill 2004), at times seemingly adopting a hedonistic, binge drinking and drugs culture which transgressed normative femininity (Jackson and Tinkler 2005). In this context, there were emerging concerns that girls in the early teenage years were being largely ignored by researchers in gender and education, although alcohol, tobacco and drug use, as well as first sex, were likely to begin for many girls during this period (Jackson et al. 2010); indeed, World Health Organization data suggested that almost 25% of 13-year-old girls in England drank alcohol weekly, rising to almost 50% at 15 (Currie et al. 2004). The continuing alienation of girls from traditional 'male' subjects and the stubborn rejection by many academically able girls of physics and mathematics as appropriate subjects for a level study also meant that career aspirations of some girls remained highly gendered and that *some* women felt trapped by family commitments and family locality in part-time, less well-paid, less stable employment. Thus, there emerged the view that, whilst the gender pay gap did fall in the first decade of the century, from 27% to 22%, (ONS 2010), the battle for gender equality had certainly not been won and that the emphasis on boys' underachievement had marginalised girls such that levels of academic achievement at school and university had not yet been translated into the wider society.

The interplay of these factors led to an emerging re-engagement of the gender discourse with the needs of girls. This was intensified by the experiences which many girls and women encountered in some parts of the media and from some men within society. The development of social media enabled a level of misogynistic abuse, creating, in Jenkins' words, 'a sewer for anonymous prejudice and hate' (Jenkins 2013), and prominent campaigning women and their male supporters were exposed to increasing levels of gender-based bigotry and vitriol. Some girls and some boys were subjected to sexual innuendo, on-line bullying and character assassination through Twitter accounts and mobile phone links, leading in some schools to significant increases in eating disorders, truancy and pressures for girls to be involved in sexual relationships at an early age. In August 2013, for example, the guardian reporting on a court case in which a 13-year-old girl was described as predatory by a judge commented that the:

underlying attitudes revealed in this case lift the lid, yet again, on the depth of misogyny in this society – all the women-hating, woman-blaming, woman-fearing instincts that can reach right to the top... it's everywhere, ready to break out of an all-too-thin carapace of what its perpetrators call "political correctness" keeping it in check... It sustains women's lower pay and the objectifying of women – often very young – in the pictures of them or in the porn read by men and young boys that makes girls shave their public hair for fear of being thought disgusting for not fitting the porn imagery. Girls are bullied for their looks,

called slags if they act like boys. You know, don't you, how the wind blows hard against women still. (Toynbee, August 2013)

Here is the institutional misogyny, embodying underlying assumptions and prejudices, which suggests that the glass ceiling is still very much a reality in the United Kingdom¹. Indeed, research by the World Economic Forum, reported by Elliott (2013), revealed that although the United Kingdom scored well for female literacy and enrolment in post-primary education, out of 136 countries sampled, it was ranked only 35th for economic gender equality, 71st for helping women to find professional and technical positions, 54th for getting women into parliament and 97th for healthy life expectancy for women. Such data suggested that women in the United Kingdom experienced less gender equality than those in some African countries – Burundi, Mozambique, Lesotho and South Africa – and that women's equal integration in the workforce remained a significant challenge. A similar conclusion emerged from the Centre for Women and Democracy report, *Sex and Power 2013: Who Runs Britain?*

The report shows a shocking absence of women from powerful roles in Britain. We're told that change doesn't happen overnight; well, this is proving to be a very long night". (Centre for Women and Democracy: 2013, p 2)

Gender Practices, 1975–1990

After the enactment of the Sex Discrimination Act in 1975, the debate became focused centrally on the unequal and discriminatory experiences of girls at school and within the labour market, and the educational policy emphasis was placed on whole school equal opportunity policies as a means of opening up equality of access to girls. Ironically, this happened *despite* the lack of interest throughout the 1980s of successive conservative administrations in the promotion of gender equity policies and practices, rather than *because* of the commitment of the central government. The debates of the time, well chronicled by researchers such as Madeleine Arnot and Gaby Weiner (1987), Jean Rudduck et al. (1996) and Kate Myers (2000), are a fascinating reflection of the commitment of bodies such as local educational authorities, teachers' unions, the Technical and Vocational Educational Initiative and, indeed, OFSTED, to promote gender equity: Arnot et al. (1999) reported, for example, that 'almost seven out of ten English/Welsh LEAs asserted that OFSTED inspections had encouraged a general interest in, or raised the profile of, equal opportunities' (p 26).

Through the 1980s, the Equal Opportunities Commission established a series of significant partnerships with gender-sensitive local practitioners and key organisations to develop, promote and disseminate good practice in curriculum development and associated classroom approaches (Madden 2000). The optimism, excitement, sense of challenge and painful dilemmas which faced many educationalists during these decades are vividly explored by many contributors to 'Whatever happened to

¹And elsewhere as illustrated by the recent reported remarks of USA President Donald Trump's 'locker room' talk concerning a women's willingness to tolerate sexual harassment.

equal opportunities in schools?’ (Myers 2000). The Schools Council’s (and later the Schools Curriculum Development Council’s) commitment to eliminate sex stereotyping and promote equality between the sexes led to a variety of projects: to initiate research and development work with teachers (the sex role differentiation project), to establish an information base and dissemination centre (the Equal Opportunities in Education Project) and to identify intervention strategies which encouraged girls’ involvement in science and technical subjects (Girls into Science and Technology (GIST) Project). Similar initiatives led to the development of curriculum guidelines and teaching resources and to the promotion of ‘girl-friendly’ pedagogic approaches in the teaching of mathematics (Burton 1986) and science (Smail 1984). In the primary sector, approaches were developed challenging sex stereotypes (Whyte 1983; EOC 1984; Wing 1997), in literacy, in mathematics and in play. Collaborations with local authorities were initiated in attempts to increase girls’ participation in science and technology (Smail 2000), to develop classroom resources and approaches which combated gender-exclusive language and images in texts and to audit whole school approaches to equal opportunities (Myers 1987; Myers and Taylor 2007).

Throughout this period, the importance of local initiatives, whether organised around by LEA primary and/or secondary teacher groups, by the teachers’ unions or by committed groups of local (mainly female and feminist) activists, cannot be overstated (Millman 2000). Teachers were proactive in identifying ‘elements of school life that were most likely to influence differential perceptions and performance of girls and boys and which they were in a position to investigate effectively’ (Millman 2000, 133). A rich seam of action research projects was developed which explored both the open and the hidden curriculum in schools, relating to aspects such as textbooks and classroom displays, option choices, teachers’ and employers’ attitudes, assemblies, uniform issues, career education and guidance and classroom dynamics. In some localities, such practice-based research generated significant changes to schools’ cultures and ongoing professional development, generating ‘bottom-up change’ and increased awareness of gender equity issues. It would be an overstatement to maintain that all schools readily bought-in to the gender equity agenda during these two decades; however, in many schools, there was hostility from female as well as male staff and indifference and a disinclination to take equal opportunities seriously. Nonetheless, pioneering work during this period ensured that there was challenge to rather than acceptance of stereotypical and misogynist perspectives, an increasing awareness of how the gendered realities of schools worked against many girls’ aspirations and achievements and how male privileging constructed and disadvantaged women both in schools and in society generally.

Gender Practices, 1990–2010

I suggested earlier that the predominant strategies adopted by secondary schools in England in the 1990s to address gender issues were framed within recuperative masculinity approaches (Pickering 1997; Bleach 1998; Hannan 1999; Schagen

et al. 2002), ignoring the complexities presented by multiple forms of masculinity (Jackson 2002; Weiss 2003; Skelton and Francis 2005) and assuming a normative masculinity (Kehler and Gregg 2005) which could be engaged with through standard, stereotyped approaches. There was an emphasis within this approach on the quick fix and the search for immediate, short-term solutions (Frank et al. 2003; Kehler and Gregg 2005). These approaches were perhaps understandable, given the context of moral panic and a prevailing ethos of accountability and performativity, but there was little evidence, then or since, that such strategies were particularly effective with many boys, and attempts to narrow the gender gap thereby proved unsuccessful.

This was a disturbing period for gender policies and practices in the United Kingdom, furthermore, because there is a conventional wisdom which was significantly flawed: that boys were ‘naturally’ different from girls and learnt in different ways; that boys and girls had different learning styles, which teaching needed to identify and match; that boys benefitted more than girls from a competitive learning environment; that boys preferred non-fiction reading matter; and that changing or designing the curriculum to be ‘boy friendly’ would increase boys’ motivation and aid their achievement. Thus, in many schools, so-called boy-friendly teaching strategies were developed (Bleach 1998; Noble and Bradford 2000; Noble et al. 2001), with an emphasis on pace, structure, variety and interaction, as though girls did not respond to those strategies also. Boys were also seen as responding better to competition and challenge in classroom activities rather than collaboration, without considering what effect this might have on the so-called ‘underachieving’ boys who had already ‘failed’ many competitive challenges within a school context. Equally, there were calls for more male role models as teachers particularly in primary schools, without giving much explicit consideration to the type of male role model (Skelton 2001), although the implied assumption was that he was more macho than caring.

These recuperative masculinity approaches went unchallenged for much of the 1990s and into the current century, until some practitioners and academics began to expose the lack of evidence to support such approaches, and offered differing perspectives. A number of misconceptions and myths were challenged, for example, in a UK government publication, *Gender and Education Mythbusters; Addressing Gender and Achievement, Myths and Realities* (Francis et al. 2009), and extensive research evidence quoted to dispute the assumptions implicit therein. There was some irony in this that governments, of different political complexions, which through this 20-year period had vigorously promoted a rapid response and short-term strategic response based around accountability and performativity, were now advocating a more cautious approach to some of the strategies which had evolved in response to its own urgency. However, at the very least, this was a belated recognition that teachers and schools needed also to take account of the extensive research-based evidence which had emerged.

More sophisticated and nuanced policies and practices were needed, then, if gender issues were to be successfully addressed (Epstein et al. 1998; Mahony 2003; Francis and Skelton 2005; Younger et al. 2005a). This more subtle, multi-faceted approach to promoting gender equity context required a revisiting of issues of

inclusiveness and appropriateness for boys *and* girls and incorporated notions of differences within the category of 'boy' and 'girl'. Secondary schools working from this cultural perspective and embodying this ethos placed emphasis on maximising achievement for all students, on heterogeneity and diversity of gender constructions and on developing approaches within a gender-relational context, challenging rather than reinforcing gendered learning identities. Such gender-relational policies had a number of distinctive characteristics: senior management within the school is identified actively with it and promoted it, rather than permissively enabling it; such policies emerged through consultation, discussion and negotiation with all categories of staff within the school, so that its credibility was recognised and its aims are accepted and owned as legitimate by all staff; active and ongoing dialogue with the community served by the school helped establish the potential of the policy to help transform achievement and, where appropriate, to raise entrenched aspirations; broader concepts of achievement were embraced, in terms of service within the wider community and the fields of music, drama and sport, for example, as well as academic achievement; they incorporated a variety of intervention strategies, integrated into a holistic approach which tackled achievement issues for all students.

Much of the research thus focused centrally on the impact of laddishness and dominant versions of masculinity, as boys sought to 'learn' masculinity and to become 'real men' within the context of local community norms. Boys learnt to assume roles, to seek acceptable identities through exploration and negotiation and to incorporate into their persona aspects of behaviour, dress, competitiveness and risk-taking that was associated with a laddish culture (Francis 2000; Skelton 2001; Martino and Pallotta-Chiarolli 2003; Younger et al. 2005a, b). As a consequence, lads adopted particular strategies which diminished the chances of failure and the associated loss of status and esteem within the group and developed behaviours and attitudes which avoided the risk of being regarded as feminine and possibly homosexual (Jackson 2002). Defiant and belligerent behaviour, and a rejection of academic work, often resulted, and this became part of a complex performance (Butler 1990), an 'integral part of learning to do masculinity' (Gilbert and Gilbert 2001, p 7), incorporated into a public acknowledgement and working out of masculinity which in itself contributed to potential underachievement (Bohan 1997). Within this context, it became crucially important to understand clearly the motives and behaviours of those students (mostly boys, but with an increasing number of girls) who established acceptable peer-group norms, in terms of image, aspiration and mindset, norms which often set them in opposition to the culture of the school. In response, some schools encouraged the development of alternative and more positive and constructive forms of masculinity (Connolly 2004), to reframe students' view of school so that academic success came to be valued, aspired to and within reach. In some schools, for example, this involved identifying and supporting those students identified as key leaders within the year group, in attempts to harness the energy of the key image makers in the upper school, to bring these students and their 'followers' inside, working with the culture and aspirations of the school (Younger et al. 2005a, b). In some contexts, this proved to be of real benefit to some students, both these key leaders and their followers, in facilitating their achievement; both boys and girls

were enabled to chart an acceptable role for themselves and to negotiate through a series of contradictions (Frosh et al. 2002). Where such sociocultural interventions appeared to be the most successful, they impacted on both boys and girls, by offering support and confidence – building to students who were marginalised, for whatever reasons – and opened up possibilities of achievement which were often not part of the community or peer-group expectation; they provided a framework within which the key leaders felt secure to work without losing self-esteem as a member of the group, and in exchange, they demanded involvement and commitment from students, introducing an element of strong persuasion so that they have a reason to work which they can use to justify their behaviour within their own peer group.

A further focus of a gender-relational approach concentrated on target setting and mentoring, although in some schools, such an approach was beset with dangers, of focusing resources on a very narrow range of students (usually predominantly boys) whose achievements impacted significantly on schools' attainment profiles and of ignoring the rationale underpinning efforts to raise achievement (Gillborn and Youdell 2000; Colley 2003; Younger et al. 2005a, b). Nonetheless, framed within a gender-relational policy, mentoring and target setting were seen to have the potential to develop a very real sense of caring and belonging, so that all students, regardless of ability, gender or potential achievement, appreciated that their teachers identified with their individual aspirations and 'baggage'. Such an approach was demanding to implement: target setting in this context needed to be structured around achievement data which were reliable, detailed and regularly updated. It needed also to incorporate data which were not just related history to the school's immediate past but might challenge both value-added data and entrenched staff expectations about the (low) capabilities of the students they teach. In this respect, target setting related to challenging expectations was held at school and community level, opening up visions of what was possible in a post-Fordist economy for students in communities where second- and third-generation unemployment had become endemic and to change the aspirations of students, their parents and careers and those who teach them. Mentoring in turn was only effective where it was built on mutuality of trust, so that students had the right to expect their mentors to act on their behalf in negotiations with their subject teachers, and mentors could legitimately expect students to fulfil their part of the contract. Similarly, mentoring in such contexts needed to embrace a delicate mix of collaboration and assertion, so that mentors not only supported but demanded, enabling students to meet academic targets which they needed, and indeed often wanted to meet, so as to further their own aspirations, whilst at the same time protecting their own sense of self-image and their own construction of masculinity or femininity. Developed within a gender-relational context, such an approach to target setting and mentoring in some schools transformed the expectations of students, allowed them to engage in academic study without endangering their own social standing in the peer group, facilitated higher levels of achievement and, in so doing, supported students' sense of membership of school, developed their own sense of agency and increased their responsibility for their own learning.

Gender Practices, 2010 Onwards

By 2010, many policy-makers, school leaders and academics had come to a common understanding that the gender gap was stubbornly persistent but that it was also multi-faceted and complex, with ethnicity and social class – both often reflected in a spatial context – intersecting in ways which cautioned against assuming that girls (and boys) constituted homogenous groups and reiterated the need for an increasing awareness of diversity and heterogeneity within gender constructions (Warrington and Younger 2000). Thus, for example, in 2012, whereas 55% of white British boys and 62% of white British girls achieved this benchmark standard at GCSE, the comparative figures for Chinese boys and girls were 74 and 84%, for Indian boys and girls 71 and 79%, and – at the other extreme – for boys and girls of black Caribbean heritage, 42 and 55%. Furthermore, only 32% of boys and 41% of girls receiving free school meals achieved the benchmark grades. There was an increasing awareness, too (a rediscovery, one might say) that a significant number of girls, indeed around 40% of any one cohort, continued to ‘fail’ at school if failure is defined as not achieving 5 A*-C grades (including English and Maths) at GCSE. At the same time, the increasing publicity given to the cyber bullying and on-line misogynistic abuse which some girls suffer, both from boys and from other girls, brought the gender equality issue back to the forefront of the educational debate, both nationally and in some schools.

These concerns suggest a need, after two decades of wrestling with issues of (some) boys ‘underachievement’, to return the pedagogic focus more explicitly to girls, to ensure that – 35 years after the Sex Discrimination Act – equality of opportunity really did exist in the schools of the United Kingdom. This involves a re-examination of the experiences and achievements of girls in classrooms and around the school, a focus on their aspirations and sense of well-being and on their sense of what was possible for them, as women, in the early years of this century. In one respect, this demands a return to a focus on classroom interactions and dynamics, to explore the extent to which teachers continue to treat boys and girls differently (Mearor and Sikes 1992; Burton 1996; Fennema 1996; Gordon 1996; Jackson and Salisbury 1996; Younger et al. 1999). As yet, however, there has been little renewed research on girls’ current experiences in mixed classrooms, but in a recent research report (Younger et al. 2014), of girls’ experiences in selective single-sex schools in the United Kingdom, there is little evidence to suggest that teachers taught differently because the class was a girls-only class or adopted a pedagogic style and teaching approaches which were different from when they had taught in mixed or boys-only classes. Interviews with and observations of the classroom practices of these teachers confirmed that there were few apparent mismatches between their rhetoric and the classroom reality, and there were few explicit hints of gender-specific pedagogies. On occasions, however, it was evident that many teachers had evolved a teaching style which, almost organically, recognised that some girls needed scope and time for thoughtful, extended discussions, needed more reassurance and encouragement to take risks and needed to be ready to acknowledge their

difficulties and make mistakes. There was a dilemma here, however, because some teachers spoke of the need to encourage girls to adopt some of the perceived apparent learning attributes of boys, with boys described as being more robust, ruthless and resilient in both their behaviour and their learning. There is some danger here of the essentialism which dogged the recuperative masculinity debate, and such views need to be treated with some caution. Nonetheless, this perception meant that some teachers placed more emphasis on a more brisk and forceful teaching style, encouraging dialogic talk and engaging girls in brainstorming, demanding ‘outside the box’ thinking and risk taking and encouraging girls to ‘guesstimate replies’, to take chances and to ‘be funny’.

In a more general context, the need to encourage girls (and women) to be less risk averse, to be more resilient in accepting failure and to be more robust in their approaches to their learning (and professional development) has been taken up by advocates of girls-only schooling. Thus, the chief executive of the Girls Day School Trust (GDST), which itself has a long history of pioneering innovation and academic excellence in girls’ education, has argued that women need to be more assertive in the workplace, less discomfited when they excel at work and less reluctant to draw attention to their own achievements. In what she has dubbed as the ‘tiara syndrome’, Helen Fraser asserts that ‘the ‘tiara syndrome’ explains why girls do better at school, university, first jobs, even early management posts, but between 30 and 50 often face two lost decades when men take over’ (Times, 8 June 2013). She argues that this is related not to career breaks to have children (as is often maintained) but to women’s professional modesty, lack of self-promotion of work-based achievements and lack of explicit encouragement and praise from employers:

The ‘hurly burly’ of working life with its setbacks, politics, and often its essential unfairness, is nothing like the ‘educational escalator’ which young women have become so adept at riding. It is important that girls understand the necessity and value of failing, of having the resilience to pick themselves up and have another go and of the need to be vocal about their own individual successes and achievements. There is an interesting tension between our desire for happiness and success for the girls and the need for them to learn that failing, being independent and sometimes (dare I say it?) being subversive and challenging will hold them in good stead in their future. (Fraser 2013)

This view suggests that a proactive and assertive approach is needed towards some girls, to make them more resilient and to risk failure, to empower them to be more assertive and to help them identify with powerful, appropriate women role models. Hence, in some schools, the development of initiatives such as comedy workshops is designed to improve girls’ confidence and assurance when they were taken outside their immediate comfort zones, to improve risk taking and their ability to show more assertiveness and assurance and to self-promote themselves more vigorously, to ‘think on their feet in high pressure situations and be able to adapt to whatever is in front of them’ (Barnett 2013). Stannard (2013) takes up this theme in suggesting that education for girls needs to serve a subversive purpose challenging traditional gender stereotypes rather than reflecting and reproducing them, to give girls space to develop a strong sense of themselves and their value and to give them

the confidence to make their own choices, free of any sense that the script has been written for them:

Girls have to learn to challenge authority, find effective forms of self-promotion, go for being respected, not just liked. Schools should teach pupils to question and debate. We should not just praise girls who conform. We should not just work with the grain, with what we think girls do. (Stannard 2013, <http://www.tes.co.uk/article>)

A renewed focus on equal opportunities for girls stretches beyond the classroom into more holistic spheres. Where these issues have been actively addressed, wide-ranging personal, social and health education (PSHE) programmes place an emphasis on self-esteem and self-confidence, to help prepare girls and boys to negotiate and maintain relationships, to deal with peer pressure and bullying and to encourage ‘body gossip’ to raise issues of self-esteem and self-awareness, thereby enabling both girls and boys to appreciate and value their own body. Equally, schools are offering career education programmes which place particular emphasis on challenging, innovative and independent career possibilities and stress open door access, regardless of gender. Thus, in interviews conducted in one project (Younger et al. 2014), it was clear that there was explicit discussion in PSHE of the concept of the glass ceiling; in the words of one female Head of Year:

The programme is not explicitly feminist but we make it very clear that it is a tough world out there ... especially for women; the girls do realise that there are barriers in society ... we discuss career choice and how that is affected – for women – by life cycle issues, we discuss differential pay rates even in the same profession ... our message is that there is inequality but it should not restrict your aspirations nor discourage you, but inspire you to get there, to overcome the obstacles ... there is no point in deluding them, otherwise when they get there, they will be disappointed.... we have to show the world that we should be there, to be the movers and shakers of tomorrow who help to redress the balance.

Such a coherent, assertive, confident approach is necessary if schools are to promote an ethos which enables all its students to embrace opportunity, set the highest aspirations, accept that failure was an integral part of learning and create an enduring sense of high self-esteem and self-belief.

Final Words

The gender agenda in the United Kingdom over the last 40 years has swung, pendulum-like, from a concern with promoting equal opportunities for girls, through a preoccupation with underachieving boys, to a renewed determination to ensuring justice, equality and fulfilment for girls and women. By the turn of the century, Macrae and Maguire (2000) could assert that in some respects the picture for women’s educational achievement in the West had never been brighter or better and that there was much to celebrate as a result of the equal opportunity crusade of the 1970s and 1980s. How far this period was a triumph for equal opportunities will be forever debated; what is clear, however, is that girls’ real achievements in this period did not translate throughout the wider society, and many of the key issues – equality of pay,

equality in the home and representation at senior level in the private, public and political sectors – remained. Crucially, too, these issues moved away from centre stage as the boy-turn took hold and girls' issues faded into the background. The 20-year period to 2010 saw some schools attempting to tackle boys' and girls' issues through gender-relational approach, which showed sensitivity to the needs of both genders and an awareness of the dangers of an essentialist approach, but too often the male recuperative agenda held sway, and myths and misconceptions about differential learning needs and poor boys came to dominate the discourse. Even now, it is by no means clear that there has been a conclusive shift away from an agenda dominated by the fascination with underachieving boys.

Nonetheless, there *are* signs – as we move through the second decade of this century – of a more balanced debate, of a recognition of the needs of boys and girls who do not fit the normative stereotype and of an acceptance that the equal opportunities battle is far from over and that girls face painful choices as they encounter casual sexism, inequality in the workplace and pressures from competitive social media (Benn 2013). This is an agenda which is not solely the prerogative of schools, but it is one which schools – through the proactivity and commitment of their senior leaders – need to embrace, to enable girls, as well as boys, to become mature, confident learners, who are resilient and risk failure and who have a self-belief that is evidenced in their opinions, their articulacy and their assertiveness. Clearly, this remains a pressing challenge to many schools, given the nature of their catchments and intakes, but it is vital that schools address this agenda, so that their goals and ambitions are rooted in enabling girls to achieve their full potential, developing the determination, the strength and the spirit to compete with boys in the real world and to succeed, without sacrificing the essence of their own self.

References

- Acker, S. (Ed.). (1989). *Teachers, gender and careers*. Basingstoke: Falmer.
- Arnot, M., & Miles, P. (2005). A reconstruction of the gender agenda: The contradictory gender dimensions in New Labour's educational and economic policy. *Oxford Review of Education*, 31, 173–189.
- Arnot, M., & Weiner, G. (1987). *Gender and the politics of schooling*. London: Hutchinson.
- Arnot, M., David, M., & Weiner, G. (1999). *Closing the gender gap: Postwar education and social change*. Cambridge: Polity Press.
- Barnett, E. (2013). Girls to be given comedy lessons to 'improve risk taking': Putney High School's Comedy Workshop. *The Daily Telegraph* 25 June 2013. <http://www.telegraph.co.uk/women/womens-life/10138794/Girls-to-be-given-comedy-lessons-to-improve-risk-taking.html>. Accessed 20 Aug 2013.
- Benn, M. (2013). *What should we tell our daughters?* London: John Murray.
- Biddulph, S. (1997). *Raising boys: Why boys are different – And how to help them become happy and well-balanced men*. Sydney: Finch.
- Bleach, K. (1998). *Raising boys' achievement in schools*. Stoke-on-Trent: Trentham Books.
- Bohan, J. (1997). Regarding gender: Essentialism, constructionism and feminist psychology. In M. Gergen & S. Davis (Eds.), *Towards a new psychology of gender*. London: Routledge.

- Brown, G. (2006). *The Donald Dewar Memorial Lecture*, reported in the Guardian, 12 October.
- Burton, L. (Ed.). (1986). *Girls into maths can go*. London: Holt, Rinehart & Winston.
- Burton, L. (1996). A socially just pedagogy for the teaching of mathematics. In P. F. Murphy & C. V. Gipps (Eds.), *Equity in the classroom: Towards effective pedagogy for girls and boys* (pp. 136–145). London: Falmer Press.
- Butler, J. (1990). *Gender trouble: Feminism and the subversion of identity*. London: Routledge.
- Centre for Women & Democracy. (2013). *Sex and Power 2013: Who Runs Britain?* London: Counting Women In Coalition Democracy. <http://www.countingwomenin.org/wp-content/uploads/2013/02/Sex-and-Power-2013.pdf>. Executive summary, p 2. Accessed 31 July 2013.
- Colley, H. (2003). *Mentoring for social inclusion: A critical approach to nurturing mentor relationships*. London: Routledge Falmer.
- Connolly, P. (2004). *Boys and schooling in the early years*. London: Routledge Falmer.
- Currie, C., Roberts, C., Morgan, A., Smith, R., Settertobulte, W., Samdal, O., & Barnekow Rasmussen, V. (2004). *Young people's health in context: Health behaviour in school-aged children (HBSC) report from the 2001/2001 survey*. Copenhagen: World Health Organisation.
- Department for Education and Skills (DfES)/National Primary Care Development Team (NPDT). (2003). *National education breakthrough programme for raising boys' achievement in secondary schools*. Manchester: National Primary Care Development Team.
- Elliott, L. (2013). *Britain falls behind best developing countries as gender gap stays static*. <http://www.theguardian.com/lifeandstyle/2013/oct/24/britain-behind-best-developing-countries--gender-gap>. Accessed 24 Oct 2013.
- Epstein, D., Elwood, J., Hey, V., & Maw, J. (1998). *Failing boys? Issues in gender and achievement*. Buckingham: Open University Press.
- Equal Opportunities Commission. (1984). *An equal start*. Manchester: EOC.
- Fennema, E. (1996). Scholarship, gender and mathematics. In P. F. Murphy & C. V. Gipps (Eds.), *Equity in the classroom: Towards effective pedagogy for girls and boys* (pp. 73–80). London: Falmer Press.
- Francis, B. (2000). *Boys, girls and achievement: Addressing the classroom issues*. London: Routledge/Falmer.
- Francis, B., & Skelton, C. (2005). *Reassessing gender and achievement*. London: Routledge.
- Francis, B., Moss, G., & Skelton, C. (2009). *Gender and education mythbusters; addressing gender and achievement, myths and realities*. London: Department for Children, Schools and Families (DCSF).
- Frank, B., Kehler, M., Lovell, T., & Davison, K. (2003). A tangle of trouble: Boys, masculinity and schooling – Future directions. *Educational Review*, 55, 119–133.
- Fraser, H. (2013). *Chief executive's address to the annual GDST conference*, 12 June. London: GDST.
- Frosh, S., Phoenix, A., & Pattman, R. (2002). *Young masculinities*. Basingstoke: Palgrave.
- Gilbert, P., & Gilbert, R. (2001). Masculinity, inequality and post-school opportunities: Disrupting oppositional politics about boys' education. *International Journal of Inclusive Education*, 5, 1–13.
- Gillborn, D., & Youdell, D. (2000). *Rationing education: Policy, practice, reform and equity*. Buckingham: Open University Press.
- Gordon, T. (1996). Citizenship, difference and marginality in schools: Spatial and embodied aspects of gender construction. In P. Murphy & C. Gipps (Eds.), *Equity in the classroom: Towards effective pedagogy for girls and boys* (pp. 34–45). London: Falmer Press.
- Hannan, G. (1999). *Improving boys' performance*. London: Folens.
- Jackson, C. (2002). Laddishness' as a self-worth protection strategy'. *Gender and Education*, 14, 37–51.
- Jackson, C. (2006). *Lads and ladettes in school: Gender and a fear of failure*. Maidenhead: Open University Press/McGraw-Hill.
- Jackson, D., & Salisbury, J. (1996). Why should secondary schools take working with boys seriously? *Gender and Education*, 8, 103–115.

- Jackson, C., & Tinkler, P. (2005). *'Ladettes' and 'Modern Girls': Girls behaving badly? So what!* Paper presented at gender and education international conference: Gender, power and difference, Cardiff, March.
- Jackson, C., Paechter, C., & Renold, E. (2010). *Girls and education 3–16: Continuing concerns, new agendas*. Maidenhead: Open University Press.
- Jenkins, S. (2013, May, 31). How to make this misogynist sewer fit for debate? Simple. *The Guardian*, 32.
- Johannesson, I. A. (2004). To teach boys and girls: A pro-feminist perspective on the boys' debate in Iceland. *Educational Review*, 56, 33–42.
- Jones, S., & Myhill, D. (2004). Seeing things differently: Teachers' constructions of underachievement. *Gender and Education*, 16, 531–546.
- Kehler, M., & Gregg, C. (2005). Reading masculinities: Exploring the socially literate practices of high school young men. *International Journal of Inclusive Education*, 9, 351–370.
- Kruse, A.-M. (1996). Single-sex settings; pedagogies for girls and boys in Danish schools. In P. Murphy & C. Gipps (Eds.), *Equity in the classroom: Towards effective pedagogy for girls and boys* (pp. 173–191). London: Falmer Press.
- Lingard, B. (2003). Where to in gender policy after recuperative masculinity politics? *Journal of Inclusive Education*, 7, 33–56.
- Lingard, B., & Douglas, P. (1999). *Men engaging feminisms: Pro-feminism, backlashes and schooling*. Buckingham: Open University Press.
- Macrae, S., & Maguire, M. (2000). All change, no change: Gendered regimes in the post-sixteen setting. In J. Salisbury & S. Riddell (Eds.), *Gender policy and educational change*. London: Routledge.
- Madden, A. (2000). Challenging inequalities in the classroom: the role and contribution of the Equal Opportunities Commission. In K. Myers (Ed.), *Whatever happened to equal opportunities in schools? Gender equality initiatives in education* (pp. 27–60). Buckingham: Open University Press.
- Mahony, P. (1985). *Schools for the boys? Co-education reassessed*. London: Hutchinson.
- Mahony, P. (2003). Recapturing imaginations and the gender agenda: Reflections on a progressive challenge from an English perspective. *The International Journal of Inclusive Education*, 7, 75–81.
- Martino, W., & Berrill, D. (2003). Boys, schooling & masculinities: Interrogating the 'right' ways to educate boy's. *Educational Review*, 55, 99–117.
- Martino, W., & Pallotta-Chiarolli, M. (2003). *So what's a boy? Addressing issues of masculinity and schooling*. Buckingham: Open University Press.
- Measor, L., & Sikes, P. (1992). *Gender and schools*. London: Cassells.
- Millman, V. (2000). Was there really a problem? The schools council sex differentiation project, 1981–3. In K. Myers (Ed.), *Whatever happened to equal opportunities in schools? Gender equality initiatives in education* (pp. 127–140). Buckingham: Open University Press.
- Mills, M. (2003). Shaping the boys' agenda: The backlash blockbusters. *Journal of Inclusive Education*, 7, 57–73.
- Myers, K. (1987). *Genderwatch: Self-assessment schedules for use of schools*. London: Schools Curriculum Development Council.
- Myers, K. (2000). *Whatever happened to equal opportunities in schools? Gender equality initiatives in education*. Buckingham: Open University Press.
- Myers, K., & Taylor, H. (2007). *Genderwatch: Still watching*. Stoke-on-Trent: Trentham Books.
- Noble, C., & Bradford, W. (2000). *Getting it right for boys...and girls*. London: Routledge.
- Noble, C., Brown, J., & Murphy, J. (2001). *How to raise boys' achievement*. London: David Fulton.
- Office for National Statistics (ONS). (2010). *Social trends, No. 40, 2010 edition*. London: Office for National Statistics.
- Ohn, E. (2001). Marginalization of democratic values: a gendered practice of schooling? *International Journal of Inclusive Education*, 5, 319–328.
- Pickering, J. (1997). *Raising boys' achievement*. Stafford: Network Educational.

- Pollack, W. (1998). *Rescuing our sons from the myths of boyhood*. New York: Random House.
- Rudduck, J., Chaplain, R., & Wallace, G. (1996). *School improvement: What can students tell us?* London: David Fulton.
- Schagen, I., Kendall, L., & Sharp, C. (2002). Measuring the success of 'playing for success'. *Educational Research*, 44, 255–267.
- Skelton, C. (2001). *Schooling the boys: Masculinities and primary education*. Buckingham: Open University Press.
- Skelton, C. (2003). Typical boys? Theorising masculinity in educational settings. In B. Francis & C. Skelton (Eds.), *Investigating gender: Contemporary perspectives in education*. Buckingham: Open University Press.
- Skelton, C., & Francis, B. (2005). *A feminist critique of education*. London: Routledge.
- Smail, B. (1984). *Girl friendly science: Avoiding sex bias in the curriculum*. York: Longman/Schools Council.
- Smail, B. (2000). Has the mountain moved? The girls into science and technology project, 1979–1983. In K. Myers (Ed.), *Whatever happened to equal opportunities in schools? Gender equality initiatives in education* (pp. 143–155). Buckingham: Open University Press.
- Stannard, K. (2013). Teach girls to disrupt, subvert and challenge authority – Don't always praise their attentiveness. *The Times Educational Supplement Online*, 13 June. <http://www.tes.co.uk/article>. Accessed 31 July 2013.
- Stanworth, M. (1981). *Gender and schooling*. London: Century Hutchinson.
- Sutherland, M. (1999). Gender equity in success at school. *International Review of Education*, 45, 431–443.
- Toynbee, P. (2013). *Misogyny runs so deep in this society, it is even used against abused children*. <http://www.theguardian.com/commentisfree/2013/aug/07/misogyny>. Accessed 19 Oct 2013.
- Van Houtte, M. (2004). Why boys achieve less at school than girls: The difference between boys' and girls' academic culture. *Educational Studies*, 30, 159–173.
- Warrington, M., & Younger, M. (1999). Perspectives on the gender gap in English secondary schools. *Research Papers in Education*, 14, 51–77.
- Warrington, M., & Younger, M. (2000). The other side of the gender gap. *Gender and Education*, 12, 493–508.
- Weaver-Hightower, M. (2003). Crossing the divide: Bridging the disjunctures between theoretically oriented and practice-oriented literature about masculinity and boys at school. *Gender & Education*, 15, 407–421.
- Weiss, L. (2003). Gender, masculinity and the new economy. *The Australian Educational Researcher*, 30, 111–128.
- Whyte, J. (1983). *Beyond the wendy house: Sex-role stereotyping in primary schools*. York: Longman/Schools Council.
- Wing, A. (1997). How can children be taught to read differently? Bill's New Frock and the 'hidden curriculum'. *Gender and Education*, 9, 491–504.
- Younger, M., Warrington, M., & Williams, J. (1999). The gender gap and classroom interactions: Reality and rhetoric? *British Journal of Sociology of Education*, 20, 327–343.
- Younger, M., Warrington, M. with McLellan, R. (2005a). *Raising boys' achievements in secondary school: Issues, dilemmas and opportunities*. Maidenhead: Open University Press.
- Younger, M., Warrington, M. with Gray, J., Rudduck, J., McLellan, R., Bearne, E., Kershner, R., & Briceno, P. (2005b). *Raising boys' achievement*. London: DFES.
- Younger, M. with Hester, H., Matthews, L. & Morrow, J. (2014, forthcoming). *Optimising the effectiveness of single-sex education of girls: A research study of 3 Girls' Day School Trust (GDST) Schools*. London: Girls Day School Trust.

Chapter 30

Building Social–Emotional Resilience in Schools

Paul Cooper

Abstract Interest in resilience in relation to educational performance and social, emotional and behavioural functioning in schools has begun to play an increasingly prominent role in discussions of how to improve the quality of student engagement in schools. This is a key theme in Maurice Galton’s co-authored book on motivating secondary students (Galton M, Steward S, Hargreaves L, Page C, Pell A, *Motivating your secondary class*. Sage, London, 2009). This chapter considers the nature of resilience and its evolution within the educational context. Central to the arguments in this chapter is a recognition of the school’s major role in meeting students’ developmental needs and the significance of a skills approach to social–emotional development. The chapter considers a range of evidence-based measures that can be taken in schools to support healthy social–emotional functioning. Finally, the chapter considers some of the ongoing challenges faced by schools that are working towards improving student resilience.

Keywords Resilience • Social–emotional and behavioural difficulties • Well-being • Intervention • Education

Resilience and Its Importance in Education

What Is Resilience?

Psychological resilience describes the ability possessed by some people to overcome challenges that are experienced by most people as significant barriers to successful development (Rutter 1999). Such challenges include hereditary factors, socio-economic conditions and cultural factors. In educational settings, such as schools, not only are such challenges associated with social–emotional dysfunction, they are also related to academic underperformance and failure which, in turn,

P. Cooper (✉)

Department of Special Education and Counselling, Brunel University, London, UK
e-mail: cooperpw1@yahoo.com

become risk factors for social and psychological difficulties in later life. Interest in educational resilience, therefore, can be seen as having implications for both the current functioning of young people in our schools and their future functioning as adults, long after they have passed through the period of compulsory schooling.

It has long been known that students who come from socially and economically deprived backgrounds are at greater risk of school failure than their more privileged peers. Traditional sociological explanations for this situation often cite the effects of student unreadiness for and disassociation from formal schooling borne out of the lack of cultural capital distributed among the family and neighbourhood backgrounds of some students. This was demonstrated in numerous early studies of working class youth in secondary schools in the UK (Jackson and Marsden 1962; Douglas 1964; Hargreaves 1967; Willis 1977). The findings from these early studies resonate strongly with more recent research (Sutton Trust 2008, 2010) which shows that the economic inequalities associated with traditional class differences continue to be significantly correlated with differences in educational outcomes, with poverty being the single most important influence on educational failure. Furthermore, there is a long-standing association between educational failure and social, emotional and behavioural difficulties (SEBD) among school students (Schneiders et al. 2003).

Resilience: Mechanisms and Sources

The resilience approach takes as its starting point the fact that whilst negative socio-economic trends are dominant, there are significant numbers of people who seem to thrive in spite of experiencing adverse circumstances. Research studies over many years have revealed consistent sources of such resilience, including advantages in the home, local community and/or school which successfully challenge the limiting effects of low expectations, low self-esteem and social disengagement that can often be associated with socially disadvantaged settings. In the UK in the 1970s, Kellmer-Pringle (1975) produced a seminal work on resilience in children, declaring the aim of the book to be to:

Bring together available insights from the many relevant fields to present a coherent picture of the present state of knowledge about children's needs. (Kellmer-Pringle 1986: 9)

The purpose of this synthesis was to begin to lay the groundwork for a 'systematic attempt [...] to raise the general level of emotional and social resilience' (p 9). A key source was the National Child Development Study (1958 cohort) which gathered data on 17,000 children born in 1 week in March 1958 in England, Scotland and Wales. This figure represented nearly all the children whose births were recorded in this period. A wide range of demographic, obstetric and medical data were gathered on these children at birth, and they had been followed up by 1986 at the ages of 7, 11, 16 and 23. The follow-up data included details of participants' physical and social-emotional development and functioning, progress in school and at later work as well as information about parents and family circumstances, school and neigh-

bourhood environments. Through her analysis of these data and other sources, Kellmer-Pringle was able to identify four key ‘needs of children’ that were found to be associated with positive social–emotional development, well-being and educational success. These needs are:

- The need for love and security.
- The need for new experiences.
- The need for praise and recognition.
- The need for responsibility.

The core of Kellmer-Pringle’s argument is that a sense of self-worth and emotional security, coupled with a stimulating environment in which effort and success are rewarded through praise and recognition, and in which opportunities are available to act autonomously, combine to motivate the growing child to take on the challenges that must be met in order for healthy development to take place. At the heart of this process is the quality of care and nurturing that the child receives in the first years of life through relationships with primary carers and the social and physical environment they provide. Later, the school plays a vital role in providing experiences, opportunities and relationships which help the child to develop further both in social–emotional terms and academically.

An important theoretical source for Kellmer-Pringle was Bowlby’s (1969) attachment theory, which was concerned with the ways in which healthy social–emotional development is influenced by the children’s early experiences with primary carers. Central to this process of development is the quality of the bond of attachment to primary carers which the child develops. This proceeds through stages beginning with the expression of basic dependency needs, which, once met, give rise to a sense of security in the child which is built on trust in the carers or carers’ commitment to the infant. Gradually, a stable emotional core develops within the child which revolves around a representation of the carer(s) and the feelings of love and security associated with this figure or these figures. This situation in turn provides a secure base from which the child can explore the world and move towards independence, autonomy and a robust sense of self. More recent work by Trevarthen (2004) shows how relationships central to the attachment building process contribute directly to the development of language and cultural understanding and provide the foundations of cognitive and social development.

It is interesting to note that a significant factor in an apparent revival of widespread interest in attachment theory over the past 20 years has been evidence from cognitive and cognitive neuroscientific research. Studies of Romanian orphans, for example, not only showed the negative effects of an absence of love and nurture on cognitive and social development but also showed that a healthy developmental trajectory could be recovered through the timely application of an intensive regime of care and nurture (Fox et al. 2010; Nelson et al. 2007). Furthermore, a recent longitudinal brain imaging study has produced evidence showing that the quality of the early care environment, and notably the quality of ‘maternal nurturance’, can have a significant effect on the development the hippocampus, which is crucial in the development of higher cognitive functions, including memory (Luby et al. 2012).

Another important theoretical underpinning for a resilience approach is humanistic psychology and, in particular, Maslow's (1943, 1970) needs theory of human motivation and Rogers's (1951, 1980) person-centred approach. Both of these emphasize the importance of supportive interpersonal relationships in the development of a sense of self and the building of self-esteem as key underpinnings of healthy social–emotional functioning and the realization of human potential.

Humanistic insights further resonate with sociocultural theories of cognitive development proposed by Vygotsky (1994), which have their origins in the 1930s, and Bruner's later work (e.g. Bruner 1987). These theories emphasize the role of social interaction in cognitive development. Vygotsky argues convincingly that social interaction gives rise to language, which, in turn, leads to ongoing development of the cognitive processes associated with the higher levels of human consciousness. Both Vygotsky and Bruner argue that learning is facilitated and accelerated when the learner and teacher share intersubjectivity and co-construct new meanings. This is further echoed in Trevarthen's arguments (see above) concerning the importance of attachment relationships in the promotion of social–emotional and cognitive development.

The Contribution of Schools to Resilience

In keeping with these important insights into teaching and learning processes, the significant role that schools and teachers can play in the promotion of resilience has been a particular area of concern for many years. It has long been recognized, for example, that a positive social climate, an academic emphasis, teacher readiness and high academic and behavioural expectations are key features of successful schools. This is strongly reflected in the 'school effectiveness' (Rutter et al. 1979; Purkey and Smith 1985; Mortimore et al. 1988) and 'school improvement' (Hargreaves and Fullan 2012) research literatures. Successful schools are places where staff and students work together co-operatively and harmoniously. School effectiveness and school improvement research point strongly to the conclusion that the extent to which these qualities are present in a school has a significant impact on behaviour and attainment.

These qualities are also reflected in literature which takes a wider view of resilience to encompass social–emotional development and well-being. Cefai (2008), in summarizing key 'school qualities' associated with the promotion of student resilience, identifies three characteristics:

- Caring relationships between staff and students.
- High expectations of both academic performance and behaviour.
- Students' meaningful involvement in learning activities and school life in general, including opportunities to take on significant responsibilities.

These characteristics, in turn, give rise to a sense of belonging and engagement with school that is best characterized by the term 'attachment to school' (Smith

2006). Students with a strong attachment to school find schooling and their relationships with (at least some) teachers rewarding both in themselves and in terms of the positive value that they attach to educational achievement and its currency in relation to future life opportunities. Smith argues, on the basis of data gathered in the Edinburgh Study of Youth Transitions and Crime, that attachment to school is a significant protective factor for young people at risk of criminality owing to social factors.

A small-scale study of students attending two residential schools for students statemented for ‘emotional and behavioural difficulties’ (Cooper 1993) found that students attributed positive outcomes relating to social–emotional and behavioural progress to:

- *Respite* from negative home and former mainstream school influences provided by the residential experience.
- *Relationships* with staff which were trusting, supportive, caring and reliable and that were characterized by positive expectations of the students.
- *Re-signification*, which describes the process by which some students claimed to have developed new positive images of themselves as worthwhile individuals who were capable of making successes out of life. Re-signification was facilitated by positive relationships with staff who supported students to take advantage of the social, academic and other opportunities offered by their schools, leading to the experiences of success.

Although these three processes were often described as working simultaneously, the evidence presented suggested that respite and relationships tended to precede and provide a foundation for re-signification. It is important to note that in the course of the study, some students were yet to experience re-signification. Some two decades after Cooper’s original study, MacLeod (2013) carried out a similar study and achieved very similar findings in one of the two schools she studied.

One of the interesting findings from both of these studies was the claim made by some students that their social–emotional and behavioural functioning improved after they were sent to special schools partly, at least, because the special school freed them from negative influences in their mainstream schools that contributed to their social–emotional difficulties. This theme is further echoed in a study by Cooper et al. (2000), which focused on students at risk of or with experience of being excluded from school. A theme which emerged from the accounts of some students in this study was that exclusion was sometimes associated with a breakdown in relationships with staff in the excluding schools and other times with a sense of being anonymous or in other ways discounted by staff. This was sharply contrasted with the positive experiences of school where students spoke of warm and supportive relationships with staff which contributed to a sense of belonging similar to that described by Smith (2006) when he describes ‘attachment to school’ (see above).

In the following section, attention is given to the considerable body of evidence that now exists regarding the central importance of teacher–student relationships in influencing the quality of student social–emotional functioning and educational engagement.

The Importance and Effects of Teacher–Student Relationships

Research showing the association between aversive relationships with teachers and negative student outcomes has a long tradition, revealing, for example, that negative relationships with teachers can be a key factor in the development of long-term student behaviour problems (Myers and Pianta 2008). The influence of poor relationships with teachers on student behaviour is further indicated by findings from research by Twemlow and Fonagy (2005) showing that teachers teaching in schools with high levels of student exclusion were more likely to report that they had bullied students than teachers from schools with low levels of exclusion. This echoes findings from other studies which associate coercive approaches by teachers with student deviance and disaffection (Cefai and Cooper 2010; Shostak 1982; Tattum 1982; Reynolds and Sullivan 1979).

Teachers' Personal Warmth

By way of contrast, teachers who demonstrate emotional warmth have been shown to improve the social–emotional well-being of students. Teacher emotional warmth has been found to be associated with helping students with both externalizing and internalizing emotional and behavioural problems to develop non-conflictual relationships with their classroom peers (Buyse et al. 2008). Similarly, data from a study of American High Schools (LaRusso et al. 2008) showed that students who perceived their teachers to be supportive tended to demonstrate lower drug use, greater social belonging and lower levels of depression than students who saw their teachers as unsupportive. This study also found students' perceptions of the quality of staff–student relationships to be closely linked to evaluations of the social climate of the school. This is an important finding that resonates with early school effectiveness studies that highlighted the importance of school 'ethos' (Rutter et al. 1979). This powerful association between positive teacher–student relationships and positive student engagement and achievement has also been affirmed in recent meta-analytic studies (Roorda et al. 2011; Cornelius-White 2007).

Students tend to be most socially and academically engaged when they feel their teachers to be supportive, respectful towards them and trustworthy (Steward 2009; Battistich et al. 2004; Cooper and McIntyre 1996). These teacher qualities have also been found to be associated with effective language skill acquisition (McDonald Connor et al. 2005). It has also been shown that teachers who are good communicators, who ask meta-cognitive questions and who mediate learning in a social-constructivist manner (such as through the use of scaffolding) are most successful in enabling students to achieve success in reflective thinking (Gillies and Boyle 2008), a skill which is important in both higher-level academic development and social–emotional self-regulation. Other studies emphasize the importance of teacher reflexivity in classroom interaction, whereby they monitor and adjust their emo-

tional responses to students and adjust their communications accordingly (Kremenitzer 2005; Flem et al. 2004; Poulou 2005).

When taken together with the earlier discussion of the nature of resilience, the findings from these studies remind us of the fundamental nature of teaching and learning in schools and why the affective domain is so central to the success of the educational enterprise. Schools, by their nature, present their students with a relentless series of challenges that carry with them a constant possibility of public failure. Teachers not only deliver these challenges, but they form a critical audience that scrutinizes and passes judgement on students' performance. What is more, students exist in a gold fish bowl open to the scrutiny of potentially judgemental peers, with whom they are forced to interact on a daily basis. This draws attention to John Dewey's (1897, p. 78) insight that for the student school-based 'education is a process of living and not a preparation for future living'. This observation is further echoed by Galton (2009a, p. 159) when he states that schools 'when they are at their best, operate as both social and learning communities'. The primacy of the social dimension is determined by the fact that learning is fundamentally a social activity, in which teachers and students collaborate. The social engagement required by this process will be either facilitated or hindered by the quality of the affective experience of the student. Having said this, evidence from a study led by Galton (Galton et al. 2009) found that the link between students' positive attitude towards school and teacher estimates of their attainment levels tended to weaken as students moved further up the school system (Pell 2009). If this is reflective of the general picture, then it might be taken to be, as the author suggests, a sign of a growing instrumentalism among students who become more interested in the accumulation of credentials than learning for its own sake. If this is so, it further emphasizes the importance of students' social–emotional needs and the role of the school meeting these needs through the provision of nurturing teacher–student relationships.

Positive Exploitation of Student Peer Influence in Classrooms

It naturally follows from a discussion of teacher–student relationships to give attention to the student peer group. Where disruptive students serve as role models, they often serve to promote classroom disruption (Barth et al. 2004), undermine interventions designed to address these problems (Dishion et al. 1999) and promote 'deviancy training' (Gottfredson 1987). Other negative aspects of negative peer influence include 'grassing' and 'tattling' (Skinner et al. 2002) which involve informing on pupil misdeeds to authority figures in order to invoke punishment. As such they are malicious acts aimed at marginalizing targeted persons. In the light of the previous discussion, it is easy to see how such negative peer influence can undermine affected students' sense of emotional security and engagement in learning.

One of the ways in which teachers can effectively harness students' tendency for 'tale-telling' is by introducing a system of positive peer reporting (PPR). PPR involves students being rewarded for reporting on peers' positive behaviour and has

been shown to be effective in increasing positive peer interaction and peer acceptance of children with SEBD (Ervin et al. 1996; Jones et al. 1997; Bowers et al. 2000; Moroz and Jones 2002).

In relation to academic outcomes, cooperative working among students has been shown to be highly effective (Karagiannakis and Sladeczek 2009). A UK-based study led by Galton (2009b) found that students who worked collaboratively achieved higher attainment levels in English, maths and science than students who were taught the same material through a whole class teaching approach. Furthermore, peer-assisted learning has been demonstrated in various studies to be highly effective for promoting the academic engagement of students with SEBD (Sutherland et al. 2003; Topping 2005). Peer-assisted learning involves co-operation and problem-solving and benefits both the more able and less able learner. It allows students who require more frequent attention, reinforcement and reassurance than most students to get these without having to wait. Peer-assisted approaches also make it easier for student to work at their own pace. It also helps to forge positive peer relationships across the ability divide and break down ability-based cliques (Karagiannakis and Sladeczek 2009).

Helping Teachers to Promote Social–Emotional Resilience

There are many factors involved in the development of resilience-promoting teachers. Some of these might be termed qualities of character. These may include an interest in and a positive attitude towards young people, as well as a tendency to being empathic rather than judgemental. Optimism is probably a more useful quality in this context than pessimism. Social–emotional resilience is itself an important quality for the teacher who seeks to develop this in his or her students. Clearly, those who employ and manage teachers have an extremely important role to play in supporting them in this area. Teachers perform best when they are valued and supported by strong and inclusive leaders who are effective in sharing a coherent vision (Daniels et al. 1998). Having said this, the classroom teacher is much more than a tool to be deployed by a management team. We must always remember that it is at the interface between the teacher and student as individuals that teaching and learning as we like to envision them take place. When you, the reader of this chapter, recall your own schooldays, it is more than likely that you remember the positive and negative qualities of teachers and students (especially teachers) above all else. You may not remember what a particular teacher taught you, but you will probably remember how that teacher taught in the sense of the teacher's manner of engagement with you and other students. This begs an important question in the context of this chapter: how can these qualities be fostered?

As has already been noted, some of the requisite qualities might best be seen as accidents of character which boil down to wanting to be a teacher for the right reasons. It is also generally accepted that teachers should be educated to a certain level and have undergone successfully a formal training in theories and methods of peda-

gogy and to have demonstrated practical competence in teaching. It is likely that some of the issues explored earlier in this chapter will have received attention in many initial teacher training courses. It is also the case, however, that no amount of initial teacher training can adequately equip teachers with all the knowledge and skills necessary for the task. The art and craft of teaching develop largely through trial and error and reflection on and in practice (Brown and McIntyre 1993). Even very skilled teachers sometimes find it difficult to describe the development of their practice and the reasons why they make successful decisions during interactive teaching (Cooper and McIntyre 1996). Having said this, formal pre- and in-service training and education, whilst being no substitute for prolonged practical engagement and reflective practice can be an important aid to the professional development process (McIntyre 2005).

There are now many theoretically grounded approaches to improving students' social–emotional resilience. In this section, a selection of such approaches is presented. Emphasis is given to empirically supported approaches. Two broad theoretical families of approaches are presented here (see Cooper and Jacobs 2011 for a more comprehensive account of available approaches):

- Behavioural
- Cognitive behavioural

Each of these approaches are defined and illustrated in the following paragraphs.

Behavioural Interventions

Behavioural interventions are primarily concerned with the manipulation of surface behaviour through the management of external stimuli. Behavioural approaches contribute to the development of resilience by helping to create behavioural boundaries and a sense of order which, in turn, give rise to feelings of emotional security and safety.

There is now a long history of the use of behavioural strategies in educational settings, where, when employed appropriately, they have been found to be effective in improving student behaviour. These approaches are also considered to have the advantages of requiring staff to engage in minimal training, being easy to implement within the school context and being cost-effective (Walker et al. 1995). Embry (2004) and Embry and Biglan (2008) have identified and described 52 strongly evidence-based behavioural strategies which they term 'kernels'. These are specific strategies, such as response cost, verbal praise and 'time out', which are commonly embedded in more elaborate schemes and intervention approaches. There is strong evidence to suggest that if employed appropriately, competently and with sufficient frequency, they can produce significant and lasting behavioural change. All of these kernels are supported by strong empirical evidence (Embry and Biglan 2008).

One of the most powerful 'packaged' applications of behaviourist principles to problem behaviour in classrooms is the Good Behaviour Game (GBG) (Barrish

et al. 1969). There is now a large body of international literature, spanning over 40 years, demonstrating the success of the GBG in dealing with a wide range of social, emotional and behavioural difficulties and in a variety of educational settings with students from 4 to 18 years of age (Tingstrom et al. 2006). Longitudinally studies (e.g. Kellam and Anthony 1998) indicate that its positive effects are maintained over time.

The purpose of the GBG is to promote positive behaviour through compliance with selected behavioural rules. It is a team game in which participants are rewarded for the aggregate performance of their team, thus encouraging collectivist, as opposed to individual, effort. The GBG has been found to have a significant impact in reducing aggression and preventing internalizing behaviours such as anxiety (Dolan et al. 1993; Kellam et al. 1994; Kellam and Anthony 1998; Poduska et al. 2008). It has also been found to decrease classroom symptoms of ADHD.

Another empirically tested behavioural approach is functional behavioural assessment (FBA) (Baer et al. 1968). FBA involves assessing the child's relationship to the environment and gives particular attention to the rate and frequency of problem behaviours, as well as their 'antecedents' and 'consequences'. In this way, the approach eschews explanations of behaviour which appeal to the internal states of individuals (including psychomedical accounts which might invoke diagnostic categories such as ADHD, conduct disorder or anxiety disorders) in favour of a focus on the search for the stimuli which reinforce undesirable behaviours in a specific setting. The purpose of FBA, therefore, is to determine the fitness for purpose of specific interventions and assist selection from the wide array of options. FBA has been shown to be highly effective in promoting behavioural change across a wide range of SEBD (Umbreit et al. 2004; Lewis and Sugai 1996; Kamps et al. 2006; Sutherland et al. 2000) and is usually most effective when carried out by psychologists who have been formally trained in the method. There is evidence, however, that teachers can be trained in the techniques and achieve positive effects (Chandler et al. 1999), though even with training, teachers sometimes find it difficult to implement this complex and time-consuming approach effectively (Blood and Neel 2007; Scott et al. 2005; Acker and O'Leary 1987). A recent positive development is the 'keystone' skills approach (Ducharme and Shecter 2011) which recognizes the challenges classroom practitioners face in relation to FBA and offers instead a highly focused version of FBA which involves the identification of a limited range of target areas for change which are then the focus for cognitive and behavioural 'compliance' strategies (e.g. reinforcement).

Cognitive Behavioural Strategies for Acting-Out Behaviour

Whilst behavioural approaches involve the manipulation of external behaviours, cognitive behavioural (CB) approaches are concerned with the ways in which behaviour is affected by patterns of thinking. CB approaches seek in particular to facilitate the development of individuals' coping and problem-solving strategies.

The aim of CB intervention is to encourage the development of functional ways of thinking by challenging and changing dysfunctional ways of thinking. A wide body of research attests to the efficacy of CB interventions in the promotion of cognitive flexibility (Amato-Zech et al. 2006; Rhode et al. 1983), which have been successful in improving self-monitoring difficulties among children with ADHD (Reid et al. 2005) and self-control among children with oppositional defiance disorder (ODD) and conduct disorder (CD) (Fonagy and Kurtz 2002; Kazdin 2002; Altepeter and Korger 1999), anxiety disorders (Schoenfeld and Janney 2008; Fonagy et al. 2002; Kearney and Wadiak 1999) and depressive disorders (Fonagy et al. 2002).

A particularly interesting feature of several of these and similar studies (Hoff and DuPaul 1998) is the apparent success that CB approaches are able to achieve with students diagnosed with attention deficit hyperactivity disorder (ADHD), a condition that is commonly treated with stimulant medication (National Institute for Clinical Excellence 2008; Greenhill and Ford 2002). In the studies cited here, students diagnosed with ADHD were often being prescribed medication before the onset of CB intervention. This suggests that CB may have a significant value-added effect when combined with medication (Kazdin 2002). It may also be the case that CB strategies competently applied at the initial onset of ADHD symptoms may reduce the need for medication (Young and Amarasinghe 2010).

CB techniques have also been found to be highly effective in dealing with anger management problems (De Castro et al. 2003; Kellner et al. (2001) and in promoting social skills development (Battistich et al. 1989), often through the use of self-instruction techniques.

Cognitive Behavioural Strategies for Internalizing Problems

There is a strong tendency for educational approaches to SEBD to focus on acting-out behaviours to the neglect of internalizing problems. This is in spite of the widespread prevalence of acting-in problems, such as anxiety and depressive conditions, as well as evidence of their serious impact on educational functioning (Schoenfeld and Janney 2008). It has been shown that CB interventions, including modelling, in vivo exposure, role-playing, relaxation training and contingency reinforcement, when used with middle school-aged children with anxiety disorders, enabled the children to recognize anxious feelings, clarify their cognitions in such situations, implement coping strategies such as positive self-talk and administer self-reinforcement (Kendall 1994).

Applications of Mindfulness Training

Mindfulness is a relatively new form of cognitive therapy in which individuals are trained to focus on their immediate situation and thoughts in an accepting and non-judgemental way. Its effect is to produce a heightened sense of well-being and reduced levels of stress associated with concerns about future or past events. The approach has been shown to be highly effective with adults experiencing internalizing problems, such as anxiety and depression (Baer 2003). A recent successful application has been demonstrated in its application to the parents and teachers of students with SEN (Benn et al. 2012), leading to significant reductions in levels of stress and anxiety, as well as increases in their levels of self-compassion and empathic concern and forgiveness; qualities which are noted for their impact on positive adult–child relationships. A recent study in which mindfulness interventions were applied to adolescents with ADHD and their parents found significant improvements in adolescents' performance, in sustaining attention and reductions in behavioural problems, as well as improvements in their executive functioning (a core deficit for many individuals with ADHD). Parents also reported reduced parenting stress (van de Weijer-Bergsma et al. 2012).

These studies are particularly interesting because they recognize the systemic importance of parents and teachers in relation to students' social–emotional functioning and show the beneficial effects of the interventions for all parties.

Other Approaches

There are many other sources of theory-driven, evidence-based approaches to promoting student resilience in schools. These include humanistic approaches which tend to focus on the development of empathy skills and self-esteem building. A prominent example of this is circle time (CT) (Mosely 1993), which is widely used in schools in the USA and UK. CT is used to promote listening skills and empathy. The evaluation evidence to date, however, is inconclusive as to the general efficacy of this approach (see Cooper and Jacobs 2011). There are also approaches influenced by psychodynamic theory which focus on the building psychological strength in ways that echo the principles of attachment theory (see above). A well-theorized and positively evaluated approach of this type is the nurture group (Reynolds et al. 2009; Cooper and Whitebread 2007) which involves the creation of carefully designed settings in schools where students with SEBD are supported through the provision of ego-strengthening relationships with adults. Outcome evidence shows impressive social–emotional and academic gains for students who attend nurture groups (Cooper and Whitebread 2007).

It is also important to acknowledge that schools and teachers are likely be more effective in promoting social–emotional resilience if school-based teacher and behavioural management strategies, such as those described above, are combined

with systems of parent support (Dishion 2011). It is also argued that such approaches need to be embedded in a context of effective school leadership which ensures the provision of appropriate support and involves rigorous assessment of process outcomes.

Looking to the Future

One of the few things that can be said with some confidence about the future is that social–emotional resilience is going to be a major requirement of the world’s citizens. Passive acceptance of predefined roles at school and beyond will not serve the interests of the human race. The ever-faster pace of change in social, economic and environmental conditions means that human beings will need to be equipped for adaptation to unpredictable but constantly changing circumstances. Whilst policy-makers from the West look to the schools of the East for ideas about how improve the academic performance of school students, so policymakers in the East look to the West for ideas about how to improve the creativity and individuality of their school students. In the meantime, schools and teachers are left with the challenge of the here and now and the need to fulfil Dewey’s dictum that education is a ‘process of living’ (see above) and not simply a form of preparation for a foreseeable future.

It seems safe to say that the more teachers are able to convince their students that education really is a ‘process of living’, the more successful they will be in enabling their students to see learning as a tool for dealing with their real lives and for solving the world’s problems. Unfortunately, teachers’ efforts in this direction are likely to be hindered rather than aided by an almost universal devotion to what Galton (2009a) refers to as the ‘performance culture’ which undermines teaching and learning processes through its natural consequence of ‘teaching to the test’. The twin further consequences of this situation are that test results become meaningless as measures of productive learning and both teachers and students become increasingly disenchanted with this distortion of the ideal of academic achievement (Pell 2009). Pell is right to see this as a ‘crisis’ in education.

There is no simple answer to these problems, and there is no immediately foreseeable resolution to the crisis. There is hope to be found, however, in the indomitable persistence that some teachers appear to have in their determination to engage with their students as creative and capable human beings. The work of Maurice Galton, his many colleagues and many other scholars make up a powerful source of insight into what it is that some teachers do and all teachers can do to promote students’ active and enthusiastic engagement in schooling and make real-life learning happen in classrooms. It is the responsibility of today’s and tomorrow’s policymakers to take heed of these insights.

References

- Acker, M. M., & O'Leary, S. G. (1987). Effects of reprimands and praise of appropriate behavior in the classroom. *Journal of Abnormal Child Psychology*, *15*(4), 549–557.
- Altepeter, T., & Korger, J. (1999). Disruptive behaviour: oppositional defiance and conduct disorder. In S. Netherton, D. Holmes, & E. Walker (Eds.), *Child and adolescent psychological disorders* (pp. 118–138). New York: Oxford University Press.
- Amato-Zech, N. A., Hoff, K., & Doepke, K. (2006). Increasing on-task behavior in the classroom: Extension of self-monitoring strategies. *Psychology in the Schools*, *43*(2), 211–221.
- Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and clinical review. *Psychology: Science and Practice*, *10*(2), 125–143.
- Baer, D. M., Wolf, M., & Risley, T. (1968). Some current dimensions of applied behavioral analysis. *Journal of Applied Behavioral Analysis*, *1*(1), 91–97.
- Barrish, H. H., Saunders, M., & Wolf, M. (1969). Good behavior game: Effects of individual contingencies for group consequences on disruptive behavior in a classroom. *Journal of Applied Behavior Analysis*, *2*, 119–124.
- Barth, J. M., Dunlap, S., Dane, H., Lochman, J. E., & Wells, K. (2004). Classroom environment influences on aggression, peer relations, and academic focus. *Journal of School Psychology*, *42*(2), 115–133.
- Battistich, V., Solomon, D., Watson, M., Solomon, J., & Schaps, E. (1989). Effects of an elementary school program to enhance prosocial behavior on children's cognitive-social problem-solving skills and strategies. *Journal of Applied Developmental Psychology*, *10*(2), 147–169.
- Battistich, V., Schaps, E., & Wilson, N. (2004). Effects of an elementary intervention on students' "connectedness" to school and social adjustment in middle school. *Journal of Primary Prevention*, *24*(3), 43–262.
- Benn, R., Akiva, T., & Arel, S. (2012). Mindfulness training effects for parents and educators of children with special needs. *Developmental Psychology*, *48*(5), 1476–1487.
- Blood, E., & Neel, R. (2007). From FBA to implementation: A look at what is actually being delivered. *Education and Treatment of Children*, *30*(4), 67–80.
- Bowers, F. E., Woods, D., Carlyon, W., & Friman, P. (2000). Using positive peer reporting to improve the social interactions and acceptance of socially isolated adolescents in residential care: A systematic replication. *Journal of Applied Behavior Analysis*, *33*(2), 239–242.
- Bowlby, J. (1969). *Attachment and loss* (Vol. 1). London: Hogarth Press.
- Brown, S., & McIntyre, D. (1993). *Making sense of teaching*. Buckingham: Open University Press.
- Bruner, J. (1987). The transactional self. In J. Bruner & H. Haste (Eds.), *Making sense* (pp. 74–87). London: Methuen.
- Buyse, E., Verschueren, K., Doumen, S., Van Damme, J., & Maes, F. (2008). Classroom problem behavior and teacher–child relationships in kindergarten: The moderating role of classroom climate. *Journal of School Psychology*, *46*(4), 367–391.
- Cefai, C. (2008). *Promoting resilience in the classroom*. London: Jessica Kingsley.
- Cefai, C., & Cooper, P. (2010). Students without voices: The unheard accounts of secondary school students with social, emotional and behavior difficulties. *European Journal of Special Needs Education*, *25*(2), 183–198.
- Chandler, L.K., Dahlquist, C.M., Repp, A.C., & Feltz, C. (1999). The effects of team-based functional assessment on the behavior of students in classroom settings. *Exceptional Children*, *66*(1), 101–122. Downloaded by [] at 04:19 12 October 2012.
- Cooper, P. (1993). *Effective schools for disaffected students*. London: Routledge.
- Cooper, P., & Jacobs, B. (2011). *From inclusion to engagement: Helping students engage with schooling through policy and practice*. Chichester: Wiley.
- Cooper, P., & McIntyre, D. (1996). *Effective teaching and learning: Teachers' and students' perspectives*. Milton Keynes: Open University Press.

- Cooper, P., & Whitebread, D. (2007). The effectiveness of nurture groups on student progress: Evidence from a national research study. *Emotional and Behavioural Difficulties*, 12(3), 171–190.
- Cooper, P., Drummond, M. J., Hart, S., Lovey, J., & McLaughlin, C. (2000). *Positive alternatives to exclusion from school*. London: Routledge.
- Cornelius-White, J. (2007). Learner-centered teacher-student relationships are effective: A meta-analysis. *Review of Educational Research*, 77, 113–143.
- Daniels, H., Visser, J., Cole, T., & de Reybekill, N. (1998). *Emotional and Behavioural Difficulties in Mainstream Schools*. Research Report RR90. London: Department for Education and Employment (DfEE).
- De Castro, B., Bosch, J., Veerman, J., & Koops, W. (2003). The effects of emotion regulation, attribution and delay prompts on aggressive boys' social problem solving. *Cognitive Therapy and Research*, 27(2), 153–166.
- Dewey, J. (1897). My pedagogic creed. *The School Journal*, LIV(3), 77–80.
- Dishion, T. (2011). Promoting academic competence and behavioral health in public schools: A strategy of systemic concatenation of empirically based intervention principles. *School Psychology Review*, 40(4), 590–597.
- Dishion, T. J., McCord, J., & Poulin, F. (1999). When interventions harm: Peer groups and problem behavior. *American Psychologist*, 54(9), 755–764.
- Dolan, L. J., SKellam, S., Brown, C., Werthamer-Larsson, L., Rebok, G., Mayer, L., Laudolff, J., Turkkan, J., Ford, C., & Wheeler, L. (1993). The short-term impact of two classroom-based preventive interventions on aggressive and shy behaviors and poor achievement. *Journal of Applied Developmental Psychology*, 14(3), 317–345.
- Douglas, J. (1964). *The home and the school: A study of ability and attainment in the primary school*. London: MacGibbon and Kee.
- Ducharme, J. M., & Shecter, C. C. (2011). Bridging the gap between clinical and classroom intervention: Keystone approaches for students with challenging behavior. *School Psychology Review*, 40(2), 257–274.
- Embry, D. D. (2004). Community-based prevention using simple, low-cost, evidence-based kernels and behavior vaccines. *Journal of Community Psychology*, 32(5), 575–591.
- Embry, D. D., & Biglan, A. (2008). Evidence-based kernels: Fundamental units of behavioral influence. *Clinical Child and Family Psychology Review*, 11, 75–113.
- Ervin, R. A., Miller, P., & Friman, P. (1996). Feed the hungry bee: Using positive peer reports to improve the social interactions and acceptance of a socially rejected girl in residential care. *Journal of Applied Behavior Analysis*, 29(2), 251–253.
- Flem, A., Moen, T., & Gudmundsdottir, S. (2004). Towards inclusive schools: A study of inclusive education in practice. *European Journal of Special Needs Education*, 19(1), 85–98.
- Fonagy, P., & Kurtz, A. (2002). Disturbance of conduct. In P. Fonagy, M. Target, D. Cottrell, J. Phillips, & Z. Kurtz (Eds.), *What works for whom? A critical review of treatments for children and adolescents*. New York: Guilford Press.
- Fonagy, P., Target, M., Cottrell, D., Phillips, J., & Kurtz, A. (2002). *What works for whom? A critical review of treatments for children and adolescents*. New York: Guilford Press.
- Fox, S., Levitt, P., & Nelson, C. (2010). How the timing and quality of early experiences influence the development of brain architecture. *Child Development*, 81(1), 28–40. doi:10.1111/j.1467-8624.2009.01380.x.
- Galton, M. (2009a). One big family: Promoting harmony and resilience, in Galton, M, Steward, S, Hargreaves, L, Page, C, and Pell, A., *Motivating your secondary class*. London: Sage
- Galton, M. (2009b). In working together – Learning together. In M. Galton, S. Steward, L. Hargreaves, C. Page, & A. Pell (Eds.), *Motivating your secondary class*. London: Sage.
- Galton, M., Steward, S., Hargreaves, L., Page, C., & Pell, A. (2009). *Motivating your secondary class*. London: Sage.

- Gillies, R. M., & Boyle, M. (2008). Teachers' discourse during cooperative learning and their perceptions of this pedagogical practice. *Teaching and Teacher Education, 24*(5), 1333–1348.
- Gottfredson, G. D. (1987). Peer group interventions to reduce the risk of delinquent behavior: A selective review and a new evaluation. *Criminology, 25*(3), 671–714.
- Greenhill, L., & Ford, R. (2002). 'Childhood attention-deficit hyperactivity disorder: Pharmacological treatment's. In P. Nathan & J. Gorham (Eds.), *A guide to treatments that work*. Oxford: Oxford University Press.
- Hargreaves, D. (1967). *Social relations in a secondary school*. London: Routledge & Kegan Paul.
- Hargreaves, A., & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. New York: Teachers College Press.
- Hoff, K. E., & DuPaul, G. (1998). Reducing disruptive behavior in general education classrooms: The use of self-management strategies. *School Psychology Review, 27*(2), 290–303.
- Jackson, B., & Marsden, D. (1962). *Education and the working class*. London: Routledge & Kegan Paul.
- Jones, E. M., Gottfredson, G. D., & Gottfredson, D. C. (1997). Success for some: An evaluation of a success for all program. *Evaluation Review, 21*(6), 643–670.
- Kamps, D., Wendland, D., & Culpepper, D. (2006). Active teacher participation in functional behavior assessment for students with emotional and behavioral disorders risks in general education classrooms. *Behavioral Disorders, 31*(2), 128–146.
- Karagiannakis, A., & Sladeczek, I. (2009). Classwide peer tutoring. In C. Cefai & P. Cooper (Eds.), *Promoting emotional education*. London: Jessica Kingsley.
- Kazdin, A. E. (2002). Psychosocial treatments for conduct disorder. In P. Nathan & J. Gorham (Eds.), *A guide to treatments that work* (2nd ed.). Oxford: Oxford University Press.
- Kearney, C., & Wadiak, D. (1999). Anxiety disorders. In S. Netherton, D. Holmes, & E. Walker (Eds.), *Child and adolescent psychological disorders*. Oxford: Oxford University Press.
- Kellam, S. G., & Anthony, J. C. (1998). Targeting early antecedents to prevent tobacco smoking: Findings from an epidemiologically based randomized field trial. *American Journal of Public Health, 88*(10), 1490–1495.
- Kellam, S., Rebok, G., Ialongo, N., & Mayer, L. S. (1994). The course and malleability of aggressive behavior from early first grade into middle school: Results of a developmental epidemiologically-based preventive trial. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 35*(2), 259–281.
- Kellmer-Pringle, M. (1975). *The needs of children* (1st ed.). London: National Children's Bureau.
- Kellmer-Pringle, M. (1986). *The needs of children* (3rd ed.). London: National Children's Bureau.
- Kellner, M. H., Bry, B. H., & Colletti, L. (2001). Teaching anger management skills to students with severe emotional or behavioral disorders. *Behavioral Disorders, 27*(4), 400–407.
- Kendall, P. C. (1994). Treating anxiety disorders in children: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology, 62*(1), 100–110.
- Kremenitzer, J. P. (2005). The emotionally intelligent early childhood educator: Self-reflective journaling. *Early Childhood Education Journal, 33*(1), 3–9.
- Larusso, M. D., Romer, D., & Selman, R. (2008). Teachers as builders of respectful school climates: Implications for adolescent drug use norms and depressive symptoms in high school. *Journal of Youth and Adolescence, 37*(4), 386–398.
- Lewis, T.J., & Sugai, G. (1996). Functional assessment of problem behavior: A pilot investigation of the comparative and interactive effects of teacher and peer social attention on students in general education settings. *School Psychology Quarterly, 11*(1), 1–19. Downloaded 04:19 12 October 2012.
- Luby, J., Barch, D., Belden, A., Gaffrey, M., Tillman, R., Babb, C., Nishino, T., Suzuki, H., & Botteron, K. (2012). Maternal support in early childhood predicts larger hippocampal volumes at school age. *PNAS, 109*(8), 2854–2859.
- MacLeod, G. (2013). How children and young people with emotional and behavioural difficulties see themselves. In T. Cole, H. Daniels, & J. Visser (Eds.), *The Routledge International Companion to emotional and behavioural difficulties*. London: Routledge.

- Maslow, A.H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–96. <http://psychclassics.yorku.ca/Maslow/motivation.htm>
- Maslow, A. H. (1970). *Motivation and personality*. New York: Harper & Row.
- McDonald Connor, C., Son, S., Hindman, A., & Morrison, F. (2005). Teacher qualifications, classroom practices, family characteristics, and preschool experience: Complex effects on first graders' vocabulary and early reading outcomes. *Journal of School Psychology*, 43(4), 343–375.
- McIntyre, D. (2005). Bridging the gap between research and practice. *Cambridge Journal of Education*, 35(3), 357–382.
- Moroz, K. B., & Jones, K. (2002). The effects of positive peer reporting on children's social involvement. *School Psychology Review*, 31(2), 235–245.
- Mortimore, P., Sammons, P., Stoll, L., et al. (1988). *School matters: The junior years*. Berkeley: Open Books.
- Mosely, J. (1993). *Turn your school around*. Wisbech: LDA.
- Myers, S. S., & Pianta, R. (2008). Developmental commentary: Individual and contextual influences on student–teacher relationships and children's early problem behaviors. *Journal of Clinical Child and Adolescent Psychology*, 37(3), 600–608.
- National Institute for Clinical Excellence. (2008). *Guidance on the use of methylphenidate for AD/HD*. London: NICE.
- Nelson, C., Zeanah, C., Fox, N., Marshall, P., Smyke, A., & Guthrie, D. (2007). Cognitive recovery in socially deprived young children: The Bucharest Early Intervention Project. *Science*, 318(5858), 1937–1940.
- Pell, A. (2009). Is there a crisis in the lower secondary school? In M. Galton, S. Steward, L. Hargreaves, C. Page, & A. Pell (Eds.), *Motivating your secondary class*. London: Sage.
- Poduska, J. M., Kellam, S., Wang, W., Brown, C., Ialongo, N., & Toyinbo, P. (2008). Impact of the Good Behavior Game, a universal classroom-based behavior intervention, on young adult service use for problems with emotions, behavior, or drugs or alcohol. *Drug and Alcohol Dependence*, 95(Suppl. 1), S29–S44.
- Poulou, M. (2005). The prevention of emotional and behavioral difficulties in schools: Teachers' suggestions. *Educational Psychology in Practice*, 21(1), 37–52.
- Purkey, S., & Smith, M. (1985). Effective schools: A review. *Elementary School Journal*, 83(4), 427–453.
- Reid, R., Trout, A. L., & Schwartz, M. (2005). Self-regulation interventions for children with attention deficit/hyperactivity disorder. *Exceptional Children*, 71, 361–377.
- Reynolds, D., & Sullivan, M. (1979). Bringing schools back in. In L. Barton (Ed.), *Schools pupils and deviance*. Nafferton: Driffield.
- Reynolds, S., MacKay, T., & Kearney, M. (2009). Nurture groups: A large scale controlled study of effects on development and academic attainment. *British Journal of Special Education*, 36(4), 204–212.
- Rhode, G., Morgan, D., & Young, K. (1983). Generalization and maintenance of treatment gains of behaviorally handicapped students from resource rooms to regular classrooms using self-evaluation procedures. *Journal of Applied Behavior Analysis*, 16(2), 171–188.
- Rogers, C. (1951). *Client centered therapy*. Oxford: Houghton-Mifflin.
- Rogers, C. (1980). *A way of being*. Boston: Houghton Mifflin.
- Roorda, D., Koomen, H., Spilt, J., & Oort, F. (2011). The influence of affective teacher–student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of Educational Research* December, 81, 493–529.
- Rutter, M. (1999). Resilience as a dynamic concept. *Development and Psychopathology*, 24, 335–344.
- Rutter, M., Maughan, B., Mortimore, P., & Ouston, J. (1979). *Fifteen thousand hours: Secondary schools and their effects on children*. London: Open Books.
- Schneiders, J., Drukker, M., van der Ende, J., Verhulst, F. C., van Os, J., & Nicolson, N. (2003). Neighbourhood socio-economic disadvantage and behavioural problems from late childhood into early adolescence. *Journal of Epidemiology and Community Health*, 57, 699–703.

- Schoenfeld, N. A., & Janney, D. (2008). Identification and treatment of anxiety in students with emotional or behavioral disorders: A review of the literature. *Education and Treatment of Children, 31*(4), 583–610.
- Scott, T. M., McIntyre, J., Liaupsin, C., Nelson, C., Conroy, M., & Payne, L. (2005). An examination of the relation between functional behavior assessment and selected intervention strategies with school-based teams. *Journal of Positive Behavior Interventions, 7*(4), 205–215.
- Shostak, J. (1982). *Maladjusted schooling*. Lewes: Falmer.
- Skinner, C. H., Nedderniep, C., Robinson, S., Ervin, R., & Jones, K. (2002). Altering educational environments through positive peer reporting: Prevention and remediation of social problems associated with behavior disorders. *Psychology in the Schools, 39*(2), 191–202.
- Smith, D. (2006). *School experience and delinquency at ages 13 to 16*. Edinburgh: University of Edinburgh, Centre for Law and Society.
- Steward, S. (2009). Why were some classrooms more successful? In M. Galton, S. Steward, L. Hargreaves, C. Page, & A. Pell (Eds.), *Motivating your secondary class*. London: Sage.
- Sutherland, K. S., Wehby, J., & Copeland, S. (2000). Effect of varying rates of behavior specific praise on the on-task behavior of students with EBD. *Journal of Emotional and Behavioral Disorders, 8*(1), 2–26.
- Sutherland, K. S., Alder, N., & Gunter, P. (2003). The effect of varying rates of opportunities to respond to academic requests on the classroom behavior of students with EBD. *Journal of Emotional and Behavioral Disorders, 11*(4), 239–248.
- Sutton Trust. (2008). *Social mobility*. London: The Sutton Trust.
- Sutton Trust. (2010). *Education and social mobility in England*. London: The Sutton Trust.
- Tattum, D. (1982). *Disruptive pupils in schools and units*. Chichester: Wiley.
- Tingstrom, D. H., Sterling-Turner, H. E., & Wilczynski, S. M. (2006). The good behavior game: 1969–2002. *Behavior Modification, 30*(2), 225–253.
- Topping, K. J. (2005). Trends in peer learning. *Educational Psychology, 25*(6), 631–645.
- Trevarthen, C. (2004). Action and emotion in the development of the human self, its sociability and cultural intelligence: Why infants have feelings like ours. In J. Nadel & D. Muir (Eds.), *Emotional development*. Oxford: Oxford University Press.
- Twemlow, S. W., & Fonagy, P. (2005). The prevalence of teachers who bully students in schools with differing levels of behavioral problems. *American Journal of Psychiatry, 162*(12), 2387–2389.
- Umbreit, J., Lane, K., & Dejud, C. (2004). Improving classroom behavior by modifying task difficulty: Effects of increasing the difficulty of too-easy tasks. *Journal of Positive Behavior Interventions, 6*(1), 13–20.
- van de Weijer-Bergsma, E., Formisma, A., de Bruin, E., & Bögels, S. (2012). The effectiveness of mindfulness training on behavioral problems and attentional functioning in adolescents with ADHD. *Journal of Child and Family Studies, 21*, 775–787.
- Vygotsky, L. (1994). *Thought and language* (A. Kozulin, Ed.). Cambridge, MA: MIT Press.
- Walker, H., Colvin, G., & Ramsey, E. (1995). *Antisocial behavior in schools: Strategies and best practices*. Pacific Grove: Brooks/Cole.
- Willis, P. (1977). *Learning to labour*. Westmead: Saxon House.
- Young, S., & Amarasinghe, J. (2010). Practitioner review: Non-pharmacological treatments for ADHD: A lifespan approach. *Journal of Child Psychology and Psychiatry, 51*(2), 116–133.

Part IX
Understanding Students and Pupils:
Assessing Student Learning

Chapter 31

Embedding Formative Assessment in Classroom Practice

Mary James

Abstract This chapter examines the challenges of embedding formative assessment in classroom practice. It begins with a brief history of an idea that has become popular across the world in recent years. It asks why formative assessment is such a potentially powerful idea and also why it has had such uncertain impact. It looks again at what formative assessment, also known as assessment for learning, is and how practices associated with it can be improved. Sources of problems in conceptualisation and implementation are examined, and research on organisational conditions for embedding in classrooms and spreading within and across schools is described. The importance of developing both teachers' practices and their beliefs about learning is highlighted. The chapter concludes with some reflection on what might be done to put the idea back on track and considers especially the potential role of developers of tools to assist teachers and students in implementing formative assessment.

Keywords Formative assessment • AfL • Learning how to learn • Autonomous learning • Teacher learning • Student learning • Organisational learning • Implementation • Assessment tools

A Brief History of a Concept

It is usually acknowledged that Michael Scriven (1967) first proposed a 'formative/summative' distinction although he had in mind the roles performed by evaluations of educational programmes. It was Benjamin Bloom who, 2 years later, made a similar distinction with respect to students. The purpose of formative assessment, he said, was '...to provide feedback and correctives at each stage in the teaching-learning process' (Bloom 1969, p.48). The concept lay somewhat dormant for another 20 years, possibly because programme evaluation, in which Scriven was

M. James (✉)

Faculty of Education, University of Cambridge, 184 Hills Road, Cambridge CB2 8PQ, UK
e-mail: mej1002@cam.ac.uk

interested, was a dominant concern in both academic and policy circles during the 1970s.

The distinction came to prominence again in 1988, in England, when the Task Group on Assessment and Testing (TGAT) was set up by the then Conservative Government to advise on a system for assessing achievement on the national curriculum that was about to be introduced. Chaired by Professor Paul Black, this group set about defining the purposes of assessment, which they judged to be four in number: formative, diagnostic, summative and evaluative. This initiated a debate that persists to the current time and in which Paul Black has continued to be a major figure.

At around the same time, a group of UK researchers was convened by the British Educational Research Association (BERA) to provide commentary on assessment policy developments, backed by research evidence. This was known as the BERA Assessment Policy Task Group but later transformed into the UK Assessment Reform Group (ARG). (See Daugherty 2007, for an account of the work of this group.) As one of its activities, the ARG decided to seek funding to update a review, by Terry Crooks in New Zealand, of research on the impact of evaluation/assessment practices on student learning. Crooks (1988) had particularly noted the wash-back effects on student learning strategies, motivation and achievement. The ARG was successful in their bid to the Nuffield Foundation, and they asked Paul Black, and his colleague Dylan Wiliam, to carry out the new review. The result was a 35,000-word article in a refereed journal (Black and Wiliam 1998a) and a short booklet, *Inside the Black Box* (1998b). This booklet became enormously popular with teachers, teacher educators and advisers and sold tens of thousands of copies.

However, even at an early stage, there were concerns that formative assessment, as a concept, was not fully understood, so the ARG attempted to make it more transparent by distinguishing ‘assessment for learning’, as part of pedagogy, from ‘assessment of learning’ for grading and reporting. In 1999, the ARG produced another booklet, *Assessment for Learning: Beyond the Black Box*, and, in 2002, they developed a poster entitled *Assessment for Learning: 10 Principles*.

Although Paul Black held to his preference for the term ‘formative assessment’ because assessment cannot claim to be formative unless it has actually made a difference, whereas ‘assessment for learning’ can remain aspirational, the two expressions became interchangeable. Possibly for reasons that the ARG discerned, it was nevertheless ‘assessment for learning’ (AfL) that was taken up more widely, especially by policy makers. By 2008, the New Labour Government in England had introduced AfL national strategies for both primary and secondary schools backed by £150 m of government funding to provide teachers with training. The materials quoted the ARG’s definition of AfL and its ten principles. Wales, Northern Ireland and Scotland also developed AfL policies, although in Scotland, this was called Assessment is for Learning (AifL) (see James 2011, for an account of how and why these diverged). In other countries also, formative assessment or assessment for learning policies and practices developed (see James 2010 for an overview). For example, in Hong Kong, the Education Bureau’s 10-year programme of reforms, initiated in 2000, put more emphasis on assessment for learning. Even in the USA,

where psychometric approaches to measurement in education have long held sway, the reports of the Gordon Commission¹ in 2013 affirm that the primary purpose of assessment is to inform and improve teaching and learning.

With all this activity at all levels in national systems across the world, it would be reasonable to expect that teaching, learning and achievement would be transformed for the public good by innovation in formative assessment/AfL practices. Yet, in 2006 in the USA, James Popham described AfL as an ‘endangered species’ (Popham 2006). Similarly, in 2012, Dylan Wiliam was reported as saying that it was a tragedy that, despite the seeming ubiquity of AfL as an idea, in practice, the strategy is largely missing from schools in England (Stewart 2012). Indeed the term ‘assessment for learning’ has largely disappeared from the lexicon of the Department for Education, under the Conservative-led coalition government since it came to power in May 2010.

Why is it that such a potentially powerful idea, backed by evidence, has had such uncertain impact? In the next sections, I will first go back to basics to look again at what formative assessment/AfL is, before examining the sources of problems in implementation and reflecting on what might be done to put it back on track.

What Is Formative Assessment/AfL?

A central feature of all assessment is the observation of what one person says or does by another or, in the case of self-assessment, reflection on one’s own knowledge, understanding or behaviour. This is true of the whole spectrum of assessments, from formal tests and examinations to informal assessments made by teachers in their classrooms many hundred times each day. Although the form that assessments take may be very different – some may be pencil and paper tests whilst others may be based on questioning in normal classroom interactions – all assessments have some common characteristics. They all involve:

1. Making observations.
2. Interpreting the evidence.
3. Making judgements that can be used for decisions about actions.

Observation In order to carry out assessment, it is necessary to find out what students know and can do or the difficulties they are experiencing. Observation of regular classroom activity, such as listening to talk, watching students engaged in tasks or reviewing the products of their class work and homework, may provide the information needed, but on other occasions, it may be necessary to elicit the information needed in a very deliberate and specific way. A task or test might serve this purpose, but a carefully chosen oral question can also be effective. Students’ responses to tasks or questions then need to be interpreted. In other words, the assessor needs to work out what the evidence means.

¹(<http://www.gordoncommission.org/index.html>)

Interpretation Interpretations are made with reference to what is of particular interest such as specific skills, attitudes or different kinds of knowledge. These interpretations are often based on criteria that relate to learning goals or objectives. Usually observations as part of assessment are made with these criteria in mind, i.e. formulated beforehand, but sometimes teachers observe unplanned interactions or outcomes and apply criteria retrospectively. Interpretations can describe or attempt to explain behaviour, or they can infer from behaviour, e.g. what a child says, that something is going on inside a child's head, e.g. thinking. For this reason, interpretations are sometimes called inferences.

Judgement On the basis of these interpretations of evidence, judgements are made. These involve evaluations. It is at this point that the assessment process looks rather different according to the different purposes it is expected to serve and the uses to which the information will be put. This is where the formative/summative distinction becomes especially important.

In formative assessment/AfL, observations, interpretations and criteria may be similar to those employed in assessment of learning, but the nature of judgements and decisions that flow from them will be different. In essence, formative assessment/AfL focuses on what is revealed about where children are in their learning, especially the nature of, and reasons for, the strengths and weaknesses they exhibit. Formative judgements are therefore concerned with what they might do to move forward.

The Assessment Reform Group (2002) defined assessment for learning as follows:

Assessment for Learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there.

One important element of this definition is the emphasis on students' own use of evidence. This draws attention to the fact that teachers are not the only assessors. Students can be involved in peer and self-assessment, and, even when teachers are heavily involved, students need to be actively engaged. Only learners can do the learning, so they need to act upon information and feedback if their learning is to improve. This requires them to have understanding but also the motivation and will to act. The implications for teaching and learning practices are profound and far-reaching and indicate that formative assessment should be integral to pedagogy, not an add-on.

What Does Research Say About How Formative Assessment/AfL Might Be Improved?

The generally acknowledged key source is the review of research by Paul Black and Dylan Wiliam (1998a, 1998b) mentioned earlier. In this, they analysed 250 studies of which 50 were a particular focus because they provided evidence of gains in achievement after ‘interventions’ based on what we might now call formative assessment/AfL practices. These gains, measured by pre- and post-summative tests, produced standardised effect sizes of between 0.4 and 0.7. There was evidence that gains for lower-attaining students were even greater. These findings convinced many teachers and some policy makers that formative assessment/AfL is worth taking seriously.

The innovations introduced into classroom practice involved some combination of the following:

1. Developing Classroom Talk and Questioning

Asking questions, either orally or in writing, is crucial to the process of eliciting information about the current state of a student’s understanding. However, questions phrased merely to establish whether students know the correct answers are of little value for formative purposes. Students can give right answers for the wrong reasons or wrong answers for understandable reasons. For example, Vinner (1997) showed that students gave very different answers to superficially similar questions on fractions in mathematics. When the students were asked to talk through how they had reached their answers, it emerged that many students developed a naïve conception (a rule of thumb) that large fractions have small denominators and small fractions have large denominators. This rule often serves them well, and their teachers may be unaware of the misconception. Thus, if learning is to be secure, superficially ‘correct’ answers need to be probed and misconceptions explored. In this way students’ learning needs can be diagnosed.

Research in science education, by Millar and Hames (2003), has shown how carefully designed diagnostic ‘probes’ can provide quality information of students’ understanding to inform subsequent action. The implication is that teachers need to spend time planning good diagnostic questions. Students can be trained to ask questions too and to reflect on answers. They need thinking time to do this, as they do to formulate answers that go beyond the superficial. Increasing thinking time, between asking a question and taking an answer, from the average of 0.9 of a second, can be productive in this respect. A ‘no hands up’ rule is also useful because it conveys the message that every student in the class can be called upon to answer, in the knowledge that their answer will be dealt with seriously, whether right or wrong.

All these ideas call for changes in the norms of talk in many classrooms. By promoting thoughtful and sustained dialogue, teachers can explore the knowledge

and understanding of students and build on this. The principle of ‘contingent teaching’ underpins this aspect of formative assessment/AfL.

2. Giving Appropriate Feedback

Feedback is always important, and perhaps the most powerful aspect of formative assessment practice (Hattie 2009), but it needs to be approached cautiously because research also draws attention to potential negative effects. Kluger and DeNisi (1996) reviewed 131 studies of feedback and found that, in two out of five studies, giving people feedback made their performance worse. Further investigation revealed that this happened when feedback focused on their self-esteem or self-image, as is the case when marks are given, or when praise focuses on the person rather than the learning. Praise can make students feel good, but it does not help their learning unless it is explicit about what the student has done well.

This point is powerfully reinforced by research by Butler (1988) who compared the effects of giving marks as numerical scores, comments only and marks plus comments. Students given only comments made 30% progress, and all were motivated. No gains were made by those given marks or those given marks plus comments. In both these groups, the lower achievers also lost interest. The explanation was that giving marks washed out the beneficial effects of the comments. Careful commenting works best when it stands on its own.

Another study, by Day and Cordón (1993), found that there is no need for teachers to give complete solutions when students ‘get stuck’. Indeed, students aged nine retained their learning longer when they were simply given an indication of where they should be looking for a solution (a ‘scaffolded’ response). This encouraged them to adopt a ‘mindful’ approach and active involvement, which rarely happens when teachers ‘correct’ students’ work.

3. Sharing Criteria with Learners

Research also shows how important it is that students understand what counts as success in different curriculum areas and at different stages in their development as learners. This entails sharing learning ‘intentions, expectations, objectives, goals’ and ‘success criteria’. However, because these are often framed in generalised ways, they are rarely enough on their own. Students need to see what they mean, as applied in the context of their own work, or that of others. They will not understand criteria right away, but regular discussions of concrete examples will help students develop understandings of quality. According to Sadler (1989, p. 121):

The indispensable conditions for improvement are that the student comes to hold a concept of quality roughly similar to that held by the teacher, is able to monitor continuously the quality of what is being produced during the act of production itself, and has a repertoire of

alternative moves or strategies from which to draw at any given point. In other words, students have to be able to judge the quality of what they are producing and be able to regulate what they are doing during the doing of it....

In a context where creativity is valued, as well as excellence, it is important to see criteria of quality as representing a 'horizon of possibilities' rather than a single end point. Notions of formative assessment as directed towards 'closing the gap', between present understanding and the learning aimed for, can be too restrictive if seen in this way, especially in subject areas that do not have a clear linear or hierarchical structure.

4. Peer Assessment and Self-Assessment

The formative assessment/AfL practices described above emphasise changes in the teacher's role. However, they also imply changes in what students do and how they might become more involved in assessment and in reflecting on their own learning. Indeed, questioning, giving appropriate feedback and reflecting on criteria of quality can all be rolled up in peer and self-assessment. This is what happened in a research study by Fontana and Fernandes (1994). Over a period of 20 weeks, elementary school students were progressively trained to carry out self-assessment that involved setting their own learning objectives, constructing relevant problems to test their learning, selecting appropriate tasks and carrying out self-assessments. Over the period of the experiment, the learning gains of this group were twice as big as those of a matched 'control' group.

The importance of peer and self-assessment was also illustrated by Frederiksen and White (1997) who compared learning gains of four classes taught by each of the three teachers. All the classes had an evaluation activity each fortnight. The only thing that was varied was the focus of the evaluation. Two classes focused on what they liked and disliked about the topic; the other two classes focused on 'reflective assessment', which involved students in using criteria to assess their own work and to give one another feedback. The results were remarkable. All students in the 'reflective assessment group' made more progress than students in the 'likes and dislikes group'. However, the greatest gains were for students previously assessed as having weak basic skills. This suggests that low achievement in schools may have much less to do with a lack of innate ability than with students' lack of understanding of what they are meant to be doing and what counts as quality.

From 1999 to 2001, a development and research project was carried out by Paul Black et al. (2003) at King's College London, with teachers in Oxfordshire and Medway (the King's, Medway and Oxfordshire Formative Assessment Project or KMOFAP), to test some of these findings in a British context. They found peer assessment to be an important complement to self-assessment because students learn to take on the roles of teachers and to see learning from their perspective. At the same time, they can give and take criticism and advice in a nonthreatening way

and in a language that children naturally use. Most importantly, as with self-assessment, peer assessment is a strategy for 'placing the work in the hands of the students'.

5. Thoughtful and Active Learners

The ultimate goal of formative assessment/AfL is to involve students in their own assessment so that they can reflect on where they are in their own learning, understand where they need to go next and work out what steps to take to get there. The research literature sometimes refers to this as the processes of self-monitoring and self-regulation. It could also be a description of learning how to learn. In other words, they need to understand both the desired outcomes of their learning and the processes of learning by which these outcomes are achieved, and they need to act on this understanding. Students need to become both thoughtful and active learners. They must, in the end, take responsibility for their own learning; the teacher's role is to help them towards this goal. Formative assessment/AfL is therefore, potentially, a vital tool for this purpose of promoting learning autonomy.²

Trouble with Conceptualisation and Implementation

Given all the interest in formative assessment/AfL generated in the late 1990s and claimed impact on policy and practice in the 2000s, it is perhaps surprising that success in terms of promised outcomes has remained somewhat elusive. Moreover, there has been criticism from some quarters that the advocates of formative assessment/AfL have overclaimed the benefits of a set of practices that are still not well enough conceptualised. For example, Randy Bennett (2011) identifies six areas of concern: weaknesses in the definition of formative assessment, in the basis of claims for effectiveness, in relative lack of attention to subject/domain considerations, in under-representation of measurement principles such as the validity and reliability of inferences, in underestimation of the time and support needed by teachers and in lack of attention to larger system requirements for comprehensive reform. There are reasonable grounds for some of his concerns.

In England, where assessment for learning (AfL) became enshrined in national policy for a time, understanding of the formative dimension is certainly in danger of being lost. The National Strategies of 2008 must bear some responsibility for this. They made reference to definitions of AfL and research-based accounts of good practice, but they implied that AfL can be formative, or summative, or both. The New Labour Government had invested a great deal in the development of student

²More detail of the research and advice on practical strategies can be found in James, M. et al., 2006; Wiliam, D., 2011; and Earl, L.M., 2013.

tracking and planning tools, to help teachers and principals use the results of statutory national tests for monitoring, prediction and target setting. It was politically expedient therefore to promote frequent mini-summative assessment, to secure higher performance on tests and to meet prescribed numerical targets, rather than use scarce resources on what may have appeared to be less tangible approaches to formative assessment. What was not well understood was that it is quite possible to drill students to perform well on tests without actually enhancing learning. Given the high-stakes consequences for schools that perform badly, there is increasing evidence that this is happening (Mansell et al. 2009).

Although the government in England changed in 2010, the drive is still to raise standards as measured by national curriculum tests and examinations. In fact this has intensified under the Conservative-led coalition. Nuanced ideas, about the role of formative assessment/AfL in pedagogy to enhance the learning of capable, resourceful and autonomous citizens, seem almost entirely absent. Those who are convinced by research that formative assessment is the key to improved learning and achievement have still to convince those who believe that competition, generated by the pressure of regular testing and performance tables, raises standards. The struggle between these competing positions is very evident in England at the time of writing but also reflects ideological movements globally.

These debates have almost certainly influenced the extent to which teachers have felt motivated and supported to implement innovations in classroom practice. But there are other barriers and affordances. Some of these were predictable, even in the late 1990s, because they are familiar from decades of research on educational development and innovation in schools. A more recent study, specifically related to implementation and dissemination of formative assessment/AfL values and practices, illustrates the challenges.

Lessons from the Learning How to Learn Project

Many of the successful studies that Black and Wiliam reviewed were based on small-scale experiments involving interventions often carried out by researchers. However, the success of formative assessment/AfL, more generally, depends on teachers who are required to learn new knowledge, develop new skills and reassess their roles. Therefore, teachers need to learn, as well as their students, and schools need to support them in this, which requires organisational learning. As noted above, adequate support for teachers is one of Bennett's (2011) main concerns.

The 'Learning how to learn in classrooms, schools and networks' (LHTL) development and research project (James et al. 2007) set out to investigate two key questions:

- How can formative assessment/AfL practices be developed and *embedded* in classrooms without intense outside support?

- What conditions in schools and networks support the creation and *spread* of such knowledge and practices?

The project team, from five universities, worked with 40 secondary, primary and infants schools in southern England. According to performance tables and inspection reports, most of these schools were broadly ‘average’ at the start of the project, i.e. with room for improvement.

The premise of the project was that if innovations in formative assessment/AfL were to spread ‘system-wide’, they would need to be implemented in authentic settings with much less support. Thus, we chose to provide little more than the kind of help schools might find within their local authorities (school districts) or from their own resources. We then observed what happened. We were especially interested in how the project ‘landed in schools’ and why innovation ‘took off’ in one context but not another. Our particular interest was in the conditions within and across schools that are conducive to the ‘scaling up’ and ‘rolling out’ of formative assessment/AfL practices.

As one part of our data collection, 27 lessons were filmed at the midpoint of the project to provide snapshots of classroom practice. These video recordings were placed alongside evidence from interviews with the same teachers about their beliefs about learning and their students’ comments on the lessons. These snapshots also sat within a wider picture of teachers’ practices and values distilled from survey data collected from 1,200+ teachers in 32 or our 40 schools. Three main dimensions of classroom practice (factors) emerged from the wider questionnaire evidence, which provided a useful initial framework for the study of the video evidence. These related to evidence of teachers ‘making learning explicit’, ‘promoting learning autonomy’ or pursuing a ‘performance orientation’, i.e. in contrast to a learning or mastery orientation (Dweck 2000).

What became apparent from the video material was that formative assessment practices were being handled very differently in the various lessons observed. Formative assessment/AfL strategies had been adopted, in some lessons, in ways that reflected what might be called the ‘spirit’ of AfL, showing a deep understanding of the principles underpinning the practices. In other lessons, the implementation of AfL seemed more mechanical, more the ‘letter’, focusing on surface techniques. One factor in particular seemed to differentiate one type of lesson from another: promoting learning autonomy. This was associated with the way in which that principle was illustrated in the tasks that the students undertook. An example may help to illuminate the distinction we made (see also Marshall and Drummond 2006).

Two of our video recordings were of different teachers of English, teaching classes of 13-year-olds. Ostensibly, they were both attempting to do similar things in similar contexts. In both lessons, the teachers shared the criteria with the students by giving them a model of what was needed. The students then used those criteria to assess the work of their peers.

In lesson A, students were looking at a letter they had written based on a Victorian short story; in lesson B, they were asked to consider a dramatic rendition of a nineteenth-century poem. Both had the potential to enable students to engage with

the question of what constitutes quality in a piece of work – an issue which is difficult in English and hard for students to grasp. The teacher, in lesson A, modelled the criteria by giving the students a piece of writing which was full of errors. They were asked to correct it on their own. The teacher then went through the corrections with the whole class before asking them to read through and correct the work of their peers. In lesson B, the teacher and the classroom assistant performed the poem to the class and invited the students to critique their performance. From this activity, the class as a whole, guided by the teacher, established the criteria. These criteria then governed both the students' thinking about what was needed when they acted out the poem themselves and the peer assessment of those performances.

Two crucial but subtle elements differentiate these lessons. To begin with, the scope of the task in lesson A was considerably more restricted in helping students understand what quality might look like, focusing instead on those things that were simply right and wrong. Students in lesson B, on the other hand, engaged both in technical considerations, such as clarity and accuracy, as well as the higher-order, interpretive concepts of meaning and effect. In addition, the modelling of what was required in lesson B ensured that students went beyond an imitation of that model. Each of the tasks in lesson B, including encouraging the students to create their own criteria, helped them to think for themselves about what might be needed to capture the meaning of the poem in performance. In other words, the sequence of activities guided them towards autonomous learning. The procedures alone, of lesson A, were insufficient to enable this last beneficial outcome of lesson B. The question concerning teachers' own learning is as follows: what is it that led the teacher of lesson B towards a deeper understanding and interpretation (the spirit of AfL) than the teacher of lesson A?

Analysis of our questionnaire and interview data suggested that teachers' *beliefs* about learning affect how they implement formative assessment/AfL in the classroom. Much of the roll-out of AfL in England, through the National Strategies, had focused on giving teachers *procedures* to try out in the classroom without considering what they already believe about learning in the first place. Some teachers feel more able to promote student autonomy in their classrooms than others. Underpinning lesson B, for example, was the teacher's strong conviction that her job was to make her classes less passively dependent on her and more dependent on themselves and one another. Unlike the teacher in lesson A, her beliefs about learning all centred on a move towards the greater autonomy of her students.

Teachers holding views similar to teacher B were also more likely to blame themselves for students not learning rather than the students themselves (or some barrier external to the classroom). This led them to question how they might change those activities that failed or capitalise on those tasks that went well.

In understanding these findings, we could not ignore the context in which teachers in England work. At the time of our study (2001–2005), teachers and students alike worked in a system dominated by the demands of the curriculum and examinations – as is still the case. The pressure was to cover the course or teach to the test rather than take the time to explore students' ideas and understanding. In this context, we thought it important to understanding any gap between what teachers say

they believe and what they actually do in the classroom. To this end, we coded 37 transcriptions of interviews with classroom teachers. Of 16 major coding categories, one was ‘performance orientation’ (140 passages), and another was ‘barriers to student learning’ (366 passages). When these two categories coincided, we found three subcategories: ‘pressures of curriculum coverage’, ‘pressures of national testing’ and ‘pressures of a tick-box culture’.

The tensions and dilemmas that teachers face, and their struggles to bring their practice in line with their educational values, whilst coping with pressures from outside, were a strong feature of their learning in the classroom. Some appeared content with ‘going through the motions’ of trying out new practices, but a small proportion – only about 20% however – ‘took them to heart’ and, with a strong sense of their own agency, tested and developed these ideas in their own classrooms in creative ways.

The fact that implementation of formative assessment/AfL was proving to be so difficult challenged us to find out what kinds of support within and beyond schools would allow the 20% to grow to nearer 100%. Thus, we turned our attention to analysis of school-level data. We constructed a questionnaire to be administered to staff in our project schools on two occasions, 2 years apart. This had 84 items in three sections, each relating to a dimension of interest to us: classroom assessment practice and values, teacher learning practice and values and school management and systems practices and values.

Based on factor analysis, we found marked gaps between teachers’ values and their practices that were related to *promoting learning autonomy* (practices noticeably behind values) and *performance orientation* (practices noticeably ahead of values). By the end of the project, teachers were rebalancing their assessment approaches in order to bring their practices into closer alignment with their values. Schools’ performance data indicated no negative impact of these changes on school performance, as measured by national test results, and there were some significant success stories. In some of our most successful schools, there was much higher valuing and practice of promoting learning autonomy. For example, in one school with 84% 5A*–Cs at GCSE³ in 2004 and high value-added scores, the majority of teachers consistently valued *making learning explicit* and *promoting learning autonomy* highly (above *performance orientation*), and their values-practice gaps were minimal.

³ The GCSE (General Certificate of Secondary Education) is taken by students in England, Northern Ireland and Wales when pupils are 16 years of age. In each subject, there are grades (A* to G). Students who produce an exceptional performance in the highest grade, A, are awarded an A*. Great significance is attached to these grades as schools are ranked on the percent of pupils gaining at least 5 A–C grades which must include mathematics and English language. In 2017, new grades 9–1 will be introduced to allow for finer discrimination between candidates. Grade 9 will be equivalent to A*, Grades 8 and 7 to an A, Grades 6 and 5 to a B and Grade 4 to a C, in 2017.

We also carried out multiple regression analyses to look at associations between factors on the different dimensions. We wanted to find out to what extent the variation in classroom practice might be accounted for by teachers' own learning practices and/or school management practices. Our key findings indicated that what appear to be important, at the level of the school, are:

- *A clear sense of direction*: there is communication within the school of a clear vision; there is also commitment among staff to that vision.
- *Systems of support for professional development*: teachers released to plan together; they are encouraged to experiment and to take risks with their practice along with a range of other learning opportunities.
- *The management of knowledge*: expertise is audited; schools have systems for locating the strengths of staff as a basis for managing staff expertise and building on it through support for internal and external networking.

However, the impact of these school-level factors on classroom practice, particularly those practices associated with effective formative assessment/AfL, is indirect; they are mediated by teachers' own learning practices, particularly *collaborative classroom-focused inquiry*. Thus, the key school condition for the promotion of what we termed 'learning how to learn' by students appears to be development and support of teacher learning through their inquiry into classroom experience. This might include learning from research, but also working with other teachers to plan, implement and evaluate new ideas.

Data from coordinator and head teacher interviews revealed that embedding changes in classroom practice, teachers' professional learning and school systems and practices is a process that takes time and is never entirely completed since contexts change. Embedding occurs through differing combinations of approaches and practices: working groups, standing items on meetings, school and department improvement plans, teacher 'champions' working together, informal dialogue, inviting and acting on feedback from students and networking with other schools. These differing combinations of approaches and practices reflect the fact that schools have people with different strengths, dispositions and priorities, that schools are at differing stages of development and organisational maturity and that they face differing changing contexts. Within-school and between-school differences indicated a need for differentiated approaches to continuing professional development for teachers and to school improvement plans. However, each approach or practice has both structural and cultural aspects, which interplay in complex ways. The challenge for leadership, as revealed by our data, was to create space and the climate for reflection and sharing, which includes encouraging dialogue, dissent and risk-taking. We came to view 'double loop learning' (Argyris and Schön 1978) as particularly important at school level. This involves stepping back from the familiar plan-do-review cycle to examine each stage before stepping back in to do something new. This process, at organisational level, mirrors the process of strategic and reflec-

tive inquiry for teacher learning, which in turn mirrors the process of developing students' learning autonomy, through formative assessment/AfL.

In summary, then, the LHTL project illustrated the challenges of implementation with respect to formative assessment/AfL, but it also indicated ways forward.

What Is to Be Done?

I recall a discussion in the Assessment Reform Group, around 1998, at the time when we were debating whether to introduce the distinction between assessment for learning and assessment of learning. We wondered whether what we wanted to describe had much to do with assessment at all. Were we not really striving towards a new formulation of effective pedagogy? Certainly many of the elements are now encapsulated in the principles of effective pedagogy brought together by the TLRP (James and Pollard 2012).

At the end of its deliberations, the ARG decided to keep the spotlight on assessment because of a perceived need to disrupt the widespread assumption that assessment is just another word for testing and that test scores (or grades or levels) provide enough information to enable teachers and students to know what to do next in order to improve. We wanted to reappropriate the term and restore some of the meaning conveyed by its Latin roots – that 'educational assessment' involves 'sitting beside' to 'lead out'. I suspect we were only moderately successful in this because evidence suggests that frequent mini-summative assessments are often thought to be formative. Yet only if the assessment information is actually used to help students towards deeper learning, and wider and higher achievement, can it be called formative.

As other chapters in this handbook illustrate, there is now a sophisticated understanding of the theory and practice of teaching and learning and how this can be supported in different domains and by structures and processes for teacher learning. But perhaps there is still work to be done to conceptualise the role of assessment in enhancing learning, clarifying what its particular contribution might be and ensuring that system demands for accountability do not undermine it.

There is also still much work to do to convince sceptical teachers, parents, university admissions tutors and the general public that there is real value in developing formative assessment/AfL practice. For example, in Hong Kong, where huge efforts have been made over 10 years to consult and communicate with these groups, it has proved very difficult to change established beliefs that examination results are all that matter (Fok et al. 2006). A solution has been to try to unify assessment for learning and assessment of learning through school-based assessment (SBA) and emphasise the importance of feedback from assessments for personal improvement, thus diminishing the dominance of competition. By all accounts, there is still a long way to go. Moreover, Hong Kong probably reflects the challenges in many other countries, including in the West.

If the ARG definition of AfL as '... the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their

learning, where they need to go and how best to get there', remains satisfactory, then we should perhaps pay more attention to the 'process of seeking and interpreting evidence'. If we do not get this part right then, the following processes may be seriously flawed. Bennett (2011, p. 18) argues:

...we should try our best to decrease uncertainty and bias by considering data from multiple sources, occasions, and contexts; by grounding action in a sound cognitive-domain model, ideally one that accounts for key differences among student groups; and where possible, by getting input from others as to the meaning of responses from student groups about which we are less knowledgeable.

The implication is that those with technical expertise in the field of measurement can assist in developing formative assessment tools to help teachers make valid judgements. It also suggests that we may need to reconsider the relationship between assessment *for* learning and assessment *of* learning and perhaps bring them together again, as Hong Kong has attempted to do, provided that the primary goal of enhancing learning is not undermined. The Gordon Commission in the USA seemed to have had this in mind, although it is of some concern that there were no school teachers among its 32 distinguished members. Some educators might fear that without an appropriate dialogue between tool developers and tool users, the formative purposes will be distorted or simply not implemented.

These are difficult issues and not easily resolved. Each generation will probably need to work through them afresh. But, hopefully, if a balance can be struck, dialogue maintained and the growing evidence base drawn upon, formative assessment can become embedded in classrooms and fulfil its promise.

References

- Argyris, C., & Schön, D. (1978). *Organisational learning: A theory of action perspective*. Reading: Addison Wesley.
- Assessment Reform Group. (1999). *Assessment for learning: Beyond the black box*. Cambridge: University of Cambridge School of Education.
- Assessment Reform Group. (2002). *Assessment for learning: 10 Principles*. Cambridge: University of Cambridge Faculty of Education.
- Bennett, R. (2011). Formative assessment: A critical review. *Assessment in Education: Principles, Policy and Practice*, 18(1), 5–25.
- Black, P., & Wiliam, D. (1998a). Assessment and classroom learning. *Assessment in Education: Principles, Policy and Practice*, 5(1), 5–75.
- Black, P. & Wiliam, D. (1998b). *Inside the black box: Raising standards through classroom assessment*. King's College London, School of Education (now available from GL Assessment, London).
- Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2003). *Assessment for Learning: Putting it into practice*. Maidenhead: Open University Press.
- Bloom, J. S. (1969). Some theoretical issues relating to educational evaluation. In R. W. Tyler (Ed.), *Educational evaluation: New roles, new means. The 63rd yearbook of the National Society for the Study of Education*, part 2 (Vol. 69, pp. 26–50). Chicago: University of Chicago Press.

- Butler, R. (1988). Enhancing and undermining intrinsic motivation: the effects of task-involving and ego-involving evaluation on interest and performance. *British Journal of Educational Psychology*, 58, 1–14.
- Crooks, T. J. (1988). The impact of classroom evaluation practices on students. *Review of Educational Research*, 58(4), 438–481.
- Daugherty, R. (2007). Mediating academic research: The Assessment Reform Group experience. *Research Papers in Education*, 22(2), 139–153.
- Day, J., & Cordón, L. (1993). Static and dynamic measures of ability: An experimental comparison. *Journal of Educational Psychology*, 85, 76–82.
- Dweck, C. S. (2000). *Self-theories: Their role in motivation, personality and development*. Philadelphia: Psychology Press.
- Earl, L. M. (2013). *Assessment as learning: Using classroom assessment to maximize student learning* (Second ed.). Thousand Oaks, CA: Corwin.
- Fok, P. K., Kennedy, K. J., Chan, K. S. J., & Yu, W. M. (2006, May). *Integrating assessment of learning and assessment for learning in Hong Kong public examinations: Rationales and realities of introducing school-based assessment*. Paper presented at the 32nd Annual Conference of the International Association for Educational Assessment, Singapore.
- Fontana, D., & Fernandes, M. (1994). Improvements in mathematics performance as a consequence of self-assessment in Portuguese primary school pupils. *British Journal of Educational Psychology*, 64, 407–417.
- Frederiksen, J., & White, B. (1997). Reflective assessment of students' research within an inquiry-based middle school science curriculum. Paper presented at the Annual Meeting of the AERA, Chicago.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Abingdon: Routledge.
- James, M. (2010). 'Educational assessment: Overview'. In E. Baker, B. McGaw, & P. Peterson (Eds.), *International Encyclopedia of Education: Third Edition* (Vol. 3, pp. 161–171). Oxford: Elsevier.
- James, M. (2011). 'Chapter 2: Assessment for learning: Research and policy' in the (dis)United Kingdom. In R. Berry & R. Adamson (Eds.), *Assessment Reform in Education* (pp. 15–32). New York: Springer.
- James, M., & Pollard, A. (Eds.). (2012). *Principles for effective pedagogy: International responses to evidence from the UK Teaching and Learning Research Programme*. Abingdon: Routledge.
- James, M., Black, P., Carmichael, P., Conner, C., Dudley, P., Fox, A., Frost, D., Honour, L., MacBeath, J., McCormick, R., Marshall, B., Pedder, D., Procter, R., Swaffield, S., & Wiliam, D. (2006). *Learning how to learn: Tools for schools*. Abingdon: Routledge.
- James, M., McCormick, R., Black, P., Carmichael, P., Drummond, M.-J., Fox, A., MacBeath, J., Marshall, B., Pedder, D., Procter, R., Swaffield, S., Swann, J., & Wiliam, D. (2007). *Improving learning how to learn in classrooms, schools and networks*. Abingdon: Routledge.
- Kluger, A., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119, 254–284.
- Mansell, W., James, M., & the Assessment Reform Group (2009). *Assessment in schools. Fit for purpose? A commentary from the Teaching And Learning Research Programme*. London: Economic and Social Research Classroom (ESRC)/Teaching and Learning Research Programme (TLRP). Downloadable from <http://www.tlrp.org/pub/commentaries>
- Marshall, B., & Drummond, M.-J. (2006). How teachers engage with assessment for learning: Lessons from the classroom. *Research Papers in Education*, 21(2), 133–149.
- Millar, R., & Hames, V. (2003). *Towards evidence-based practice in science education 1: Using diagnostic assessment to enhance learning*. Teaching and Learning Research Programme Research Briefing No. 1. Cambridge: University of Cambridge Faculty of Education. Downloadable from http://www.tlrp.org/pub/documents/no1_millar.pdf

- Popham, W. J. (2006). All about accountability / assessment for learning: An endangered species? *Educational Leadership*, 63(5), 82–83.
- Sadler, D. R. (1989). Formative assessment and the design of instructional systems. *Instructional Science*, 18, 119–144.
- Scriven, M. (1967). The methodology of evaluation. In R. W. Tyler, R. M. Gagne, & M. Scriven (Eds.), *Perspectives of curriculum evaluation* (pp. 39–83). Chicago: Rand McNally.
- Stewart, W. (2012, July 13). Think you've implemented Assessment for Learning? *TES Magazine*.
- Vinner, S. (1997). From intuition to inhibition – mathematics education and other endangered species. In E. Pehkonen (Ed.), *Proceedings of the 21st Conference of the International Group for the Psychology of Mathematics Education*, 1, (pp. 63–78). Lahti, Finland: The University of Helsinki Lahti Research and Training Centre.
- Wiliam, D. (2011). *Embedded formative assessment*. Bloomington: Solution Tree Press.

Chapter 32

Paradigm Shifts in Assessment for Learning: A Secondary Analysis of the International Civic and Citizenship Study (ICCS) 2009

Magdalena Mok and Wing On Lee

Abstract This study investigated the implementation of assessment for learning (AfL) as reported by 60,588 teachers in 36 educational systems through secondary analysis of data from the International Civic and Citizenship Education Study (ICCS) 2009. Recent literature identified positive impacts of AfL on subsequent teaching and learning, but the literature also reported that implementation was slow. Given that reform must first be implemented before it can have a practical impact, this study sought to examine the facilitating factors contributing to teachers' adoption of AfL in different locations. The study found AfL practice was predicted by self-confidence in using different teaching methods, favourable classroom environments and students who were well-behaved. Such teachers also formed harmonious social relationships, were capable of civilised communication and undertook collaborative working with their colleagues. They worked within a school culture where students' opinions were respected and a participatory decision-making leadership style was practised.

Keywords Assessment for learning • Civic education • Secondary teacher • ICCS • Assessment reform

M. Mok (✉)

Department of Psychological Studies, The Education University of Hong Kong,
10 Lo Ping Road, Tai Po, New Territories, 852 Hong Kong, SAR China
e-mail: mmcmok@eduhk.hk

W.O. Lee

The Open University of Hong Kong, 852 Hong Kong, SAR China
e-mail: wlee@ouhk.edu.hk

Introduction

Since the turn of the century, there has been an increasing shift of emphasis at the policy level from summative to formative assessment by major educational jurisdictions across the globe (Berry and Adamson 2011; Klenowski 2011). Instead of representing student performance by their total scores from public examinations, taken at the end of key stages of education, international reforms tend to focus on how information generated from national, international and classroom assessments during learning can be used to inform and improve subsequent learning (Berry and Adamson 2011; Hogan et al. 2009; Kellaghan and Greaney 2001; Kennedy and Lee 2008; Klenowski 2011; Laurie and Kennedy 2009; Pitiyanuwat and Pitiyanuwat 2012). For the reforms to be successful, teachers are expected to shift from assessment *of* learning (AoL) to assessment *for* learning (AfL) in their conception and practice. In this change, assessment is no longer an end in itself, but an ongoing iterative process of teaching (learning – monitoring – diagnosis – feedback – regulation). Teaching and learning behaviours are adjusted in accordance with evaluation based on diagnostic information derived from monitoring so as to create pathways for optimal student performance.

Despite governmental policy direction and expectations on teachers, frontline implementation of assessment for learning (AfL) remains challenging. Researchers (Biggs and Tang 2011; Black and Wiliam 1998; Doğan 2011; Hellrung and Hartig 2013; Van den Bergh et al. 2013; Voerman et al. 2012) found that in practice, many teachers spend a significant amount of time reflecting on what they teach (i.e. the curriculum), and how they teach it (i.e. the pedagogy), but comparatively less time deliberating on assessment. Questions, such as how to design diagnostic assessment tasks, how to identify strengths and weaknesses in student learning from assessment outcomes, how to evaluate student readiness for the next phase of learning and how to give feedback to support students to move forward, are rarely discussed amongst teachers. Even less frequent are discussions between teachers and students on the meaning and the use of feedback information for further learning. This is unfortunate for two reasons. First, feedback has been identified in numerous studies as one of the most powerful influences for learning (Andrade and Cizek 2010; Black and Wiliam 2009; Hattie 2012; Sadler 2010; Shute 2008). Second, as Biggs and Tang (2011) succinctly pointed out:

To the teacher, assessment is at the end of the teaching-learning sequence of events, but to the student it is at the beginning. If the curriculum is reflected in the assessment students will be learning the curriculum. (p. 198)

Biggs and Tang (2011) argue that unless teachers and students take the same stance with regard to the position of assessment relative to learning, they would be talking in different languages, and, as a result, the effect of teaching would be reduced.

It has been almost two decades since Black and Wiliam (1998) and Sadler (1989) independently published their comprehensive reviews on AfL, focusing on the potential benefits of feedback. At the time, these researchers concluded that

“Formative assessment is not well understood by teachers and is weak in practice” (Black and Wiliam 1998, p. 20) and that “there remains much that is unresolved and problematic, and much still to be done” (Sadler 1989, p. 78). This still remains the case today. Nevertheless, research on reasons underlying teachers’ implementation of AfL is lacking. The core focus of the present chapter is to address this research gap. The chapter aims to explore the international practice of AfL and to identify factors associated with this practice. Hence, the overarching research question is: What are the contributing factors and deterrents to teachers’ use of AfL? This can be broken down into three specific research questions, namely:

1. What is the practice of AfL in the frontline internationally?
2. Are there differences in AfL across countries and schools?
3. What factors contribute to teachers’ practice of AfL?

The chapter first summarises the importance of AfL according to extant literature. It then presents a theoretical framework on plausible factors associated with the successful implementation of AfL by teachers. Guided by this theoretical framework, the chapter then presents findings to the above three research questions using secondary data from a self-report survey of teachers from 36 educational jurisdictions originally collected for the International Civic and Citizenship Education Study (ICCS, 2009) by the International Association for the Evaluation of Educational Achievement (IEA).

Effects of Assessment for Learning (AfL): A Literature Review

AfL’s Effects on Teaching and Learning

AfL refers to any assessment that is designed to generate information for the enhancement of student learning. According to Black and associates, it can best be understood in terms of its defining properties (Black et al. 2004), namely, that the assessment gives information that (a) informs subsequent teaching and learning in the form of feedback, (b) changes current teaching and learning activities and (c) is actually being used by teachers to adjust their teaching to meet the learning needs of individual students.

The provision of relevant feedback to students about their performance during the learning process, such that they will learn better in the future, is central to the concept of AfL (Hattie and Timperley 2007; Wiliam 2011). Wiliam (2011, p. 4) has pointed out that the inclusion of the suffix “back” in the term implies “an impact on future performance”, while earlier researchers such as Ramaprasad (1983) and Sadler (1989, p120) defined feedback as “information about the gap between the actual level and the reference level of a system parameter, which is used to alter the gap in some way”. In line with this definition, the point of departure in the

implementation of AfL is when teachers and students negotiate the learning objective, what Sadler (1989) calls the “reference level” (Wiliam and Thompson 2007). The teacher then designs learning tasks to generate evidence of learning. Griffin and Robinson (2014), p. 17) stress that this evidence should be observable (what students *do, say, make or write*) and not based on inference.

In the assessment for teaching framework, the teacher identifies a student’s zone of proximal development (ZPD) and uses targeted teaching resources and programmes to support further learning by the student (Griffin and Robinson 2014). In the AfL framework, the teacher makes use of evidence generated from assessment to give relevant feedback to promote subsequent learning, adjust teaching to fit the needs of the student, empower students by returning to them the ownership of learning (by helping them to self-assess and improve their actions) and facilitate fellow students to act as mutual learning resources for each other (Falchikov and Goldfinch 2000; Shute 2008; Wiliam and Thompson 2007). Despite variations amongst different schools of thought regarding feedback and assessment, the core focus in each case remains the use of evidence elicited from assessment to improve the actions of teachers and students (1. Where are they going? 2. How are they doing? 3. How do they get there?). The AfL framework is used for the remainder of this chapter.

AfL’s Effects on the Learner and Learning Activities

Recent literature on AfL attests to its positive effect on student learning. These effects are particularly evident when compared with the results from other teaching and learning strategies, although the literature has also identified both positive and negative impacts of feedback (Black and Wiliam 1998). Of note is a major review by Hattie (2012) who reported in his publication, *Visible Learning for Teachers*, evidence from over 800 meta-analyses of more than 50,000 studies involving over 200 million students. Feedback was found to have an effect size of 0.73 and formative evaluation of 0.90 compared to 0.37 for computer-assisted instruction or 0.29 for home visiting (Hattie 2012). In addition, Wiliam and Thompson (2007) showed that the positive impact on student achievement from formative assessment was greater than that obtained either by reducing class size or increasing teachers’ content knowledge and at a fractional cost of these later strategies.

AfL’s Effects on Self-Esteem, Self-Efficacy and Learning Motivation

AfL effects are not just manifested in learning outcomes, but more fundamentally in the learners’ disposition. The positive results in learning probably begin with the effect on the students’ motivation and self-esteem. Higgins et al. (2001) found that

the students' emotional response is one of the prominent factors in the feedback process, affecting their learning motivation and self-esteem (Nicol and McFarlane-Dick 2006). It is argued that (in)formative assessment improves these attributes, since it endows students with the capacity to assess themselves and to understand and improve their actions (Falchikov and Goldfinch 2000; Shute 2008). Thus feedback results in improvement in the students' learning motivation which subsequently leads to improvement in learning (Hattie and Timperley 2007; Sadler 2010; Shute 2008). AfL is, therefore, not just a particular form of assessment that has implications for the teaching and learning, but it also results in fundamental changes within the learners affecting emotions such as self-esteem which are conducive to improved motivation and learning (Jeffries and Hornsey 2012; Nicol and McFarlane-Dick 2006).

These findings raise further questions. If AfL's effects are not limited to teaching and learning strategies and approaches, but also affect the learners' socio-emotional dispositions, could the larger learning environment such as the classroom climate (openness to students' opinions, the students' capacity to embrace the change, nature of teachers' support, etc.) be a contributing factor? Further, if AfL has positive effects on the learners, would there be corresponding effects on the teachers such as improved self-efficacy when embracing such change? Question about the effects on teachers may be as crucial as those concerning students. Evans and Waring's (2011), for example, found that student teachers' cognitive style and gender affected their preferences on the composition and delivery of feedback.

Teachers' Efficacy in Implementing Change

Moving from AoL to AfL involves change, and change-induced stress experienced by teachers in facing educational reforms has been reported in the literature (see, e.g. Ballet and Kelchtermans 2008; Blackburn 2014; Boyd 2011; Galton and MacBeath 2008; McCormick and Ayres 2009; Zimmerman 2006). Given such stress, resistance to change is a natural reaction to major educational reforms (Blackburn 2014; Boyd 2011; Day and Norris 2007; Kotter 2012; Oreg et al. 2011; Zimmerman 2006). Teacher apprehension towards new skills and technology associated with assessment reform (Ho et al. 2013) and their perception of risk (Le Fevre 2014) was found to be a key barrier to the implementation process, while teacher confidence and self-efficacy constituted an important facilitator in adopting innovations (Lindemann-Matthies et al. 2011; Bandura 2012). Low self-efficacy may deter teachers from embracing reform. Researchers have recommended adequate training be provided to sustain change (Boyd 2011; Galton and MacBeath 2008). In our study, teacher's confidence in using various teaching methods was used as a proxy variable in measuring teachers' self-efficacy when managing reform.

AfL's Effects on the Learning Environment and the Broader Ecological System

The above discussion shows there are many untapped effects of AfL, and this further leads us to ask whether AfL effects can be examined from systemic perspectives, such as the micro-system (classroom), the meso-system (school), the exo-system (industry) and the macro-system (SES). In this respect, there are certain theoretical frameworks that could be used initially to look into these broader perspectives of AfL effects, one of which formed the foreground for our data analysis.

Bronfenbrenner's (1979) Bioecological Model for Human Development

Bronfenbrenner theorised human development as taking place as a result of complex processes of reciprocal interactions between the person and the persons, objects and symbols in the person's immediate environment, and such proximal processes occur throughout life (Bronfenbrenner and Morris 2006, p.797). In Bronfenbrenner's (1979) bioecological model, the combined interactive effect of the developing person and his or her environment – both immediate and more remote – resulted in dynamic forces comprising the process, the person, the context and the time, i.e. the historical period during the life course of the person, which shape the “form, power, content, and direction of the proximal processes” (Bronfenbrenner 1979, p. 797). In this model, the influence of the forces is conceptualised as in multiple layers of factors: individual, e.g. age; micro-system, e.g. school, peers; meso-system; exo-system, e.g. industry; and macro-system, e.g. cultural attitudes (Bronfenbrenner 1979).

Using Bronfenbrenner's (1979) bioecological model, our study organised the resistance and receptivity of teachers' implementation of AfL as layers of forces at the individual (teachers' age and years of teaching experience), micro-system (students of the teacher), meso-system (students in the school, the school principal, other teachers at the school), exo-system (school policies, school culture, as well as society (parents, societal values)) and macro-system (cultural values of the location where the ICCS 2009 data were collected) levels. Since the ICCS 2009 only collected cross-sectional data, the time component in Bronfenbrenner's (1979) bioecological model was not included in our study. The model used in this study is represented in Fig. 32.1.

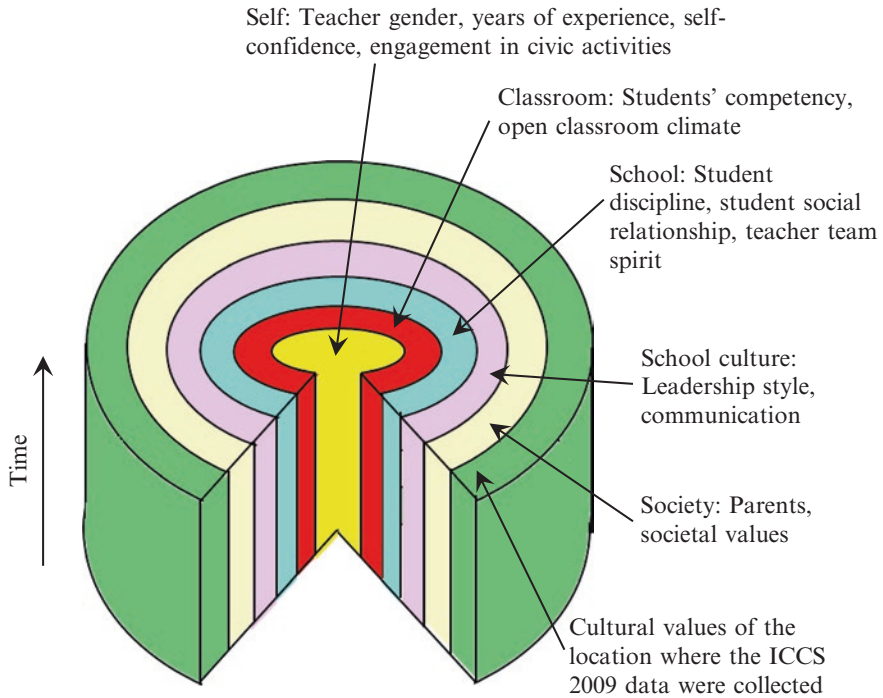


Fig. 32.1 Conceptual model of this study using Bronfenbrenner's (1979) bioecological model

AfL and the Individual: Teacher-Level Facilitating and Hindering Factors; Teachers' Demographic Background

At the individual level, the teachers' demographic backgrounds including their gender, age, teaching experience and subject taught were all found to have an effect on the teachers' receptivity towards school change. Females were found to have a lower level of resistance in Bangladesh (Ahsan et al. 2013), Greece (Sarafidou and Nikolaidis 2009) and Korea (Park and Jeong 2013). Further, younger teachers were found to be more receptive of change (Smith et al. 2000). Evans' (2011) study found that in the United Kingdom (UK), student teachers' cognitive style and gender affected their preferences on the composition and delivery of feedback. In this study, teachers' gender and their years of teaching experience were included as predictors of their AfL practice.

AfL and the Micro-system: Open Classroom Climate

Fraser (1994) described classroom climate as the social-psychological environment for learning and that an open classroom climate, whereby uninhibited discussions on civic, social and other issues are supported, provides a free and safe environment for students to share their thoughts, express disagreement on controversial matters and learn to listen and experience democratic values and political participation. An open classroom climate is found to be conducive to students' development of critical thinking, as well as beneficial to students' civic competence, civic knowledge and further civic engagement (Campbell 2008; Isac et al. 2014; Lin 2014; Torney-Purta et al. 2007). There has been little research on the effect of the open classroom climate on teachers' practice. In this study, teachers' perceptions of the open classroom climate were used as a predictor of their implementation of AfL.

Teachers' Perceptions Regarding Student Readiness for AfL

Before adopting reform, teachers consider potential drawbacks and benefits to their students (Lieberman and Pointer Mace 2008). Those who perceive the benefits to outweigh the disadvantages and to be of relevance to students are more willing to make the necessary changes (Zhang and Liu 2014).

Independent research by Choi (2008) in Korea, Orafi and Borg (2009) in Libya, Underwood (2012) in Japan and Zhang and Liu (2014) in China found that where the curriculum innovation was incongruent with the teachers' pedagogical beliefs, the teachers were less likely to adopt the required practices. Previously, assessment practice in many systems, such as China, Hong Kong, Korea and Singapore, consisted of high-stake norm-referenced summative public examinations that held the key to students' later opportunities for education and employment (Berry and Adamson 2011; Hogan and Gopinathan 2008). The change from this AoL tradition to AfL required a paradigm shift. Zhang and Liu (2014) in noting that recent educational reforms which called for student autonomy in language learning were incompatible with traditional Chinese educational culture, which emphasised the importance of students' following the teachers' instructions, found teachers resisted giving greater autonomy to students and continued to use a transmission mode of teaching. Such beliefs and practices are not uncommon amongst Asian teachers (Choi 2008; Underwood 2012; Zhang and Liu 2014; Zheng and Jiang 2005).

In this study, two variables concerning teachers' beliefs about the capacity and readiness of their students to benefit from AfL were explored as indicators of a teachers' willingness to implement AfL practice. The first of these was a teacher's assessment of the extent to which students had the skills to engage in reasoned exchanges in class. The second was the teachers' perception of the social harmony amongst their students.

AfL and the Meso-system: The School

Peer Teachers Working as a Team

Much school reform research has emphasised the importance of team spirit between teachers when coping with change-related stress, particularly the anxiety and job insecurity that can arise from exposure to judgements by the principal, peers, parents and the media (Galton and MacBeath 2008; Zimmerman 2006). In this study, the teachers' reports on the extent to which colleagues at the same school worked as a team were used to predict teachers' likelihood of implementing of AfL.

Disciplinary Issues at School

AfL involves considerable teacher-pupil and pupil-pupil interactions. Consequently classroom discipline constitutes an essential component of the learning environment if AfL is to take place. In this study, the students' disciplinary problems in school and the teachers' perception of the degree to which students at the school were well-behaved were used as predictors of teachers' AfL practice.

School Culture: Distributed Leadership

School culture has frequently been identified as a key to success or otherwise of school change (Boyd 2011; Kotter 2012; Zhang and Liu 2014). The change literature identifies a culture that enjoys a strong vision shared by the whole school (Blackburn 2014; Choi 2008; Zhang and Liu 2014), tight alignment of teacher and school goals (Boyd 2011), a supportive administration (Zhang and Liu 2014), rich resource support (Waters and Vilches 2008) and strong leadership (Fullan 2008) as essential for sustained reform. Ng and Ho (2012) in their study of information and communications technology (ICT) reform in Singapore applied Spillane's (2006) distributed leadership model and argued that successful educational reform necessitated leadership activities distributed across the interactions of multiple actors (leaders and followers), tools and situations, instead of leadership from one leader (the school principal). Their finding was echoed by Moss et al. (2013) in their study of the implementation of formative assessment reform in schools. These researchers found empirical evidence supporting the importance of this style of leadership for both administrators and teachers, and a similar conclusion was reached by Zhu (2013) whose study of the implementation of ICT in Chinese and Flemish schools found that participative decision-making was vital to innovation.

In our study, the culture of distributed leadership was measured by two variables, namely:

1. The extent to which students' opinions were taken into account when school decisions regarding teaching materials, timetabling, classroom rules and school rules were made.
2. The extent to which key players (including teachers, principals, parents, non-teaching staff and representatives of the local community) contributed to the decision-making of the school.

School Culture: School-Level Participation in Civic and Citizenship Activities

Teachers' reports on the frequency of school-level participation in civic and citizenship activities were used as a proxy to measure the school's civic engagement culture.

AfL and the Macro-system: Culture

Teachers' beliefs were situated in their specific contexts of school, society and culture. Social and contextual factors appeared as crucial indicator of teachers' willingness to undertake reform and be successful in implementing these changes. For instance, Waters and Vilches (2008) reported that in the Philippines, although teachers were willing to adopt the curriculum innovation, attempts to implement it were hindered by a lack of resources and professional development. The supremacy of high-stake summative examinations in some cultures has had a profound washback effect on teachers' beliefs about the feasibility of AfL (Berry and Adamson 2011; Choi 2008; Orafi and Borg 2009; Underwood 2012; Zhang and Liu 2014). In this study, geographic location was controlled statistically through multilevel modelling (Goldstein 2011).

Secondary Analysis of the Teacher Questionnaire of the ICCS 2009

With the research questions in mind, we have identified the teachers' questionnaire administered for the IEA ICCS 2009 as a possible source of data that may provide some plausible answers. We have found this study relevant to the questions we pose, particularly those in relation to the open classroom, students' engagement and participation, teachers' efficacy as well as the broader school climate.

ICCS 2009 defined the essential elements of civics and citizenship and the proposed relationships amongst those elements, explicit in an assessment framework (Schulz et al. 2008). This framework was built on a conceptual model underpinning IEA CIVED 1999 which placed at its centre the individual student who is influenced by “agents of socialisation” (Torney-Purta et al. 2001). It reflects the assertion that “civic learning” is not limited to school contexts, but a result of diverse processes associated with different sources and evolved from the psychological theories of ecological development and situated cognition. The conceptual framework for ICCS 2009 (Schulz et al. 2008) also posited that young people learn about civics and citizenship through interactions with civic communities and not just through formal instruction at school (Schulz et al. 2013, p. 336). The ICCS 2009 sample consisted of 60,588 (31.5% male, 68.5% female) teachers from 36 educational systems. The teachers worked at 4,832 schools within these systems. Their ages ranged from under 25 to over 60 years of age with the majority ranging between 30 and 59 years old.

In the following sections of this paper, discussion will focus on factors contributing to teachers’ practice of AfL. Using the results from the ICCS 2009 survey, a scale titled “Assessment for Learning” (abbreviated ASSMFLN) was created according to the Rasch rating scale methods (Wright and Masters 1982) using Winsteps® software (Linacre 2014) in order to reflect the extent to which teachers applied AfL and teaching at school. This was based on a Likert-type scale score which asked teachers to indicate the extent to which they undertook the following eight activities:

1. Provide feedback to your students.
2. Allow your students to reflect on learning processes.
3. Allow your students to reflect on behaviour.
4. Identify your students’ learning difficulties.
5. Provide feedback to parents.
6. Illustrate learning objectives to your students.
7. Plan future lessons.
8. Improve your teaching.

As an initial check on dimensionality, exploratory factor analysis using SPSS software (Version 21) was undertaken. The analysis found all items, except that concerned with reporting to parents, formed a common factor which explained 35.67% of the overall variance. The parental item was therefore excluded from subsequent Rasch rating scale analysis which was undertaken on the other seven items to create measurement scores of teachers’ AfL practices. The internal consistency of the scale (Cronbach’s alpha) was found to be 0.79, and various measures (weighted and unweighted mean square) indicated that the data fitted the Rasch model well (Smith et al. 2008; Linacre 2011, p. 596).

Similar to findings of analyses on individual items, analysis on the ASSMFLN Rasch scale showed extremely large between-location variations. Teachers in Spanish-speaking locations, including the Dominican Republic, Colombia, Chile,

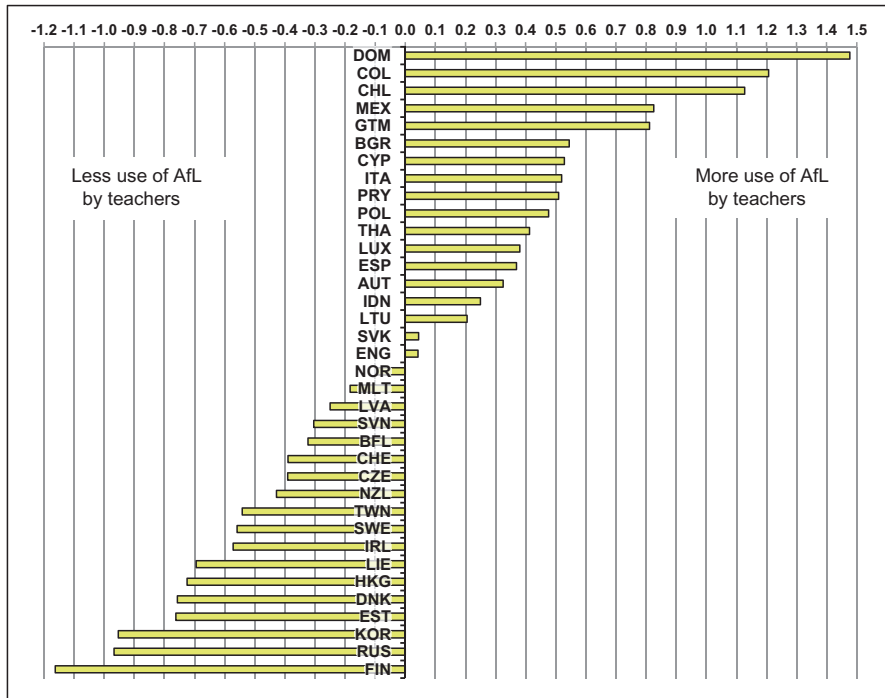


Fig. 32.2 Distribution of assessment for learning (AFL) Rasch scale across geographic locations

Mexico and Guatemala, reported more use of AfL, and teachers in Finland, the Russian Federation, the Republic of Korea, Estonia, Denmark, Hong Kong and Liechtenstein reported less use. This is displayed in Fig. 32.2.

Multilevel analysis (Goldstein 2011) using the MLwiN software (Version 2.12) (Rasbash et al. 2009a, b) on ASSMFLN, i.e. the null model, showed that geographic location accounted for 12.69% in the variation of AfL Rasch scores, school accounted for another 3.62%, and teachers accounted for the remaining 83.69%. Most of the variations between teachers’ application of AfL came from between-individual and between-location differences, rather than from between-school (within location) differences.

Predictors of Teachers’ AfL: Variables Used in This Study

Based on the earlier literature review, 15 variables were used as potential predictors for teachers’ AfL practice. Characteristics of these variables are presented in Table 32.1.

In Table 32.2, three of the predictors, namely, teachers’ gender (GENDER), subject taught (SUBJECT) and time teaching during school year (TIMETEA), were

Table 32.1 Variables used as predictors of teachers' assessment for learning (AfL) practice

Variable name	Variable meaning	Number of items	Example item (Schulz et al. 2011) or codes for categorical variables
<i>Self: Teachers' demographic background and self-variables</i>			
GENDER	Teacher gender	1	Code: 0 = male; 1 = female
YREXP	Years of teaching experience	1	Experience measured in number of years
SUBJECT	Subject group taught (dummy variables relative to Language Art)	1	1 = Language Art only, 2 = Humanities only, 3 = Math/Science only, 4 = other subjects, 5 = mixture of subjects, 6 = nil
TIMETEA	Percentage of time spent teaching during current year	1	1 = <20%, 2 = 20–39%, 3 = 40–59%, 4 = 60–79%, 5 = 80%+
CONMETH	Confidence in using different teaching methods	6	How confident do you feel about using classroom discussion?
TEAPART	Teacher's personal participation in civic activities	10	Besides the activities carried out as part of your school work, how often in the last 12 months have you personally taken part in activities promoted by environmental organisations, e.g. WWF, Greenpeace, etc.?
<i>Classroom: The teachers' own students in class</i>			
OPENCLS	Student openness in class discussions	4	In your lessons for target grades, how many students suggest class activities?
CIVCOMM	Student competent in civilised communications	4	In your lessons for target grades, how many students freely state their own views on school problems?
HARMONY	Student having harmonious social relations in class	6	In your opinion, how many of your students have a good relationship with the school teachers and staff?
<i>School: Students in the school as a whole and teacher team spirit at school</i>			
GOODSTU	Students well-behaved in general at this school	6	In your opinion, how many students in this school show they feel part of the school community?
DISPROB	Student disciplinary problems at this school	6	Please indicate how frequently (each of the following problems) vandalism occurs amongst students at this school
TEATEAM	Teachers work as a team at this school	7	With reference to the current school year, how many teachers in this school work collaboratively with one another in devising teaching activities?
<i>School Culture: Participatory leadership and civic participation of the school</i>			
STUOPIN	Students' opinions considered by school	5	At this school, how much are students' opinions taken into account when decisions are made about teaching/ learning materials?

(continued)

Table 32.1 (continued)

Variable name	Variable meaning	Number of items	Example item (Schulz et al. 2011) or codes for categorical variables
PARTDEC	Participatory leadership at school	6	In your opinion, to what extent do (the following people) teachers influence or contribute to the decision-making process concerning the running of this school?
SCHPART	School participation in civic and citizenship activities	8	During the current school year, have you and any of your classes taken part in activities related to the environment, geared to the local area?

Table 32.2 Exploratory factor analysis and Cronbach’s alpha of predictors

Variable name	Number of factors with eigenvalue >1	% of var. explained	Range of factor loadings	Number of items with factor loading <0.55	Number of items in scale	Cronbach’s alpha
<i>Self: Teachers’ self-variables</i>						
CONMETH	1	31.476	0.386–0.636	1	6	0.718
TEAPART	1	27.959	0.390–0.605	3	10	0.777
<i>Classroom: The teachers’ own students in class</i>						
OPENCLS	1	46.164	0.631–0.718	0	4	0.771
CIVCOMM	1	47.656	0.573–0.771	0	4	0.776
HARMONY	1	64.125	0.785–0.826	0	4	0.875
<i>School: Students in the school as a whole and teacher team spirit at school</i>						
GOODSTU	1	52.818	0.680–0.772	0	6	0.868
DISPROB	1	36.736	0.473–0.731	1	6	0.770
TEATEAM	1	45.041	0.598–0.780	0	7	0.849
<i>School culture: Participatory leadership and civic participation of the school</i>						
STUOPIN	1	43.996	0.527–0.820	1	5	0.792
PARTDEC	1	35.264	0.410–0.662	1	6	0.759
SCHPART	1	29.433	0.497–0.631	1	8	0.768

discrete variables. Dummy variables were introduced in multilevel analysis described later in this article. Further, years of teaching experience (YREXP) was measured in terms of years and was entered directly in the analysis. Eleven variables were made up of Likert-type rating items, each with four response options. Rasch measures (Wright and Masters 1982) were then constructed from these Likert-type items after inspection of their psychometric properties. The scale dimensionality and latent structure of the items in each scale were determined by means of exploratory factor analysis with maximum likelihood method of extraction, followed by oblique (oblimin) rotation using loadings greater than 0.55 as the cut-off criterion (Tabachnick and Fidell 2007). Scales with Cronbach's alpha value greater than 0.7 were considered internally consistent. The Rasch rating scale model was then used to inspect the psychometric properties of the scales and to construct measures for subsequent analyses (Wright and Masters 1982). It has been stated by Linacre (2014) that Rasch reliability and separation can be increased as a statistical artefact of large samples coupled with a broad range of item difficulty levels. This should be taken into consideration when interpreting the following results.

Using the above strategies, psychometric properties of the 15 variables listed in Table 32.1 were inspected, and these are displayed in Table 32.2. One factor accounted for all variables in the exploratory factor analysis, with the variance explained ranging from 27.959% (for TEAPART scale) to 64.125% (for the HARMONY scale). Six scales had one or two items with loadings between 0.386 and 0.550. The other five scales had loadings greater than 0.550. Cronbach's alpha of all scales ranged from 0.718 to 0.875. Based on classical test theory, one factor measuring teachers' personal participation in civic activities (TEAPART) was excluded from the analysis predicting the teachers' use of AfL but was retained as a proxy measure of civic engagement only.

Further analysis (Wright and Masters 1982) was used to examine the psychometric properties of the scales from a Rasch measurement perspective. The weighted (INFIT) and unweighted (OUTFIT) mean square values, Rasch item reliability, item separation index and eigenvalues of the first contrast of the principal component analysis of standardised Rasch residuals are listed in Table 32.3. Inspection of the table (column 2) shows that eigenvalues of the first contrast of the principal component analysis of standardised residuals ranged from 1.4 to 1.8, all of which were below the cut-off criterion of 2.0 (Linacre 2014). This result gave further support to the unidimensionality of the scales.

Table 32.3 (columns 3 and 5) also showed that all items in the scales had INFIT and OUTFIT mean square values within the 0.5–1.5 acceptable range (Linacre 2014) except the TEAPART scale. The item concerned asked teachers if in the last 12 months they had personally taken part in activities organised by “cultural groups promoting the integration of ethnic minorities” (INFIT 1.63). All other items had Rasch item reliability of 1.00 (column 7), and the item separation indices ranged from 39.17 to 176.60 (column 8). These two statistics jointly indicated that all scales used in this study were sufficiently spread out over a continuum of measurement (Linacre 2014). Further, the point-measure correlations (column 9) were all quite large and ranged from 0.43 (for an item in the TEAPART scale) to 0.84 (for items

Table 32.3 Rasch statistics of scales

Scale	Eigenvalue of first contrast	INFIT range	Item with INFIT outside 0.5–1.5	OUTFIT range	Item with OUTFIT outside 0.5–1.5	Rasch item reliability	Separation index	Point-measure correlation
<i>Self: Teachers' self-variables</i>								
CONMETH	1.4	0.77–1.33	0	0.79–1.32	0	1.00	84.37	0.58–0.69
TEAPART	1.5	0.82–1.63	1	0.83–1.46	0	1.00	73.36	0.43–0.64
<i>Classroom: The teachers' own students in class</i>								
OPENCLS	1.4	0.85–1.26	0	0.83–1.23	0	1.00	65.99	0.76–0.78
CIVCOMM	1.6	0.80–1.30	0	0.77–1.28	0	1.00	39.17	0.77–0.77
HARMONY	1.5	0.87–1.10	0	0.68–0.87	0	1.00	43.29	0.83–0.84
<i>School: Students in the school as a whole and teacher team spirit at school</i>								
GOODSTU	1.4	0.81–1.33	0	0.66–1.21	0	1.00	48.05	0.76–0.76
DISPROB	1.4	0.85–1.19	0	0.80–1.21	0	1.00	176.60	0.59–0.71
TEATEAM	1.6	0.79–1.28	0	0.78–1.26	0	1.00	73.66	0.69–0.73
<i>School culture: Participatory leadership and civic participation of the school</i>								
STUOPIN	1.8	0.80–1.17	0	0.78–1.26	0	1.00	149.2	0.71–0.74
PARTDEC	1.4	0.81–1.32	0	0.82–1.32	0	1.00	136.5	0.63–0.69
SCHPART	1.4	0.89–1.06	0	0.86–1.15	0	1.00	96.4	0.59–0.63

in the HARMONY scale). These various indices gave further support to the internal consistency of the scales.

Self-Factors: Predictors of AfL Related to Teachers' Self

Six variables were related to teachers' self as predictors of teachers' AfL practices. Three were discrete variables, (GENDER), (SUBJECT) and (TIMTEA). Dummy variables were created for these variables (see Table 32.1).

Three continuous variables (YREXP), (CONMETH) and (TEAPART) were included in this analysis. There was a reasonable range of item difficulties for each scale. For CONMETH, the easiest item was, "How confident do you feel about using lecturing?" (item difficulty -0.77 logits), and the most difficult item was, "How confident do you feel about using roleplaying, simulation?" (1.07 logits). These results suggested that teachers were most confident in lecturing and least confident when using role play or simulation in their teachings.

For the TEAPART scale, the easiest item was, "Besides the activities carried out as part of your school work, how often in the last 12 months have you personally taken part in activities promoted by associations promoting culture in the local community?" (-1.06 logits), and the most difficult item was, "Besides the activities carried out as part of your school work, how often in the last 12 months have you personally taken part in activities promoted by human rights organisations?" (0.82 logits). Thus, these teachers most often engaged in local cultural activities and least often took part in human rights activities.

Classroom Context Factors: Teachers' Own Students in Class

Three continuous variables related to student behaviour in the teachers' own class were (OPENCLS), (CIVCOMM) and (HARMONY). In each scale, there was a reasonable range of item difficulties. For OPENCLS, the easiest item was, "In your lessons for target grades, how many students suggest class activities?" (-0.79 logits), and the most difficult item was, "In your lessons for target grades, how many students discuss the choice of teaching/learning materials?" (0.67 logits). These results meant that in a classroom with an open discussion climate, it was easiest for students to suggest class activities and hardest for them to discuss the choice of teaching/learning materials.

For the CIVCOMM scale, the easiest item was, "In your lessons for target grades, how many students feel comfortable during class discussion because they know their views will be respected?" (-0.58 logits), and the most difficult item was, "In your lessons for target grades, how many students freely express their opinion even if different from those of the majority?" (0.30 logits). Thus students in general felt

their views were respected, but they needed more encouragement when expressing themselves if their opinions were different from the majority.

For the HARMONY scale, the easiest item was, "In your opinion, how many of your students are well-behaved on entering and leaving the school premises?" (-0.53 logits), and the most difficult item was, "In your opinion, how many of your students have a good relationship with the school teachers and staff?" (1.05 logits). Although, therefore, students were well-behaved upon arriving and departing the school premises, there was a degree of tension between students and teachers during the intervening period.

School Factors: Other Students and Teachers in School

Three variables related to school contexts were (GOODSTU), (DISPROB) and (TEATEAM). There was a reasonable range of item difficulties for each scale. For GOODSTU, the easiest item was, "In your opinion, how many students in this school have a good relationship with the school teachers and staff?" (-0.95 logits), and the most difficult item was, "In your opinion, how many students in this school show care for school facilities and equipment?" (0.86 logits). While, therefore, students and teachers enjoyed good relationships, the former showed a disregard for the school facilities and equipment.

For the DISPROB scale, the easiest item was, "Please indicate how frequently truancy occurs among students at this school?" (-2.13 logits), and the most difficult item was, "Please indicate how frequently sexual harassment occurs among students at this school?" (2.77 logits). These results meant that truancy was the most common form of disciplinary problem.

For the TEATEAM scale, the easiest item was, "With reference to the current school year, how many teachers in this school support good discipline throughout the school even with students not belonging to their own class or classes?" (-0.97 logits), and the most difficult item was, "With reference to the current school year, how many teachers in this school cooperate in defining and drafting the school development plan?" (0.65 logits). Teachers appear to cooperate when dealing with disciplinary issues but are less likely to do so when defining and drafting school development documents.

School Culture: Participatory Decision-Making Culture and School Civic Participation

Three variables related to school culture were examined: (STUOPIN), (PARTDEC) and (SCHPART). For the PARTDEC scale, the easiest item was, "In your opinion, to what extent do the school governors influence or contribute to the decision-making process concerning the running of this school?" (-1.38 logits)", and the

most difficult item was, “In your opinion, to what extent do representatives of the local community influence or contribute to the decision-making process concerning the running of this school?” (1.38 logits). School decision-making was thus most often influenced by school council members and least often by members of the local community.

For the SCHPART scale, the easiest item was, “During the current school year, have you and any of your classes participated in sports events?” (−1.74 logits), and the most difficult item was, “During the current school year, have you and any of your classes participated in activities related to improving facilities for the local community, e.g. public gardens.?” (1.15 logits). Thus students and teachers more often took part in sports events rather than engaging in civic activities for the local community.

Multilevel Model of Contributing Factors to Teachers’ AfL

A three-level regression model (Goldstein 2011) and MLwiN software (Rasbash et al. 2009a, b) was employed to determine the strongest contributions to teachers’ use of AfL. Teachers, schools and geographic locations were modelled at levels 1, 2 and 3, respectively. The resulting intra-class correlations indicated that 12.69% of the variance of regression model was at the between-geographic location level and 3.62% at the between-school level.

Variables at the micro-system (self-variables: GENDER, YREXP, SUBJECT, TIMETEA, CONMETH, TEAPART), meso-system (classroom: OPENCLS, CIVCOMM, HARMONY), exo-system (school: GOODSTU, TEATEAM) and macro-system (school culture: STUOPIN, PARTDEC, SCHPART) were then added as predictors of teachers’ use of AfL in the three-level regression analysis (Goldstein 2011). Of the predictors tested, 13 were statistically significant (Table 32.4). The intra-class correlations at the location- and school-level were 10.59% and 3.23%, respectively. So that, after controlling for predictors relating to teachers’ self, classroom, school and school culture, there were still significant variations between geographic locations and between schools.

Table 32.4 suggests that female teachers were more likely than males (GENDER) to implement AfL. Teachers who spent less than 20% of their time teaching the sampled students made less use of AfL (TIMETEA). Further, other things being equal, teachers’ use of AfL increased with their years of experience (YREXP) and their confidence in using different teaching methods (CONMETH). In terms of classroom contexts, teachers who had an open classroom climate (OPENCLS), students who were competent in civilised communications (CIVCOMM) and classes where there were harmonious social relations amongst students (HARMONY) were more receptive to AfL. In terms of school contexts, teachers whose students were well-behaved (GOODSTU) and where there was a good team spirit amongst staff also used more AfL (TEATEAM). In terms of the school culture, teachers where students’ opinions were respected in decisions on school matters (STUOPIN),

Table 32.4 Multilevel analysis of factors related to teachers' self and classroom contexts

Predictor	Coef.	SE	t-ratio	Sig.
<i>Fixed effect</i>				
Intercept	1.471	0.090	16.34	*
Self: Teachers' demographic background and self-variables				
GENDER: Female	0.334	0.015	22.27	*
YREXP: Years of experience	0.005	0.001	5.00	*
SUBJECT:				
Human Sciences (dummy, relative to Language Art)	-0.198	0.023	-8.61	*
Math/Science (dummy, relative to Language Art)	-0.036	0.018	-2.00	NS
Other subject (dummy, relative to Language Art)	-0.310	0.018	-17.22	*
Mixed subjects (dummy, relative to Language Art)	-0.127	0.029	-4.38	*
Nil subject (dummy, relative to Language Art)	-0.214	0.061	-3.51	*
TIMETEA:				
20-39% (dummy, relative to <20% time with student)	0.096	0.017	5.65	*
40-59% (dummy, relative to <20% time with student)	0.106	0.022	4.82	*
60-79% (dummy, relative to <20% time with student)	0.120	0.029	4.14	*
80% + (dummy, relative to <20% time with student)	0.184	0.026	7.08	*
CONMETH: Confidence in using different teaching methods	0.206	0.005	41.20	*
TEAPART: Teacher personal participation in civic activities	0.008	0.005	1.60	NS
Classroom: The teachers' own student in class				
OPENCLS: Student openness in class discussions	0.082	0.004	20.50	*
CIVCOMM: Student competent in civilised communications	0.068	0.003	22.67	*
HARMONY: Student having harmonious social relations in class	0.011	0.002	5.50	*
School: Students in class and teacher team spirit at school				
GOODSTU: Well-behaved students in school	0.020	0.003	6.67	*
TEATEAM: Team spirit between teachers in school	0.058	0.004	14.50	*
School culture: Participatory leadership and civic participation of the school				
STUOPIN: Students' opinions considered by school	0.020	0.003	6.67	*
PARTDEC: Participatory leadership at school	0.080	0.005	16.00	*
SCHPART: School participation in civic and citizenship activities	0.047	0.004	11.75	*
<i>Random effect</i>				
Variance at location-level	0.246	0.059	4.17	*
Variance at school-level	0.084	0.006	14.00	*
Variance at teacher-level	2.262	0.014	161.57	*

(continued)

Table 32.4 (continued)

Predictor	Coef.	SE	t-ratio	Sig.
<i>Model comparison</i>				
Null model deviance (null model -2log-likelihood)	232,410			
Predictor model deviance (predictor model -2log-likelihood)	199,228			
Change in -2log-likelihood	33,182			
Change in degrees of freedom	25			

Note: * significant at 5%

where the principal exercised participatory leadership (PARTDEC) and where there was a culture of school engagement in civic and citizenship activities (SCHPART) also reported more AfL practice. On the other hand, the subject taught by teachers (SUBJECT) and the teachers' personal civic and citizenship participation (TEAPART) were not significant predictors of the teachers' use of AfL.

Discussion

This article has investigated teachers' use of assessment for learning (AfL) in 36 educational systems using secondary analysis of data from the International Civic and Citizenship Education Study (ICCS) 2009. Other studies, worldwide, have also testified to the positive impact of AfL on subsequent teaching and learning including the use of assessment feedback (Griffin and Care 2014; Hattie and Timperley 2007; Shute 2008; Wiliam 2011). If reforms such as AfL are to have maximum impact, it is essential to identify those facilitating factors which aid the implementation process. This study is a contribution to this latter task, in that it has examined the extent of implementation in different geographic locations and attempted to identify the facilitating or deterrent factors that contribute to this process.

In our secondary analysis of the ICCS 2009 data, 14 variables at different conceptual levels in teachers' work contexts were inspected according to Bronfenbrenner's (1979) theoretical model, 12 of which were identified as significant predictors of teachers' use of AfL. At the teachers' personal level, those who were female, had more years of teaching experience, taught more on a daily basis than others and had more confidence in using different teaching methods tended to implement AfL to a greater degree. In the classroom context, an open classroom climate and having students who were competent in civilised communication and who had harmonious social relations with one another in class also favoured adoption of AfL. In classrooms where it was legitimate for students to suggest class activities, students in general were comfortable expressing themselves because they felt their views were respected, but they needed more supportive training in putting forward a point of view when their opinions differed from the majority.

In the school context, AfL flourished in schools which had well-behaved students, where a strong team spirit existed amongst the staff, where a leadership culture existed in which students' opinions were respected and decision-making was shared by all of the school's key stakeholders and where schools also had a high level of engagement with civic activities.

Despite significant investments in AfL reform by governments around the world, information generated from this form of assessment is not necessarily used to a large extent by teachers across the 36 locations to provide feedback to students, improve teachers' teaching, enable students to reflect on learning, plan future lessons, identify students' learning difficulties, illustrate learning objectives to students, allow students to reflect on behaviour or provide feedback to parents. Substantial differences between countries were found in teachers' adoption of AfL, as most of the variations between teachers' uses of AfL came from between-individual and between-location differences, rather than from between-school (within location) differences. The favourable factors that are associated with teachers' tendency to adopt AfL are all related to the attributes of the students, of the teachers and of the school culture. In the main, the findings reported in this chapter suggest that AfL is more likely to be adopted in an open classroom, with engaged students and a school principal who employs participatory leadership. What is not yet explainable is the geographic variations in the adoption of AfL. Further study is needed to identify grouping models in these variations. However, the data at least tell us that AfL was not seen solely as a mandated educational policy initiative by teachers coming from some higher-performing educational systems, such as Finland, South Korea and Hong Kong. This reflects the teachers' perception of AfL as something valuable in itself and not just another government directive. However, the current pressure resulting from the need for schools to demonstrate high performance could become an obstacle to teachers' willingness to adopt AfL practices. This issue also requires further investigation.

References

- Ahsan, M. T., Deppeler, J. M., & Sharma, U. (2013). Predicting pre-service teachers' preparedness for inclusive education: Bangladeshi pre-service teachers' attitudes and perceived teaching-efficacy for inclusive education. *Cambridge Journal of Education*, 43(4), 517–535.
- Andrade, H. L., & Cizek, G. J. (Eds.). (2010). *Handbook of formative assessment*. New York: Routledge.
- Ballet, K., & Kelchtermans, G. (2008). Workload and willingness to change: Disentangling the experience of intensification. *Journal of Curriculum Studies*, 40(1), 47–67.
- Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9–44.
- Berry, R., & Adamson, B. (2011). *Assessment reform in education – Policy and practice*. Dordrecht: Springer.
- Biggs, J. B., & Tang, C. (2011). *Teaching for quality learning at university: what the student does* (4th ed.). Buckingham/Philadelphia, PA: Society for Research into Higher Education: Open University Press.

- Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2004). Working inside the black box: Assessment for learning in the classroom. *Phi Delta Kappan*, 86(1), 9–21.
- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7–71.
- Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21, 5–31.
- Blackburn, G. (2014). Elements of successful change: The service Tasmania experience to public sector reform. *Australian Journal of Public Administration*, 73(1), 103–114. doi:10.1111/1467-8500.12054.
- Boyd, D. P. (2011). Lessons from turnaround leaders. *Strategy & Leadership*, 39(3), 36–43.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon & R. M. Lerner (Eds.), *Handbook of Child Psychology* (6th ed., pp. 793–828). Hoboken: Wiley.
- Campbell, D. E. (2008). Voice in the classroom: How an open classroom climate fosters political engagement among adolescents. *Political Behavior*, 30, 437–454.
- Choi, C. (2008). The impact of EFL testing on EFL education in Korea. *Language Testing*, 25, 39–62.
- Day, C. (2008). Committed for life? Variations in teachers' work, lives and effectiveness. *Journal of Educational Change*, 9, 243–260.
- Day, K., & Norris, T. (2007). Change management and the sustainability of health ICT projects. *Studies in Health Technology and Informatics*, 125, 1209–1213.
- Doğan, M. (2011). Student teachers' views about assessment and evaluation methods in mathematics. *Educational Research and Reviews*, 6(5), 417–431.
- Evans, C., & Waring, M. (2011). Student teacher assessment feedback preferences: the influence of cognitive styles and gender. *Learning and Individual Differences Journal*, 21(3), 271–280.
- Falchikov, N., & Goldfinch, J. (2000). Student peer assessment in higher education: A meta-analysis comparing peer and teacher marks. *Review of Educational Research*, 70(3), 287–322.
- Fraser, B. J. (1994). Research on classroom and school climate. In D. Gabel (Ed.), *Handbook of research on science teaching and learning* (pp. 493–541). New York: Macmillan.
- Fullan, M. (2008). *The six secrets of change: What the best leaders do to help their organisations survive and thrive*. San Francisco: Wiley/Jossey-Bass Inc..
- Galton, M., & MacBeath, J. (2008). *Teachers under pressure*. London: SAGE.
- Goldstein, H. (2011). *Multilevel statistical models* (4th ed.). Hoboken: Wiley.
- Griffin, P. E., & Care, E. (2014). Assessment is for teaching. In P. E. Griffin (Ed.), *Assessment for teaching* (pp. 1–13). New York: Cambridge University Press.
- Griffin, P., & Robinson, P. (2014). Professional learning teams and decision making. In P. Griffin (Ed.), *Assessment for teaching* (pp. 156–173). Melbourne: Cambridge University Press.
- Hattie, J. (2008). *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement*. New York: Routledge.
- Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. New York: Routledge.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112.
- Hellrung, K., & Hartig, J. (2013). Understanding and using feedback – A review of empirical studies concerning feedback from external evaluations to teachers. *Educational Research Review*, 9, 174–190.
- Higgins, R., Hartley, P., & Skelton, A. (2001). Getting the message across: The problem of communicating assessment feedback. *Teaching in Higher Education*, 6, 269–274.
- Ho, C. M., Leung, A. W. C., Mok, M. M. C., & Cheung, P. (2013). Informing learning and teaching using feedback from assessment data: Hong Kong teachers' attitudes towards Rasch measurement. In M. M. C. Mok (Ed.), *Self-directed Learning Oriented Assessments in the Asia-Pacific* (pp. 311–334). New York: Springer.

- Hogan, D., & Gopinathan, S. (2008). Knowledge management, sustainable innovation, and pre-service teacher education in Singapore. *Teachers and Teaching: Theory and Practice*, 14(4), 369–384.
- Hogan, D., Towndrow, P., & Koh, K. (2009). The logic of confidence and the social economy of assessment reform in Singapore: A new institutionalist perspective. In E. Grigorenko (Ed.), *Assessment of abilities and competencies in the era of globalization*. New York: Springer.
- Isac, M. M., Maslowski, R., Creemers, B., & van der Werf, G. (2014). The contribution of schooling to secondary-school students' citizenship outcomes across countries. *School Effectiveness and School Improvement: An International Journal of Research, Policy and Practice*, 25(1), 29–63.
- Jeffries, C. H., & Hornsey, M. J. (2012). Withholding negative feedback: Is it about protecting the self or protecting others? *British Journal of Social Psychology*, 51(4), 772–780.
- Kellaghan, T., & Greaney, V. (2001). *Using assessment to improve the quality of education*. Paris: UNESCO: International Institute for Educational Planning.
- Kennedy, K. J., & Lee, J. (2008). *Changing schools in Asia: Schools for the knowledge society*. London: Routledge.
- Klenowski, V. (2011). Assessment for learning in the accountability era: Queensland, Australia. *Studies in Educational Evaluation*, 37(2011), 78–83.
- Kotter, J. P. (2012). *Leading Change*. Boston: Harvard Business Review Press.
- Laurie, B., & Kennedy, K. J. (2009). Celebrating student achievement: Assessment and reporting. In *Frenchs Forest*. Sydney: Pearson Education Australia.
- Le Fevre, D. M. (2014). Barriers to implementing pedagogical change: The role of teachers' perceptions of risk. *Teaching and Teacher Education*, 38, 56–64.
- Lindemann-Matthies, P., Constantinou, C., Lehnert, H.-J., Nagel, U., Raper, G., & Kadji-Beltran, C. (2011). Confidence and perceived competence of preservice teachers to implement biodiversity education in primary schools – four comparative case studies from Europe. *International Journal of Science Education*, 33(16), 2247–2273.
- Lieberman, A., & Pointer Mace, D. H. (2008). Teacher learning: the key to educational reform. *Journal of Teacher Education*, 59(3), 226–234.
- Lin, A. R. (2014). Examining students' perception of classroom openness as a predictor of civic knowledge: A cross-national analysis of 38 countries. *Applied Developmental Science*, 18(1), 17–30.
- Linacre, J. M. (2011). *A user's guide to WINSTEPS/MINISTEP: Rasch-model computer programs*. Chicago: Winsteps.com.
- Linacre, J. M. (2014). *Winsteps® Rasch measurement computer program*. Beaverton, Oregon: Winsteps.com.
- McCormick, J., & Ayres, P. L. (2009). Teacher self-efficacy and occupational stress: A major Australian curriculum reform revisited. *Journal of Educational Administration*, 47(4), 463–476.
- Moss, C. M., Brookhart, S. M., & Long, B. A. (2013). Administrators' roles in helping teachers use formative assessment information. *Applied Measurement in Education*, 26(3), 205–218. doi:10.1080/08957347.2013.793186.
- Ng, D., & Ho, J. (2012). Distributed leadership for ICT reform in Singapore. *Peabody Journal of Education*, 87(2), 235–252. doi:10.1080/0161956X.2012.664478.
- Nicol, D., & McFarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31, 199–218.
- Orafi, S. M. S., & Borg, S. (2009). Intentions and realities in implementing communicative curriculum reform. *System*, 37, 243–253.
- Oreg, S., Vakola, M., & Armenakis, A. (2011). Change recipients' reactions to organisational change: A 60-year review of quantitative studies. *Journal of Applied Behavioral Science*, 47(4), 461–524.

- Park, J.-H., & Jeong, D. W. (2013). School reforms, principal leadership, and teacher resistance: evidence from Korea. *Asia Pacific Journal of Education*, 33(1), 34–52. doi:10.1080/02188791.2012.756392.
- Pitiyanuwat, S., & Pitiyanuwat, T. (2012). Learning assessment reform in Thailand. In M. M. C. Mok (Ed.), *Self-directed Learning Oriented Assessment in the Asia-Pacific*. New York: Springer.
- Ramaprasad, A. (1983). On the definition of feedback. *Behavioural Science*, 28, 4–13.
- Rasbash, J., Charlton, C., Browne, W.J., Healy, M., & Cameron, B. (2009a). *MLwiN Version 2.1*. Bristol, U.K.: Centre for Multilevel Modelling, University of Bristol.
- Rasbash, J., Charlton, C., Browne, W.J., Healy, M., & Cameron, B. (2009b). *MLwiN Version 2.1*. Centre for Multilevel Modelling, University of Bristol.
- Sadler, R. (1989). Formative assessment and the design of instructional systems. *Instructional Science*, 18(2), 119–144.
- Sadler, D. R. (2010). Beyond feedback: Developing student capability in complex appraisal. *Assessment and Evaluation in Higher Education*, 35(5), 535–550.
- Sarafidou, J.-O., & Nikolaidis, D. I. (2009). School leadership and teachers' attitudes towards school change: The case of high schools in Greece. *The International Journal of Learning*, 16(8), 431–440.
- Schulz, W., Ainley, J., & Fraillon, J. (2011). *ICCS 2009 technical report*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).
- Schulz, W., Fraillon, J., & Ainley, J. (2013). Measuring young people's understanding of civics and citizenship in a cross-national study. *Educational Psychology*, 33(3), 334–356.
- Schulz, W., Fraillon, J., Ainley, J., Losito, B., & Kerr, D. (2008). *International civic and citizenship education study. Assessment framework*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).
- Shute, V. J. (2008). Focus on formative feedback. *Review of Educational Research*, 78(1), 153–189.
- Smith, B., Hall, H. C., & Woolcock-Henry, C. (2000). The effects of gender and years of teaching experience on explanatory style of secondary vocational teachers. *Journal of Vocational Education Research*, 25(1), 24–31.
- Smith, A. B., Rush, R., Fallowfield, L. J., Velikova, G., & Sharpe, M. (2008). Rasch fit statistics and sample size considerations for polytomous data. *BMC Medical Research Methodology*, 8(33). doi:10.1186/1471-2288-8-33.
- Spillane, J. P. (2006). *Distributed leadership*. San Francisco: Jossey-Bass.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Pearson/Allyn & Bacon.
- Torney-Purta, J., Barber, C. H., & Wilkenfeld, B. (2007). Latino adolescents' civic development in the United States: Research results from the IEA Civic Education Study. *Journal of Youth and Adolescence*, 36, 111–125.
- Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty-eight countries*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).
- Underwood, P. (2012). Teacher beliefs regarding the integration of English grammar under new national curriculum reforms: A theory of planned behaviour perspective. *Teaching and Teacher Education*, 12, 911–925.
- Van den Bergh, L., Ros, A., & Beijaard, D. (2013). Teacher feedback during active learning: Current practices in primary schools. *British Journal of Educational Psychology*, 83(2), 341–362.
- Voerman, L., Meijer, P. C., Korthagen, F. A. J., & Simons, R. J. (2012). Types and frequencies of feedback interventions in classroom interaction in secondary education. *Teaching and Teacher Education*, 28, 1107–1115.
- Waters, A., & Vilches, M. (2008). Factors affecting ELT reforms: The case of the Philippines basic education curriculum. *RELC Journal*, 39, 5–24.

- Wiggins, G. (1998). *Educative assessment*. San Francisco: Jossey Bass.
- William, D. (2011). What is assessment for learning? *Studies in Educational Evaluation*, 37, 3–14.
- William, D., & Thompson, M. (2007). Integrating assessment with instruction: What will it take to make it work? In C. A. Dwyer (Ed.), *The future of assessment: Shaping teaching and learning*. Mahwah: Lawrence Erlbaum Associates.
- Wright, B. D., & Masters, G. N. (1982). *Rating scale analysis*. Chicago: MESA Press.
- Zhang, F., & Liu, Y. (2014). A study of secondary school English teachers' beliefs in the context of curriculum reform in China. *Language Teaching Research*, 18(2), 187–204.
- Zheng, X., & Jiang, Q. (2005). A case study of teachers' beliefs in college English innovation and change. *Foreign Language World*, 110, 16–23.
- Zhu, C. (2013). The effect of cultural and school factors on the implementation of CSCL. *British Journal of Educational Technology*, 44(3), 484–501.
- Zimmerman, J. (2006). Why some teachers resist change and what principals can do about it. *NASSP Bulletin*, 90(3), 238–249.

Part X
Understanding Students and Pupils:
Coping with Childrens' Special Education
Needs and Disabilities

Chapter 33

Catering for Diversity: Including Learners with Different Abilities and Needs in Regular Classrooms

Chris Forlin and Dianne Chambers

Abstract The inclusion of learners with a wide range of special needs has become a major change in regular classrooms over the past 40 years. In the early part of the twentieth century, there were few opportunities for children to attend formal schooling. For those with disabilities, schooling was almost non-existent. Except for a few students who were deaf or blind and who were able to attend the limited specialised schools established to cater for them, it was not until mid-century that schools began to be established to support children with other specialised needs. By the end of the last century, the plethora of specialised schools for students with similar disabilities began to dissipate in favour of the move towards an inclusive education system. This chapter explores this process of changing classrooms from homogenous to heterogeneous within an inclusive paradigm. Consideration is given to what this means for schools, teachers, parents and the students and what is needed if this philosophy is to be further embraced in the future.

Keywords Inclusion • Inclusive education • Equity • Special education • Exclusion • Teachers • Diversity

C. Forlin (✉)

International Inclusive Education Consultant, Perth, Australia
e-mail: chrisforlin@outlook.com

D. Chambers

The University of Notre Dame, 19 Mouat Street, Fremantle, WA 6959, Australia
e-mail: dianne.chambers1@nd.edu.au

Classroom Diversity

One key aspect of school change has been the strong move towards the education of students with disabilities in regular classrooms. The diversity of student abilities to be found in regular classrooms is now considerably wider than it has ever been. Yet provision for students with disabilities has been fraught with challenges. The move towards including all students in regular classrooms, regardless of ability or other special educational need, has involved a complex transition from exclusion to inclusion. This chapter presents an overview of this progress and the impact it has had on all stakeholders.

Development of Special Education: Transition from Exclusion to Inclusion

The provision of an appropriate education for students with disabilities has changed dramatically over time (see Fig. 33.1). Access to education has moved from overt discrimination to a small amount of provision in segregated settings, onto increased provision (although still in segregated settings), to the more recent approach of inclusion. At each of these stages, there were important philosophers or researchers who impacted upon societal interpretation of what it means to have a disability and the best way to cater for students with disabilities educationally.

Extermination, while a repugnant term, refers to the extreme approach of killing or letting die, those who were seen to be imperfect in body or mind (Peterson and Hittie 2010). Ancient societies often saw a disability as a sign that demons had inhabited the person, and, as a consequence, the person was shunned and excluded from all aspects of community life. Indeed, Aristotle in 350 BC in his famous *Politics* series stated that ‘As to exposing or rearing the children born, let there be a law that no deformed child shall be reared...’ (section 1335b). Although this opinion was widespread at the time, a few ancient Romans and Greeks had begun to

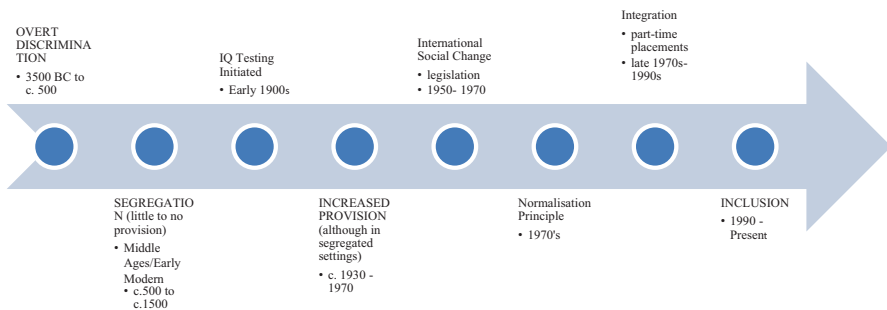


Fig. 33.1 Timeline of provision of education to students with disabilities

investigate and treat children with disabilities to attempt a 'cure' of their conditions (Irvine et al. 2007, p. 1). Although isolated, these early investigations were the stirrings of a cultural shift in the way people with disability were viewed by society.

In medieval times, people with a disability were often viewed as objects of ridicule and were treated with extreme disregard (Irvine et al. 2007). At the same time, church missionaries were reaching out to people with disabilities and often provided a place for them in asylums, even though they did not always have sufficient knowledge or skill to cater appropriately for their needs. In the High Middle Ages, a more humanistic culture, where all people started to be more valued, began to emerge and is known as the humanistic Renaissance period (Monfasani 1999). During this period, ethical and moral philosophy became a key topic of discussion, thought and literature. It was through this engagement that the inherent dignity of the individual became to be a much debated area for philosophers of the time, and a move towards recognition of the rights of people with disability was, at least, being given some consideration, as a component of rights for all men.

Early examples of educational provision for students with disabilities focused mainly in the area of sensory impairments (vision and hearing). In the sixteenth century, a Spanish monk, Pedro Ponce de Leon, developed an oral teaching approach for people who were deaf (Salend and Garrick Duhaney 2011). Following the success of approaches for people who are deaf, methods to assist students who were blind were trialled, and in 1784 the National Institute for the Young Blind was opened in Paris (Irvine et al. 2007).

From these early beginnings, further studies were conducted on the 'educable' abilities of people with varying disabilities, such as intellectual impairment. In the nineteenth century, a great deal of work was undertaken to develop effective curricula for students with intellectual impairments, and the result of this work led to the establishment of special institutions and schools. Due to prevailing attitudes at the time, the role of these institutions was somewhat distorted, so that instead of being a benevolent educational environment (as was likely originally intended), most saw institutions as a way to segregate people with disabilities from the general population (Salend and Garrick Duhaney 2011).

In the early twentieth century, IQ testing was established by Binet and Simon as a way to determine children who were 'uneducatable' or mentally defective (Sternberg 2007) so that they could be educated in special classes. Later in that century, researchers began to look beyond intelligence testing to determine the most appropriate methods to educate students with disabilities. The subsequent transformation in methods led to a change in focus for special education from that of a custodial nature to one of education. Around this time, organisations that advocated for people with disabilities, such as the Council for Exceptional Children, began to be established (Salend and Garrick Duhaney 2011).

One of the most influential impacts upon the education of students with disabilities was the advent in the 1950s through the 1970s of strong legislation in many countries that advocated for the right of students with disabilities to receive an education and that this education should be in the most 'normal' environment possible (Wolfensberger 1972). Wolfensberger (1972) developed a principle of normalisation

which, coupled with driving forces such as the civil rights movements in the USA, social justice approaches and legislation (both international and national), supported much of the early integration of students with disabilities into schooling and then into mainstream schools (often for only part of the day). This was a necessary first step towards including students in mainstream schools as full participants (Foreman 2008; Graham and Slee 2008). Some, however, saw this integration as merely 'placement' in the classroom, and not participation in the life of the classroom and school (Berlach and Chambers 2011) and that something more substantial was required.

Legislation around this time began to provide for the rights of people with disabilities to access services, leisure, employment and social opportunities on the same basis as people without disabilities. A variety of key international legislation was passed to ensure those rights could be upheld. This legislation included the *Education (Handicapped Children) Act* (United Kingdom Government 1970), the French *Loi d'Orientation en Faveur des Personnes Handicapées* (Republique Francais 1975) and the *Education for All Handicapped Children Act* (Library of Congress, USA 1975) (cited in Salend and Garrick Duhaney, 2011). Much of this legislation has been reissued over time and revised to contain increasingly inclusive people-first language and more stringent educational requirements for students with disabilities. For example, the *Individuals with Disabilities Education Act* (Library of Congress, USA 2004), a revision of the *Education for All Handicapped Children Act* (USA), has detailed not only the right of students with disabilities to an education but also the type and quality of education they should receive. The Australian *Disability Discrimination Act* (Commonwealth of Australia 1992) and the subsequent *Disability Standards for Education 2005* (Commonwealth of Australia 2005), similarly, very explicitly detail the social and curricula requirements for students with disabilities, even providing measures for compliance. How such legislation has resulted in appropriate inclusion of students with disabilities, however, remains to be fully explored.

Further to legislation, 'there have been a number of international trends influencing the inclusion of students with special needs into regular classroom settings, with many of these being driven by an increased understanding of social justice and the growing appreciation of diversity' (Berlach and Chambers 2011, p. 531). One of the most pivotal international influences was the *Salamanca Statement and Framework for Action on Special Education Needs* (UNESCO 1994), which was supported by 92 countries and stated that:

...those with special educational needs must have access to regular schools which should accommodate them within a child-centred pedagogy capable of meeting these needs, regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all (p. 2).

In addition to the Salamanca statement, UNESCO has developed guidelines for countries to use when developing educational policy for students with disability. *The Guidelines for Inclusion: Ensuring Access to Education for All* (UNESCO

2005) supports four main elements of inclusion. These are that inclusion is, firstly, a process; secondly, is concerned with the identification and removal of barriers; thirdly, is concerned with the presence, participation and achievement of all students; and, finally, emphasises access for those who are most at risk of marginalisation, exclusion and underachievement.

As well as the legislation and policies introduced, pre-service teacher training in many countries has also evolved to develop appropriate training in including all students in the mainstream classroom (Forlin 2012). Inclusive aspects have either been embedded in all course content (Loreman and Earle 2007) or provided within a discrete course of study (Berlach and Chambers 2011; Chambers and Lavery 2012; Forlin and Chambers 2011). The courses of study have previously focused on teaching students with disabilities; however, the focus is changing to incorporate inclusive pedagogy and social justice teachings. The broadening of the content of these courses requires pre-service teachers to examine what inclusion means for them, for the school and for society as a whole.

What Is Inclusive Education?

Inclusion in education is considered to be a basic human right and the foundation for a more just and equal society (European Agency for Development in Special Needs Education 2012). There are, nevertheless, potentially multiple interpretations of inclusive education (Berlach and Chambers 2011; Priya 2013), with inclusion becoming an increasingly contentious term that challenges educators and educational systems to think about the work of teaching and learning in different ways and from varied perspectives.

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) proposes that inclusive schools are the most effective way to counter discriminatory approaches and attitudes towards students with a disability. According to UNESCO (2009), ‘... an ‘inclusive’ education system can only be created if ordinary schools become more inclusive – in other words, if they become better at educating all children in their communities. (p. 8)’.

Inclusive education is generally considered to be the education of all learners within the same regular classroom that provides appropriate accommodations to ensure that the needs of all learners are met. As proposed by UNESCO (2012):

Education is not simply about making schools available for those who are already able to access them. It is about being proactive in identifying the barriers and obstacles learners encounter in attempting to access opportunities for quality education, as well as in removing those barriers and obstacles that lead to exclusion. (UNESCO 2012, para.1)

This definition adopts an education for all approach in which inclusive practice is seen as having a broad focus that caters for all learners regardless of ability, status, background or any other special need (Ainscow et al. 2011). Inclusive schools and classrooms should prevent marginalised and excluded groups being discriminated

against and denied what is readily available to others in the mainstream. According to Loreman (2009), the features of inclusive education are:

- All children attend their neighbourhood school.
- Schools and districts have a 'zero rejection' policy when it comes to registering and teaching children in their region. All children are welcomed and valued.
- All children learn in regular, heterogeneous classrooms with same age peers.
- All children follow substantively similar programs of study, with curriculum that can be adapted and modified if needed. Modes of instruction are varied and responsive to the needs of all.
- All children contribute to regular school and classroom learning activities and events.
- All children are supported to make friends and to be socially successful with their peers.
- Adequate resources and staff training are provided within the school and district to support inclusion (Loreman 2009, p. 43).

International Perspectives About Inclusive Education

The movement towards inclusive educational practices within schools and classrooms has been promoted in a variety of international conventions and declarations commencing with the Salamanca Statement in 1994, followed by the Dakar Framework for Action (UNESCO 2000), with a commitment to achieving Education for All by the year 2015. In 2006, Article 24 in the Convention on the Rights of Persons with Disabilities included commitments for governments to ensure the education of people with a disability (United Nations 2006). States parties are specifically tasked to enable an inclusive education system at all levels and to provide lifelong learning opportunities, especially for students with disability.

As part of this realisation, participating governments are to train professionals and staffs who work at all levels of education by incorporating disability awareness and the use of appropriate augmentative and alternative modes, means and formats of communication to enable this. In many countries, consequently, new policies and legislation have appeared that replicate the terminology of the global directives that promote education for all and an inclusive approach to education (Donnelly and Watkins 2011). There are still many situations, nonetheless, in which these are not reflected in the pragmatics of implementation (Florian 2011, 2012, 2013a, b).

Achieving universal primary education for all children by 2015 is a key goal in the United Nations Millennium Declaration, which 123 United Nations member states and 23 international organisations have adopted. While this is an admirable goal, many countries are still not on track to meet the goal of Education for All by the set deadline of 2015. In 2012, it was reported that some countries have achieved many of the Millennium Development Goals (MDG), (United Nations 2012), while others are not on track to realise any. According to the 2012 report, disparity was

thwarting the progress due to ‘...the unevenness of progress within countries and regions and the severe inequalities that exist among populations, especially between rural and urban areas’ (United Nations 2012, p.3). This difficulty indicates that much work has yet to be done to ensure that the rights of *all* students, with and without disability, to receive an equitable education are promoted in all corners of the globe (Forlin 2013a).

In most countries these international conventions and declarations have been seen as providing the incentive for change. While endeavouring to establish an inclusive educational system and as signatories to these, local understandings and action have in many instances, though, been far from the original intention. In some developing countries, there is no legislation and policy for inclusive education, and if in existence, it tends to be rhetoric.

Although developing countries may have adopted the philosophy of inclusion, there is frequently insufficient funding, support or knowledge, to be able to assume an effective system-wide inclusive approach for all learners. Limited support structures, no policy or guidelines, minimal service expertise and a lack of appropriately trained teachers still dominate, making inclusive education for all children an ideal rather than a practice. Specifically, a lack of well thought-out policy, few resources and limited understanding of inclusion seems widespread in the Asia-Pacific region (Sharma et al. 2012). In most instances the current inclusive agenda in developing countries is being driven by policymakers rather than educators and schools, thus making implementation very challenging as schools attempt to engage with the process of inclusive education (Gronlund et al. 2010). There are many challenges that continue to create significant barriers to the inclusion of learners with disabilities in regular classrooms. A key barrier is the attitudes of society (Forlin et al. 2009; Sharma et al. 2011).

What Inclusion Means for Schools

There is little doubt that the shift from a former segregated dual system to an inclusive education approach has had tremendous influence on education systems, schools and all stakeholders involved in education (Forlin 2013a). Local schools can now expect to include students from different socioeconomic backgrounds, those living in poverty, racial minorities, asylum seekers, refugees, children with disabilities or who are high achieving and those who have mental health issues, among others (Forlin 2013a, b; McGlynn and London 2013). While some schools embrace the inclusion of these students, other schools struggle with the logistical, pedagogical and philosophical changes required to accommodate the needs of all students, bringing together the communication, cultural understanding and ability differences that exist in a heterogeneous society. Attitudinal change is one of the key areas that may need to be addressed in schools.

School leaders’ attitudes towards inclusion will vary within settings (Horne and Timmons 2009; Ryan 2010) and can have a significant influence on the attitude of

other staff members. Often the attitude of the school leader will be reflected in the culture of the school (McGlynn and London 2013) and in the organisational structures that are critical for inclusive practice to be realised. The positive attitude of school leaders towards inclusion is correlated with their placement of students into less restrictive environments (Praisner 2003).

According to Voltz and Collins (2010), preparing school leaders for the challenges of an inclusive school includes training them to:

- Recruit and retain quality staff.
- Provide equitable workload and incentives.
- Provide instructional leadership.
- Establish a supportive school environment.
- Provide responsive pedagogical models.
- Collaborate with all stakeholders (inc. staff, parents, peripatetic staff, paraprofessionals).
- Use assessment to determine progress of all students.

The establishment of an inclusive setting can be hampered to some extent by the growing requirement for schools to be accountable to parents and educational authorities, as high-stakes testing does little to encourage a collaborative environment (McGlynn and London 2013). A commitment to the principles and philosophy of inclusion is therefore vital if schools are to work towards including all students in the social and curricula aspects of schooling.

For many countries national policies that focus on establishing inclusive schooling cultures are considered to be challenging to endorse at a local level, as it is difficult for educational systems to effect local change (Sharma et al. 2012). School leaders play a major role in facilitating the shift from an exclusive to inclusive school environment. Ryan (2010) states that 'the more reflective leaders realize that inclusion works best if leadership is seen as a collective process rather than a hierarchical practice that revolves around one person' (p. 9). By including all stakeholders in many of the school activities (i.e. budgeting, curriculum decisions, management, policy), the school leader can work to introduce inclusive practice to all parties and communicate appropriate philosophy surrounding the concepts of inclusion in the school.

Such a change in philosophy to include all students has resulted in new models of education that are more complex and often require difficult changes in the way schools function and in the expectations for teachers (Forlin 2012). These new models require that teachers take on greater responsibility for making decisions in their classroom (Horne and Timmons 2009; Ryan 2010). Some school leaders may not be comfortable in relinquishing the level of control that they have been used to or have been led to believe is necessary to maintain a functioning school. Leaders play a pivotal role in change management to ensure that teachers and peripatetic staff feel empowered in their changing roles and therefore must have a thorough understanding of what these roles require of each participant. The different expectations for teachers may be in variance to previous understandings of their roles and can cause angst if not addressed appropriately by leadership teams.

What This Means for Teachers

An evolution from a segregated schooling approach to more inclusive placements has dramatically changed the traditional role of teachers (Forlin 2013a, b). Inclusive education requires generalist teachers to be able to cater for the needs of the most diverse student populations academically, socially and culturally (Rose 2010), and school leaders need to be accepting of and dedicated to the philosophy (Sharma and Desai 2008).

Previous research reports that if educators hold negative attitudes, then reforms such as inclusive education are unlikely to meet with success (e.g. Beacham and Rouse 2012; Sharma et al. 2007). Increased support by teachers for inclusive education has been linked to prior positive experiences in teaching and interacting with students with disabilities (Ahmed et al. 2012; Forlin and Chambers 2011). A struggle for many teachers, however, is that when instigating inclusion as a new initiative, there is generally a lack of opportunities to view good practices. Further, availability of support for inclusion is also a key factor in a teacher's willingness to become inclusive. According to Ryan and Gottfried (2012), the impact of perceived school support for inclusive practices should not be underestimated, as they note that:

...when conflicting values, attitudes, and beliefs are present amongst the members of the group over an issue (inclusion), or over the behaviours of a member (non-inclusive), the entire group can break down. Therefore, to successfully implement a program, such as inclusion, knowing the attitudes of the staff is vital as a program such as this cannot be successful without positive support. (p. 563)

One of the biggest challenges faced by many countries and especially in developing countries is the lack of preparedness of teachers to implement an inclusive approach in schools. If teachers are to become effective inclusive practitioners and understand and meet the needs of all learners, then they must be prepared appropriately to undertake this new role (Forlin et al. 2011; Graziano 2008). The lack of suitably qualified or trained teachers continues to be a major concern in many regions, contributing to the challenges faced by countries striving to implement inclusion (Charema 2010).

Some education systems are actively involved in reviewing pre-service teacher education models and in developing and trialling new methodologies such as through greater collaboration between training institutions and schools (Florian and Rouse 2009). Others have legislated minimum requirements for initial teacher education, and teacher education institutions are required to register to ensure they meet these minimums (Forlin 2012). Even in countries where inclusion has been practiced since the early 1980s, teacher education has invariably been slow to change to meet the new demands of an inclusive approach (Malakolunthu and Rengasamy 2012; Sharma et al. 2011). In most jurisdictions teachers continue to rate their lack of training as a key reason for finding inclusion too difficult to implement (Armstrong et al. 2010). According to Forlin (2012, p.4), '...teacher education for inclusion in most regions has been tokenistic at best and non-existent at worse'.

This is even more pronounced in developing countries where according to Hassan et al. (2010):

Inclusion seems to be utopia where general education teachers do not have awareness, they are not oriented to children with special education needs, and they don't have inclusive curriculum which helps them to organize activities for inclusive classes. Inclusion in overcrowded general education classes and without at least minimum required resources only increases stress for the teachers. (p. 62)

Likewise, as schools and systems move towards providing more inclusive environments and better preparation for teachers, teacher educators are also challenged to transform their views and practices with respect to what constitutes effective teacher training (Smith and Tyler 2011).

For people moving into teaching, thus, they need to be willing to accept all children. Regular class teachers must provide appropriate and effective pedagogies that will meet the needs of every child in the class. With very limited alternative placement options in the current arena and a strong social justice push that inclusion is the preferred option for all children, inclusion has had to fairly quickly become an accepted norm for many teachers.

While principals and teachers need to be successfully prepared for inclusion, equally, there are many other staff, parents and the students themselves who require training about inclusion. Teachers have to work with a wide range of stakeholders, and this requires specific training in collaborative skills (Forlin 2013a, b). The involvement of children and parents should be fundamental to attaining appropriate learner outcomes, and this should occur through a multi-agency approach. Nonetheless, throughout much of the Asia-Pacific region, this approach has not been adopted. Parents traditionally avoid contact with schools; there is a lack of infrastructure to support a multi-agency approach and almost no involvement of the children themselves in any decision-making (Forlin 2008).

What This Means for Parents

Parents often describe their expectations of inclusive settings in terms of the benefits for their child. These benefits may include increased participation in the classroom along with subsequent enhanced social opportunities (Swedeen 2009), increased self-esteem of the student (Chmiliar 2009), interaction with peers in their local neighbourhood and improved academic achievement (Obiakor et al. 2012). In many countries, particularly Western countries, the expectation that their child with a disability will be educated alongside peers without disabilities in a mainstream classroom is borne out of increasingly supportive legislation and policy.

Parental choice in regard to placement of the student in an educational setting may be available, although this placement does not always correspond with subsequent, much needed, social and curriculum adjustments. Swedeen (2009) suggests that parents who do not experience true inclusion in the school setting may, in turn,

Table 33.1 Questions to ask about inclusive school experiences

In the classroom	In the school building	In the school district
Are all students sitting together?	Do all students feel they are a part of the community?	Do the principals understand and support inclusive principles?
Are all students asked to participate in class activities?	Are services integrated into regular activities throughout the day?	Do the school leaders provide resources and flexibility to support inclusion?
Are there a variety of ways for students to participate in activities?	Are all students encouraged to engage in extracurricular and social events at school?	Do school leaders see how inclusive practices fit into overall school improvement efforts?
Is there evidence of active learning?	Does every student have an opportunity to share talents and passions?	
Are all students working in the same curriculum at varying levels of complexity?	Do IEP meetings involve the student and reflect on student success and interests?	
Are students supporting each other?		
Does the teacher take ownership of the student?		

Adapted from Swedeen (2009, p. 4)

advocate for exclusive, segregated environments, where there is a perception that their children may experience greater opportunity to succeed in educational and social areas. Experiences where students are simply ‘placed’ in the classroom without effective support or provision can lead to negative parental attitudes towards the process of inclusion (Chmiliar 2009). An example of ‘placement only’ is when a student is seated at the back or side of a classroom, not interacting appropriately with the curriculum or other students, or when they are not involved in extracurricular activities, both of which are desirable when forming effective relationships with schoolmates.

Parents are often quite divided in how they view inclusive education (Runswick-Cole 2008) and where they choose to send their children. This division is impacted by the experiences they have with schools, the type of attitudes they encounter towards inclusion (good or poor) and the provision or lack of resources to support their children. Communication issues between all stakeholders can also produce negative impressions of how the school is catering for the child (Chmiliar 2009; Runswick-Cole 2008). Teachers need to ensure that they are communicating effectively with peripatetic staff, parents, other teachers and administrators in regard to the delivery of the educational program.

Swedeen (2009), as the parent of a child with a disability, has devised a list of questions that parents should ask to determine whether the school environment is meaningful and inclusive (see Table 33.1) of their child. Many of these questions relate to the nature of the interaction that occurs within the classroom and school

and encourage parents to closely examine the environment of the school. Additionally, the questions would be useful for schools to ask of staff to examine their own practices.

Parents' experiences of inclusion are often formed quite early in the child's schooling career, as they may struggle to have the child's areas of difficulty realised and appropriate provisions made (Chmiliar 2009; Isaksson et al. 2010). Indeed, Isaksson et al. (2010) state that an effort to have their knowledge about their child recognised and the student included was parents' biggest hurdle. Failure of the school or teacher to recognise difficulties early and address these can lead to tensions between the school and parent, which may build up communication barriers. Effort should be made by schools to form a collaborative, close working partnership with the parents, initially by taking their concerns seriously and including them in making decisions about their child's schooling (Briggs 2013).

What This Means for Students

A classroom that includes the type of interaction sought in an inclusive setting is often beneficial to *all* students as it provides opportunities to engage with others and a curriculum that can be individualised (Swedeen 2009). There are, however, additional benefits for students with special needs. One overwhelmingly advantage is that the students are educated in the same setting as their peers. Studies conducted to determine students' with disabilities perceptions of withdrawal provision found that the students did not want to leave the regular classroom for special support, as it made them feel different and excluded (Isaksson et al. 2010; Obiakor et al. 2012). Miller (2008) sent pre-service teachers to gather perspectives of school students on the inclusion of students with disabilities, and they found that '...their classroom interactions with students with disabilities have been positive – both for themselves and for the included students' (p. 391). The positive acceptance of students with disabilities enhances mainstream students' abilities to empathise with others and develop a social justice orientation (Obiakor et al. 2012).

The setting in which students are educated can impact upon expectations and understanding of the needs and the curriculum that may be offered to the student. Although placement in an inclusive setting does not guarantee that the student will receive appropriate support and curriculum access, the chances of this occurring are increased when teachers make thoughtful adjustments for their students. Obiakor et al. (2012) provide an example of a boy who was identified as requiring assistance with reading. As a result he was removed from the classroom for intense reading lessons, which did not prove to be successful in him attaining grade-level reading skills. Along with the lack of academic achievement in the segregated environment, the boy's behaviour deteriorated as he resented being removed from the general education classroom. In the case of this boy, the system was not only proving to be ineffective in remediating an academic difficulty; it was also impacting upon his social and behavioural interactions. In this case an inclusive setting with appropriate

pedagogy may have been a more fitting approach. Indeed, Briggs (2013) suggests that there is growing evidence that inclusive schooling practices can actually have a positive impact on overall academic results for the school.

Positive behaviour supports which are often implemented to cater for the social and emotional needs of students with disabilities support the needs of many students within the school setting (Obiakor et al. 2012). Chitiyo et al. (2010) examined the use of positive behaviour supports in the classroom and found that there is positive correlation between improved behaviour and increased academic achievement for students with disabilities. Interventions may be undertaken at the system-wide, school-wide or classroom-wide level (Chitiyo et al. 2010). The act of redesigning the classroom, the curriculum and reward systems as a result of implementing positive behaviour support strategies is often beneficial to all students in the classroom.

Future Directions

To ensure that all learners regardless of special educational need continue to be included in regular classes in the future, there needs to be a greater focus on several areas. If teachers are to become inclusive practitioners, it is imperative that appropriate preparation during their training and subsequent ongoing professional learning opportunities are readily available (Horne and Timmons 2009; Ryan 2010). Teachers are critical to the successful implementation and sustainability of an inclusive approach (Forlin 2013a, b). Support should provide relevant and timely input to ensure positive attitudes, to gain an understanding of different learner needs, to assist in diagnostic assessment and planning for diverse learners and to provide guidance and direction for changing curricula and pedagogy (Forlin and Chambers 2011). Many teachers continue to be uncertain about their role when including students with diverse needs and may perceive an inability to provide effective inclusive teaching. Understanding and support from administrators, school leaders, parents and the community are, therefore, key aspects for encouraging teachers to become more inclusive and to be able to effectively cater for all students within the regular classroom.

In particular, there are many complex challenges to be faced in establishing inclusive practices in developing countries, especially where including children with disabilities into regular schools is a new concept (Sharma et al. 2012). As developing countries struggle to counter existing and diverse inequalities, nonetheless, inclusion offers a possible solution to enabling this.

To be effective, national approaches to inclusion need to be based on a robust foundation. Genuine inclusive practices require a well-established process for implementing policy by accommodating the needs of all learners. In addition, it is important to ensure that teacher education, resources, policy and processes are made available at all levels and stages of execution to enable inclusion to move beyond rhetoric. If classrooms of the future are going to continue to accommodate an

increasingly diverse group of learners, then governments must adopt a more proactive and realistic role to establish policy and to provide support for practices that address the fundamentally different needs of all learners.

References

- Ahmed, M., Sharma, U., & Deppeler, J. (2012). Variables affecting teachers' attitudes towards inclusive education in Bangladesh. *Journal of Research in Special Educational Needs*, 12(3), 132–140.
- Ainscow, M., Dyson, A., Goldrick, S., & West, M. (2011). *Developing equitable education systems*. Abingdon: Routledge.
- Aristotle. (350BC). *Politics: Book seven* (H. Rackham, Trans.). Retrieved from <http://www.perseus.tufts.edu/hopper/text?doc=Perseus:abo:tlg,0086,035:7:1335b>
- Armstrong, A. C., Armstrong, D., & Spandagou, I. (2010). *Inclusive education: International policy and practice*. London: Sage.
- Beacham, N., & Rouse, M. (2012). Student teachers' attitudes and beliefs about inclusion and inclusive practice. *Journal of Research In Special Educational Needs*, 12(1), 3–11. doi:10.1111/j.1471-3802.2010.01194.x.
- Berlach, R. G., & Chambers, D. J. (2011). Interpreting inclusivity: An endeavour of great proportions. *International Journal of Inclusive Education*, 15(5), 529–539. doi:10.1080/13603110903159300.
- Briggs, S. (2013). *Inclusion: Meeting SEN in secondary schools*. London: David Fulton Publishers.
- Chambers, D. J., & Lavery, S. (2012). Service-learning: A valuable component of pre-service teacher education. *Australian Journal of Teacher Education*, 37(4), 128–137.
- Charema, J. (2010). Inclusive education in developing countries in the sub Saharan Africa: From theory to practice. *International Journal of Special Education*, 25(1), 87–93.
- Chitiyo, M., Makweche-Chitiyo, P., Park, M., Ametepee, L. K., & Chitiyo, J. (2010). Examining the effect of positive behaviour support on academic achievement of students with disabilities. *Journal of Research in Special Educational Needs*, 11(3), 171–177. doi:10.1111/j.1471-3802.2010.01156.x.
- Chmiliar, L. (2009). Perspectives on inclusion: Students with LD, their parents, and their teachers. *Exceptionality Education International*, 19(1), 72–88.
- Commonwealth of Australia. (1992). *Disability discrimination act*. Retrieved from <http://www.comlaw.gov.au/Details/C2013C00022>
- Commonwealth of Australia. (2005). *Disability standards for education 2005*. Retrieved from <http://www.comlaw.gov.au/Details/F2005L00767>
- Donnelly, V., & Watkins, A. (2011). Teacher education for inclusion in Europe. *Prospects*, 41, 341–353. doi:10.1007/s11125-011-9199-1.
- European Agency for Development in Special Needs Education. (2012). *The inclusive education in action project*. Retrieved from <https://www.european-agency.org/agency-projects/iea>
- Florian, L. (2011). Mapping international developments in teacher education for inclusion. *PROSPECTS*, 41(3), 319–321.
- Florian, L., & Rouse, M. (2009). The inclusive practice project in Scotland: Teacher education for inclusive education. *Teaching and Teacher Education*, 25, 594–601. doi:10.1016/j.tate.2009.02.003.
- Foreman, P. (2008). *Inclusion in action* (2nd ed.). South Melbourne: Cengage Learning.
- Forlin, C. (2008). Education reform for inclusion in Asia: What about teacher education? In C. Forlin & M.-G. J. Lian (Eds.), *Reform, inclusion and teacher education: Towards a new era of special education in the Asia-Pacific region* (pp. 61–73). Abingdon: Routledge.

- Forlin, C. (2012). Responding to the need for inclusive teacher education: Rhetoric or reality? In C. Forlin (Ed.), *Future directions for inclusive teacher education* (pp. 3–12). New York: Routledge.
- Forlin, C. (2013a). Changing paradigms and Future directions for implementing inclusive education in developing countries. *Asian Journal of Inclusive Education*, 1(2), 19–32.
- Forlin, C. (2013b). Issues of inclusive education in the 21st century. *Journal of Learning Science*, 6, 67–81.
- Forlin, C., & Chambers, D. J. (2011). Teacher preparation for inclusion: Increasing knowledge, but raising concerns. *Asia-Pacific Journal of Teacher Education*, 39(1), 17–32.
- Forlin, C., Loreman, T., Sharma, U., & Earle, C. (2009). Demographic differences in changing pre-service teachers' attitudes, sentiments and concerns about inclusive education. *International Journal of Inclusive Education*, 13(2), 195–209.
- Forlin, C., Earle, C., Loreman, T., & Sharma, U. (2011). The Sentiments, Attitudes and Concerns about Inclusive Education Revised (SACIE-R) scale for measuring pre-service teachers' perceptions about inclusion. *Exceptionality Education International*, 21(2 and 3), 50–65.
- Graham, L. J., & Slee, R. (2008). An illusory interiority: Interrogating the discourse/s of inclusion. *Educational Philosophy and Theory*, 40(2), 277–293.
- Graziano, K. J. (2008). Walk the talk: Connecting critical pedagogy and practice in teacher education. *Teaching Education*, 19(2), 153–163. doi:10.1080/10476210802040740.
- Gronlund, A., Lim, N., & Larsson, H. (2010). Effective use of assistive technologies for inclusive education in developing countries: Issues and challenges from two case studies. *International Journal of Education and Development using Information and Communication Technology*, 6(4), 5–26.
- Hassan, M. U., Parveen, I., & Riffat-un-Nisa. (2010). Exploring teachers' perspective: Qualms and possibilities for inclusive classes in Pakistan. *Journal of the International Association of Special Education*, 11(1), 56–63.
- Horne, P. E., & Timmons, V. (2009). 'Making it work: Teachers' perspectives on inclusion. *International Journal of Inclusive Education*, 13(3), 273–286. doi:10.1080/13603110701433964.
- Irvine, P., Wright, E. B., & Applequist, K. (2007). 'History of special education'. In *Encyclopedia of special education: A reference for the education of children, adolescents, and adults with disabilities and other exceptional individuals*. Retrieved from http://ipacez.nd.edu.au/login?url=http://www.credoreference.com/entry/wileyse/history_of_special_education
- Isaksson, J., Lindqvist, R., & Bergström, E. (2010). Struggling for recognition and inclusion: Parents' and pupils' experiences of special support measures in school. *International Journal of Qualitative Studies on Health and Well-being*, 5(1), 1–11. doi:10.3402/qhw.v5i1.4646.
- Library of Congress, USA. (1975). *Education for all handicapped children act*. Retrieved from <http://www.gpo.gov/fdsys/pkg/STATUTE-89/pdf/STATUTE-89-Pg773.pdf>
- Library of Congress, USA. (2004). *Individuals with disabilities education act*. Retrieved from <http://www.gpo.gov/fdsys/pkg/PLAW-108publ446/html/PLAW-108publ446.htm>
- Loreman, T. (2009). 'Straight talk about inclusive education'. *CASS Connections*, 43–47. Spring.
- Loreman, T., & Earle, C. (2007). The development of attitudes, sentiments and concerns about inclusive education in a content-infused Canadian teacher preparation program. *Exceptionality Education Canada*, 17(1), 85–106.
- Malakolunthu, S., & Rengasamy, N. (2012). Education policies and practices to address cultural diversity in Malaysia: Issues and challenges. *Prospects*, 42, 225–229. doi:10.1007/s11125-012-9227-9.
- McGlynn, C., & London, T. (2013). Leadership for inclusion: Conceptualising and enacting inclusion in integrated schools in a troubled society. *Research Papers in Education*, 28(2), 155–175. doi:10.1080/02671522.2011.600458.
- Miller, M. (2008). What do students think about inclusion? *Phi Delta Kappan*, 89(5), 389–391.
- Monfasani, J. (1999). The renaissance: Humanism. In R. Popkin (Ed.), *Columbia history of western philosophy* (pp. 292–303). New York: Columbia University Press.

- Obiakor, F. E., Harris, M., Mutua, K., Rotatori, A., & Algozzine, B. (2012). Making inclusion work in general education classrooms. *Education and Treatment of Children*, 35(3), 477–490.
- Peterson, J. M., & Hittie, M. M. (2010). *Inclusive teaching: The journey towards effective schools for all learners* (2nd ed.). Upper Saddle River, NJ: Pearson Education.
- Praisner, C. L. (2003). Attitudes of elementary school principals towards the inclusion of students with disabilities. *Exceptional Children*, 69(2), 135–145.
- Priya, L. (2013). Privilege, compromise, or social justice: Teachers' conceptualizations of inclusive education. *Disability and Society*, 28(1), 14–27.
- Republique Francais. (1975). *Loi d'orientation en faveur des personnes handicapées*. Retrieved from <http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000333976&dateTexte=20120606>
- Rose, R. (2010). Understanding inclusion, interpretations, perspectives and cultures. In *Confronting obstacles to inclusion: International responses to developing inclusive schools* (pp. 1–6). Abingdon: Routledge.
- Ryan, J. (2010). Establishing inclusion in a new school: The role of principal leadership. *Exceptionality Education International*, 20(2), 6–24.
- Ryan, T. G., & Gottfried, J. (2012). Elementary supervision and the supervisor: Teacher attitudes and inclusive education. *International Electronic Journal of Elementary Education*, 4(3), 563–571.
- Runswick-Cole, K. (2008). Between a rock and a hard place: Parents' attitudes to the inclusion of children with special educational needs in mainstream and special schools. *British Journal of Special Education*, 35(3), 173–180.
- Salend, S. J., & Garrick Duhaney, L. M. (2011). Historical and philosophical changes in the education of students with exceptionalities. In A. F. Rotatori, F. E. Obiakor, & J. P. Bakken (Eds.), *Advances in special education: History of special education: Volume 21* (pp. 1–20). Binkley: Emerald Group Publishing limited.
- Sharma, U., & Desai, I. (2008). The changing roles and responsibilities of school principals relative to inclusive education. In C. Forlin & M.-G. J. Lian (Eds.), *Reform, inclusion and teacher education: Towards a new era of special education in the Asia-Pacific region* (pp. 153–168). Abingdon: Routledge.
- Sharma, U., Loreman, T., & Forlin, C. (2007). What concerns pre-service teachers about inclusive education: An international viewpoint. *KEDI Journal of Educational Policy*, 4(2), 95–114.
- Sharma, U., Loreman, T., & Forlin, C. (2011). Measuring teacher efficacy to implement inclusive practices: An international validation. *Journal of Research in Special Educational Needs*, 12(1), 12–21.
- Sharma, U., Forlin, C., Deppeler, J., & Guang-xue, Y. (2012). Reforming teacher education for inclusion in developing countries in the Asia Pacific Region. *Asian Journal of Inclusive Education*, 1, 3–16.
- Smith, D. D., & Tyler, N. C. (2011). Effective inclusive education: Equipping education professionals with necessary skills and knowledge. *Prospects*, 41, 323–339.
- Sternberg, R. (2007). IQ testing. In *Cambridge handbook of psychology, health and medicine*. Retrieved from http://ipacez.nd.edu.au/login?url=http://www.credoreference.com/ipacez.nd.edu.au/entry/cupphm/iq_testing
- Sweden, B. L. (2009). Signs of an inclusive school: A parent's perspective on the meaning and value of authentic inclusion. *TEACHING Exceptional Children Plus*, 5(3), 1–12.
- United Nations Educational, Scientific and Cultural Organisation (UNESCO). (1994). *Salamanca statement and framework for action on special education needs*. Retrieved from http://www.unesco.org/education/pdf/SALAMA_E.PDF
- United Nations Educational, Scientific and Cultural Organisation (UNESCO). (2000). *Framework for Action*. Dakar: Author.
- United Nations Educational, Scientific and Cultural Organisation (UNESCO). (2005). *The guidelines for inclusion: Ensuring access to education for all*. Retrieved from <http://unesdoc.unesco.org/images/0014/001402/140224e.pdf>

- United Nations Educational, Scientific and Cultural Organisation (UNESCO). (2009). *Policy guidelines on inclusion in education*. Retrieved from http://www.inclusive-education-in-action.org/iea/dokumente/upload/72074_177849e.pdf
- United Nations Educational, Scientific and Cultural Organisation (UNESCO). (2012). Education: Addressing exclusion. Retrieved from <http://www.unesco.org/new/en/education/themes/strengthening-education-systems/inclusive-education/browse/4/>
- United Kingdom Government. (1970). *Education (handicapped children) act*. Retrieved from <http://www.legislation.gov.uk/ukpga/1970/52/enacted>
- United Nations. (2006). *Convention on the rights of persons with disabilities*. Retrieved from <http://www.un.org/disabilities/convention/conventionfull.shtml>
- United Nations. (2012). *The millennium development goals (MDG) report*. New York: United Nations.
- Voltz, D. L., & Collins, L. (2010). Preparing special education administrators for inclusion in diverse, standards-based contexts: Beyond the council for exceptional children and the inter-state school leaders licensure consortium. *Teacher Education and Special Education*, 33(1), 70–82. doi:10.1177/0888406409356676.
- Wolfensberger, W. (1972). *The principle of normalization in human services*. Toronto: National Institute on Mental Retardation.

Chapter 34

An American Special Education Teacher's Reflections

Beverly Chase

Abstract An American teacher reflects on changes in learning and teaching over the past 60 years using her own experiences as a case study of issues that concern both students and teachers. While she encountered political and policy obstacles throughout her education, her students faced additional serious psychoeducational barriers, including poverty, domestic violence, child sexual abuse, learning disabilities, and mental health issues. The author finds Vygotsky's dialectical CHAT theory most useful to turn weaknesses into strengths through dynamic assessment, language, activity learning, and especially play. As a clinical social worker, the author suggests strategies teachers can apply to increase empathy for others, which leads to higher student achievement and satisfaction. These include listening skills and allowing each individual to determine their own future. This innovative approach is effective across the life span, from infancy to adulthood, for regular as well as special education.

Keywords Special education • Vygotsky • Therapeutic education • Early intervention • IDEA play • Adult education • Teacher education • Social work education • Child sexual abuse

Introduction

Little Henry would yell, "Beb! Beb! Where are you? I see you!" whenever I walked in the room. Eight-year-old, hyperactive, malnourished Henry was legally blind and severely cognitively limited, one of the youngest of nine brothers who lived in appalling conditions in West Virginia with his equally cognitively limited parents.

This chapter is intentionally different in style and approach to the other chapters in this volume in that it provides one teacher's perspective and social construction of reality regarding what it can be actually like, from one individual's experience, to work in classrooms.

B. Chase (✉)

Special Education Teacher, 1345 Girod Street, Mandeville, New Orleans, LA 70448, USA
e-mail: bvchas@netzero.net

His attachment to me was total. He sat when I told him to sit, ate when I gave him a spoon, and stopped his motor mouth (momentarily) when I asked him to shush, an influence no one else had over him.

I met Henry in 1968 when I was a VISTA volunteer assigned to Appalachia. Most recently, I taught 1-year-olds at an inclusive day care in Louisiana. These fast growing toddlers came when I called them (usually), their language skills exploded in six short weeks, and they were a delight to watch as their personalities unfolded every day. Between these two settings, I taught in elementary and high schools, special education, universities, basic adult literacy, family literacy, English as a Second Language, and high school equivalency (GED) and had a 9-year stint as an early intervention social worker. Don't get the impression that every student always cooperated, but, if there is any secret to my teaching success, it is that I've tried to treat every student as I would have liked to be treated if I were in their situations.

In 45 years, I've seen a lot of social change and educational policies come and go. When mimeograph machines were the height of school technology, no one could have predicted the impact of computers. Never, ever, would I have imagined that English might become a minority language in the USA in my lifetime. Head Start, designed to level the playing field for disadvantaged young children, was the latest trend in the 1960s, the first model for early childhood education I learned, and it's a good one. Today, Head Start's budget has been strangled into near nonexistence. Most infants and toddlers now attend private day care because both parents need to work. This raises the bar as to what children are expected to already know when they enter pre-K or kindergarten. Not that open-plan schools, longer school days, No Child Left Behind, or standardized tests have improved the quality of American education. College professors will tell you they pull their hair out when students can't write a coherent sentence. Special education was an embryo when I started teacher training, but, by the 1980s, I watched local school districts go bankrupt because of accommodations they were required to make for children with special needs. The country went from one extreme to the other with IDEA's "free appropriate public education for all."

Parents, teachers, pupils, and the public all criticize the current state of American education and society. Schools are blamed for the USA trailing the world in technology, high unemployment, and college students unable to read; you name it. Immigrants are blamed for lowering educational standards. Some white Southerners I've talked to believe the solution is a return to corporeal punishment and an end to affirmative action. I don't have solutions for the big educational issues we face now, only reflections of lessons I've learned during my career as a teacher. My father, a high school graduate who went on to make a lot of money, liked to say, "Those who can, do. Those who can't, teach." It's a sentiment I still hear sometimes. I also recall, on more than one occasion, my dad said, "I don't know what would have become of me if that teacher hadn't believed in me." It's ironic that Americans disrespect educators so deeply and in the next breath remember a teacher who changed their lives.

I couldn't make money like my father because I wanted to be a teacher. Only principals, superintendents, and policy makers earn big salaries in education and most of them are men. Classroom teaching remains a low-paid occupation and the

domain of women. I'll get to my opinions why women and children have such low social status in a minute.

When the day care director popped in my class one day and asked why my room was so calm when the rest of the building was in chaos, I realized 38 years as a teacher has taught me a few things. A deeper reason I write is to discuss the pedagogy of Lev S. Vygotsky. He's responsible, as most teachers know, for the concepts of scaffolding and the zone of proximal development, the idea that teachers should aim instruction slightly above what a child can achieve independently. What most American teachers are not taught is that Vygotsky's theory is based on dialectics. He argued that traditional education produces two-dimensional stick people, but, if teachers use dialectics to resolve the difficult contradictions that life is made of, a child's weaknesses can dynamically be transformed into strengths. The result of a dynamic education is a three-dimensional person. I discovered Vygotsky in a graduate education class at Boston University and spent 10 years studying cultural-historical activity theory (CHAT). Vygotsky's dialectics provided me more insights than any other educational theorist I have ever encountered. He gave the world wisdom that we neglect at our peril. Luckily, what was old is new again and it's never too late to make up for the lost time.

I used to reassure my discouraged adult students that it's never too late to learn. If you drop out today, there's always tomorrow, 5 or 25 years from now, to come back to it. Lifelong learning is a concept many people have trouble wrapping their heads around. We're conditioned to expect that once you graduate, it's over. A friend of mine once had the novel idea that we should send young energetic kids out to work for a few years and then provide them 10–12 years of schooling. They'd appreciate their education more. As a lifelong student myself, it brought me a good life and I recommend it. If new, young (or old) teachers can benefit from my reflections, I'm happy to share them with you.

My Old School Days

I hated school from day one. Preschool was sour pineapple juice and dry crackers. Line up. No talking. Put that crayon down. No, you cannot go home. Sit down NOW! There were so many rules I deeply resented the power these adults wielded over me. At age 5, I was convinced I knew more than these teachers and what young children need. First grade was worse. Miss Niles was old and mean. She made fun of me in front of the other students when I stumbled over words in group reading. It was only the kindness of classmates who whispered the hard words to me when Miss Grumpy's back was turned that kept me from dying of embarrassment. Yet, I already knew I wanted to be a teacher. At home, I'd line up my dolls, scribble on the walls, and yell at my imaginary students, "No, not that way, this way," just like I'd learned in school.

High school wasn't much better. I was at the lower end of the top percentile of my class, so I was one of the dumb ones in the nerdy college prep stream. I had

many outside interests and regarded school as a rude interruption to real life. I got by doing the minimum, struggled with chemistry, and was relieved that physics and calculus weren't required in my senior year. For 3 years, in every class except English and history, which I liked, I wrote notes to my best friend until she dropped out of school. I read *Lady Chatterley's Lover* on the long bus rides home, a book not in the school English curriculum. I raised money for St. Jude Hospital, a national children's cancer center. I volunteered to work with kids in the poorest Providence neighborhood. That was my first introduction to blacks since there weren't any in my school. I also volunteered for the local Association for Retarded Children and decided I would become a special education teacher. I read a story at the time by Robert Louis Stevenson who wrote that nineteenth century lamplighters in London were "punching holes in the dark." That's what I felt I was doing in my extracurricular activities with poor and mentally disabled children.

In retrospect, mine was typical schooling for the time. My generation, I believe, was the last to be offered Latin at this high school. Until after graduation when Viet Nam touched our lives, none of my classmates died or were arrested for drugs. By the time my younger sister attended the same school 11 years later, she told me students could major in macramé, and she needed both hands to count her classmates who had died in drunk driving accidents or suicided before the end of Grade 12. My point is that few children enjoy school. I think the very worst question an adult can ask a child is "How's school?" They're just not into it that much. To me, the question shows how out of touch adults are with children and how quickly we forget our own school days.

Lies, Lies, Lies

While my high school peers spent months agonizing over college applications and I knew I needed a degree to teach, I did not look forward to another 4 years of miserable boring classes. I was anxious to save the world, and VISTA (Volunteers in Service to America) was the avenue I chose. It was part of Lyndon Johnson's War on Poverty, Sargent Shriver's domestic Peace Corps, now known as AmeriCorps. In the "Do your own thing" era that was VISTA philosophy, I recruited mentally handicapped children, who public schools had rejected, for a private nonprofit day care center. Working with a good team, we were able to hire a qualified director, increase enrollment, and provide federally funded hot lunches.

Meanwhile, I researched where I could obtain an undergraduate degree in special education. There weren't many choices. The University of Maryland was one. I applied and was accepted in January 1970. I took a part-time job as a National Park Service ranger in Washington, DC, which appealed to my interest in history, and enrolled for classes on the International Phonetic Alphabet and speech therapy, advanced special education courses I somehow wormed my way into as a freshman.

A US History course was the first to shatter my idealism of America. I learned that the CIA had manipulated several South American governments, something my high school history teacher had neglected to mention. I began to question all the lofty patriotic ideals I'd learned in school. In May, final exams were canceled because tear gas and bomb threats riddled the campus. Watts burned from racial tension. Viet Nam was extremely unpopular. On the 4th of July I found myself working in the middle of a patriotic celebration in Washington. Police horses stampeded demonstrators protesting poverty, racial inequality, and Viet Nam, while Kate Smith sang "God Bless America." Watching Americans battle each other was just too much for me. A car bumper sticker popular at the time said: "America - Love it or leave it." That 4th of July, I decided to leave it.

I still wanted to be a teacher. I needed to find a country that spoke English so I could finish my college education. To make a long story short, I applied to every university in Australia and the University of Tasmania was the first to accept me. The day I arrived I thought I'd made a terrible mistake because I couldn't understand a word of the Australian accent. I was disappointed the state university didn't even have an undergraduate education program. It turned out to be the best decade of my life. I obtained an honors degree in psychology and did an extra year for a Diploma of Education (elementary), and the University gave me an assistantship to teach educational psychology and manage a Curriculum Resource Center for student teachers. By the time I graduated, the University finally had a B Ed program and a graduate special education department, which didn't appeal to me at all since it focused solely on behavior modification. To say the least, I was distracted from my youthful goal for those 11 years but it was worth it. One thing that impressed me about the Australian education system, missing in the USA, was good vocational education. Only the elite went to university in Australia, but a majority of school students were offered apprenticeships and vocational training. It is stupid that the USA never developed a strong vocational education policy.

Back in the USA

I never intended to return to the USA but my family persuaded me, and my anger at America had somewhat mellowed. Early 1980s was a bad time to look for work in the States, so I did what a lot of unemployed college grads do, I went back to school. I finished a master's degree at the University of Rhode Island that I had started in Tasmania. I compared student-teacher idealism in the two cultures and found Tasmanians were more realistic than Rhode Islanders, less apt to get a shock their first year teaching. I subbed in schools when I wasn't supervising URI social service interns. Summers I taught at a year-round special school for severely multi-handicapped children. In my spare time, I volunteered with an adult literacy organization. I began this project to appease my guilt that schools had failed so many children. When I heard how nonreaders struggle through life, my heart sank and I committed to help adults learn to read for the next decade. My highest peak

experience with adult basic literacy students was to enable six new readers, from a student support group I initiated and facilitated, to attend a national literacy conference in Orlando. I'll never forget the expressions on their faces when they first tasted success. Despite everyone who had told them they were too dumb to manage money, travel, or attend a national conference, they did it. Never underestimate the potential of a group of motivated students.

Next I taught GED in a Clinton-era federal grant project designed to speed lingering welfare moms into jobs. The success rate of this program was only 50%. The economic, social, and personal barriers these women faced, on top of their educational ones, were too numerous to count. When one woman came to class with a black eye from a boyfriend, she said, "Don't worry. It's only my head." Another student disappeared after a morning break. When I asked where she was, the others told me her boyfriend had escaped from a prison work release detail and she'd left with him. As an ordinary teacher, you don't expect to call the state police to ask if they've misplaced a prisoner or to encounter students with such poor judgment. Another teacher and I held on to as many women as we could. We kept them coming, not by cramming for the GED tests, but by taking field trips, writing a yearbook, planning children's parties, planting trees on Earth Day, and making the women feel important.

During the 1980s, I finally obtained SPED certification. I remember one SPED prof, urging teachers to give difficult students positive feedback, who said, "You can always compliment their eyes if you can't think of anything else good to say about them." I did my SPED internship at a residential school for behavior disordered boys and finished the year teaching there after the internship ended. Black humor was a survival necessity for staff at this school. We repeatedly told boys in trouble they would have to pay for their misbehavior today but tomorrow would be a new day. At the end of the school day, I'd sit in my car, grab the steering wheel tight, and repeat to myself, like a mantra, tomorrow will be a new day, until I was calm enough to drive home. The saddest sight I ever saw in a school anywhere was a boy here taken away by the police in chains. Some nights I cried because these students were so difficult. All 64 boys had multiple psychoeducational diagnoses. Teachers spent a considerable amount of time assessing and reassessing in order to justify the astronomical tuition local school districts had to pay for a child's residential treatment. This school year was a big challenge for me. I'd never seen the effects of horrendous home environments, learning disabilities, and student anger this severe before.

Back to School Again

I decided in the early 1990s I needed more training if I planned to teach school dropouts or emotionally disturbed children, the direction my career was taking. Even regular public schools were becoming tough places. I needed more strategies – badly – so I started a doctorate in special education at Boston University and was overwhelmed by options the dean offered me the very first day. I could help

myself to the resources of the medical school, law school, or any other place in the world where the university was affiliated. One choice was a dual degree at the BU School of Social Work. The opportunity to learn clinical therapy skills was exactly what I needed! All I'd learned about complimenting students' eyes in education classes had proven insufficient for the students I'd met. I learned more about teaching in the 2-year MSW than I had in decades of education courses. I developed an identity crisis. I was a teacher but now also a social worker. I saw social work and education perspectives so similar and complementary that I started talking about merging the two fields. This idea didn't go down well in either faculty. Social workers (unfairly) tended to blame and minimize the role of teachers, and educators, feeling inferior I suspected, didn't want anything to do with social workers, too bad. Both professions set goals to actualize individuals, both serve the same populations, and both use almost identical interventions – the difference seems largely a matter of semantics. Nobody else saw it that way.

Social workers see clients as determiners of their own fate. We'd rather not mandate anyone to do anything. We see our role as facilitators, empowering people to realize self-set goals. The professional is only a guide, who knows less about a client than the client knows about him-/herself. Therapists realize there's a process taking place when, for instance, we take a child to McDonald's. We may sometimes point out parallel processes we observe to a client, but its recognized clients must solve their own problems. The less a therapist intervenes, the better it is for the client. Another skill social work students learn is to use themselves as tools to effect change. The strategy is called "use of self," where a therapist discloses personal information when it will assist a client. This case study is an example of me using myself to point out processes and parallel processes between teachers and students. One survey I read impressed me: it found low income clinical clients are most satisfied with therapy outcomes if they feel their therapist is a friend. It's trust that cements success. Why haven't educators realized this?

Social workers have their cognitive, systems, and constructivist theories, which overlap considerably with educators. Contrary to popular belief, therapists do not shrink heads. Whereas over in the BU Ed Dept, I constantly heard, "No, no, no, that's impossible," I was pleasantly surprised that professors in the School of Social Work were consistently more supportive and usually said, "Sure, that's great." Another lesson from social work training I considered important is that it's okay to make mistakes; they can usually be corrected tomorrow. Having permission to remove defenses about failure is extremely powerful for both counselors and clients. No matter which theory social workers practice, empathy is a fundamental given. If teachers had the patience and skill to empathize more with their students, I believe we'd have a lot more satisfied students.

When I completed the MSW, I returned to teaching, this time at a Family Writing Center sponsored by the Providence Public Library. What a treat to teach children and parents together! Ninety-five percent of the students were immigrants, who enrolled to improve basic English skills. Each 10-week cycle produced a class book that students wrote. Every volume was moving, to read the voices of such a variety of people. In these classes, Russians teased me to forget English and learn Russian.

Hispanics told horror stories of extortion going on in their home countries. An Indian businessman still sends me Christmas cards. These classes were so easy, I almost forgot why I'd become a social worker. I was also a doc student and eventually I moved to Boston to get on with my studies.

Boston

When I arrived, I took on another GED class to feed myself. This group was comprised largely of whites who had dropped out during the controversial desegregation of Boston schools. Twenty plus years later, they were still angry that they'd been bussed to Roxbury, and it interfered with their learning. Teaching GED wasn't enough to live on, so I applied for a full-time social work position at a local community mental health center. I wanted to counsel elementary-age children and obtain access to participants for my dissertation, but I was steered into their early intervention (EI) program. I objected I knew nothing about babies and was informed I'd learn on the job. I've let serendipity direct much of my life path, and the decade I taught 2-year-old boys to talk wasn't disappointing.

Services in early intervention, a federal public health program, are home based. I thought I'd reached heaven with the opportunity to work with young special needs children and their parents in their homes. I often imagined how the children would do in school later and how these parents would relate to teachers. As a school teacher, I had often wondered about students' home lives. EI serves children birth to 3 who have medical issues, developmental delays, or environmental risks. As a social work service coordinator, I dealt with a variety of conditions including seizure disorders, teenage moms on drugs, autism, and lead poisoning. A third of my clients were newly arrived Hispanics, sometimes illegal. The most common eligibility diagnosis EI children received was delayed expressive language (not surprising for Hispanic children tested in English). Language delays, of course, are important to remediate early if children are to succeed in school. I blew bubbles and played ball with the toddlers and watched one boy repeatedly sprinkle ants on the sidewalk with cups of water during water play. He showed such intense concentration on those ants! At this job, at age 52, I relearned how to play. I'd never realized how extremely beneficial it is to play, not only for children, not emphasized enough in any Ed courses I took. At EI, early childhood specialists, social workers, and a team of other therapists conducted constant assessments. At the time I left, new instruments were being implemented to raise the eligibility criteria, so fewer children would qualify for services. It was a budget thing.

My doctoral advisor groaned when I told him I had a full-time job. At least I was closer to campus, had an MSW, and did write revisions and revisions on my dissertation. I initially began doc studies with the vague aim of writing a nonsexist dictionary to make a contribution to the women's movement. It really bugged me that a woman would probably never be president of the USA as long as child-bearing age women are called "girls." I had a strong hunch that vocabulary usage

and the way our society devalues women were related. I could also see that dysfunctional language skills were responsible for a good deal of the problems my students experienced. Students who deal with paralyzing conditions such as sexual abuse and borderline personality disorder when learning to read and write, like the woman with the black eye, are unlikely to succeed with educational goals, whether set by themselves or external authorities.

Thank goodness, I discovered Vygotsky at this time. Otherwise, I didn't know how I could solve this problem, other than just add another remedial language program to schools. I chose child sexual abuse as the topic of my study, the experience that does some of the most severe and permanent damage, and was tossing around sensitive words to focus on when Vygotsky was introduced in an Education grad course comparing his cognitive and language theory to Piaget's. At last, finally, reading Vygotsky explained to me how little word distortions, like calling a woman a girl, can affect a whole society. I then knew what kind of intervention would work and proceeded to design a one-month curriculum based on activities that would rewire children's understanding of language.

Child sexual abuse is an awful thing to study and far worse to experience I'm told. Teachers, the public, and school committees would prefer not to deal with it at all. Yet, internet child pornography has joined child trafficking and other traditional appalling ways some adults mistreat children. When daddy's "love" hurts and makes you feel dirty, you think the world has been turned upside down. It's contrary to every expectation you have about how the world should work. You lose faith in everything and everyone, especially yourself, and life can easily feel hopeless. I could relate to these traumatized students because of my teaching experience, social work training, and commitment to treating others emphatically. I was 95% certain I now had the words to help them climb out of their dungeon. Sadly, one night when I brought a 6-year-old for a hospital checkup after she'd been touched inappropriately, I asked her what she could do if this ever happened again and she had no idea. She was self-conscious at first when I suggested she could scream "Help!" but she tried it when I showed her how. The sad part was that in a dark hospital parking lot, no one came when two females yelled for help.

Vygotsky certainly hadn't directly addressed child sexual abuse, but his dialectical method showed me how to reconcile big contradictions. If something goes wrong in a child's development, he wrote, most nonorganic dysfunctions can be quickly remediated using dynamic assessment, dialectical approaches to teaching, and social language activities designed to set the world up straight again. One key is the social use of language rules. Rules, contrary to my beliefs at age 5, are extremely important. A child first learns social play rules, then language rules, and then logic rules. Most 7-year-olds can tell you how important it is to follow rules. You don't want to be caught cheating in a board game with a child who knows about rules. They're apt to be quite articulate why cheating is wrong. The point? Play, language, rules, social interaction, higher mental functions, and society are all interconnected. Once you master rules, you can achieve virtually anything.

During assessments, Vygotsky argued it is almost a complete waste of time only to measure what a child already knows. The evaluator should look rather at internal

and social processes going on to determine what a child needs next and the best way to get them there. When you understand where a child is going, you can more easily help them arrive. The teacher, he stated, should lead from behind. Children learn by doing activities and should be permitted to go in the directions they prefer. It's amazing how creative and smart children become when this happens. Vygotsky recommended that word meanings should be the primary unit of psychosocial-educational analysis. When a child experiences a particular concept that is real and meaningful to them, a word for it will enter daily vocabulary. The emerging concepts a child demonstrates during an assessment, therefore, should be the focus of an educational assessment. The dynamics of internal processes tell a tester far more than facts learned last week or IQ scores.

In early intervention, one of the first words I taught language-delayed toddlers was "stuck." You have no idea how many times a day a young person gets stuck in their high chair or gets their shoes and toys entangled. Parents often couldn't see why I'd teach stuck as a first word. They usually preferred please and thank you. What I did, in fact, was provide delayed toddlers a word that had meaning to them, a concept that was a large part of their daily experience. It was a word they learned quickly, and their speech development usually took off from there. I'm sure it also prevented many tantrums, common frustration expressions of 2-year-olds. Interestingly, Vygotsky's research found that self-talk increases dramatically during troubling situations. You can talk yourself through a problem when you have the words to describe it. Although I said, "Let's play!" first thing in every session, not a single EI child ever imitated the word play back to me. To them, bubbles meant play, the word they usually greeted me with when they saw me coming. Play is a more abstract word than bubbles, which they hadn't internalized yet.

In free play, according to Vygotsky, a young child stands a head taller than he or she demonstrates in other developmental areas. Initially, play leads development. This is where children begin to figure out rules. For one thing, it's a problem if you have toys and other children (and adults) want to play with them, especially if the word share isn't understood yet. It's difficult for adults to imagine a preverbal world where a toy giraffe leg can also be a doll's bottle. I didn't speak to EI toddlers in paragraph-long sentences as parents and other professionals often did. I provided stimulating appropriate toys and watched what they did with them. I didn't join their play unless I was invited. Frequently, they gestured or verbalized that I should go away. One language activity I did impose, which they always enjoyed, was to sing repetitive nursery songs to them. Some days, child, mom, and I sang off-key together and that made us all laugh. Before the children learned to say sing, they would say twinkle when they wanted me to sing Twinkle Twinkle Little Star.

With my dissertation, I had passed several Institutional Review Boards and had study participants almost lined up, something I had to do twice over the years, and except for implementing the intervention and writing the results chapter, my dissertation was done. My advisor asked me to include a teacher's manual for my curriculum, and that added another 75 pages. Unfortunately, my advisor retired before I completed it all, and I failed to find another who would take on a very long dissertation, on a very controversial topic, based on a theory by a very complicated,

dead Russian. After 10 years, my discoveries about Vygotsky never reached the light of day. I have no regrets for not having more letters after my name. I have an MSW, I discovered Vygotsky, and I satisfied myself about questions I entered BU asking. It obviously wasn't time yet for educators to address sexually abused students. Such disappointments happen to people who punch holes in the dark.

Wrapping Up

I've been both a student and teacher most of my life. I've often been called a professional student, which was never given as a compliment. I had questions from an early age, and when I had answers, I wanted to share them. My life as a teacher is as simple as that. The motivation to teach is an internal drive. Probably, you either have it or you don't. If you're unsure, don't worry. Doing something else is just as valuable, and you can always come back to teaching another time.

From prekindergarten, my instincts told me teachers should "Stop teaching!" I felt at age 5 that school authority figures who think they know better than children are just gas bags. My first few years of teaching, I too thought I had expertise that others should listen to. My MSW studies and Vygotsky finally gave me permission let go of thinking I could teach anybody anything. All learning belongs to the student.

Social work urges therapists to establish rapport with clients. Being friendly, positive, and accepting is the quickest way to establish trust. You may not say out loud you understand how another feels, but, by other words and actions, you demonstrate that you do. You disclose personal aspects of yourself so others can learn vicariously from your experiences. Having endless patience with a student is merely like being a private fan club. When students believe they can achieve a goal, they will. You, yourself, not any curriculum materials, are the most powerful teaching tool you possess.

What you've read here probably isn't taught in many teacher education methods courses. My example is far from typical. I have addressed the reader informally so that you can contrast three-dimensionality to traditional impersonal education and judge for yourself which is more satisfying and preferable. I believe we certainly need to put more of a personal touch into student-teacher relationships. If we look inside our own education, we'll find many parallels with our students.

I can't overstress enough the importance of language skills for both teachers and students. In a Vygotskian classroom, activities are social experiences. Although dynamic education appears incompatible with state and now national curricula and standards, I believe dialectical language in the classroom can reconcile these differences. Students will figure out themselves that girls are girls and women are women. In my dissertation, I proposed parables that were not only educational but also entertaining. I watched alienation turn into enthusiasm when I showed school dropouts in GED classes all the resources available to them at their local public library. Basic literacy students continued their struggles to read when they had a

peer support group who needed them as much as they needed others. Anxious 1-year-olds fell asleep at nap time when I sang “You Are My Sunshine” to them. Play is an educational necessity, not only for young children. The word yes carries so much more potency than no.

Special education has changed considerably since I began with the Association for Retarded Children. Thankfully, the word retarded has been eliminated from our vocabulary, and science has eradicated many of the physically and mentally handicapping conditions I first encountered. The Individuals with Disabilities Education Act strongly insisted that every child is entitled to free appropriate education. The problem with IDEA was that it set the cap for special needs accommodations at 20% of the school population, and that is not high enough for the number of children who are learning disabled, traumatized, angry, and at risk for school failure. I predict that research comparing Vygotskian schools with traditional practices would find that CHAT produces lower dropout rates, better cost efficiency, higher academic achievement, and greater student satisfaction. Unfortunately, in the USA, Vygotskian schools don’t exist.

The issues of assessments, politics, policies, and programs can’t be ignored – they too are an integral part of the whole. In my case, I’ve always felt the unfairness of women assigned to menial roles and second-class citizenship. I didn’t like my government lying to me or playing budgetary tricks with children’s lives. Some days, it feels the only people with lower status than women teachers are children, who have no power. Women accept low status as teachers because we want to nurture children. Period. Paradoxically, children are the most important asset humanity has, yet schools and society grossly disrespect them and, at the same time, extol how important they are. That’s a big contradiction to resolve. Changing the system will take time and require much patience and empathy. When you have the word for experiences like stuck, however, it moves you a long way toward solutions.

References and Further Reading

- Abrahams, N., Casey, K., & Daro, D. (1992). Teachers’ knowledge, attitudes, and beliefs about child sexual abuse and its prevention. *Child abuse and neglect*, 16, 229–238.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Bein, E. S., Vlasova, T. A., Levina, R. E., Morozova, N. G., & Shif, Z. I. (1993). Afterword. In R. W. Rieber & A. S. Carton (Eds.), *Collected Works of LS Vygotsky. Volume 2: Fundamentals of Defectology* (pp. 302–314). New York: Plenum.
- Cotton, N. S. (n.d.). *Lessons from the lion’s den*. San Francisco: Jossey-Bass.
- Levina, R. E. (1981). LS Vygotsky’s ideas about the planning function of speech in children. In J. V. Wertsch (Ed.), *The concept of activity in Soviet psychology* (pp. 279–299). New York: ME Sharpe.
- Luria, A. R. (1979). *The making of mind*. Cambridge, MA: Harvard University Press.
- Newman, F., & Holzman, L. (1993). *Lev Vygotsky: Revolutionary scientist*. London: Routledge.
- Reyome, N. D. (1993). A comparison of the school performance of sexually abused, neglected, and non-maltreated children. *Child study journal*, 23, 17–38.

- Tihomirov, O. K., & Klochko, V. E. (1981). The detection of contradiction as the initial stage of problem formation. In J. V. Wertsch (Ed.), *The concept of activity in Soviet psychology* (pp. 341–382). New York: ME Sharpe.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1981). *Thought and language*. Cambridge, MA: MIT Press.
- Vygotsky, L. S. (1993a). The difficult child. In R. W. Rieber & A. S. Carton (Eds.), *Collected Works of L.S. Vygotsky. Volume 2: Fundamentals of Defectology* (pp. 241–291). New York: Plenum.
- Vygotsky, L. S. (1993b). Defect and compensation. In R. W. Rieber & A. S. Carton (Eds.), *Collected Works of L.S. Vygotsky. Volume 2: Fundamentals of Defectology*. New York: Plenum.
- Vygotsky, L. S. (1993c). The dynamics of child character. In R. W. Rieber & A. S. Carton (Eds.), *Collected Works of L.S. Vygotsky. Volume 2: Fundamentals of Defectology* (pp. 153–163). New York: Plenum.
- Vygotsky, L. S. (1993d). Defectology and the study of the development and education of abnormal children. In R. W. Rieber & A. S. Carton (Eds.), *Collected Works of L.S. Vygotsky. Volume 2: Fundamentals of Defectology* (pp. 164–170). New York: Plenum.
- Webb, N. B. (1991). Play therapy crisis intervention with children. In N. B. Webb (Ed.), *Play therapy with children in crisis: A casebook for professionals* (pp. 26–42). New York: Guilford.
- Wodarski, J. S., et al. (1990). Maltreatment and the school-age child: Major academic, socioemotional, and adaptive outcomes. *Social work, 35*(6), 506–513.

Part XI
The Impact of Technology on Teachers and
Students: New Technologies – New
Relationships

Chapter 35

E-Learning Challenging ‘Old’ Pedagogy

Margaret Robertson

Abstract The arrival of the digital world has brought with it amazing possibilities for knowledge acquisition and its dispersal to the world’s people. Not since the arrival of the printing press has so much power been available to people to find out things, share ideas and create outcomes. Literacy levels and low income are seemingly no real barriers. Mobile technologies have changed the way we all live our lives. They transfer the power to communicate from officialdom to the hands and voices of the personal user at home. This transformation in the way we live our lives provides major challenges for educational practices that are breathtakingly complex and extraordinarily exciting. This chapter explores some of the ideas and emerging research evidence that are filtering slowly into classroom practice. How pedagogy is different in the digital age requires a ‘floating’ response.

Keywords E-learning • E-pedagogy • Mobilities • Communities of practice • Agency • Student voice • Leadership • Professional learning

Social September encourages us all to press pause in September – disconnect from our digital lives and reconnect with each other, and ourselves. The aim is to create spaces for face-to-face social connection, promoting positive mental health and wellbeing¹.

Who could have imagined a decade ago that in September 2013 we would challenge our citizens to switch off their digital devices for one whole month? Mobophobes are on a digital diet. For the second consecutive year, users are challenged to turn off Facebook, Twitter, YouTube, Flickr, Google Plus, Tumblr and all the myriad of digital tools that add to this social media collective. Pre-2000 most of these did not exist! Pre-1980 the personal computer did not exist. A relatively young teacher aged around 30 has grown up with the unfolding of these monumental social and communication changes. The textbook approach to teaching that dominated class-based learning up until this generational period of change is looking decidedly

¹ See <http://socialseptember.com/about-social-september/>

M. Robertson (✉)
School of Education, La Trobe University, Melbourne, VIC 3086, Australia
e-mail: m.robertson@latrobe.edu.au

out of touch with the reality of information access via digital channels. If they still consider drip-fed knowledge as their privilege and responsibility in the learning process, then teachers have an identity crisis as do pre-service education programmes. Around the world, educational leaders and governments are facing this e-enabling reality. The 'e' world of the twenty-first century has brought knowledge on just about anything to the palms of our hands and perhaps soon to be a microchip beneath the skin. 'E' which is short for electronic links to a new and expanding language of nouns, adjectives and phrases which our latest dictionaries, online of course, are recording and explaining. Coupled with the phenomenon itself is its rapid rate of take-up globally.

One of the most remarkable features of the digital revolution has been its penetration globally. Tribal villages and the very poorest communities scattered around the world have access to communication tools with neighbouring villages as well as far distant places across oceans and borders. Dreams of exotic places are replaced by images more vivid than the imagination could possibly evoke. In the rugged mountain landscape of Papua New Guinea, for instance, treacherous journeys criss-crossing the highlands for all communications, including trade, have lost their imperative. Mobile phones help make the connections and bring knowledge of other places. Elsewhere in the continent of Africa, for example, the connections through mobile technologies are facilitating health services to villages where people have no immediate access to fixed health facilities. E-health builds on m-health. Satellite technology beams in information from the all parts of the globe to communities where at best the formal education levels are primary level education and where children at work are common². The power of these tools is immense. They cost little in real terms to the user; they can be powered by solar panels and require minimum skill levels to use. Perhaps in real terms for the first time in global history, all people no matter what their personal circumstances might be able to have access to information and new knowledge. Social media is a major force for societal change which people within their local communities are well able to use.

In 2011, World Bank data³ indicated on average per 100 people, there were 85.5 mobile phones. As the development process takes place particularly within Asia, we see a style of digital access taking hold that strengthens the personal ownership pattern. Secondary schools in Thailand, for instance, are noted for large numbers both in class size and total school population. With school populations of around 5,000 students, mobile phones have been used for school messages as simple as the call to class 'bell' for more than a decade. By contrast, in the western world until recently, mobile phones have largely been banned from class. Still, the shift away from land-lines to mobile devices in the developed world is happening. Individuals no longer need to go to the spot where the telephone or computer is located. They carry their tools with them wherever they go. Mobile access to data anywhere and anyplace provides a powerful way for building the global village. The flat earth phenomenon

² See <http://www.unesco.org/new/en/education/themes/strengthening-education-systems/inclusive-education/child-workers/>

³ See <http://search.worldbank.org/data?qterm=mobile%20phones&language=EN>

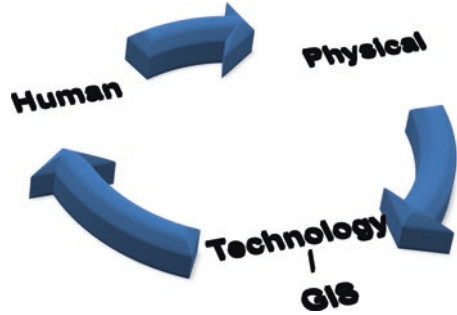
is a mighty force to comprehend. Arguably, all traditional power forces as well as their associated privileges related to beliefs and values are at risk or up for reconceptualization. Is this unrealistically provocative or simply reality not easy to digest in terms of the old ways of conducting social, economic and political discourse? History is a reminder of all significant events in public education. The printing press brought books to the populace – provided they could read. Mandatory schooling helped change that in most parts of the developed world. However, the levels of child abuse for labour and exclusion from schooling remain a humanitarian challenge, and evidence from the World Bank highlights the cruel reality of poverty for so many of the world's children⁴.

Perhaps the digital world provides new opportunities for this generation of young people to create their own chances. Warschauer and Matuchniak (2010) in their assessment rank commuter-mediated communication as the 'fourth revolution in the means of production of knowledge' following 'language, writing and print' (p.179). The power of the technology is recognised for its potential in the postcapitalist world to add to and enhance the economy and so too the population. In their review of the changes to technology access, they consider school and home access in the USA as a dual source for educational research. Their research suggests some differences based on race and ethnicity for home-based access to the Internet which needs to be translated into school responses. The research is useful for providing an overview of the digital divide issues in this complex wealthy country. Discussing out of school access as well as school-based responses to technology is an integral part of the process of developing a better understanding of e-learning in schools. However, the research dates itself in the sense that the arrival of the smartphone and rapid take-up at a personal level provide a new layer of enquiry that arguably supersedes this research as recent as three years ago. Another perspective is needed. In their discussion of findings related to computer and Internet behaviours in US schools and homes, Warschauer and Matuchniak (2010) pre-empt these conclusions. As they observe, the first digital divide is largely gone. Most young people have access to a digital device. The next provides the challenge. That is, 'Today the digital divide resides in differential ability to use new media to critically evaluate information ...attack complex problems...collaborate with others in knowledge production...to carry out the kinds of expert thinking ...at the heart of the new economy' (p. 213). Their message for schooling is the need to include in the curriculum both the basics and twenty-first century skills. Where once we conceived of the landscape in terms of both human and environmental elements, information and communication technologies appear as a third dimension mediating actions, events and learning. Figure 35.1 is an attempt to capture this rubric of interactions, and whilst it may appear to be a simple relationship, reality is far from being in a linear one-dimensional plane.

The learning 'spaces' are different in fabric and the architecture for learning needs to reflect the changes (Foucault 1970). Working on this call for a

⁴See <http://www.unesco.org/new/en/education/themes/strengthening-education-systems/inclusive-education/child-workers/>

Fig. 35.1 Environment as a complex web of interactions



reconceptualization of schooling, Leander et al. (2010) consider the limitations of the ‘classroom as container’ (p. 329) discourse. We need to take our educational research into liberated constructs of learning boundaries. They advance three ‘metaphors’ for educational research that can capture the new social spaces for learning and the mobility of virtual spaces or the classroom of the twenty-first century. The first is ‘learning in place’ or opening the door for real and imagined classrooms where order and structure can be ‘conceived’. This is what Soja describes as the ‘spatiality of human life’ (1996, p.2). His construct of ‘Thirdspace’ captures this construct. The other two elements are, respectively, learning trajectories and learning networks. Massey’s (2005) description of ‘Science Parks’ provides illustration of these new learning spaces. The Cambridge Science Park, Silicon Valley and others, for example, are constructed spaces. They look ‘nice’ with their ‘enclosed and separate space; a landscaped environment within, to give off some evocation of ‘quality’ ... and a definite absence of the ruins of nineteenth/twentieth-century industrialisation’ (p. 143). However, Massey states: ‘Entangled and enfolded within them is a multiplicity of trajectories each of which has its own spatiality and temporality; each of which has been, and still is, contested’ (p.143). There is ‘place as event’ (p.145). Online and offline trajectories are negotiated spaces across time and places. They can operate simultaneously and provide mutual benefit. As a construct for learning, creativity and performance, there is a sense in this design of the need for continued people contact and engagement through play. We know that young people, especially boys, spend copious amounts of time playing games⁵. These games are increasingly likely to be played on their Internet-linked smartphones and tablets. The question is how this behaviour is affecting their learning. Early indications from the Pew Research Center research into US teens’ Internet behaviour (2013⁶) are that teens are advancing more quickly relative to adults. Desktop computers are ‘old technology’. Hence, the technology is bringing together their play; social, educational and projected work lives into the one zone or is it multiple zones via the same base tool. At the same time, the act of connection is often solitary. Connectivity to social networks that encourage cooperation for successful outcomes

⁵ See <http://pewinternet.org/Presentations/2008/Teens-Video-Games-and-Civics.aspx>

⁶ See http://pewinternet.org/~media/Files/Reports/2013/PIP_TeensandTechnology2013.pdf

can take place in the private space of one's own bedroom or sitting on a train or bus on the way to school. Sherry's construct of 'alone together' (2011) captures this embodied sense of self. Her analysis of online gaming illustrates this point. There is a sense of connection to networks and flows of information in the play of the game. The game itself engages the mind but does not expose the self directly with others. Sherry notes: 'In the flow state, you are able to act without self-consciousness' (p. 277). Her conclusion is 'we are together but so lessen our expectations of other people that we feel utterly alone' (p. 227).

To help explain this process, Urry (2007) proposes a mobilities paradigm or a means by which to describe new systems including flows of information, ideas, commodities and people. However, here the thinking for educational research becomes muddled. To illustrate, Leander et al. (2010) state: 'A textbook in a classroom is a clear example of heterochrony' (p. 344). The contents can unfold over the course of the whole year. At the same time, the knowledge to be gained fuses with networks in ever-changing time-space networks at school, home and virtual or imagined in time and space. Hence, we need to consider the space-time connection as a binary which is fluid and never static. 'The trajectory itself creates its own thin slice, not across space, but through multiple spaces' (p. 344).

Translate this analysis to adolescent development, and the role of Internet communication becomes an integral feature of their psychosocial development (Peter and Valkenburg 2013). They summarise this effect as '...never before have adolescents had such a chance to explore their identities with such a multiplicity of means while being so unsupervised by traditional socialisation agents such as parents and schools' (p. 13). The difficulties for researchers are finding observation strategies and sampling approaches that capture the cognitive processing that takes place during the sometimes multiple online space-place events without crossing the boundary of privacy and intimate contacts which we correlate with adolescent well-being and developing sense of self. Self-reporting is one effective strategy. However, as Peter and Valkenburg report in their overview of the research, there appear to be several clear factors which influence their Internet communications and development. These include the type of connection and use, that is, 'compulsive or noncompulsive' use; type of communication, be it with friends or strangers; personality; and motivation including for socialisation, games, entertainment or information.

To summarise so far, the landscape for e-learning requires considerable reflection on the state of the extraordinary growth in the types and kinds of global communications which have and are transforming how we define society. As shown through related research, young people's social, and if we consider neuroscience, cognitive development is at the forefront of digital absorption. Their behaviours epitomise the new age thinking and benefits of the knowledge economy. Stating these observations is recognition of the global phenomenon of our 'e' world. Preparing for whatever futures the 'e' tools provide is another matter and seemingly remains our greatest puzzle as educational researchers. We know the old narratives related to pedagogy have limitations. A bounded view of knowledge such as curriculum statements are prone to project is likely to cause conflict for both learners and their teachers. There is need of a new way. That's the dilemma. In the following

sections, consideration is given to strategies for curriculum reform including innovative attempts striving to embrace e-learning. This is followed by a brief overview of research studies past and present. The aim is to show how this quest for new meaning and understandings in the context of e-learning is evolving and in continual need of review that considers new developments. Software, hardware, online networks and interoperable systems including text-based, geospatial and three-dimensional modelling are part of the ever-changing menu, and as their usage grows, so does their affordability. This last affordance is well recognised in the new addition to the distance course menu in the form of massive online open courses (MOOCs). These web-based courses promote learning through traditional tools such as video- and text-based files as well as discussion, chat and connection to tutors and professors. Designed to foster communities of learners, this development builds on the Open University construct and programmes like 'School of the Air' in Australia. MOOCs are spreading globally under the umbrella of leading universities (such as Stanford, MIT and the University of Pennsylvania) with bases in developed and developing countries including the USA, UK, Finland [Nokia], Germany, Spain, China, Australia and Brazil.

Curriculum Responses

Higher education seems better placed to embrace the power of e-learning tools than schools. MOOCs are illustrative of the outreach power of universities globally. Universities traditionally have recruited international students and attracted their markets because of the quality of their courses. Their autonomy to develop responsive curricula is part of their strength as education providers. Formal schooling of children has a different set of purposes. Parents, villages and communities as well as whole nations are stakeholders in the learning content and development of children. The agenda is socially complex; citizenship is constructed around matters of deeply held beliefs and values that imbue formal education of our children with responsibilities to the greater voice of a nation. The question is how to balance a technology-mediated learning environment with curriculum content that will lead to a well-informed and cognitively well-developed school graduate. Some reflection on the steps towards the current somewhat confused and diffuse set of responses shows a scattered uptake at best. Best practice recommendations that filter down to school from policy statements provide rhetoric of encouragement for e-learning. Reality in the day-to-day life of schools can be very different as research conducted with colleagues in Australian schools over more than a decade has shown.

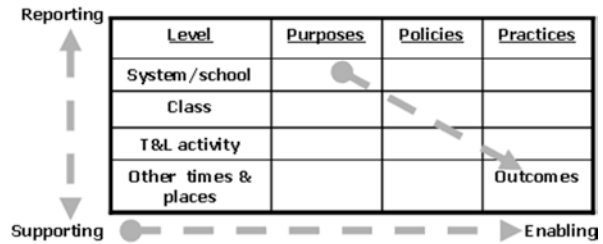
Roll the clock back to 2000, the setting is a primary school in an Australian state where technology support centrally from the government provider for this public school is supportive of change. This school has a forward-looking principal who is keen to facilitate computer-based learning. The budget allocation in the school reflects his vision for a computer-literate community. The computer laboratory is centrally located in one room with class access via a booking system. Wireless

access to the Internet is non-existent. Staff members have Internet access in the staff room using a desktop connection. Into this school, a set of palm computers is introduced by external researchers for one class of students to use for their exclusive take-home use. Online learning objects developed by the federally funded body tagged The Le@rning Federation⁷ provided the resources to load onto these devices. Equipped with Bluetooth functionality, the 'lucky' children were able to take these devices home; they were the novelty toy for the 'privileged' few. Their functionality was limited but soon exploited by the children who found sharing of photographs was simple. The first test came when a parent reported a somewhat lurid image being shared by the children. Dealing with this situation was a test of the principal's resolve to work with the children to develop rules of responsible conduct. The topic of appropriateness was discussed and all agreed on the terms of engagement that needed to be followed. Rather than impose penalties or indeed remove the tools from the learning environment, the strategy was to embrace the new tool, comprehend its power and deal with it with a shared sense of responsibility – giving power to the children and developing a pedagogy based on trust (Robertson 2007). This first encounter with the changing world of technology power is worthy of writing into the history of e-learning agency in schools and classroom-based practices. Running parallel to this wise and risk-taking agency has been a somewhat hysterical and blinkered pattern of denial in many schools. Our conclusion has been that re-envisioning pedagogy is far from simple (Robertson et al. 2004). Not all schools have the dedication of a long serving principal who has the vision, commitment and resolve to support staff, develop and maintain the infrastructure and deal with the constant day-to-day events that enter into school life.

Of course more than a decade on e-learning globally in schools has a presence and will not be denied. The issues for schools reflect the power of the tools in society generally. Trying to conceptualise a way forward for curriculum development, Resnick (2010) wrestles with the challenges faced by schooling in the context of education in the USA and concludes that there may be more questions being created by education policymakers than we have solutions to match. We can assume that the basic curriculum of literacy and numeracy as we have known it does not provide the skills needed for the new age. There is also a stronger call for alignment of learning outcomes in schools with needs in higher education. National goals in the USA, and likewise in public education rhetoric for many nations, create expectations of performance with predictable outcomes. The apparent escalation of national testing to meet new targets is a common element. Fiscal accountability helps explain this tightening of rules and focuses on outcomes. However, the process is also viewed as stymieing those new elements in schooling, we see society needs now and will need more in the future – that is, flexible thinking skills and an ability to look beyond the problem as it presents itself. She notes: 'Even within the tested subjects, it appears

⁷This curriculum support body in Australia has been replaced by Scootle (see <https://www.scootle.edu.au/ec/p/home>) which provides a comprehensive online resource website for the Australian Curriculum. Its mission statement is '**Learn, teach and collaborate** using digital resources to support the Australian Curriculum'.

Fig. 35.2 Aligned practices (See Robertson et al. 2007, p. 73)



that test-based accountability may be narrowing what is taught' (p. 185). Still 'reaching for the twenty-first century star' is an imperative for schooling, and Resnick's response is to propose a 'Thinking Curriculum' whereby how the organisation functions is considered as important as how students learn. For policy reform, Resnick proposes a 'New Reform Triangle' (p.190) with recognition of intersecting social and human capital with instructional tools and routines (ITRs). The need for teachers to have extreme competence with their expert knowledge and to be supported in their professional learning to improve the quality and nature of ITRs is central to maximising human and social capital affordances. Her solution is the need for nested systems whereby students enter a production process built on classroom, school and district interactive processes and complete their schooling having gained knowledge and skills and increased their capacity for learning including motivation and attitudes.

In the context of e-learning classroom-based observations in 70 schools spread across two Australian states, research reveals considerable support for Resnick's analysis. Where there is alignment of policies, purposes and processes/practices at all levels – system, school, classroom teachers and student as learner – there is a balance or harmony with expectations more likely to be met at all levels (for illustration, see Fig. 35.2).

Implementing changes to shift the balance of decision-making assumes there is a clear understanding of the curriculum goals, and teachers are well supported through professional development as well as resourcing in the ways Resnick describes (2010). As Alexander (2010) observes, 'Good teaching makes a difference. Excellent teaching can transform lives' (p. 379).

Like Resnick we can agree that the solution needs multiple prongs. The top-down approach driving curriculum reform remains a vital part of the process. Visionary futures that meet the millennium goals⁸ for universal health, education and wealth require leadership that filters into classrooms and gets results in terms of enhanced literacy, numeracy and life skills. How that is achieved needs to be more than aspirational and national testing is one form of insurance. Notwithstanding all the problems well documented by researchers in many countries, our interest is finding pedagogical strategies that bring out the best in our learners and ensure their learning outcomes are of the highest standard according to the agreed curriculum. These goals are best attained using a variety of approaches including digital

⁸ See <http://en.unesco.org/>

technologies. In our research within Australian secondary and primary schools, students repeatedly noted that their 'best teachers' made learning fun. There was variety and above all else the teacher 'cared about me'. 'My teacher listened to me' (Robertson et al. 2006).

Highlighting the sometimes contradictory elements in this rethinking pedagogy process, Alexander (2010) draws attention to interest in personalised learning. In the UK context, this has been met with a mixed reaction. However, the definition is worth reporting because of what Alexander notes as the paradox it provides (p. 297). There is an apparent understanding of personalised learning as a means of sharpening the focus on student engagement and personal responsibility for learning as well as 'a focus on individual progress' (p.297). Whilst this may seem a move in the direction of enlightened pedagogy, Alexander seems critical of the real intention and suggests the policy has limiting goals within a 'framework which aims for greater uniformity in teaching' (p. 297). Just as Resnick observes in the USA, in the UK and similarly within the context of the Australian Curriculum and its national testing programme NAPLAN⁹, there seems reluctance to delegate trust. Arguably a step closer to where we need to move in terms of pedagogical improvements aimed at a more thinking curriculum personalised learning in the e-learning context shifts the focus away from the whole of class approach to the individual learner. Self-paced learning with opportunities to aim high brings to the fore students' voices in a more democratic relationship with teachers, teaching and schooling. Perhaps therein is the real reason for ambivalence at systems level thinking to embrace more liberated views of personalised learning at a meaningful level of functionality for individual learners. The risk to state and nation could be too high. Place this in the context of e-learning where 'learning without frontiers' (Sanger 2001, p. 30) is an inherent element at play, and then that twenty-first century curriculum star seems a long way off.

Marketing an E-Learning Future with E-Pedagogy

Returning to the ongoing needs for developing e-learning cultures in schools and classrooms, we can proceed with caution or be bolder and embrace the possibilities. The latter requires vision, risk-taking and courage. Whilst our preference as educational leaders may be towards the latter, the need for greater investment in educational research to develop the evidence base for confidence in decision-making tends to suggest a slow process to the future. However, vision thinking calls for confidence and leaders in the field are providing substance for the new rhetoric needed for change. Jenkins (2006), for example, captures the context well with his views on 'convergence culture'. We live in a global world of participatory culture which Jenkins contrasts with the old 'passive media spectatorship' (p. 3). The relationship between 'media convergence, participatory culture and collective

⁹ See <http://www.acara.edu.au/default.asp>

intelligence' is about mobility 'depending on who's speaking and what they think they are talking about' (p.3). 'Convergence occurs within the brains of individual consumers and through their social interactions with others' (p.3). Importantly, this view focuses on the person, not the hardware. Jenkins reminds us of the message of McLuhan about the power of the medium. The history of the printing press and growth of the book market helped develop our cognitive capacities for language and memory. Are we increasingly adapting to the short message and losing our capacity for sustained commitment to reading a long article or book?

Rethinking meaning – making, in the context of media participation and co-constructing knowledge and cultural mores, leads to a review of situated cognition. This reconnects educational research with parallel research in social psychology (Smith and Conrey 2009) and perhaps serves to underscore the ongoing interest in the views of Vygotsky (1986). Scaffold learning in the teacher-learner relationship requires a partnership and, in the case of the teacher, a willingness to be a participatory observer in the learner's meaning-making process. Smith and Conrey summarise this observation with the following statement:

In humans, conscious thought shares important features with group discussion. First, it is mediated and structured by language and therefore is influenced by the socially shared meaning inherent in our linguistic structures. Second, intrapersonal thinking. Like conversation is temporarily constrained...Finally, individual-level thought follows developmentally from interpersonal communication. (2009, p. 462)

Translating this sequence to the e-learning context is helpful for understanding that actions and behaviours are both context and technology specific. Problems arise in context and are solved in that context. The problem space returns the argument to Massey's discourse on the fluidity of space. As Kirsh (2009) observes, 'We live most of our life in constructed environment' (p. 270). So, perhaps the picture is becoming clearer. The e-research evidence we have suggests that e-learning takes place within learner-created spaces – aided by whatever artefacts of technology and technology interfaces are being used. These constructed spaces are purpose driven and exist so long as the purpose exists. Illustrative in the prevailing higher education context is the use of content management systems for course delivery and assessment. Assignment links, chat boards and forums can be lively spaces of interaction for the period of the course. However, once the assignment date is passed, the purpose is gone, and the interaction stops dead.

By way of offering a theory for e-learning and teaching, some pragmatism is called for. My inclination is to attempt an argument for a new pedagogy based on Heidegger's epistemology of existentialism. However, that seems far too elusive and difficult to grasp. The alternative for the time is somewhat tamer but more realistic. First, a set of suggestions based on the conclusions of Kirsh (2009) and then some comments relating to education for a future where schooling embraces e-pedagogy are as follows:

- *Suggestion 1:* Develop a community of practice (Wenger 1998) whereby there is a space or point of collection for hints, resources and ideas as well as sharing and problem-solving together. Change agents need support and time to expand their influence on colleagues. In this context, leaderships need to provide the agency for change (Robertson 2007).
- *Suggestion 2:* Opportunity or 'affordances' (Kirsh 2009, p.291) which may occur by chance or be planned. For the teacher, recognising these spaces as opportunities to nudge the thinking of learners is an important characteristic of expert teachers. In the e-learning context, this affordance will be advanced with the teacher's expert knowledge and willingness to engage with the new technology – either directly or in partnership with the learner who may well have superior knowledge and capability.
- *Suggestion 3:* Use metaphors, or refer to concrete objects (or 'things' in Kirsh's explanation) to grasp complexity. Knowing how we think in multimodalities including linguistic, spatial, tactile and kinaesthetic, aesthetic and musical can help. Modelling alternatives using three-dimensional tools including photocopiers is a recent artefact to assist this process.
- *Suggestion 4:* Metacognition or what Kirsh (2009) calls 'self-cueing' (p. 300). Developing memory of past actions, words, problems and contexts can provide the self-help needed for a new challenge. The chess player or bridge card player develops their skill from hundreds of configurations of the chess pieces or cards, respectively, which in turn provides a repository in memory for rapid feedback for the played to access when processing new configurations. Interestingly, online formats of both games are immensely popular and enable players to connect with partners globally. More importantly, for the Internet, there is need for students to adopt what Bleicher (2008) describes as 'metacognitive mental schemas for understanding why they are online gathering information' (p. 1105).
- *Suggestion 5:* Embrace the construct of *Cognitive Surplus* (Shirky 2010). If you consider that a tweet or Facebook message is communicating with infinite numbers of users located anywhere on the planet, then consider the number of thinkers who can contribute to solving a problem. Used positively, this may be one of the most powerful elements of the democratisation process e-capability brings to humanity.

Final Comments

In this chapter an attempt has been made to capture the context for e-learning and related educational research. Whilst our population is grasping technologies with their hands and minds open, our research surveyed suggests there remains a large gap between classroom practice and the policy rhetoric in favour of the digital revolution. Rolling out the hardware and connectivity to schools is a first-level operation. Knowing how to use it and make the most of the new tools available for learning which are very much part of everyday life requires much more. Research

findings suggest there are several reasonably clear success factors or preconditions for shifting practice to a more aligned set of purposes. They are:

1. Developing a community of learners that includes participation from children, their parents, teachers, school administrators and local community members. The synergies to be gained from the interactions that take place will help break down barriers and build confidence for positive engagement.
2. Providing a voice for all partners – self-efficacy and learner autonomy are issues of genuine concern for the profession. Where teachers feel well supported with strong and purposeful agency on their behalf, the research supports a willingness to engage with enthusiasm in the usage of e-learning strategies.
3. Maintaining quality and reliable infrastructure is fundamental for success. A decade ago this was more of an issue in developed countries especially than it is now. However, in geographically dispersed communities such as in China, Australia, South Africa, the USA, Canada and Brazil, maintenance of high-quality Internet is a major challenge. Some countries like Vietnam see the importance of access to the Internet as so great for the nation's future access, so the Internet is provided free of charge from central funding. The cost is absorbed.
4. Recognition of the power of the Internet and the need for caregiving and learner support are needed at all levels in the process of education. Rather than fearing cyberattack and shutting down systems when faced with unpleasant and unwanted intrusions, leaders need to guide our learners to more informed understandings that protect them from naïve decision-making and augment their lives with the power of knowledge. Informed agency is and will be a race to be informed.
5. Valuing our excellent teachers within the new mediums for all that we know they do well – listening to learners, explaining well, structuring the curriculum delivery, making learning interesting, engaging learners through a variety of strategies and enjoying the process.

In brief, e-learning is creating a global debate that is invigorating. The spaces and places knowledge of are commanding and infinite. Do we need new pedagogy or is it the medium we need to factor into the equation of good pedagogy?

References

- Alexander, R. (Ed.). (2010). *Children, their world, their education*. London: Routledge.
- Bleicher, R. E. (2008). Internet pedagogy: Using the internet to achieve student learning outcomes. In J. Coiro, M. Knobel, C. Lankshear, & D. J. Leu (Eds.), *Handbook of Research on New Literacies* (pp. 1093–1108). New York: Lawrence Erlbaum Associates.
- Foucault, M. (Trans.). (1970). *The order of things: An archaeology of the human sciences*. London: Penguin Books.
- Jenkins, H. (2006). *Convergence culture*. New York: New York University Press.
- Kirsh, D. (2009). Problem solving and situated cognition. In P. Robbins & M. Aydede (Eds.), *The Cambridge handbook of situated cognition* (pp. 264–306). Cambridge: Cambridge University Press.

- Leander, K. M., Phillips, N. C., & Taylor, K. H. (2010). The changing spaces of learning: Mapping new mobilities. *Review of Research in Education*, 34, 329–394.
- Massey, D. (2005). *For space*. London: Routledge.
- Peter, J. & Valkenburg, P. M. (2013). The effects of internet communication on adolescents psychosocial development. In A. N. Valdiva (Ed.), *The International Encyclopedia of Media Studies*. Blackwell Publishing Ltd., pp. 1–29. Online at <http://onlinelibrary.wiley.com/book/10.1002/9781444361506>
- Resnick, L. (2010). Nested learning systems for the thinking curriculum. *Educational Researcher*, 39(3), 183–197.
- Robertson, M. (2007). School governance and pedagogical reform – A matter of trust. *International Journal of Learning*, 13(12), 111–120.
- Robertson, M., Fluck, A., Webb, I., & Loechel, B. (2004). Classroom computer climate, teacher reflections and 're-envisioning' pedagogy in Australian schools. *Australian Journal of Educational Technology*, 20(3), 351–370.
- Robertson, M., Grady, N., Fluck, A., & Webb, I. (2006). Conversations towards becoming an ICT school. *Journal of Educational Administration*, 44(1), 617–633.
- Robertson, M., Fluck, A., & Webb, I. (2007). *Seven steps to success with ICTs: Whole school approaches to sustainable change*. Camberwell: ACER Press.
- Sanger, J. (2001). ICT, the demise of UK schooling and the rise of the individual learner. In A. Loveless & V. Ellis (Eds.), *ICT, Pedagogy and the Curriculum* (pp. 9–19). London: Routledge Falmer.
- Shirky, C. (2010). *Cognitive surplus: Creativity and generosity in a connected age*. London: Penguin Books.
- Smith, E. R., & Conrey, F. R. (2009). The social context of cognition. In P. Robbins & M. Aydede (Eds.), *The Cambridge handbook of situated cognition* (pp. 454–466). Cambridge: Cambridge University Press.
- Soja, E. (1996). *Thirdspace*. Malden: Blackwell Publishers.
- Urry, J. (2007). *Mobilities*. Cambridge: Polity Press.
- Vygotsky, L. (1986). *Thought and language* (A. Kozulin, Trans.). London: The MIT Press.
- Warschauer, M., & Matuchniak, T. (2010). New technology and digital worlds: Analysing evidence of equity, access, use and outcomes. *Review of Research in Education*, 34, 179–225.
- Wenger, E. (1998). *Communities of practice*. Cambridge: Cambridge University Press.

Chapter 36

Computers in Education: The Impact on Schools and Classrooms

Len Cairns and Margaret Malloch

Abstract Computers, over the past decades, have become pervasive in life and in schools in particular. Initially, classroom use by teachers tended to reproduce previous “skill and drill” approaches, but in the late twentieth century, calls for a rethink of the pedagogical basis for the employment and embedding of information technology (IT) across the curriculum led to some new ideas and uses. At the same time, computers became physically smaller and more portable with the advent of laptops and tablets and mobile telephones that had more sophisticated technology and offered new potential. Teachers, who appeared to be “late adopters” of the IT in classrooms, soon became more aware of the advantages of computers (in all their various emerging forms), and their potential for student learning and new applications and ideas emerged. The advent of the Internet and what has been referred to as Web 2.0 has had an even more serious impact on teaching and learning in schools and classrooms. Many education systems now have advanced connectivity to high-speed broadband and utilise the WWW for many different activities. Student sophistication, in many cases, often surpasses the teacher’s level of development in the use and application of computer technology, and this has created some different and interesting challenges for the profession.

This chapter examines the impact of computers and their applications on schools and classrooms in the past, present with insights for the future in a new dialogue that offers new techniques and learning experiences and possible achievement gains for students.

Keywords Information technology • Digital pedagogy • Computers • Hyperlearning • Web 2.0 • Online learning • E-learning • Virtual learning • SMS • M-learning

L. Cairns (✉)

Faculty of Education (Clayton Campus), Monash University,
Building 6, Wellington Road, Clayton, VIC 3800, Australia
e-mail: len.cairns@monash.edu

M. Malloch

College of Education (Footscray Park Campus), Victoria University,
PO Box 14428, Melbourne, VIC 8001, Australia
e-mail: Marg.Malloch@vu.edu.au

Introduction

There is no doubt that the advent of computers, as devices whereby humans have been enabled to work, play and communicate in ways vastly different from previous generations, has led to a major set of assumptions and expectations about their use and involvement in education and especially in schools. How and in what ways computers could become integral to classroom work for teachers and students, while only a fairly recent phenomenon over the last 30 years, has been relatively slow to proceed. Initial classroom applications of computers showed teachers struggling with new ideas and mostly adapting their older ways of drill and practice as the main use. Further developments across the last decades of the twentieth century involving the Internet and the World Wide Web led to significant changes and communication advances with major classroom challenges and exciting possibilities. The era of computers in classrooms has, in this twenty-first century, emerged as a cultural shift that will, no doubt, be one of the major changes in education since schooling began.

It is now common in many classrooms across the world to see a range of information technologies (“IT” as the whole gamut of computers and related devices and applications have become known) being applied and used by children of all ages.

This chapter looks at the way such technology has impacted on teaching and learning in the past and the present and explores the “future vision” of where such applications might continue to challenge and change educational endeavour.

The Rise of Computers in Classrooms: The Past

The past use of computers in schools and classrooms seems only a decade or two away when computer laboratories were developed within schools and in primary schools, for example, these were used by teachers to introduce keyboard skills (it was apparently assumed that students needed to be taught to type as they had in typing courses years before!), as well as running activity programmes that looked very much like older worksheets dressed in new colours and graphics (“skill and drill” approaches). The “pedagogy” associated with this approach to computers in education moved somewhat slowly at first as teachers approached this “new” technology. Teachers, it seemed, were less adept at moving into this new technology in ways that offered different uses, new pedagogy and any seeing the computers as anything beyond just another “tool” in their teaching repertoire.

Papert, one of the major original players in advocacy of the need for different thinking about the use of computers in schooling and for different pedagogical approaches, in a presentation in Amsterdam in 1970 (and later part published in 1972), clearly stated the view that teachers, in the early years of computers in classrooms, were way short of a new teaching and learning approach:

The phrase 'technology and education' usually means inventing new gadgets to teach the same old stuff in a thinly disguised version of the same old way. Moreover, if the gadgets are computers, the same old teaching becomes incredibly more expensive and biased towards its duller parts, namely the kind of rote learning in which measurable results can be obtained by treating the children like pigeons in a Skinner box. (1972, p. 245)

Further, Papert (1980, 1996), introduced ideas such as "LOGO", an approach whereby students could write instructions (or a programme) for a small apparatus to move around a table or desk and, in doing so, explore computer usage, to show his ideas in practice. Papert called LOGO a "programming language", and as a mathematician at MIT in Boston, he saw programming and mathematical elements of computing as necessarily at the fore for education and student's development in computer understanding. He strongly advocated understanding the way computers were programmed and worked and saw computer usage in this way as a means to expand student thinking from an early age. In essence, Papert's guiding idea was for children to come to think differently (akin to a computer) like little "epistemologists" as they understand what it is to think like a machine and what can go beyond that to lead to children "engaged in self-referential discussions about their own thinking" (1980, p. 29). This aim, in some ways akin to a form of "metacognition" training, was well before its time.

Certainly, by the mid-1980s, computers had started to become a strong fixture in many homes in the "Western" world and were being seen as a new device/tool with "educational implications". Just as the handheld calculator, television sets in schools and the overhead projector had been introduced to classrooms as "tools" that would save time and add to teachers' repertoires of presentation supports for lessons, the computer emerged as another, if more sophisticated, piece of equipment. Ideas about different and more sophisticated ways to involve computers in children's learning were slowly emerging.

Meanwhile, assorted games became popular at home, and special units (or "consoles") emerged with home computer activities taking over the family TV screen. Some also emerged in "arcades" at local shopping centres, and this increased their appeal and the demand for similar activities at home. Students were on a different learning curve at home as to their use and understanding of what a computer unit could do and how they could interact with it. Their school restricted access and use, and "boring" activities led to much dissatisfaction with the school approaches. Many of the early activities at school involved keyboard lessons to become familiar with the famous QWERTY keyboard layout, something Papert in 1980 clearly stated as having "no rational explanation, only a historical one" (1980, p. 22).

Serious academic questioning of the use and applicability of the rush to acquire and display computer rooms full of the latest technology in schools emerged. Often, these "computer laboratories", as they were frequently titled, were also a symbol of school wealth and being "up to date". The prominent researcher and public intellectual in the USA, Professor Larry Cuban, of Stanford University, who had written a book as early as 1986 entitled *Teachers and Machines: The Classroom Use of Technology Since 1920*, moved on over subsequent years into the 2000s to argue that the whole area of computers in schools as a major educational reform with the

potential to improve student achievement was largely a failure on those criteria. Cuban succinctly stated:

When it comes to higher teacher and student productivity and a transformation in teaching and learning, however, there is little ambiguity. Both must be tagged as failures. Computers have been oversold and underused, at least for now. (2001, p. 179)

In the 1990s, there were the inevitable suggestions that computers were the harbinger of a new era whereby teachers might even become somewhat irrelevant (as might schools themselves!). Perelman, writing in Perelman 1992, in a book provocatively titled *School's Out*, suggested that the future of education was, what he termed, *hyperlearning*.

For Perelman, hyperlearning would have four major impacts:

- *Impact 1:* Learning is everything, everywhere.
- *Impact 2:* School buildings are replaced by hyperlearning channels.
- *Impact 3:* Expertise is more in the network, less in the person.
- *Impact 4:* Learning spans the human life cycle.

Perelman suggested that as a consequence of these impacts of the hyperlearning revolution, learning “anytime” and anyplace “makes the infrastructure of ‘schooling’ irrelevant and even obstructive” (p. 63).

One may well ask now in 2014 whether this statement and that of Cuban still hold or if there have been changes and advances beyond access to computers in schools and in teaching and learning ideas, techniques and practices. These questions will be explored in sections to follow in this chapter.

The key aspect of the advent of computer technology in education and, most importantly, in classrooms across the world remains today. What impact has this technology had on learning and teaching?

There is no doubt that initially, perhaps in the first 20 years of computer availability and development, the use and involvement of this technology in classrooms was a slow utilisation of what was certainly perceived as a new “tool” by teachers. That the technology began to open up additional ideas, thinking processes and potential applications of the technology in ways yet (from the 1980s to 1990s) to be seen is a fascinating part of the story.

The Evolution of New Technologies and “Learnings”: The Present

Since the early advent of computers in education and classrooms as mentioned above, a whole world of technological development has opened up many different and quite amazing applications, modes and sophisticated techniques of communicating, creating and storing of knowledge and ideas.

By 2005, a report of the partnership, “education/evolving” (a Minnesota group which also involves a university) entitled “Listening to Student Voices – on Technology”, offered the initial “finding” that:

As reported in “Connected to the Future: A Report on Children’s Internet Use,” by the Corporation for Public Broadcasting, time spent using digital media by children between the ages of 13 and 17 has now surpassed the time they spend watching television. (p. 2)

Present usage and employment of information technology in schools has finally progressed, and the impact on devising and implementing different pedagogies and learning experiences has become a greater fascination among educators (Bonk 2009, etc. refs).

In the past decade, the Internet and its function application known as the World Wide Web has enabled access and interaction between people who have access to computers to search, engage, post and develop technological applications and digital world aspects. The “web”, as it has been shortened in popular conversation, opened up what became known as Web 1.0, which rather than being a software package, (like Windows 6.0 or others with similar numerical labels) was the first version of Web access. The use of Web 1.0 was mostly a search and access opportunity where material placed (or “uploaded”) was accessed by searchers (and “downloaded”). Web 1.0 is often referred to a “read-only” approach to knowledge access. While this, today, is seen as a limiting factor, it still serves a purpose in students’ chasing ideas and information. Teaching ideas began to make use of Web 1.0 through activities such as “WebQuests” where the teacher set up a series of sites for students to follow and to find answers to preset questions.

Web 2.0, the more recent version, offers, in the same mode as the “read-only” metaphor, a “read and write” approach where users can add and interact. A useful example of the difference between Web 1.0 and Web 2.0 is cited by Cairns and Alshahrani (2014):

A good example of the advancement of Web 2.0 over the previous Web 1.0 is in the area of encyclopaedias. Web 1.0 opened up the way such mainstays as the Encyclopaedia Britannica could be consulted and people (especially students) could find and “mine” knowledge embedded in the work. Web 2.0 led to what is called Wikipedia, where anyone can add, edit and develop entries (this of course led to a need for monitoring and authentication which can be a flaw in many entries). The change however, made the encyclopaedia an interactive and “alive” idea rather than a chronicle of the past as the printed versions had become. (Cairns and Alshahrani 2014, p. 26)

Along with this further enhancement of the technological possibilities and advanced interactive elements, there was an emergence of considerations that such ICT “hardware” and “software” advances needed teachers to reconsider their practices – and move towards some new pedagogy (Noss and Pachler 1999). While the roots of some of this thinking had been foreshadowed by Papert and others, such as Perelman and Cuban, as mentioned above, the advent of late twentieth century and early twenty-first century technological advances in areas of communication (email) and other approaches (Facebook, blogs, YouTube and the myriad of social

networking sites) demanded a more serious consideration and discussion. One feature, mentioned by Noss and Pachler in 1999, was that the new technology:

Invariably involves the delegation of responsibility to learners and successful learning outcomes will depend on learners' ability to work independently and autonomously from the teacher and, increasingly, to take control of the learning process. (p. 14)

Schools in the “advanced” economies (mostly in the Western world) today increasingly have a high visibility of computers in classrooms. The approaches to schools owning or leasing sets of computers for sharing and for classroom use have also included ideas such as “pods” of classroom computers being located centrally in each classroom with access for students anytime during class activities rather than computer laboratories.

As we advance in these nations, more consideration of the fact that many, if not most students, have their own devices has led, in some cases, to the bring your own device (BYOD) idea where students bring their own computers to school (irrespective of the operating system) and work in the classroom using their own equipment. Of course in many other situations where the socio-economic status of the area and families is less, these aspects are not possible, and school provision or government-supported computer access is the norm.

Teachers now use a range of more sophisticated technology including interactive whiteboards and laptops linked in to systems to enable students to add to various presentations. Gone are much of the overhead projector technology and acetate sheets and rolls, and now projection-using computers and presentation software are more common.

The advent of online learning in educational contexts, with its emphasis on the learner having more control over content and interaction, was well documented by Stephenson and his colleagues in the 2001 volume *Teaching & Learning Online: Pedagogies for New Technologies*, which arose from a conference organised by the then International Centre for Learner Managed Learning at Middlesex University in London. The international group of experts all contributed to the volume, and there was, as one could imagine by the title of the organising body, a heavy emphasis on learners, in this newish technological space, managing their own learning.

In chapter 4 of that volume (?), Coomey and Stephenson presented what they described as a “paradigm grid for online learning” which suggested four quadrants in a diagram of two axes, one being “control” with teacher controlled at one end and learner managed at the other. The intersecting axis was “tasks” with “specified tasks” at one end and “open-ended strategic” at the other. This, according to Coomey and Stephenson, led to four quadrants they labelled as:

- Teacher-controlled, specified learning activities
- Teacher-controlled, open-ended or strategic learning
- Learner-managed, specified learning activities
- Learner-managed, open-ended or strategic learning

In addition to this quadrant approach, Coomey and Stephenson suggested that based on a then review of research literature on online learning, four “major features

of online learning were widely identified as essential to good practice” (2001, p. 38). These were *dialogue, involvement, support* and *control*.

The Coomey and Stephenson paradigm grid offers a useful way to examine the many variations of pedagogical approaches to involvement and integration of online or e-learning into classrooms and student experiences. This model was also discussed as still a very useful concept some 13 years later by Cairns and Alshahrani (2014) and others in the second volume of *Teaching & Learning Online* edited by Sutton and Basiel (2014). The significant element of the Coomey and Stephenson paradigm grid and its descriptive power as a model is emphasised by the various authors in Sutton and Basiel as showing the range of combinations related to control and activities in online learning. The drift towards more learner-managed and open-ended or strategic learning, while not replacing the teacher, offered a new way of looking at teaching and learning and the educator’s role.

Of course, if there is advocacy for a necessary rethinking of the pedagogy and learning theories and models underpinning the educational use of much of the new technological advances and patterns, there needs to be some serious consideration of what theories and models should/could apply.

Haythornthwaite and Andrews (2011) asked the question in their discussion “whether the practices of e-learning require a new theory of learning or whether existing theories of learning are adequate to account for what happens and what is possible in e-learning” (p. 45). After a detailed analysis and discussion of the changes and developments that e-learning has brought to learning and education, their conclusion is as follows:

In summary, what is the answer to the overall question which this chapter addresses: Does e-learning require a new theory of learning? We have attempted to argue that e-learning changes the nature of learning in a number of significant ways...

and,

The answer to the question that has driven this chapter- does e-learning need a new theory of learning must therefore be “yes”. (p. 61ff)

Among the theories and ideas about learning that have been cited as potentially relevant to this discussion have been those developed by leading educational thinkers such as Engestrom (2009) whose activity theory has been seen by some of the e-learning experts as offering a useful and applicable approach (Beetham and Sharpe 2007, p. 29). Interestingly, Rasmussen and Ludvigsen (2009) took both the theories and positions of Cuban and Engestrom to examine the way reform processes (in this research in Norway) employing ICT “as a central catalyst for system change” in a number of teacher education courses compared with others who wanted to “try out the use of ICT in teaching and learning practices” (p. 91). These two approaches and a third grouping where any ICT as change were aimed at “ad hoc” short-term solutions to immediate problems formed the basis for the study. The conclusions of the research were that Engestrom’s “cultural-historical activity theory and the conceptual tools that come with this approach may potentially give insight into how and why reforms come about” (2009, p. 102).

One of the key aspects that has emerged in the many theoretical considerations and searches for appropriate and applicable theories for what is happening so

rapidly has been the manner in which collaboration and interaction among multiple “community members” and across multiple “communities” has dominated the most recent social elements of the technology revolution (Goodyear et al. 2004). While this is different from face-to-face group work as strongly suggested as needed in primary schools in a groundbreaking work in 1992 by Galton and Williamson, their ideas resonate in the collaboration and interaction events today’s e-learning enables and encourages.

While many teachers grappled with the early manifestations of Web usage and its relevance for classrooms, some interesting development did emerge in the 1990s and still offer valuable ideas today. One such was the development of what are known as “WebQuests”. Most citations lay the development of this idea at the feet of Professor Bernie Dodge, an academic at San Diego State University in 1995. A WebQuest asks students to follow a plan and visit certain websites to solve issues and add to the content of the “quest”. As the comprehensive web site, <http://webquest.org/> indicates under the heading “What is a WebQuest?”

A WebQuest is an inquiry-oriented lesson format in which most or all the information that learners work with comes from the web. The model was developed by [Bernie Dodge](#) at San Diego State University in February, 1995 with early input from SDSU/Pacific Bell Fellow [Tom March](#), the [Educational Technology](#) staff at San Diego Unified School District, and waves of participants each summer at the [Teach the Teachers Consortium](#).

Since those beginning days, tens of thousands of teachers have embraced WebQuests as a way to make good use of the internet while engaging their students in the kinds of thinking that the 21st century requires. The model has spread around the world, with special enthusiasm in Brazil, Spain, China, Australia and Holland. (<http://webquest.org/>, accessed, 14th February, 2014)

In some schools and classrooms, students develop and place on websites for the school WebQuests for other students and other schools to try. The site mentioned above has keys to other places on the Web where examples of WebQuests can be viewed (and used if appropriate by other teachers and students).

Certainly the last 10 years have seen a much more concerted and detailed consideration of the use and pedagogical approaches to e-learning and the WWW in all its many manifestations and with the plethora of software and applications that have emerged (Beetham and Sharpe 2007; Davies and Merchant 2009; King and Gura 2009; Garrison 2011; Richardson 2009; Haythornthwaite and Andrews 2011; Poore 2013; Bellanca and Stirling 2011; Rudestam and Shoenholtz-Read 2010).

However, in the last few years, a new and more complex set of uses and elements of the whole WWW and related Web 2 tools have emerged and have and are to have even further significant impact on teaching and learning – that is, life in classrooms and schools.

In the last 5 years, a large number of texts and handbooks of “how to” implement many of the features of Web 2.0 in the classroom have emerged, particularly in the USA. These have included works devoted to the development and application of online learning “communities” in higher education (with other classroom applications at school level as well) (Palloff and Pratt 1999): *Blogs, Wikis, Podcasts, and*

Other Powerful Web Tools for Classrooms (Richardson 2009); *Classrooms Without Borders* (Bellanca and Stirling 2011); *Using Social Media in the Classroom* (Poore 2013); *Web 2.0 for Schools* (Davies and Merchant 2009); and *Podcasting for Teachers* (King and Gura 2009), to name a few.

Schools have, in the past 2–3 years, also moved to the greater use of laptop computers and tablets as classroom devices across most age levels. It is now not uncommon for students as young as 6 and 7 to be able to engage with tablet usage and even develop presentations using common software packages such as Microsoft PowerPoint to illustrate their efforts.

Virtual learning environments (VLEs) have also moved significantly into higher education environments across most universities and technical education institutions and do have relevance for schools and classrooms. At the higher education level, platforms such as *Blackboard* and *Moodle* have proved popular and have incorporated various elements of Web 2.0 into their application.

A key to an understanding of the present use and state of Web 2.0 applications in schools and classrooms is the matter of how use and engagement with these developments necessitates a strong command of literacy. Indeed, the rise of these technologies has led to the development of the field which is often described as *new literacy* that usually is mentioned in the plural, *literacies*, or *multiliteracies*, to clearly indicate the need for all learners in this era to be able to master a range of different *literacies*. (Cope and Kalantzis 2000; Healy 2008; Haythornthwaite and Andrews 2011). This idea has increased significance, we would argue, in the matter of social networking as discussed in the next chapter. The changes in language and the development of shortcuts and almost a subdialect in English, and its adoption worldwide, have led to a major shift in a new form of literacy.

Just what aspects of different pedagogy are being advocated has been somewhat elusive, even though the advocacy and references listed above hint at various new applications. There have been some developments which have attempted to define a theory (or combination of others' theories) to underpin what should be a new pedagogy for this digital era. Among the forerunners in this search and development has been Randy Garrison (2003, 2011), whose community of inquiry (COI) began as a model aimed at situating e-learning in higher education as a system involving teaching presence, social presence and cognitive presence as integrated elements of the "educational experience".

A community of inquiry is crucial in precipitating and maintaining reflection and discourse (inquiry) and the development of judgment in constructing and testing meaning (product). In short, inquiry is the active search for meaning. With the collaboration of the group, the individual assumed responsibility to construct meaning and make sense of the educational experience. (2011, p.22)

Beetham and Sharpe (2007), in an edited work, offer a model that draws on a number of theorists to emphasise "design" as a major linking concept for the chapter included. As they justify this position in their introduction to the book:

If "pedagogy" helps to locate this book within a tradition of thinking about learning and teaching, "design" helps to identify what is different about the ideas we are proposing. Why

is “design” a good term around which to reclaim the scholarship of teaching, and to rethink pedagogy for the digital age? First, like pedagogy, design is a term that bridges theory and practice. It encompasses both a systematic approach with rules based on evidence, and a set of contextualised practices that are constantly adapting to circumstances. It is a skilful, creative activity that can be improved on with reflection and scholarship. (p. 6)

Another more recent work to attempt to draw together the Stephenson (2001) and Coomey (2001) teaching and learning paradigm (TLP) and the Garrison (2003, 2011) community of inquiry models to suggest a more unified theory of teaching and learning (pedagogy) in the e-learning era is that of Layne and Ice (2014). They argue that their “unified representational model” that marries elements of the two models offers a suggested way to work through the different emphases and lead students towards a more self-directed and controlled learning enhancement. They do emphasise, however, that both models include an “instructor”, though the nature of that input is more in design and support than didactic. What this implies is summed up quite effectively by Garrison to be a “teaching presence” rather than a “teacher presence” and that the teaching aspect is built into the following elements of e-learning, design and organisation, facilitating discourse and direct instruction, which places this presence firmly in a teaching concept. Garrison makes no apology for contradicting some of the “guide on the side” facilitation rhetoric as the need in any new pedagogy and obviously does not see e-learning as doing away with teaching intent and skill.

Given that there have been these developments as to what might be included in “new pedagogy” and different understandings of the teachers role(s) in the e-learning environment, we now turn to some of the activities that have offered potential (and challenges) for different interactions between teachers and learners in current classrooms and schools. These have an added more recent possible demand on the roles of teacher and their work and show how fast these shifts are happening when one considers the 2002 study by Galton and MacBeath into the impact of change on primary teachers’ working lives commissioned by the National Union of Teachers (NUT) in Britain hardly mentions the impact of IT or any perception of the teachers in the study that there should be any different approach to its use.

Present E-Learning Activities and Challenges to Teaching and Pedagogy

Games

Additional aspects of the present e-learning “revolution” and applications used by students in their everyday life that are gradually having classroom and school impact include the whole area of “gaming”. With the advent and increasing popularity in the past of video games and computer games, there was bound to be additional and further development in this area. The move to portable devices such as “smart” phones and tablets has led to an explosion of games and related activities and

serious discussion of the educational applications of digital games (Van Eck 2006). Relying on a Piagetian approach, Van Eck (2006) argued that digital games offered a very useful set of learning elements:

Games embody this process of cognitive disequilibrium and resolution. The extent to which these games foil expectations (create cognitive disequilibrium) without exceeding the capacity of the player to succeed largely determines whether they are engaging. Interacting with a game requires a constant cycle of hypothesis formulation, testing and revision. This process happens rapidly and frequently while the game is played, with immediate feedback. Games that are too easily solved will not be engaging, so good games constantly require input from the learner and provide feedback. Games thrive as teaching tools when they create a continuous cycle of cognitive disequilibrium and accommodation while also allowing the player to be successful. (p. 5)

Many of the initial range of “educational” games were based on simulations of cities, environments and so on. These “games” asked students to build, consider issues and problems and problem-solve as they worked through the simulation process.

Of course, one of the main considerations for educators in the matter of digital games and their educational significance is whether the games are relevant to learning or too much geared to addictive entertainment. Quinn (2014) suggests that there are a number of key elements to consider and incorporate in any “world” game when designing and developing such (or employing it in classrooms).

These include:

1. Clear goals (The goals for the learner need to become clear through the game play).
2. Appropriate challenge (The tasks in the game world need to be within the learner’s reach but not just within current competence).
3. A story “world” (The tasks in the game need to be set in a concrete world where actions make sense).
4. Meaningfulness (The tasks should have a real application and accomplish outcomes in the story world).
5. Relevance (The tasks and the world have to interest the learners).
6. Exploration (Learner has alternative choices).
7. Directness (Learner has to act in the game that makes sense in the world).
8. Coupled (The world needs to respond in ways that are appropriate for the learner’s actions).
9. Novel (The world cannot be completely predictable) (Quinn 2014, p. 229).

Short Message Service (SMS) and Its Impact

The market penetration of what became known as “smart phones” over the past 2–3 years and their adoption by families with telephone company “plans” where many young students also have a personal phone and considerable usage entitlements (although stories abound of children exceeding their “plan” and costing the family a small fortune as a result) has opened many new aspects for this emerging IT generation. Among some of the major changes has been the ability to send text-based messages in shortened forms via the telephone. This Short Message Service

(SMS) means of communicating has also led to a set of popular “shortcuts” in language and symbols (including what are termed “emoticons” such as smiling or frowning versions of stylised faces). The shortcutting of language with abbreviations and almost “code” in some examples has led to another literacy change (Varnhagen et al. 2009). As will be mentioned below, in the social networking environment, this has now become an interesting way for some adolescents to exclude their parents from monitoring all their online interactions and text messages.

To sum up, in the present era of the ICT revolution in schools and classrooms, (say the last 5–10 years), we have seen the emergence of a number of key features:

- Smaller, faster and handheld electronic devices available at home and to some extent at school (some of these are often “banned” mobile telephones or discouraged by teachers at school though M-learning is being reassessed as a viable option).
- Greater use of collaborative work using computers and software of various sorts.
- Sophisticated presentation and assessment work using computers.
- Rapid and amazingly flexible communication aspects using phones and computers across international borders.
- Web 2.0 usage that increases in possibilities enormously every week and has led to different activities and technological uses by teachers and students.
- The start of an almost unlimited access and interactivity through social networks and applications.

All of these present changes and challenges have led to serious debate and questioning of the role of teachers and their approaches in classrooms and schools.

Computers in schools and classrooms are now, in this early twenty-first century, accepted and integrated into curriculum and learning in ways that have begun to challenge much of the traditional orthodoxy of face-to-face teaching.

Computers in the School and Classroom: The Future

Just what the future holds for the use and adaptation of computers and the whole gamut of new devices and potential for educational impact, it is a matter that does fascinate educators and inventors alike as we enter more deeply in to this twenty-first century.

One of the major shifts that is rising in application as we write today is the development and application of *M-learning*.

M-Learning

This term covers the way mobile devices have become a major element in learning. As discussed and briefly described by the UNESCO website:

Mobile learning, or “M-Learning”, offers modern ways to support learning process through mobile devices, such as handheld and tablet computers, MP3 players, smartphones and mobile phones.

It presents unique attributes compared to conventional e-learning: personal, portable, collaborative, interactive, contextual and situated, it emphasizes “just-in-time-learning” as instruction can be delivered anywhere and at anytime through it. Moreover, it is an aid to formal and informal learning and thus holds enormous potential to transform the delivery of education and training. (UNESCO 2013, accessed 17 October, 2013)

Furthermore, the advent of M-learning using mobile telephones is a feasible and pervasive possibility due to the fact that there are so many such devices, even in countries of abject poverty and scarcity of other resources. As stated by UNESCO (2013):

Today there are over six billion mobile phone subscriptions worldwide, and for every one person who accesses the internet from a computer two do so from a mobile device. Given the ubiquity and rapidly expanding functionality of mobile technologies, UNESCO is enthusiastic about their potential to improve and facilitate learning, particularly in communities where educational opportunities are scarce. (UNESCO mobile-learning-resources web site, accessed 17 October, 2013)

M-learning is a potentially major aspect of the *future* of e-learning developments and applications, but it is already being used in a wide range of school and “classrooms” of differing types (such as in workplace learning, an international conference of M-learning sponsored and organised by UNESCO, and in some higher education institutions). Poore (2013) has suggested a number of uses of M-learning for teachers, and she argues that mobile learning projects can “promote problem-based learning, peer learning, just-in-time, and active learning” (p. 146). With current and future societies having so much access and usage of mobile devices, this area of human dialogue and interaction is bound to become even more dominant than it is in this twenty-first century, and the educational implications are immense.

Conclusion

This chapter has described and discussed the past and present applications and impact on life in classrooms and schools of the twentieth and twenty-first centuries’ information technology “revolution”. Unlike the previous advent of television and other potentially educational changes involving technological advances, the arrival of computers in increasingly smaller and more portable forms *has* changed dramatically much of educational practice and has required rethinking of pedagogical practice by teachers and schools.

References

- Beetham, H., & Sharpe, R. (Eds.). (2007). *Rethinking pedagogy for a digital age: Designing and delivering e-learning*. Abingdon: Routledge.
- Bellanca, J. A., & Stirling, T. (2011). *Classroom without borders*. New York: Teachers College Press.
- Bonk, C. J. (2009). *The world is open: How web technology is revolutionizing education*. San Francisco: Jossey-Bass.
- Cairns, L. G., & Alshahrani, K. (2014). Chapter 2 Online learning models and impact in the 21st century. In B. Sutton & A. Basiel (Eds.), *Teaching and learning online: New models of learning for a connected world* (Vol. 2). Abingdon: Routledge.
- Coomey, M. and Stephenson, J. (2001). Online learning: It's all about dialogue, involvement, support and control according to the research Chapter 4. In Stephenson, J. (Ed.), *Teaching and learning online: Pedagogies for new technologies*, London: Kogan Page.
- Cope, B., & Kalantzis, M. (2000). *Multiliteracies: Literacy learning and the design of social futures*. Melbourne: Macmillan.
- Cuban, L. (1986). *Teachers and machines: The classroom use of technology since 1920*. New York: Teacher College Press.
- Cuban, L. (2001). *Oversold and underused: Computers in the classroom*. Cambridge: Massachusetts Harvard University Press.
- Davies, J., & Merchant, G. (2009). *Web 2.0 for schools: Learning and social participation*. New York: Peter Lang Publishing.
- Education/Evolving. (2005). Listening to student voices-on technology: Today's tech-savvy students are stuck in text-dominated schools. St Paul: Education/Evolving (<http://www.educationevolving.org>).
- Engestrom, Y. (2009). Expansive learning: Toward an activity-theoretical reconceptualization Chapter 4. In K. Illeris (Ed.), *Contemporary theories of learning*. Abingdon: Routledge.
- Garrison, D. R. (2011). *E-learning in the 21st century* (2nd ed.). New York/London: Routledge.
- Garrison, D. R., & Anderson, T. (2003). *E-learning in the 21st century: A framework for research and practice*. London: Routledge/Falmer.
- Goodyear, P., Banks, S., Hodgson, V., & McConnell, D. (Eds.). (2004). *Advances in research on networked learning, Volume 4 of computer-supported collaborative learning*. Boston/Dordrecht: Kluwer Academic Publishers.
- Haythornthwaite, C., & Andrews, R. (2011). *E-Learning: Theory and practice*. London: SAGE.
- Healy, A. (Ed.). (2008). *Multiliteracies and diversity in education*. Melbourne: Oxford University Press.
- King, K. P., & Gura, M. (2009). *Podcasting for teachers* (2nd ed.). Charlotte: Information Age Publishing.
- Layne, M., & Ice, P. (2014). Merging the best of both worlds: Introducing the CoI-TLP Model, Chapter 1. In B. Sutton & A. Basiel (Eds.), *Teaching and learning online: New models for a connected world: Volume 2*. Abingdon: Routledge.
- Noss, R., & Pachler, N. (1999). The challenge of new technologies: Doing old things in a new way, or doing new things? In P. Mortimer (Ed.), *Understanding pedagogy and its impact on learning*. London: Paul Chapman Publishing.
- Palloff, R. M., & Pratt, K. (1999). *Building learning communities in Cyberspace: Effective strategies for the online classroom*. San Francisco: Jossey-Bass.
- Papert, S. (1972). Teaching Children Thinking. *Innovations in Education and Training International*, 9(5), 245–255.
- Papert, S. (1980). *Mindstorms: Children, computers and powerful ideas*. New York: Basic Books.
- Papert, S. (1996). *The connected family: Bridging the digital generation gap*. New York: National Book Network.
- Perelman, L. J. (1992). *School's out: A radical new formula for the revitalization of America's educational system*. New York: Avon Books.

- Poore, M. (2013). *Using social media in the classroom*. London: SAGE.
- Quinn, P. (2014). Gaming learning, Chapter 14. In B. Sutton & A. Basiel (Eds.), *Teaching and learning online: New models for a connected world: Volume 2*. Abingdon: Routledge.
- Rasmussen, I., & Ludvigsen, S. (2009). The Hedgehog and the Fox: A discussion of the approaches to the analysis of ICT reforms in teacher education of Larry Cuban and Yrjö Engeström. *Mind, Culture, and Activity*, 16(1), 83–104.
- Richardson, W. (2009). *Blogs, Wikis, Podcasts and other powerful Web tools for the classroom* (2nd ed.). Thousand Oaks: Corwin Press.
- Rudestam, K. E., & Shoeholtz-Read, J. (2010). *Handbook of online learning* (2nd ed.). London/Los Angeles: SAGE.
- Stephenson, J. (Ed.). (2001). *Teaching and learning online: Pedagogies for new technologies*. London: Kogan Page.
- Sutton, B., & Basiel, A. (Eds.). (2014). *Teaching and learning online: New models for a connected world: Volume 2*. Abingdon: Routledge.
- United Nations Educational, Scientific and Cultural Organisation (UNESCO). (2013). M-learning resources web site: <http://www.unesco.org/new/en/unesco/themes/icts/m4ed/mobile-learning-resources/>. Accessed 17th Oct 2013.
- Van Eck, R. (2006). Digital game-based learning: It's not just the digital natives who are restless. *EDUCAUSE Review*, 41(2).
- Varnhagen, C. K., McFall, G. P., Pugh, N., Routledge, L., Sumida-MacDonald, H., & Kwong, T. E. (2009). Lol: New language and spelling in instant messaging. Published online, Springer Science + Business Media.

Chapter 37

Social Networks: Impact on Teaching and Learning in Schools and Classrooms

Len Cairns and Margaret Malloch

Abstract Social networking has become a widespread WWW-based phenomenon of the late twentieth century that has been taken up especially enthusiastically by the young. Many social networking sites and possibilities have burgeoned into huge numbers of people being registered for the various groups to the point where hundreds of millions are engaged in frequent communication and socializing using their computers, telephones and massive amounts of time and energy. The implications of this ubiquitous take-up of the phenomenon for schools and classrooms have not escaped the attention of educators, and many enthusiastically have advocated bringing the approaches into classroom activities and utilizing the appeal they have for young students to motivate and engage them in learning.

While there is appeal in the emerging potential that this “movement” offers to education, there are issues and problems that have arisen in the social networking arena, and a number of these aspects such as legal issues surround privacy, exposure to predators and related aspects of cyberbullying and sexting are raised in this chapter. These aspects present serious challenges to educators and their use of the social networking opportunities for classroom and school applications.

Where the use of social networking in schools and classrooms might develop in the future is a matter of considerable fascination, and some speculation is considered in the chapter.

Keywords Social networks • Sexting • Tablets • Smart phones • Flipped classrooms • Blogs • Txt-speak • Wikis • Podcasts • Cyberbullying

L. Cairns (✉)
Faculty of Education (Clayton Campus), Monash University,
Building 6, Wellington Road, Clayton, VIC 3800, Australia
e-mail: len.cairns@monash.edu

M. Malloch
College of Education (Footscray Park Campus), Victoria University,
PO Box 14428, Melbourne, VIC 8001, Australia
e-mail: Marg.Malloch@vu.edu.au

Introduction

The second decade of the twenty-first century has seen not just the rise of what has become known as “social networking” around the world but a dominance of interactivity between people like no other era in the past history. National borders, cultures, age groupings and gender have all been blurred to some extent as people link, via the World Wide Web (WWW), in all manner of ways and means, as themselves with all their personal exploits revealed and as anonymous or even fraudulent others whose pretences cause havoc.

E-learning, or online learning, is a more generic term in the current usage that covers the more recent approaches, by educational institutions in particular, with regard to students interacting with teachers/lecturers/trainers via web-based programmes and “platforms” (such as Blackboard and Moodle in higher education). In addition, as will be mentioned later in this chapter, the advent of massive online open courses (MOOCs) whereby hundreds of thousands of “students” (anyone) can log onto leading institutions’ subjects to learn or investigate content has been a recent phenomenon. Individual “downloading” and instillation of a huge range of “applications” (or “apps” as they are known popularly) on mobile devices such as “smart” phones is also a twenty-first century phenomenon of note, especially for the younger members of society. The most recent element to reach across people via technology has been social networking, where an individual or groups can link with each other to share, interact and exchange information, images and thoughts.

This chapter examines the way social networks and their access through computers and so-called “smart” devices such as mobile telephones and handheld tablets has changed much of the traditional view of teaching and learning in classrooms and beyond.

The next section explores the most recent developments surrounding the elements of social interaction or networking that have become a dominant and impactful force in the twenty-first century society. While social networking is a matter of present involvement and engagement and has impacted more recently significantly on classrooms and schools, it is the element that overlaps the present and the future. There is now no doubt that this element of the e-learning and information technology revolution will lead to further, as yet almost unimagined, impacts on life in classrooms and schooling, in whatever spaces and forms that takes in the second half of the twenty-first century and into the twenty-second century.

Social Networking: Classrooms and Beyond

This second decade of the twenty-first century has seen a very recent and dramatic rise of what has become known as social networking. There are a multitude of issues, positives and negatives, surrounding this medium and its educational potential and possible applications at the time of this writing. Whether it involves schools

and teachers looking for ways to involve and include these aspects into their work or just to cope with the explosion of the medium and its attraction to youth, it nevertheless has a major influence on current and future classroom life and learning.

The past decade has indeed been the age of social networking, but what is this phenomenon, and how does it impact education, classrooms, children's learning and life development?

The term social networking is a generic descriptor for the use of the WWW or the Internet:

When it comes to online social networking, websites are commonly used. These websites are known as social sites. Social networking websites function like an online community of Internet users. Depending on the website in question, many of these online community members share common interests in hobbies, religion, politics and alternative lifestyles. Once you are granted access to a social networking website you can begin to socialize. This socialization may include reading the profile pages of other members and possibly even contacting them. (<http://www.whatissocialnetworking.com/> (accessed 2 September 2013))

The expansion and massive involvement of people across the world in this phenomenon and evidence that it is indeed a major and historical revolution can be seen in some of the data circulated on social networking sites and the estimates of the number of participants on each site as publicly available on the following collation site: <http://www.ebizmba.com/articles/social-networking-websites>. This site, in addition, gives details of estimated monthly users, which offers a somewhat better idea of activity than just "registered users". Other sites offer statistics on usage and age group use as well as by gender and nationality differences (<http://socialmedia-statistics.wikidot.com>).

There are, according to collation sites such as the above, many thousands of social networking sites and many with millions of "registered users". In some cases the numbers are in the hundreds of millions, making some of these "communities" larger than most nations on earth. For example, one of the most used sites, Facebook, has, according to the some of the online reports, around 750 million members. The figures for many of these reports are largely unacknowledged as to source and seem potentially overstated (the more members and users, the greater potential for advertising investment perhaps?). Any close examination of the growth of social networking sites cannot help but see this as a phenomenon of major impact across the world. The sites in different languages such as Chinese, Arabic and Russian are amongst the fastest growing, and the domination of the WWW by English as the lingua franca of the Internet is under serious erosion. The site, www.internetworldstars.com presents the "top ten" languages on the Internet (as at 2010) with English leading the total at 536.6 million users and Chinese at 444.9 million users; however, the growth percentages between the years 2000 and 2011 show Chinese growth at 1478.7% and Arabic at 2501.2% compared with English growth over the same period at 301.4%. The rapidity of such changes means that the future may, in terms of major languages on the Internet, be very different from today. What this means for future education, in language skills for the next two or three generations, is quite a challenge. If the major languages on the Internet are other than English, there may be some future issues about both access to and usage of knowledge that is created in

those languages other than English for the English-speaking world. This will be a virtual reversal of the initial 20 years of WWW development where English proficiency was so essential and may constitute a further need for yet again, different *literacies*.

The use of the WWW for communication and various forms of social interaction is the latest in a long line of new ideas as to how to engage with and utilize this form of technology. As mentioned above, many of the techniques and tools included in the new, ever expanding WWW have been brought into schools and classrooms over recent years. A good deal of these applications and tools started with adult learners in tertiary and higher education via discussion groups, via podcasts of lectures and most recently via the MOOCs that are beginning to take on huge numbers of people who access and study knowledge.

Individuals have engaged, for some years now, in personal blogs, where in extreme cases, almost all details of their life over time are written about (some so detailed as to be obsessive). Blog is a short form for “web log”. Educators have now presented suggestions to teachers on ways to involve blogs in the classroom (Bellanca and Stirling 2011; Poore 2013):

Blogs are excellent for soliciting critique and reflection from students and, because of their dynamic nature (that is, because new posts are always being added and commented on), students can build their understanding of a topic at the same time as refining that understanding. This makes blogs excellent for constructivist pedagogies. (Poore 2013, p. 47)

There are many other aspects of the social media that can be and are utilized in educational situations. These include:

Texting refers to the use of short text messages (SMS) over the telephone network. This aspect has become a major communication process which is particularly popular with the youth generation and school-aged children (most have access to mobile phones). It has also generated a set of shortcuts and new language elements (mostly through acronyms) which has become a pervasive (and almost code) way of communicating through “texts”. Frequently described as “txt-speak”, “chatspeak”, “txt” or “txto”, it is basically a shortened form of language to enable more message information to be sent in a shortened overall message and thus less expensive format.

Podcasts is the term that describes voice recordings whereby a presentation is recorded digitally and either placed on a website for access or sent to individuals. This might be simply a recorded lecture or presentation but can be more complex. A detailed guide for teachers new to this approach can be found in King and Gura (2009). This feature has been widely used in VET and higher education contexts and is emerging more in secondary schools. As mentioned later in the next section, this feature can be a key element in what has been advocated as “flipped” or “inverted” classrooms.

Wikis are generally websites where individuals can edit, add and change anything they wish. Richardson (2009) tells us that the term comes from “the Hawaiian *wiki-wiki*, which means quick” (p. 55). He further suggests that the first wiki was “created by Ward Cunningham in 1995”. The most known of all wikis is Wikipedia.com,

the interactive encyclopaedia version. Of course many distrust the accuracy and veracity of a wiki where anyone can edit or add to the entries, but the *Wikipedia* has many advocates and many who spend hours verifying and adding credibility to entries. *Wikipedia*, for example, often has the following notice at the start of entries that editors are less happy about:

This article may require [cleanup](#) to meet Wikipedia's [quality standards](#). The specific problem is: the article does not meet standards of objectivity and encyclopaedic style. Please help [improve this article](#) if you can. (www.wikipedia.com, accessed 17 October 2013)

The usage for classrooms and schools of wikis is obvious in that many students wanting to find out about any topic tend to turn first to Wikipedia. However, as Richardson advocates, classroom teachers can establish and use wikis as collaborative writing spaces and for a range of other activities. Bellanca and Stirling (2011) suggest that teachers who are keen to explore wiki use should begin with the website especially set up for this (www.wikispaces.com) (running since 1995, the site claims over ten million teachers and students are involved). Richardson also makes a good case for the adding of outstanding student essays or papers on topics to be actually added to *Wikipedia* for sharing. The idea that some vandalism has taken place on the *Wikipedia* site where deliberate errors and changes are made is an issue discussed by Davies and Merchant (2009), and they also stress the necessity for teaching students what has become a new language term of “netiquette” (p. 97).

Nings are created social networking sites built through the use of the *Ning* platform in Palo Alto, USA. The company allows people to use the platform to create personal or group sites and offers a relatively secure service for this approach. This platform can be used by groups such as teacher professional development networks very effectively.

The whole arena of social networking through such current huge and popular networks as *Facebook*, *LinkedIn*, *Twitter* and *MySpace* offers multiple alternatives for students and teachers to communicate with each other, and this raises serious questions and issues about matters such as propriety, privacy, etiquette, misuse and bullying, all of which have detailed and extensive literatures emerging both in journals and, in particular, on the WWW itself. More on this will be raised in the final section below.

The social networking sites and tools on the WWW offer amazingly increased opportunities for students to be engaged, to participate in virtual classrooms and to communicate and collaborate across the world in languages, graphics and other schoolwork. That student's rush home from schools to engage with such social networking sites and spend so much of their time messaging and communicating and collaborating in aspects of their life is an indication that for educators to ignore this development and its very substantial impact of young people would be an act of stupidity.

Communication platforms, such as the now, well-known and used *Skype* and other variations, have become a staple of inter-classroom and school communication. Where radio and telephone (and what has become known now as “snail mail”, i.e., traditional letters) were once means of “fast” communication, and intercultural

collaboration, the free applications such as *Skype* have led to major changes in speed, access and interactivity. It is not uncommon for schools and individual classrooms and students to have substantial, frequent contact with international schools and students using these tools.

Issues and Problems in Social Networking and Related Usage

While many of these tools and uses of the Internet and WWW 2.0 have been major advances in technology and have offered a world of an interactivity that few would have considered possible just a decade or so ago, they also have brought with them some interesting and potentially unsavoury or even dangerous issues. These need serious consideration by educators and, in the school context, collaboration with parents and the broader community, to ensure safety and appropriate use of these new media and tools.

Amongst some of the major issues and problems to have arisen, now, unfortunately, frequently being played out in the school setting and amongst school-aged children with terrible consequences in some nations are the following:

“Sexting”, as suggested by its title, involves people (many children and teens in particular) in sending sexually explicit messages and/or images to others. That this is an emerging major issue has been seriously investigated and documented in a number of countries.

While the research on sexting is still somewhat limited, and the impact across society is more alarmist than demonstrating pervasive incidents, it remains a growing issue, and the practice can, in some countries, have serious legal implications for children/students who engage in this practice (Albury et al. 2013). It has been estimated that in the USA, between 4 and 20% of teens had posted or sent nude photo (Lenhart 2009).

What can seem to teens (who appear to be the main activists in this arena) as fun or slightly at the edge behaviour, but innocent, can have serious ramifications as to the laws about making and sending child pornography, having child pornography in your possession and using the carriage system to send such pornography. Such charges, if made and proved in court, can usually lead to registration of the guilty as “sex offenders” for life. While there have been some cases reported with this negative outcome, other cases have led to less serious consequences, but only after public outcry or litigation by parents pointing out the event as a teen prank or less malicious intent as anticipated by the laws (Lenhart 2009, p. 4). The issue has led to legislators finding the whole area a difficult one where differentiation between youthful exuberance and malicious criminality has eluded many authorities in different cultures. Multicultural societies, with quite a range of values and beliefs present, have complicated the legal and social ramifications of this development. When *sexting* moves to some of the more international social networking sites and connects across nations and cultures, an added dimension of complexity attaches to the practice.

Parents and teachers obviously need to treat sexting (in all its now many forms) as a serious issue and work with students to understand the problems and stupidity of the practice in cooperation with the relevant authorities. An issue associated with school discussion and policies for such practices is that drawing attention to the nature and seriousness of the practice can sometimes lead to the issue becoming tantalizingly “cool” as teens test the boundaries of control and permissiveness.

Cyberbullying

This activity has a higher incidence of occurrence and is especially rife amongst subteens and teens and can take place at school or more likely after school from homes, but usually school related. This can sometimes overlap with sexting where images (real or photoshopped to look real) are used to embarrass or harass others. Revenge elements of broken friendships or relationships have also been documented to motivate some of the sexting and cyberbullying. The Northern Ireland government has gone further than many such authorities through its direct website to offer information about what has become known as “cyberbullying” (www.nidirect.gov.uk/bullying-on-social-networks).

Schools and teachers within them need strong policies and approaches to deal with any incidences of such bullying and associated use of school networks. The complicating element that much of the documented actions in this arena takes place through social network sites after school hours (even through so often related to school behaviours and attitudes) through home access to the WWW and sites means new and more collaborative school-community approaches need to be developed to deal with the practices.

Other issues and aspects of concern with the burgeoning social networking that have occupied many teachers, politicians, psychologists and social workers as well as the police and interested members of society include the following.

Open Access or Restricted?

The supposed intent of the development of the Internet and the WWW has been for open, free and available access to the world’s knowledge and communication processes in a manner that surpasses all previous human endeavours in such fields. It has exceeded these hopes and offered more to humanity as potential than did print.

However, like many such idealistic elements of social lives, this system leaves openings for the unscrupulous, the deranged, the vicious and the “sick” and criminal in our world. The question, faced by governments and societies in different locations across our world, has been how open access should be. Different responses from different sectors, creeds and political persuasions have offered different arguments for a free versus a somewhat restricted access to the Internet and the

WWW. Teachers and schools are caught in the middle of this debate and face the issue of whether to filter or even block student access to certain sites and activities by students. Many school systems maintain filters and regularly monitor what is being accessed or sent through their servers. Most schools have appropriate use policies and agreements signed off by parents and students to endeavour to curtail or avoid misuse and vulnerability of students. The degree of sophistication of some students and many outside the school system who might “hack” into school sites cannot be underestimated.

Censorship

As well as restricted access the whole notion of censoring what sites and information people can see, use and download also have become a concern in many nations. Schools and school systems have embarked upon “filters” and restricted access tools and software to prevent some of the uglier elements of content on the WWW, for example, being viewed at school. There are legal implications for this to be enacted as parents (and others in the community) become concerned about what their children can access. This matter can be akin to the “banning of books” in school libraries in the USA and other countries in the last half of the last century, but it is a more immediate and serious matter when the worst elements of WWW content are realized. Teachers and school are engaged almost daily in working through sites and issues to prevent student exposure to the unsavoury side of the WWW. The use by teachers of social networking opens up more than just the potential for students to hit sites that are inappropriate; it can mean that activities that are more immediate and individualized can take place before any teacher can act or intervene. This leads into the next major issue in this area.

Predators

The issue of people who prey on others via the WWW sites and interactive communication accessed by users has emerged in recent years as a major threat in social networking and communication approaches. The extent of this activity is unknown but is such that the US Federal Bureau of Investigation (FBI) has a specific website set up with information for parents (“A Parent’s Guide to Internet Safety” at www.fbi.gov/stats-services/publications/parent-guide/parent-guide). In addition, in at least one state in the USA (Pennsylvania), the attorney general has established a Predator’s Unit with advice and follow-up.¹ While these are not unique in the detection and prosecution of such individuals, it signals the seriousness (and to some extent the pervasiveness) of this issue. This aspect is particularly a growing concern

¹ www.attorneygeneral.gov/crime.aspx?id=56

for educators, and many are now building into their work with children an understanding of this danger and how to deal with it. Aspects of limited personal disclosure and avoidance of personal images, addresses and location are all necessary precautions teachers need to enact in classrooms to avoid any potential aspects of this unsavoury element on the WWW. One could suggest that the need for these aspects has, to some extent, undermined the potential educational use of much of the social networking on the WWW and the very ideal of a free and open Internet for the world.

Misuse and Ethics

In addition to being vulnerable to others on the WWW, social networking can also be misused by the students themselves. The whole area of appropriate use by students and the “netiquette” essentials and requirements is something teachers in classrooms now take on as a regular part of WWW use and social networking preparation and usage. A large section (37%) of the book, *Social Networking for Schools* written by Baule and Lewis (2012), offers policy examples and a number of cases from the USA where courts (including the highest in the land) have ruled on aspects where schools have suspended or even expelled students over misuse of the social networks. Many resulted in the schools losing the cases as violations of the US Constitutional Amendments about freedom of speech. This area of appropriate school and classroom use policy is developing fast and is a necessary element of balancing the good use while avoiding the bad use.

Should Teachers Tweet, Facebook, etc?

While so many millions of people over the world are subscribing and actively uploading and communicating on many of the social networking sites, there are questions about whether teachers should engage themselves in actively using and placing personal information on some of these sites and whether they should interact with students through these media. Most have some means of control over who accesses information, but there are incidences of breaches in any security arrangements and thereby breaches in privacy. Students are always curious and active in seeking to know their teachers and can either deliberately or innocently breach privacy. As discussed by Baule and Lewis (2012), some states and/or school districts in the USA have tried to legislate against teachers’ use of Facebook and Twitter. The authors detail the case of the state of Missouri’s Senate Bill 154, which forced “all school districts to implement no social-media policies” (p. 147). Also discussed is the case of the 2011 Pinellas County School Board in Florida which “unanimously voted to ban teachers from communicating with students on either Facebook or Twitter” (p. 148). These matters have raised considerable controversy in the USA

and elsewhere over the past 2–3 years. Most teacher discussion in professional development courses where this matter is a topic leads to quite a range of opinion and reveals a number of differing practices. Some schools take the approach of making a policy of “no teachers on social networking sites”, while others encourage use and interaction but advocate care and control over access and revelatory content. This type of issue and problem is a creature of this new age of social networking that teachers of 10 years ago and before would never have envisaged. Today’s young novice and beginning teachers are more likely to be avid users of social networking before they start teaching, and most have websites and much personal information already in some public domains where students, parents and other community members already have access.

While most of the above areas of issues with school and classroom usage of the WWW have exposed and stressed the “dangers”, there are many potentially educative and useful applications of this technology being implemented across the world. The key elements involve sensible checks and balances and working with students to enable engagement without the dangers. Students should be encouraged too to think before they press any send button, and this should be part of the classroom work by teachers to prepare and support student use of the technological capabilities they have access to, as a matter of sensible education. How students use the technology at home should also be a key matter of working with parents as well as students.

Technology in Classrooms: The Future

This chapter has described and discussed the applications and impact on life in classrooms and schools of the twentieth and twenty-first centuries’ information technology “revolution” with particular emphasis on the impact of the social networking era. Unlike the previous advent of television and other potentially educational changes involving technological advances, the arrival of computers in increasingly smaller and more portable forms *has* changed dramatically much of educational practice.

What elements that will be expanded and built upon in the future years of the twenty-first century are open to speculation and intriguing guesswork. However, there are trends that are appearing in this second decade of the twenty-first century that appear to be indicative of some major forces that will affect classrooms and schools in ways that successive changes have not over the past 200 years.

We will mention a few of these trends and how they might develop over the next 20 years and seriously affect the life in classrooms and schools as we now know them.

Arising quite recently, and with significant educational impact, has been the idea of the “flipped classroom” (Tucker 2012), or the “inverted classroom” (Talbert 2012). Such an approach (as pioneered by Bergmann and Sams 2012) turns the classroom into a place of discussion, of problem-solving and where students engage

in collaborative learning based on the content that has been viewed and examined at home via the WWW. The term “flipped” applies to the way that content presentation is no longer the main classroom activity and other means of interactive and searching and running “lectures” or resource finding is completed away from the classroom. Bergman and Sam’s work started with their lessons posted online and has been taken up by many teachers since it was described and discussed over the past 2 years and at a number of levels of education (Herreid and Schiller 2013).

It appears that the idea of “flipping” the classroom has opened the way to schools and teachers reforming and “renovating” the way they interact and instruct students. Making use of the WWW resources, podcasts and other online applications will see the location and timing of much of schooling shift.

The possibility of other teachers’ expertly prepared classes and “lectures” being used by many teachers (in a similar vein to higher education MOOCs) is then a future vision that is starting to be implemented. (The online Kahn Academy is a further rapidly expanding approach that is somewhat similar as well.)

An interesting question that these approaches raises in: Do these approaches verge on a renewed “deschooling” approach where both the physical institution of school and classrooms will finally shift to something else such as a virtual classroom?

Most technology advocates do not propose that the teacher is no longer needed, nor that the virtual will replace the real.

As Bonk and Graham (2006) discuss in their *Handbook of Blended Learning*, the idea of a blend of some online with some face-to-face teaching is emerging more as the almost inevitable model of what schools, workplace learning and higher education will be in the near future.

If the future need for students is to be more self-managed learners, the role of the teacher, particularly at the early and primary year levels, will be to support learners to achieve more unique self-management through gradual reductions in the teacher-led and controlled elements of their learning and a scaled reduction in “scaffolding”.

A radical view might be that the notion surrounding the Vygotsky ideas of zone of proximal development where children learn with the support of a “more capable other” and Bruner’s later use of the term “scaffolding” to encapsulate this concept is becoming less relevant in this era of learner’s being more self-directed (particularly as they are becoming older and more sophisticated in knowledge acquisition and manipulation via technology). In another work, Cairns and Stephenson (2009) proposed that the theory and description of scaffolding needed to be extended through a series of four variations as students develop more sophisticated self-management and mindful understanding about their learning and how to gain and utilize support from others (teachers, peers, parents and the virtual world and social networks). The four types of scaffolding they suggested were *developmental scaffolding*, the original Bruner (Wood et al. 1976) Vygotskian variant; *adaptive scaffolding*, based on the work of Azevedo et al. (2004), where tailored scaffolding by the teacher is gradually faded as learners need less; *self-directed scaffolding*, where the learner still is seeking some scaffolding and usually will turn to the teacher for

this assistance; and finally the idea that sophisticated adult learners will move to *self-seeking support*, which will be occasional stretching of ideas and encounters via technology with the learner having almost total agency over their learning. Some of these ideas are not incongruent, we would argue, with the ideas discussed as major “visible learning” elements of success for student achievement in Hattie’s recent synthesis of 800 meta-analyses (Hattie 2009).

In future schooling, no doubt, there will be extensive use of handheld devices that will be more and more complex in functioning but easier to use and deploy. These will be in everyone’s hands across the globe, and schooling or any learning hubs or centres will be mostly virtual spaces where each person’s own device will be their key to interaction for learning. Recent developments such as fingerprint security on phones and “watch” devices which will be active portable computers are reinforcing these trends.

Various learning group interactions and collaborations will be the major learning function where “more capable others” (teacher, guides, facilitators) will still be a key element in most learning for young students and less so for teens and adult learners.

It is highly likely that what we currently call m-learning will become in the next few years the more dominant way of learning, and social interaction takes place. It already is growing in the social networking arena at great speed and will, no doubt, take on more and more learning activity as this moves to dominate the educational spectrum.

Not only will schools and classrooms be rare and those that continue to exist will be different, the ideas of m-learning will move into all areas, such as vocational education and workplace learning with greater applications than currently envisaged or practiced.

For example, Carroll (2009) in reporting on his work in the development of m-learning for apprentices in the Australian Technical and Further Education sector makes the argument that this mobile or digital generation is part of a transition to a “ubiquitous” generation accompanied by a “new paradigm driven by the need for personalization and self created content, regardless of time or place, blending perfectly into workplace and informal learning practices” (p. 15). For this generation, m-learning in the workplace with a partnership between learners, employer and teachers/trainers is more appropriate than a classroom. Using mobile phones and the Internet, the apprentices have opportunities to design and negotiate their own learning and assessment projects. Professional development enabled staff to join this mode of learning and teaching. Importantly, these further developments and variations continue the trend to place the learner at the centre of learning and teaching and the teacher/trainer as a facilitator, coach, mentor and support.

This, we claim, resonates with a key focus of Galton’s work over the years: the centrality of the learner and concern for the professional development and practice of teachers as well as the concern to enrich the experiences of the key stakeholders in education systems. Livingstone et al. (2011, p. 258) in the editorial to an earlier homage to Galton’s career of research and writing identified a key theme of “mak-

ing things better for children”, and in the use of social media in education, we need to be mindful of what is better for the children and young people.

Galton argued (2010, p. 338) that pedagogy was more important to focus on than content and outcomes of curriculum, and this needs to be in the forefront of considerations for learning and teaching as the multiplicity of technological advances and ever more sophisticated forms of social media proliferate. Galton (2010, p. 399) also stressed the importance of teachers being able to exert control over content and teaching methods, important in the development of “a pedagogy that can meet the educational needs of future generations of school children.” Galton’s research and recommendations for enquiry-based, multidisciplinary approaches to learning and teaching soundly focused on the learner and learning have relevance for how we use e-learning and technology now and in the future and have special significance in the way social networking has emerged and is impacting on young learners.

The key future question appears to us to be whether teachers can move in this new era and just what differences in pedagogical roles the teachers of 2050 will need to have in their repertoire to develop and facilitate children’s learning.

References

- A *Parent’s Guide to Internet Safety*. At www.fbi.gov/stats-services/publications/parent-guide/parent-guide. Accessed 17 Oct 2013.
- Albury, K., Crawford, K., Byron, P., & Mathews, B. (2013). *Young people and sexting in Australia: Ethics, representation and the law* (Final report). Sydney: ARC Centre of Excellence in Creative Industries and Innovation, University of New South Wales.
- Azevedo, R., Cromley, J. D., & Seibert, D. (2004). Does adaptive scaffolding facilitate students’ ability to regulate their learning with hypermedia? *Contemporary Educational Psychology*, 29, 344–370.
- Baule, S. M., & Lewis, J. E. (2012). *Social networking for schools*. Santa Barbara: Linworth.
- Bellanca, J. A., & Stirling, T. (2011). *Classroom without borders*. New York: Teachers College Press.
- Bergmann, J., & Sams, A. (2012). *How the flipped classroom is radically transforming learning*, www.thedailyriff.com/articles/how-the-flipped-classroom-is-radically-transforming-learning-536-php
- Bonk, C. J., & Graham, C. R. (Eds.). (2006). *The handbook of blended learning*. San Francisco: Pfeiffer.
- Cairns, L., & Stephenson, J. (2009). *Capable workplace learning*. Rotterdam/Boston/Taipei: Sense Publishers.
- Carroll, R. (2009). *A ubiquitous and pervasive learning framework: Linking the learner, the workplace and the education institute*. Unpublished paper prepared for Swinburne University, Melbourne.
- Davies, J., & Merchant, G. (2009). *Web 2.0 for schools: Learning and social participation*. New York: Peter Lang Publishing.
- Defining Social Networking*. <http://www.whatissocialnetworking.com/>. Accessed 2 Sept 2013.

- Galton, M. (2010). The national curriculum balance sheet for key stage 2: A researcher's view. *Curriculum Journal*, 11(3), 323–341.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London/New York: Routledge.
- Herreid, C. F., & Schiller, N. A. (2013). Case studies and the flipped classroom. *Journal of College Science Teaching*, 41(5), 62–66.
- King, K. P., & Gura, M. (2009). *Podcasting for teachers* (2nd ed.). Charlotte: Information Age Publishing.
- Languages used on the WWW. www.internetworldstars.com. Accessed 2 Sept 2013.
- Lenhart, A. (2009). *Teens and sexting: How and why minor teens are sending sexually suggestive nude or nearly nude images via text messages*. Pew International and American Life Project, Washington, DC.
- Livingstone, L., Delamont, S., & Williamson, J. (2011). Mirrors for research in classrooms: Reflections of Maurice Galton's lifework. *Cambridge Journal of Education*, 41(3), 249–263.
- Northern Ireland Government Cyberbullying web site, www.nidirect.gov.uk/bullying-on-social-networks. Accessed 17 Oct 2013.
- Pennsylvania Attorney General's Predator web site advice service, www.attorneygeneral.gov/crime.aspx?id=56. Accessed 17 Oct 2013.
- Poore, M. (2013). *Using social media in the classroom*. London: SAGE.
- Richardson, W. (2009). *Blogs, Wikis, Podcasts and other powerful web tools for the classroom* (2nd ed.). Thousand Oaks: Corwin Press.
- Statistics on Social Networking web sites, <http://socialmediastatistics.wikidot.com>. Accessed 2 Sept 2013.
- Social Networking Web sites. Accessed 2 Sept 2013. <http://www.ebizmba.com/articles/social-networking-websites>
- Talbert, R. (2012). Inverted classroom. *Colleagues*, 9(1), Article 7. Available at <http://schoilar-works.gvsu.edu/colleagues/vol9/iss1/7>
- Teachers' resource for wiki usage in the classroom, www.wikispaces.com Accessed 17 Oct 2013.
- Tucker, B. (2012). The flipped classroom. *Education Next*, Winter, 82–83. educationnext.org
- Wikipedia as a source, www.wikipedia.com. Accessed 17 Oct 2013.
- Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Child Psychiatry*, 17, 89–100.

Chapter 38

International Experiences with Intergrating Interactive Whiteboards: Policy, Practice, Pedagogy and Professional Development

Sara Hennessy

Abstract This chapter describes teacher strategies and experiences with interactive whiteboards (IWBs) and draws on the published research in this area to understand how a systemic approach to technology-based innovations in schools can contribute to quality education for all. It explores ways to support the cultural shift in teacher and learner roles that helps to integrate the technology effectively into classroom teaching. It begins by considering how the features of IWB technology might potentially be exploited in the primary or secondary school classroom to support subject teaching and learning. International experiences of implementing IWB programs are then described, mostly from the United Kingdom where integration efforts are by far the most prominent to date, and implications for future intervention efforts are examined. The chapter concludes by outlining the organisational conditions likely to enhance teacher commitment and thus to lead to successful change. In particular, the role of teacher professional development is foregrounded and characteristics of effective programmes are outlined. The chapter aims to offer messages to researchers, policy makers and practitioners.

Keywords Interactive whiteboard • Digital technology • Professional development • Pedagogy • Innovation • Classroom • Subject teaching, international • Technology integration

A longer version of this chapter first appeared as a report commissioned by OECD as part of a review of the Italian Digital Plan for Schools. I am indebted to my co-author of that report, Laura London, for her assistance with the work, and to Francesco Avvisati for comments on the drafts.

S. Hennessy (✉)

Faculty of Education, University of Cambridge, 184 Hills Road, Cambridge CB2 8PQ, UK
e-mail: sch30@cam.ac.uk

Introduction

Exploiting the Interactive Whiteboard to Support Teaching and Learning

The interactive whiteboard (IWB) technology combines a large, touch-sensitive electronic board with a data projector, specialised software and a computer. The board displays the projected computer image and allows direct input via finger or stylus. Software provides a variety of functions, including tools for annotating text or images, highlighting, drawing, hide-and-reveal, resizing and zooming. The term “interactive” has two meanings associated with the IWB: “technical interactivity” or the tactile manipulation by students and teachers of objects and words displayed on the board, and “pedagogical interactivity”, creating a fluid, comfortable and discursive environment for student interaction with the content of the lesson (Gray 2012; Smith et al. 2005).

IWB features perceived to support learning include immediate feedback, provisionality (the facility to change content), visibility, and access by teacher and students to a wide range of digital resources: texts, drawings, diagrams, photographs, animations, simulations, interactive diagrams, maps, concept maps, databases, graphs, tables, hyperlinked web pages, audio and video files, mathematical representations, etc. Graphical, dynamic and multimedia representations help to support visualisation, making complex concepts and processes more explicit, concrete and transparent, coupled with teachers’ or students’ public interpretation. Transformed objects can also be stored and retrieved in future lessons to spark further discussions. IWBs can be combined with remote input devices (tablet computers, clickers, mice), increasing learner involvement in creating lesson content. Teachers of course use traditional resources alongside the IWB.

Exploiting the interactive features of the IWB can potentially be combined with a “dialogic” pedagogy that is increasingly recognised as fruitful in classroom contexts with and without technology, as summarised in Table 38.1.

While most of the research on IWB use focuses on whole class teaching, work by Warwick et al. (2010) has shown that the IWB has certain features and perceived benefits from those features that make it a highly productive environment for dialogic group work activities where the teacher is not physically present but prepares the task Check headings for structure beforehand.

The IWB is potentially a powerful learning tool. Let us now examine the nature and extent of its integration in classroom teaching around the world.

Table 38.1 A dialogic pedagogy for using the IWB more effectively

Our recent case studies at Cambridge show how the IWB can be used to support classroom dialogue (Hennessy 2011; Mercer et al. 2010). Dialogue is more than just “talk”; teachers and learners actively comment and build on each other’s ideas, pose open-ended questions, and jointly construct new knowledge (Mercer and Littleton 2007; Wegerif 2007). Importantly, dialogue is cumulative. It involves chained lines of thinking and enquiry (Bakhtin 1986; Alexander 2008). Dialogic pedagogies have benefits for subject learning and for developing language, reasoning and collaborative inquiry skills (Mercer and Sams 2006; Rojas-Drummond et al. 2010).

The IWB is particularly supportive because new kinds of dialogue can evolve around digital artefacts: images, texts, and other digital objects that teachers and learners iteratively manipulate and co-construct (Hennessy 2011). The IWB facilitates reflection and critique because it helps learners to create, share, connect, compare and manipulate concrete representations of different ideas, highlighting their strengths and weaknesses. Interacting with these provisional knowledge objects helps to continue dialogues over time.

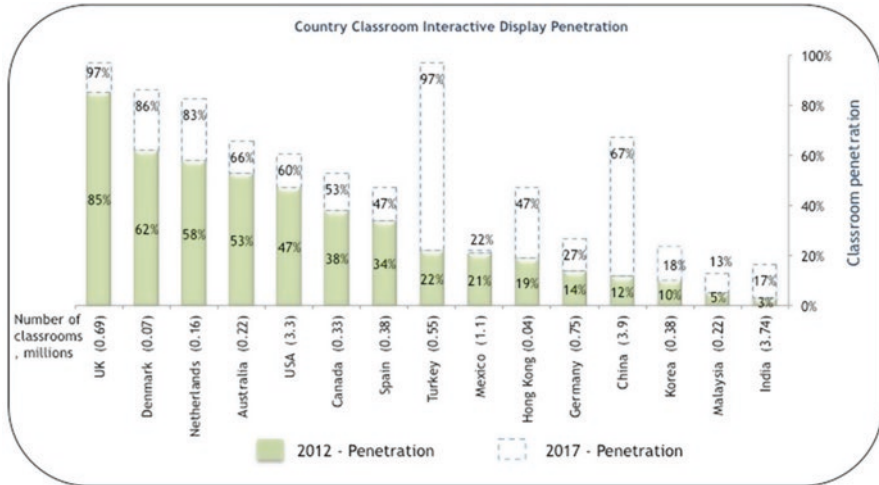
Policy Initiatives in the United Kingdom and the Spread of IWBs Worldwide

The original decision to introduce IWBs in the United Kingdom, the country with the highest penetration of IWBs worldwide, intended to improve student literacy and numeracy (Higgins et al. 2005). Policy required what the technology seemed to offer – a visual tool for supporting well-paced “interactive whole class teaching” – more cheaply than a class set of computers. Initial government-sponsored programmes involved parallel large-scale rollouts during 2003–2005 in London secondary schools (Schools Whiteboard Expansion or SWE), and in primary schools across the country (Schools Whiteboard Expansion Evaluation Project or SWEPP).

A further parallel programme, “ICT Test Bed” (2002–2006), involved 28 schools and three further education colleges. This initiative provided access to high levels of hardware and software, offering a model that other countries may want to consider. Test Bed schools procured laptops for every teacher and presentation technology such as IWBs and projectors in all teaching areas. The funding covered staffing release and supported schools in developing a bespoke and sustainable continuous professional development (PD) plan. (The independent evaluation of Test Bed by Somekh et al. 2007b, offers more detail.)

Mexico initiated an IWB expansion scheme in 2004, installing IWBs in fifth and sixth grade classrooms and in initial and continuing teacher education institutes, as part of a technology infrastructure scheme, *Enciclomedia*. The scheme included teacher training and educational support, equipment, evaluation and monitoring. The associated software comprises a database with digital resources corresponding to the primary curriculum.

Today, the IWB is an increasingly popular educational technology globally; one in eight classrooms (34 million teaching spaces) across the world now have an IWB and by 2015, one in five will have one (Futuresource Consulting 2013). The IWB is



Source: Futuresource Consulting (2013). The total number of classrooms (teaching spaces) in each country is given in parentheses.

Fig. 38.1 Classroom penetration of IWBs across the world (Source: Futuresource Consulting (2013). The total number of classrooms (teaching spaces) in each country is given in parentheses)

found in 85% of British classrooms. Figure 38.1 indicates that its prevalence is rapidly increasing in a number of other countries too, notably Denmark, Netherlands, Australia and the United States. The graph also highlights where further rapid growth is expected in the next few years: Turkey, China and Hong Kong in particular.

Unlike many preceding forms of educational technology sponsored by the government, uptake of IWBs by classroom teachers in England at least has actually been very high, for several reasons. First, the old dry-wipe whiteboards were often ripped out to force teachers to use the new ones. Second, the IWB was billed as a tool that allows different types of learners (“visual” and “kinaesthetic” in particular) to access lesson content, despite lack of research evidence for this (Franklin 2006). Third, IWBs can accommodate different teaching styles and activities, including non-interactive pedagogies for whole class teaching. Compared to other technologies, it is not disruptive. Gray (2010, p. 80) rather cynically observed: “It is no coincidence that the most popular technological application so far in schools is one which meets many teachers’ desire for control over content, learning and behavior rather than one which promotes independent learning.”

It is extraordinary, but not uncommon for technology initiatives, that demand for evidence on impact of IWB programmes has *followed* rather than driven the scale-up phase in many countries. Governments often fail to learn the lessons of their predecessors and global neighbours: educational “innovation” (whether technology-based or not) does not always work well in practice. Johannessen and Pedró (OECD 2010, p. 147) concluded: “Technology-based school innovations are rarely the result of an embodied set of knowledge or empirical evidence accumulated over the

years, knowledge or evidence from which stakeholders nourish their decisions and to which they contribute with their feedback.”

The IWB rollout is one more such innovation. The authors suggest that in reality “the availability and, in some cases, even the fascination for technology is the main driver behind innovations in this area. The link between technology and pedagogy is too weak or in the worst case non-existent” (OECD, p. 144). Indeed, as new IWB features, new technologies, and potentially richer forms of interaction emerge, these attract attention from researchers and educators. For example, smart tables – horizontal multi-touch boards – and other technologies are now more affordable and available to support collaborative learning within and between groups (Higgins et al. 2011). Students are able to work simultaneously and the focus of attention is shifted away from the front of the classroom. As always, however, educators must harness these new tools mindfully and purposefully as they can also be used mundanely.

Lessons Learned from Implementing Large-Scale IWB Programmes

The research into integration of IWBs was carried out predominantly in England, and other countries then endeavoured to learn from the English experiences. This section reviews the outcomes of past IWB expansion plans and shows that the debate about “impact” on teaching and learning is still open. Reaching a consensus about impacts of many new educational technologies has proved notoriously difficult and is actually considered unrealistic by many researchers. The impact of an educational technology depends on teachers’ uses, which depend in turn on their understanding of the pedagogic purpose. Research has consistently shown that the IWB, like preceding educational technologies, itself has no agency or transformative power over pedagogy: therefore, understanding the benefits within particular contexts and for particular educational purposes is essential to focus any evaluation. Nevertheless the rapid adoption of IWBs fundamentally changed stakeholders’ perceptions of the place of technology in schools and helped catapult it to the top of the pile of educational technologies (Gray 2012). This in turn brought technology into the classroom where it could be used flexibly, in conjunction with other classroom resources.

Impact of IWBs on Pupil Outcomes and Classroom Pedagogies

To date the investment in research and evaluation internationally remains small compared with the enormous investments in the equipment. English schools began using IWBs without established and detailed professional knowledge about the technology’s role in enhancing pedagogy, research evidence defining effective practices or evidence for impact on student achievement. The government therefore

commissioned two evaluations of the initial programmes, SWE (by Moss et al. 2007) and SWEEP (by Somekh et al. 2007a). Four key conclusions emerging are outlined below.

Introducing IWBs Does Not Necessarily Transform Classroom Pedagogies

Research has generally disputed the claim that IWBs fundamentally change teachers' pedagogies towards more "interactive" classroom teaching. In a longitudinal study of IWB use in the early United Kingdom programme, Higgins et al. (2005) observed 184 lessons in primary schools in 6 geographical regions over 2 years, comparing teaching with and without an IWB. Outcomes were mixed. Lessons using IWBs had faster pace and less time spent on group work, reflecting the intended increased focus on whole class teaching (Smith et al. 2006). Worryingly, fewer uptake questions (feedback going beyond evaluation of a student's answer, making connections with other contributions) and extended answers were observed; answers during IWB lessons were frequent, but brief. However, in IWB lessons there were significantly more open questions, repeat questions, probes, evaluation, answers from students, and general talk. The research team concluded that "while our findings support some of the claims being made for IWBs, they do not suggest a fundamental change in teachers' underlying pedagogy" (ibid., p. 254). Likewise, according to Gray (2010), teachers (foreign language teachers, at least) have resisted the discourse of "transformation towards constructivist practices" and appropriated the IWB to serve their own needs.

In practice, teachers' diverse beliefs about pedagogy and student learning, their preferred uses of conventional boards, their goals and their prior experiences, shape the way in which they use all educational tools, including the IWB. Indeed, the technology can also reinforce a transmission style of whole class teaching in which the contents of the board multiply and go faster, whilst students are increasingly reduced to a largely spectator role. The evaluation of SWE similarly concluded that successfully exploiting IWBs in secondary schools depended on a clear understanding of the pedagogic purpose of their introduction. A focus on technical interactivity led to some mundane activities being over-valued, especially in classes with lower achieving students, where lesson pace was actually slower as individual students took turns at the board (Moss et al. 2007).

Research on implementations in other countries confirms that in practice, teacher responses to the IWB vary; no simplistic messages emerge. Cutrim-Schmid and Whyte (2012) examined the integration of IWB technology by non-native speaking teachers of English as a foreign language in state secondary and vocational schools in France and Germany. Findings from their 3-year longitudinal study suggested that in spite of communicatively oriented, socio-constructivist training, teachers used IWB technology to implement a variety of different pedagogical approaches.

These were shaped by teachers' teaching and learning experience, pedagogical beliefs, institutional demands, and alignment with curricular and personal goals. The research suggested that with appropriate training, feedback and time for development, teachers can acquire the knowledge, skills and resources to respond positively to the favoured socio-constructivist computer-assisted language learning approach. But changes in pedagogical practice cannot be imposed from above, via isolated training sessions and in the absence of ongoing support in the classroom.

Fernández-Cárdenas and Silveyra-De La Garza (2010) examined Mexico's implementation of IWBs in more than 170,000 primary classrooms. The findings showed that how a teacher uses conventional dry-wipe whiteboards has a direct impact on the way s/he uses the IWB; for instance, similarities were observed in proportions of time on individual, small group and whole class activity, in pedagogic beliefs, and in the perceived importance of learners interacting directly with the board (*ibid.*, p. 177). Pedagogic ideologies varied between individuals but remained static between IWB and non-IWB contexts despite the change of artefacts.

Development of IWB Proficiency Is a Slow Burner

Professional learning about effective use of IWBs requires time. Teachers must become confident users of the technology and must adapt their practice to integrate its use. In the study by Higgins et al. (2005), most differences in frequency of various classroom activities were only apparent after the IWBs had been used for over a year – an embedding effect. Somekh et al. (2007a) observed during SWEEP that it took about 2 years before teachers felt truly comfortable and proficient enough to use the IWB interactively and for its use to become embedded in their pedagogy as a means of supporting classroom interactions.

Some research has characterised a number of “stages” that teachers progress through in accommodating the IWB in their classrooms, with increasing pedagogical interactivity (e.g. Haldane 2010). Moss et al. (2007) suggest that there is “a continuum in which new technologies initially support, then extend and finally transform pedagogy as teachers gradually find out what the technology can do” (p. 6).

Teachers need time to become confident users of new tools and they need targeted support to adapt their pedagogy to new technology. Research by Hennessy and Warwick (2010, p. 127) indicates that teachers take the initiative to develop their technical proficiency in order to support and enhance their established interactive pedagogies; in contrast, it is unrealistic to expect the technology to drive teachers to new forms of pedagogy. The reason for this asymmetry is that IWB tools are designed to make it simple for teachers to create interactive multimedia teaching materials. Ease of achieving “technical interactivity” using the IWB encourages dialogically oriented teachers to extend opportunities for dialogue. ‘Fancy’ use is not a prerequisite, however, and can even be a distraction.

Effects of IWB Use on Student Outcomes Are Neither Clear-Cut Nor Robust

Before the IWB expansion plans, government-funded research in England led to the assertion that school standards are positively associated with the quantity and quality of school technology resources and their classroom use, regardless of socioeconomic characteristics (Pittard et al. 2003). However, impact on students is mediated by teachers' use and effects are notoriously inconsistent across technologies, subjects and phases, with greater impact often documented at primary level in England where technology is more regularly used for teaching purposes (Machin et al. 2007). Caution is needed since most of the available data demonstrate statistical association, but cannot prove causality, and generalisations are often unfounded. Moreover, much of the evidence base derives from small-scale studies and is limited, fragmented and unsystematic according to the landmark review of the literature by Condie et al. (2007).

Given the stark differences in the uses of IWBs across teachers, any effect on students' learning outcomes is likely to be highly contingent on the wider pedagogical and socio-cultural setting. Moreover, the time it takes for teachers to develop IWB proficiency reduces the ability to draw general conclusions from pilot phases. Accordingly, Thomas and Cutrim-Schmid (2010, pp. 20–23) introduce their edited collection of work on IWBs by asserting that “impact” depends crucially on how the technology is used and not on its mere absence or presence in the classroom. We need to understand the benefits within particular modes of teaching, for particular student groups, within particular social, cultural and political contexts, and for particular educational purposes.

Nevertheless, the few studies looking at IWBs almost unanimously report increased student motivation (Somekh et al. 2007a). Regarding achievement, effects attributed to IWBs are reportedly greater than those for all other forms of technology:

The outcomes are almost universally positive, particularly where [IWBs] are used in conjunction with other technologies and there are clear pedagogical reasons for their use. Display and presentational software, including animations and simulations, combined with IWBs, help pupils to develop an understanding of abstract concepts through concrete examples and graphical images of, for example, microscopic processes. (Condie et al. 2007, p. 5).

Somekh et al. (2007a) observed during SWEEP that a positive impact on attainment emerged when students were taught with an IWB for at least 2 years, particularly for those with average or high prior achievement. This time lag most likely reflects the learning curve of teachers.

IWB Use Accelerates Teachers' Use of Technology and Web Resources

Although direct effects on teaching and on learning remain open to debate, IWB expansion plans changed teachers' and other stakeholders' dispositions towards technology more than any other technology initiative before. The IWB allows technology to be used flexibly, and it brings technology firmly into the classroom and away from confinement to now-outdated computer labs. Lee (2013) observed from experiences in Australia that the IWB – unlike desktop computers – draws the vast majority of teachers into the digital world. Greatly increased “live” use of the Internet during SWEEP corroborated this assertion (Somekh et al. 2007a).

Conclusions About “Impact”

The impacts of IWBs depend strongly on the pedagogical culture in which they are deployed. While IWBs can be used to support a variety of teaching styles, they have triggered little resistance from teachers and, on the contrary, have over time increased the use of technology and web resources in and out of class. This in turn helps teachers to document, share, and easily locate effective practices, thus brokering decentralised collaboration and catalysing continuous improvement.

The organisational conditions that enable the successful adoption of IWBs span a wide range, including technical and pedagogical support for teachers; the production and distribution of quality digital learning materials that support the curriculum; regular and uniform personal access to equipment and connectivity, offering informal opportunities for practice and exchange. IWBs should be introduced into all classrooms simultaneously as this ensures continuity for students as they move through the school, and enables teachers to learn together and embed change in practice (Somekh et al. 2007b). Moreover, flexible school timetables avoid work that really requires continuous engagement over several hours from being constrained by the traditionally rigid structure of 50-min chunks for subject lessons (Pearson and Somekh 2006). These organisational conditions support both technical and pedagogical proficiency in using IWBs and are therefore associated with higher impacts.

Characteristics of Successful Approaches to Professional Development

Conducive organisational conditions are a necessary but insufficient prerequisite for teacher adoption of IWBs. Of paramount importance is a programme of well-structured, well-coordinated and sustained PD to support the process of integrating

IWBs into the classroom; a consideration of the developing proficiencies, confidence and views of teachers is central in embedding use (Hennessy and Warwick 2010). Yet, the experience of many countries shows that the adoption of IWBs in many schools has outpaced the delivery of PD of adequate quality and length. As a consequence of patchy PD provision, IWBs remain a poorly or under-utilised resource in many classrooms today, in England and elsewhere (DeSantis 2012). A lesson learned from the large-scale implementations is that clarity is needed about who should take the lead on which aspects of policy and professional development and meet its associated costs, and that action needs to be aligned across stakeholders.

The importance of well-designed PD in supporting pedagogical change is developed further in this section and forms the key thrust of this chapter.

The Effectiveness of Professional Development in the English IWB Expansion Plans

Although there is no systematic analysis of the effectiveness of PD to support IWB integration, the literature on IWB initiatives identifies some pitfalls and promising approaches within the past IWB expansion plans. Most of the time, the evidence refers to teacher-level outcomes only, because student-level outcomes were affected simultaneously by many concurring changes.

A first message from the literature is *that pedagogical change requires pedagogically oriented PD* that prepares teachers to exploit the IWB in ways that are consistent with current models of teaching for each subject (Cutrim-Schmid 2010, p. 170). The typical introduction that teachers receive – in all countries – is a short one delivered by the IWB supplier. It often focuses purely on the technical features. This type of training proves woefully inadequate in helping teachers to make optimal use of the affordances of the technology (Haldane 2010). In contrast, the SWE evaluation (Moss et al. 2007) showed that three-quarters of all teachers found subject departmental training in IWBs to be useful; the focus on very specific curriculum areas meant that a body of teachers agreed where an IWB resource should be integrated into existing work schemes.

The format of PD also makes a difference. A clear message deriving from the key IWB initiatives in the United Kingdom is that in-school PD sessions led by colleagues are more effective than other approaches. The SWE evaluation found that the preferred source of learning for most teachers (83%) was informal day-to-day assistance in using IWBs, offering support on a “need to know” basis that can accommodate to their existing working patterns (Moss et al. 2007, pp. 139–140).

The evaluation of the Test Bed initiative (Somekh et al. 2007b) identified the most effective forms of PD in terms of teachers’ preferences, impact on their technology skills and on use of technology in teaching. In Test Bed schools, external trainers were used for specific events, but as teachers became more proficient, they supported and sustained activity undertaken by their colleagues. In primary schools,

technology coordinators used their increased non-teaching time to work with colleagues; in secondary schools, specialist technology teachers, advanced skills teachers¹ or other teachers, technicians and content developers designed and delivered specific training for colleagues. The most effective forms of PD were often informal, involving teamwork and mutual support. Training became more effective when staff could see what colleagues were doing, take part in more informal team learning, pick up tips and new techniques, and practice with the equipment on their own. In primary schools, action research supported PD and pedagogical change. The development of “champions” – spread among colleagues – with expertise in using particular equipment was valuable in both sectors in providing support at the point of need.

The indications that emerge from IWB initiatives on this point are in line with the richer conclusions from a rigorous evaluation of the national initiative to train all school teachers in England to use technology in teaching carried out in 2004 (Davis et al. 2009a, b). Centralised skills-focused approaches, especially those with online access to trainers, were found largely ineffective. The most successful PD model proved to be an “organic” approach that provided school-based training designed to support evolution of each teacher’s classroom, school and region. In addition to face-to-face training and case studies of good practice, groups worked on classroom assignments that made specific links to participants’ professional practice.

Trainers themselves need to be part of a wider community of practice in order for PD to be effective: The simple strategy of sequentially “training the trainers” centrally so they may cascade workshops to others in their locality was not recommended by Davis et al. (2009a, b).

A Proposed Approach to Professional Development in Support of Pedagogical Change

A school-based, active learning model, combining formal and informal learning opportunities, emerges as the most effective approach from the limited literature on the PD components of large-scale initiatives for technology integration. These indications can be developed into recommendations by considering the larger practical and theoretical literature about PD for pedagogical change. This section exposes the central tenets of the PD approach I have accordingly developed with colleagues through collaboration with practitioners in a series of research studies over the last decade (Hennessy 2014). The approach involves sustained, planned and purposeful opportunities for teacher learning and reflective practice sits at its core. This collaborative inquiry approach has inspired our development of multimedia resources for supporting IWB use (see Table 38.2). The six principles are outlined as follows.

¹Advanced Skills status (and a significant salary increase) is awarded upon application to recognise expert UK teachers and release them from 20% of their teaching in order to share their subject practice through outreach with other schools. In 2012 there were 4500 nationwide.

Table 38.2 Existing resources for a collaborative inquiry approach to professional development for IWB integration

Previous research by myself and colleagues carried out over several years both in the United Kingdom and Zambia (Haßler et al. 2011) in close collaboration with practitioners using new forms of technology confirms the value of the above approach in terms of teachers gradually changing their practices and thinking over time. A school-based PD programme for supporting interactive teaching of primary mathematics and science with and without technology in sub-Saharan Africa is openly available at www.oer4schools.org.

The T-MEDIA project documented case studies of IWB use in science, history and English, and projected graphware in mathematics. It produced thematically organised multimedia representations of them, with built-in PD activities (freely available at <http://t-media.educ.cam.ac.uk/>). A follow-up study found lasting tangible impacts of engagement with theory, reflection and trialling new approaches and tools on the professional thinking and practice of participating teachers (Hennessy and Deaney 2009). There was also evidence of their spread and independent adaptation by colleagues.

In the Dialogue and IWBs project, we collaborated with three (primary, middle and secondary school) teachers to analyse and develop dialogic practice in different subjects (Hennessy et al. 2011). Teachers then designed and taught lessons employing new dialogic approaches supported by IWB use. Spontaneous whole-school initiatives took place, evaluating new uses of IWBs. This collaborative work led to the development of a further multimedia resource for using the IWB to support dialogue (Hennessy et al. 2013). The resource, co-authored with the three practitioners involved in the research, includes:

- a guided programme of collaborative action research containing discussion and practical activities.
- a resource bank of video clips (freely available online at <http://sms.cam.ac.uk/collection/1085164>) and screenshots, each with a description of potential classroom application.
- IWB flipchart templates for lesson activities.
- photocopiable resources for teachers and school leaders.
- accessible background readings, including the teachers' own detailed case stories with accompanying lesson materials.

An independent (unpublished) evaluation of a series of workshops based on the resource carried out in two English schools highlighted the value of the materials as a powerful stimulus for critique, reflection and testing out of new ideas about how to link dialogic teaching with the IWB. The resource is adaptable to other subject and country contexts (see resources and further information at <http://dialogueiwb.educ.cam.ac.uk>).

Professional Development Is School-Based, and Includes Action Research Led by Practitioners

School-based PD activity is situated within an established and supportive school and/or departmental learning community (Retallick 1999). Teachers receive support or mentoring concerning pedagogy for technology integration mainly from more expert colleagues (“champions”), ideally those teaching the same (primary) ages or (secondary) subjects. The teachers collaborate as equals, act as peer mentors, work in small groups and observe each other in order to develop and evaluate new ideas. Thus, teachers themselves lead PD and sustainable action research, sharing responsibility for choosing issues to explore and embedding improved practices in their schools (Frost 2012).

The PD may also include support – at least initially – from an external facilitator who can expose teachers to new pedagogical approaches and can familiarise them with the full range of IWB features (Moss et al. 2007). New practices should never be imposed on a passive audience, however, as in the traditional meaning of “training”, but negotiated and developed through actively engaging teachers.

The Focus and Course of Action Is Initiated and Driven by Teachers’ Needs and Beliefs

Teacher learning requires that teachers take ownership of the material, interpreting and adapting it for themselves, and both questioning and building on what they already know, believe and do. This is most likely to happen when the PD activities are localised, tailored to subject discipline and individual teachers’ pedagogy and practice (Davis et al. 2009a), adaptive and available on demand.

In an already pedagogically interactive context, PD activities will differ from what is useful in a transmission-based context where the need is to develop both a new pedagogical approach and the technology skills and confidence required. Every school will also be at a different point in its evolution and will be situated in a different context, requiring its own tailored and responsive PD programme.

Professional Development Is a Team Inquiry Process Proceeding in Cycles of Reflection and Trialling, Stimulated Through Video Exemplars of Practice

In the proposed approach, video exemplars of other teachers’ (or their own) lessons, and multimedia resources and texts highlighting the underpinning approaches, stimulate dialogue between colleagues, for change and innovation. The videoed lessons are not models of “best practice” but illustrate diverse approaches for consideration. The materials include built-in, structured prompts for reflection, discussion and critique with peers. New ideas that emerge from this reflection process are then related to classroom practice through a cycle of trialling and refinement. This helps to test the practical applicability and boundaries of the new approaches in a given context, re-contextualising them.

The Inquiry Is Focused on Supporting Student Learning

Both the prompts and the classroom inquiry activities focus on the impacts of the new practices for learners’ engagement and learning outcomes; on which pedagogical strategies are applicable, assistive and appropriate for the context; on the added value of the technology and the extent of its exploitation.

Professional Development Activities Are Part of a Sustained, Long-Term Process; Opportunities for Dialogue, Planning and Team Teaching Are Embedded in the Teachers' Normal Work Organisation

Training is coordinated with the introduction of the equipment so that teachers can immediately practice their newly learned skills. Importantly, ongoing PD programmes supporting technology use ensure that new learning can take place (Somekh et al. 2007b); one-off interventions or 1-day courses are ineffective (Cordingley et al. 2004; Hoban 1999). Yet sustained or pedagogically-oriented support is rare. A collegial learning environment enables teachers to embed new technology practices in their own classroom settings, in particular through dedicated non-contact time, collaborative lesson planning within workshops and team teaching (Bowker et al. 2009; Cordingley et al. 2004).

Regular opportunities for professional dialogue between colleagues are central here. Discussions stimulated by critiquing video clips of other teachers' practice allow teachers to process new learning with others and to examine the effects of different types of activities without needing to account externally for their own actions and decisions. Using staff meetings already scheduled outside of teaching time, and drawing on informal support from knowledgeable colleagues, minimises teaching cover costs. Wider communities of practice – school clusters and online exchanges – may play a role too.

Active Support from School Leaders and Administrators Is Crucial

Although it can be a huge challenge, experience from Australia indicates that shifting the focus towards a whole-school approach to ongoing PD influences progress in integrating IWB technology (Betcher and Lee 2009, p. 137). The research emphasises the importance of the school leadership team in visioning, supporting, leading and resourcing interventions for successful school-wide implementation (ibid., pp. 116–117). School leaders' role is sometimes unrecognised; along with teaching assistants they are often shortsightedly left out of IWB training initiatives (Moss et al. 2007). Yet, rigorous syntheses of research evidence across the world show that the largest effect of school leadership on student learning outcomes is when leaders promote and *themselves* participate in teacher learning (Alton-Lee 2011).

The lessons we can learn from previous PD programmes and associated research are clearly pointing towards a peer collaboration model for integration of IWB technology into classrooms in new contexts. The teacher and student benefits of collaborative PD (in general) can also extend well beyond the areas targeted by the PD (Cordingley et al. 2003).

Finally, it must be acknowledged that positive outcomes of the impact of collaborative PD sometimes may emerge only after periods of relative discomfort in trying out new approaches. Practices often worsen before they improve and collaboration is critical in sustaining change (ibid., p. 4; Somekh et al. 2007b). A long-term investment is needed to secure and sustain long-term gains. Structured support materials are important in helping to guide teachers' progress; initial costs of developing or procuring these materials are mitigated through their replication and re-use over time (ibid.).

Conclusion

This chapter outlined the lessons learned from international experiences with IWBs. It considered ways to support the shifting roles of teachers and learners, in particular to foster more interactive and dialogic pedagogical approaches. The conditions for successful integration of IWB technology were described. Research confirms that the skills and professional knowledge of the teacher in mediating interactions with learners is the most crucial factor in determining how much value is gained from IWBs (Higgins et al. 2007). The roles of appropriate PD and institutional capacity building here are utterly essential to support the continuous learning through innovation that underpins technology integration. Based on these considerations, and the fact that technology by itself has no transformative power, the wider research literature on effective forms of PD was drawn upon in introducing a suggested, school-based professional learning approach. This model is primarily teacher-led, sustained over time, school-wide and actively supported by school leaders. It is based on peer collaboration, reflection, inquiry, direct classroom application and trialling, plus some external input. Overall it is also relatively low cost and may offer educational policy makers in other contexts a way forward that avoids the mistakes of some past technology integration initiatives. Recent research with a related PD programme (OER4Schools) developed for teachers in sub-Saharan Africa indicates that the approach can be adapted for use in other contexts with and without technology provision, including low-resourced countries.

References

- Alexander, R. J. (2008). *Towards dialogic teaching. Rethinking classroom talk* (4th ed.). Cambridge: Dialogos UK Ltd, <http://www.robinalexander.org.uk/dialogos.htm>
- Alton-Lee, A. (2011). Using evidence for educational improvement. *Cambridge Journal of Education*, 41(3), 303–330.
- Bakhtin, M. N. (1986). The problem of speech genres. In C. Emerson & M. Holquist (Eds.), *Speech genres and other late essays* (pp. 60–102). Austin: University of Texas Press.
- Betcher, C., & Lee, M. (2009). *The interactive whiteboard revolution: Teaching with IWBs*. Camberwell: ACER Press.

- Bowker, A., Hennessy, S., Dawes, M., & Deaney, R. (2009). Supporting professional development for ICT use in mathematics using the T-MEDIA multimedia resource. In M. Joubert (Ed.), *Proceedings of the British Society for research into learning mathematics* (Vol. 29, pp. 19–24). Cambridge: Routledge.
- Condie, R., Munro, B., Seagraves, L., & Kenesson, S. (2007). *Impact of ICT in schools: A landscape review*. Coventry: Becta.
- Cordingley, P., Bell, M., Rundell, B., & Evans, D. (2003). The impact of collaborative continuing professional development on classroom teaching and learning. In: *Research evidence in education library*. London: Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre), Social Science Research Unit, Institute of Education, University of London.
- Cordingley, P., Rundell, B., Temperey, J., & McGregor, J. (2004). *From transmission to collaborative learning: Best evidence in continuing professional development (CPD)*. Paper presented at the International Congress for School Effectiveness and Improvement (ICSEI), Rotterdam.
- Cutrim-Schmid, E. (2010). Developing competencies for using the interactive whiteboard to implement communicative language teaching in the English as a foreign language classroom. *Themed issue of Technology, Pedagogy and Education on Interactive Whole Class Technologies* (guest edited by Hennessy and Warwick), 19(2), 159–172.
- Cutrim-Schmid, E., & Whyte, S. (2012). Interactive whiteboards in state school settings: Teacher responses to socio-constructivist hegemonies. *Language, Learning and Technology*, 16(2), 65–86.
- Davis, N., Preston, C., & Sahin, I. (2009a). Training teachers to use new technologies impacts multiple ecologies: Evidence from a national initiative. *British Journal of Educational Technology*. From <http://www3.interscience.wiley.com/cgi-bin/fulltext/120848254/HTMLSTART>
- Davis, N., Preston, C., & Sahin, I. (2009b). ICT teacher training: Evidence for multilevel evaluation from a national initiative. *British Journal of Educational Technology*, 40(1), 135–148.
- DeSantis, J. (2012) Getting the most from your interactive whiteboard investment: Three guiding principles for designing effective professional development. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 85(2), 51–55. <http://dx.doi.org/10.1080/00098655.2011.607867>
- Fernández-Cárdenas, J. M., & Silveyra-De La Garza, M. L. (2010). Disciplinary knowledge and gesturing in communicative events: A comparative study between lessons using interactive whiteboards and traditional whiteboards in Mexican schools. *Technology, Pedagogy and Education*, 19(2), 173–193.
- Franklin, S. (2006). VAKing out learning styles—why the notion of ‘learning styles’ is unhelpful to teachers. *International Journal of Primary, Elementary and Early Years Education*, 34(1), 81–87.
- Frost, D. (2012). From professional development to system change: Teacher leadership and innovation. *Professional Development in Education*, 38(2), 205–227.
- Futuresource Consulting. (2013). *Interactive displays quarterly insight: State of the market report, Quarter 2*. Futuresource Consulting
- Gray, C. (2010). Meeting teachers’ real needs: New tools in the secondary modern foreign languages classroom. In M. Thomas & E. Cutrim-Schmid (Eds.), *Interactive whiteboards for education: Theory, research and practice* (pp. 69–85). New York: Hershey.
- Gray, D. (2012). *Evaluating the key issues of interactive whiteboards and their effectiveness in the classroom: A literature review*. Unpublished Masters essay, Faculty of Education, University of Cambridge.
- Haldane, M. (2010). A new interactive whiteboard pedagogy through transformative personal development. In M. Thomas & C. Schmid (Eds.), *Interactive whiteboards for education: Theory, research and practice* (pp. 179–186). Hersey, USA: IGI Global.
- Haßler, B., Hennessy, S., & Lubasi, B. (2011). Changing classroom practice using a school-based professional development approach to introducing digital resources in Zambia. *Itupale Online Journal of African Studies*, 3. Retrieved from http://www.cambridgetoafrica.org/resources/Hassler_et_al_2011.pdf

- Hennessy, S. (2011). The role of digital artefacts on the interactive whiteboard in mediating dialogic teaching and learning. *Journal of Computer Assisted Learning*, 27(6), 463–586.
- Hennessy, S. (2014). *Bridging between research and practice: Supporting professional development through collaborative studies of classroom teaching with technology*. Rotterdam: Sense Publishers.
- Hennessy, S., & Deaney, R. (2009). The impact of collaborative video analysis by practitioners and researchers upon pedagogical thinking and practice: A follow-up study. *Teachers and Teaching: Theory and Practice*, 15(5), 617–638.
- Hennessy, S., & Warwick, P. (2010). Editorial: Research into teaching with whole-class interactive technologies. *Themed issue of Technology, Pedagogy and Education on Interactive Whole Class Technologies* (guest edited by Hennessy and Warwick), 19(2), 127–131. doi: [10.1080/1475939X.2010.491211](https://doi.org/10.1080/1475939X.2010.491211)
- Hennessy, S., Warwick, P., & Mercer, N. (2011). A dialogic inquiry approach to working with teachers in developing classroom dialogue. *Teachers College Record*, 113(9). Published online at <http://www.tcrecord.org/content.asp?contentid=16178>
- Hennessy, S., Warwick, P., Brown, L., Rawlins, D., & Neale, C. (Eds.). (2013). *Developing interactive teaching and learning using the IWB: Teacher Resource*. Maidenhead: Open University Press.
- Higgins, S., Falzon, C., Hall, I., Moseley, D., Smith, F., Smith, H., & Wall, K. (2005). *Embedding ICT in the literacy and numeracy strategies, Final report*. University of Newcastle.
- Higgins, S., Beauchamp, G., & Miller, D. (2007). Reviewing the literature on interactive whiteboards. *Learning, Media and Technology*, 32(3), 213–226.
- Higgins, S. E., Mercier, M., Burd, E., & Hatch, A. (2011). Multi-touch tables and the relationship with collaborative classroom pedagogies: A synthetic review. *Computer-Supported Collaborative Learning*, 6, 515–538. doi: [10.1007/s11412-011-9131-y](https://doi.org/10.1007/s11412-011-9131-y).
- Hoban, G. (1999). The role of community in action learning: A Deweyan perspective. In J. Retallick, B. Cocklin, & K. Coombe (Eds.), *Learning communities in education*. London: Routledge.
- Lee, M. (2013, February/March). Where to after the digital education revolution?. *Education Technology Solutions*, Issue 52.
- Machin, S., McNally, S., & Silva, O. (2007). New technology in schools: Is there a payoff? *The Economic Journal*, 117(522), 1145–1167.
- Mercer, N., & Littleton, K. (2007). *Dialogue and the development of children's thinking*. London: Routledge.
- Mercer, N., & Sams, C. (2006). Teaching children how to use language to solve maths problems. *Language and Education*, 20(6), 507–527.
- Mercer, N., Hennessy, S., & Warwick, P. (2010). Using interactive whiteboards to orchestrate classroom dialogue. *Technology, Pedagogy and Education*, 19(2), 195–209.
- Moss, G., et al. (2007). *The interactive whiteboards, pedagogy and pupil performance evaluation: An evaluation of the Schools Whiteboard Expansion (SWE) project: London Challenge, No. RR816*. London: DfES.
- Organisation for Economic Co-operation and Development (OECD). (2010). *Inspired by technology, driven by pedagogy. A systemic approach to technology-based school innovations*. Educational Research and Innovation: Organisation for Economic Co-operation and Development (OECD) Publishing.
- Pearson, M., & Somekh, B. (2006). Learning transformation with technology: A question of socio-cultural contexts? *International Journal of Qualitative Studies in Education*, 19(4).
- Pittard, V., Bannister, P., & Dunn, J. (2003). *The big pICTure: The impact of ICT on attainment, motivation and learning, No. DfES/0796/2003*. London: Department for Education and Skills (DfES).
- Retallick, J. (1999). Transforming schools into learning communities: Beginning the journey. In J. Retallick, B. Cocklin, & K. Coombe (Eds.), *Learning communities in education*. London: Routledge.

- Rojas-Drummond, S., Littleton, K., Hernández, F., & Zúñiga, M. (2010). Dialogical interactions among peers in collaborative writing contexts. Chapter 7. In K. Littleton & C. Howe (Eds.), *Educational dialogues: Understanding and promoting productive interaction* (pp. 128–148). Abingdon: Routledge.
- Smith, H. J., Higgins, S., Wall, K., & Miller, J. (2005). Interactive whiteboards: Boon or bandwagon? A critical review of the literature. *Journal of Computer Assisted Learning*, 21, 91–101.
- Smith, F., Hardman, F., & Higgins, S. (2006). The impact of interactive whiteboards on teacher-pupil interaction in the National Literacy and Numeracy Strategies. *British Educational Research Journal*, 32(3), 443–457.
- Somekh, B., Haldane, M., Jones, K., Lewin, C., Steadman, S., Scrimshaw, P., et al. (2007a). *Evaluation of the primary Schools Whiteboard Expansion Project (SWEEP): Report to the Department for Education and Skills*. London: Becta.
- Somekh, B., Underwood, J., Convery, A., Dillon, G., Jarvis, J., Lewin, C., et al. (2007b). Evaluation of the ICT test bed project. Becta.
- Thomas, S., & Cutrim-Schmid, E. (2010). *Interactive whiteboards: Theory, research and practice*. Hershey: IGI-Global.
- Warwick, P., Mercer, N., Kershner, R., & Kleine Staarman, J. (2010). In the mind and in the technology: The vicarious presence of the teacher in pupils' learning of science in collaborative group activity at the interactive whiteboard. *Computers & Education*, 55(1), 350–362.
- Wegerif, R. (2007). *Dialogic, education and technology: Expanding the space of learning*. New York: Springer.

Part XII
Summing Up: A Life in Schools and
Classrooms in the Twenty-First Century

Chapter 39

Becoming Persons: A “Forward-to-Basics” View of Classroom Life

Laurance Splitter

Abstract My view of schools and classrooms is based on a relational conception of personhood in which pseudo-issues of “identity” make way for more pressing accounts of the epistemological and ethical dimensions of our lives. “Becoming persons” involves integrating thought and language via a triangular model which sees self-awareness, awareness of others and awareness of a common world linked inextricably together. This model transcends sociocultural and political notions of identity which give unwarranted status to the groups, association and collectives – such as nation-states – with which we may identify. But it remains grounded in the familiar relationships which are central to our lives as persons and in our reflections on the nature and quality of these relationships. Embedding these ideas into models of teaching and learning implies transforming classrooms into inquiring and dialogical communities and realizing that self-reflection, interaction with others and learning about the world are three sides of a single coin. This realization points toward a resolution of some of the familiar but persistent problems of formal education, as highlighted by Galton and other researchers.

Keywords Persons • Morality • Knowledge • Triangulated awareness • Education • Community • Inquiry • Dialogue

Introduction

In this paper, I elucidate and defend a relational conception of personhood which pays scant heed to the *kinds* of differences among persons (but not to those differences themselves), understood in terms of nationality, religion, ethnicity, gender, sexuality and even culture, that is, the categories and collectives which are most closely associated with conceptions of *identity* in social, cultural and political

L. Splitter (✉)

Department of International Education and Lifelong Learning, The Education University of Hong Kong, 10 Lo Ping Road, Tai Po, New Territories, Hong Kong 852, SAR China
e-mail: splitter@eduhk.hk

contexts. Indeed, I will argue that identity itself – to be distinguished from the much weaker concept of *identification* (as in identifying with one’s country or fellow citizens, religion, culture, etc.) – is irrelevant to the question of who we are as persons, although it is central to the question of what *kind* of (natural) entity we are. I regard the concept of personhood as central to our understanding of education and schooling – in particular, to their underlying rationale as well as their moral and epistemological dimensions. It follows, then, that our so-called identities have nothing to do with these dimensions.

I am particularly interested in the moral (or ethical) and epistemological (knowledge-related) dimensions of ourselves because many of the issues at the forefront of educational concern are, so I contend, rooted in confusion about these dimensions. To take one example, consider the following comments by Maurice Galton in the present volume: “Such findings testify to the maxim...that there is a ‘persistent stubborn continuity in the character of instruction’”. “The fact that over decades teaching has remained consistent in its application to classrooms suggests that initial training needs radical overhaul”. In asking why it is that the fundamental nature of teaching and instruction – or, more poignantly, teaching *as instruction* – has not progressed, several candidates present themselves, including a persistent and deep misunderstanding about what knowledge *is* (and, accordingly, how it is obtained). I hope to offer a more satisfying account here.

As persons, we are, I suggest, bound together in a diverse world supported by a common moral framework. The latter is linked to the realm of persons in two senses: first, we do not seriously hold non-persons morally accountable for their actions, in so far as they do not make rational choices about how to act. Secondly, and more contentiously, non-persons, by and large, are deemed not worthy of the same moral regard as persons. I articulate this asymmetry in what I call the “Principle of Personal Worth” (PPW).

Still in introductory mode, I should comment on the idea of a *common* moral framework, since some might concede that only persons are bound, in some sense, by morality, different moral rules, codes or values apply to different people or, more likely, to different classes or groups of people. Some such differences would nowadays be summarily dismissed as morally irrelevant, even repugnant (e.g. racial and gender differences), but others might not be (here I have in mind differences in sexual orientation, age, nationality, religion or ethnicity). However, such claims of commonality can be understood in different senses, most notably empirically and ethically (or meta-ethically). As a matter of (empirical) fact, it seems clear *both* that different nations, religions or cultures, make different moral claims on their adherents and non-adherents, respectively, *and* that some common or universal moral principles can be found across all such groupings. But there is also the normative or ethical question of whether such different claims are morally justifiable or not. The Nazis believed that some races or ethnic groups were superior to others; reasonable and decent folk everywhere would, one hopes, reject such ideas out of hand. But what if the distinction in question was based on nationality or religion and, further, if claims of moral superiority were replaced with claims of moral *difference*? Muslims, Jews and Christians are expected to follow

different – albeit overlapping – moral codes, and China, Saudi Arabia and many other nations (or, rather, their governments) assume the moral right to impose on their citizens certain restrictions relating to individual freedom, democratic rights, etc. that most Western governments do not accept.

When called to account for such differences, the common defence is basically: “Mind your own business!” or, more politely, “Don’t interfere with our internal affairs”.

Morality and Citizenship

The view that nationhood is tied in some way to morality is commonly held among scholars of citizenship and citizenship education. In a recent forum, a colleague disagreed with what he took to be my view, namely, that conceptions of citizenship are universal or cosmopolitan, in line with similar conceptions of morality. He asserted that such conceptions are actually generated by and within (nation) states. I suggest that our concerns – even our frames of reference – are quite different. His interest lies primarily in investigating the empirical facts of the matter (and looking for explanations, implications, etc.), whereas mine lie in asking what conceptions of citizenship are both coherent and morally defensible.

Actually, I do not think that either the nation-state or the more holistic constructs of cosmos, global citizenship, *Gaia*, etc. provide an adequate basis for working out moral norms, rules and procedures. The *Principle of Personal Worth*, which I introduced above, offers a more attractive alternative, which grounds morality in the concept of *person* and characterizes personhood as a fundamentally *relational* construct (each person is *one among others*). The relations in question are constructed, observed, expanded, reflected upon and modified in the course of living our lives *as persons*, with the provision that each of us must spend time and effort on the task of *becoming a person*.

It may surprise philosophers familiar with the great normative theories of Aristotle, Kant, Mill, etc. to find writers on citizenship so willing to relativize morality to the confines of the nation-state. Several factors are at play here, including:

1. An equivocation or shift of focus between empirical and normative perspectives, as already noted.
2. Conceptions of morality and citizenship which place the former in the realm of individualized or private behaviour and the latter in the realm of public behaviour.¹

Accordingly, where an individuals’ private values and moral commitments are taken to be their own business, so to speak, the notion of a civil society requires a more uniform – but still relativized to the society in question – approach, hence the common call for citizenship education to include matters of public, civic and social

¹ See, for example, Halstead and Pike 2006, 37; Halstead 2006, 207.

concern. I regard (2) as fundamentally mistaken and will explain why later. It rests on the familiar distinction between subjective (private) and objective (public), a distinction which collapses when we have a clearer conception of personhood which bridges the subjective/objective divide.

In rejecting moral relativism of the kind that parochial notions of citizenship push us toward, I do not automatically embrace the bland universalism of a faceless and impersonal cosmopolitanism. Perhaps at some broad level, we are all governed by a single set of moral norms and values, but such a set has to be constructed from the “bottom-up”, not from the “top-down” (i.e. not from seeing ourselves as members of the class of persons or even as citizens of the world). It begins with our becoming aware of those around us with whom we embark on the dual tasks of building relationships and reflecting on their quality and value. Granted, throughout our lives, we may have little choice about the relationships in which we find ourselves and through which we begin to experience and learn about the world (we choose our friends, but not our families, teachers, etc.). But my interest here is with both dimensions of this duality: we develop, experience and respond effectively to relationships with others, *but* we also reflect on the quality and value of these relationships and their impact on our lives, and, in so doing, we inevitably refine our understanding and appreciation both of the relationships and of ourselves.

Nature, Personhood and Identity

We are born as human beings (i.e. as members of a particular kind of natural organism), *but not*, I contend, as persons. We become persons in a process of development at the epistemological heart of which lie several interconnected and expanding dimensions of awareness: our awareness of ourselves as thinkers, learners, knowers, etc., our awareness of others around us who are also thinkers and our awareness of a world which both we and they have in common. I will explore this *triangulation* model (which is articulated by the philosopher Donald Davidson) in some detail and suggest that the basis of formal education may be construed in terms of working out its implications. Along the way, I shall explain why such concepts as language, specifically dialogue, and community – specifically the *community of inquiry* (CoI) – play such a key role, both in education and in our personal, social and ethical development and, conversely, why such concepts as citizenship, nationhood and even culture have little to offer in this regard.

In the special case of ourselves (and perhaps other beings, including some of which we are unaware), the answer to the basic question “Who or what am I?” is in two parts. As objects in the natural world which come into and go out of existence according to appropriate conditions of identity, subject to various natural laws and contingencies, we are, like all other natural things, members of some kind *K* (be it *living organism*, *animal* or *Homo sapiens* – for our purposes, it matters not). From this it follows that whatever “else” we may be, the conditions of our identity and existence are, for all intents and purposes, settled by these natural credentials. But

as creatures whose brains have evolved to allow the development of language and (hence) self-awareness, rationality, moral and aesthetic sensibility, etc., we regard ourselves and others like us as *persons*. The vast majority of the persons we know are also members of K – and vice versa – although this neat coincidence may not cover all possible cases. Still, you and I, *qua* persons, depend on our *K-ness* to provide the conditions of our identity, indeed, our very existence. As a rough variant on the “nature-nurture” distinction, we may say that my nature derives from the *kind of creature* that I am; but the *kind of person* I am (or, rather, as I prefer to say, *become*) – and here we think of such broad characteristics as rationality, character, personality, sensitivity, etc. – is very much determined by what happens to me during the course of my (natural) life. As persons we are, needless to say, very concerned with these latter aspects of ourselves, even to the extent of supposing – mistakenly I contend – that our very identities (*who we are*) are bound up with who we are as persons. Such locutions may seem innocuous, except that it is common, at least in the social science literature, to tie personal identity – who we see ourselves as being – to the various groups, collectives, associations and affiliations that make their claims on us (sometimes voluntarily but often not). It is this move which leads to trouble, or so I claim.

Suppose that natural science does – or will – furnish the conditions under which we define, identify and reidentify physical kinds of thing, including ourselves as human beings, animals, organisms or whatever. Where does this leave matters in terms of the definition, identity and reidentification of *persons*? Briefly put, while we may plausibly offer to define personhood in ways that distinguish being a person from being a K, there are no special conditions of identity, identification or reidentification for persons that are not already specified by K itself. *Person* is not the kind of concept that has, or requires, identity conditions. It is quite consistent to assert that I exist, that I am a person and that *person, qua kind or sort*, has no ontological (or existential) status. *Ceteris paribus*, once we count the number of Ks (human beings, say) in the room, or in the world, we have, thereby, counted the number of persons.²

Corroboration of the view that personhood does not contribute anything to our ontology over and above the underlying kind of being that any given person happens to be comes, albeit indirectly, from a thesis known as “Anomalous Monism” (AM), first articulated by Davidson in 1970.³ AM asserts that the discourse employed to “talk about” objects belonging to the realm of the mental and, indeed, that realm itself is:

1. Referentially *opaque*, grammatical appearances notwithstanding, such mentalistic terms as “mind”, “belief”, “intention” and “desire”, do not denote entities in

² If a natural kind concept K provides the conditions of our identity, then, strictly speaking, the term “personal *identity*” is a misnomer, although I acknowledge that many people choose to *identify with* a particular group or association – nation, religion, sexuality, culture, etc.

³ Davidson 2001b.

some shadowy mental or subjective realm called “mind”, because there is no such realm.

2. Not reducible to the language of physics or any other law-governed domain.
3. Semantically indispensable if we want to make rational sense of the world and our place in it.

So, for example, when my *belief* that my house is on fire and my *desire* to survive combine to *cause* me to *run* outdoors, AM declares *both* that my action can only be understood, explained and justified by appealing, irreducibly and linguistically, to a network of mental attitudes which include the particular belief and desire just mentioned *and* that there will be, whether known or not, a causal account of that action which can be given in entirely physical terms (there being no other when it comes to causality). There is no ontology of the mental – in particular, no entities such as minds, thoughts, etc. – yet we cannot make sense of the world – particularly those aspects of it which involve *us* – without “talking about *it*”.

It follows that whatever is constitutive of *being a person*, it is not a fundamental kind or type of entity with its own identity and existence conditions. Still, our personhood is immensely important to us; it stands for a level of awareness and self-awareness that allows each person to construct, observe, participate in, reflect on and modify a complex network of relationships (primarily relationships with other persons). Such awareness has both cognitive and affective dimensions: we admire, approve or disapprove of, respect, critique and seek to improve these relationships.

Why is our own status as persons so important to us? Is it merely a kind of self-absorption: the urge to look both inward to our own perspectives and outward to others only for the purpose of enhancing our own? This would be disappointing, as it drags us back to a narrow, self-centred notion of personhood, reminiscent of Jean-Jacques Rousseau’s *amour propre* (my sense of self as prideful and vain, feeding on the assessment of others). I prefer to opt for a more symmetric framework here, based on a realization of the interdependence of inward-looking and outward-looking perspectives. But this opens up a new charge akin to *amour propre*, one grounded on the asymmetric preference for persons over non-persons – like the patriot who insists that he is altruistic and not selfish because he regards *all* his compatriots, not just himself, as superior to outsiders.

The Principle of Personal Worth

My response to this charge is to admit to it, indeed, to embrace it. Persons *are* more valuable, morally speaking, than non-persons. This normative difference is the crux of my *Principle of Personal Worth* (PPW), which states:

1. That persons of whatever kind have a unique moral value or worth which places them above non-persons.

2. That with respect to this moral value, *all* persons are equal – i.e. of equal value and worth.⁴

In referring to non-persons, I have in mind two types of entity (of which only the second is relevant here):

1. Ordinary objects such as rocks, iPhones, snakes, insects, birds, fish and most mammals and such fictional entities as marauding spiders and (more contentiously) zombies.
2. “Suprapersonal” entities such as nations, cultures, religions, ethnic groups, corporations, clubs, gangs, tribes, cults, the family, the economy, the budgetary deficit, the marketplace, etc., some of which are more abstract than others.

In introducing the concept of a *supra* person, my intention is to critique a raft of claims which, taken together, form the basis of what is sometimes referred to as “identity politics”, that is, the moves made by or on behalf of specific groups of individuals – usually, but not always, those who have suffered from some form of injustice – in order to attain greater acceptance or recognition in the broader society. The use of the term “identity” in such contexts is misleading: while the concepts which designate these groups may well generate criteria of identity *for the groups themselves*, they have nothing to do with the actual identities of the individuals which belong to these groups. Further, any normative or moral claims made on behalf of either the groups themselves or their members can only derive from the moral status of those members as persons. In Kantian terms, we persons are ends in ourselves; we are not mere objects for which questions of identity may well matter. We are, so to speak, *above all that*. When it comes to our own personal development, such a view may be seen as *liberating*: whatever it is that truly matters to us as persons, struggling to preserve our own sense of who we each are (e.g. *Chinese, Hong Kong Chinese, Hongkonger*) is not as important as other tasks and challenges (such as maintaining a civil and democratic society which preserves individual freedom).

Within the domain of identity politics, we frequently find claims which run counter to PPW, in maintaining that such entities as nations, religions and economies – not to mention less grandiose but often more powerful collectives such as gangs and cults – have a value or worth which is greater than the persons who belong to them (who, in turn, may feel that their identity is bound up with them). In advocating against such claims, I do not insist that these *suprapersonal* entities have *no* value to us (since they clearly do); rather, I maintain that the value of being an Australian/Chinese, or Jewish/Muslim, and the value of certain social and economic ideals – the family, a balanced budget, a welfare state, etc. – are, at best, *derivative* upon the value, the well-being and worthiness, of those ordinary persons who are Australian or Chinese, Jewish or Muslim, members of families or not, the beneficiaries of a balanced budget and so on. In my forthcoming book on *Identity*, I devote considerable space to critiquing such *suprapersons*, but will not do so here.

⁴I shall not specifically address (B) here; it expresses the politically incorrect slogan, “All men are equal”.

Although I am critical of scenarios in which PPW is violated, or merely put at risk, it is unrealistic to place the blame entirely on the power and actions of the offending groups themselves. While *suprapersons* are all too often imbued with a power over individuals which is unhealthy, even dangerous, that power is exacerbated – if not actually enabled – by the vulnerability of those individuals and the contexts in which many find themselves. Needless to say there are complex causal issues here which are beyond the scope of this discussion – including cycles of poverty and violence, gender stereotypes, etc. In the face of such complexities, I am interested in the question of what might be done to immunize or shield young people from the worst effects of their (inevitable) affiliation with such groups.

Personhood and Awareness

When we ask what it is that characterizes personhood, there is no shortage of candidates. But are there some specific features which warrant being described as particularly – even uniquely – valuable? I think that there are, and to bring this out, I turn to Davidson's triangulation model. Davidson conveys a powerful holistic understanding of the relationship between persons – as causal agents, as bearers of both mental and physical attributes, as interpreters of one another's words and thoughts and as inquirers into meaning, truth and knowledge – and the world in which they are situated, act and are acted upon (a world which also contains other persons):

... the basic triangle of two people and a common world is one of which we must be aware if we have any thoughts at all. If I can think, I know that there are others with minds like my own, and that we inhabit a public time and space filled with objects and events many of which are ... known to others. In particular I, like every other rational creature, have three kinds of knowledge: knowledge of the objective world...; knowledge of the minds of others; and knowledge of the contents of my own mind. None of these three sorts of knowledge is reducible to either of the other two, or to any other two in combination. (Davidson 1998, 86–7)

This principle of *triangulation* plays a key role in Davidson's later writings (Davidson 1982, 1999, 2001a, c). It is designed, in part, to block the Cartesian sceptic's attempt to restrict – or otherwise prioritize – knowledge to the first person; but Davidson also uses it to account, conceptually, for what we already know to be the case, namely, that we interpret one another's responses to certain stimuli as confirmation that we share, and can communicate about, a common (i.e. objective) world; indeed, our capacity so to interpret one another – to behave intersubjectively – constitutes what we *mean* by commonality or objectivity. A key element of being aware of this world is the possibility that from time to time – but not, Davidson stresses, *all* the time – our beliefs, judgements and knowledge claims about that world are

mistaken.⁵ The possibility of *error* grounds our capacity to know anything and is crucial to education, as I shall explain. But Davidson insists, further, “that we would not have the concept of getting things wrong or right if it were not for our interactions with other people” (1999, 129). Such interaction is, first and foremost, through *language*; we share our observations and beliefs about the world with others, and we note that from time to time, these do not correlate; therefore, one of us must be mistaken.

While I share Davidson’s insistence that the three vertices of the epistemological triangle are mutually irreducible and interdependent, it is worth dwelling for a moment on the first-person case, i.e. my knowledge and awareness of (the contents of) my own mind. To be aware of my own mind is to be *self-aware*, which is commonly taken to be a key defining feature of persons. So far, so acceptable. But what is this *self* of which I am thereby aware? David Hume’s answer, which left both his readers and himself somewhat dissatisfied, is that when we look for the self, we find, instead, just this or that perception, thought, feeling, sensation, etc. I “see” myself as cheerful or depressed, wondering if I will be late for the meeting, feeling uncomfortably warm and so on, in endless succession. The problem, to put it in more contemporary semantic terms, is that these mental “objects” are just properties of that which we are really seeking, viz. the *subject* of these properties. And it is a fundamental conceptual error (category mistake) to look for the subject of properties among (any combination of) those properties themselves.

The good news is that self-awareness (or, indeed, any other kind of awareness) does not have to be understood as awareness *of* an entity called “the self”. If I “see” myself *as* a human being, then I satisfy the basic condition of self-awareness. However, if, in some bizarre hypothetical scenario, I see myself as a Martian, a highly developed ape, a robot or a computer, then I still satisfy the basic condition of self-awareness! Personhood is about being self-aware; it is not about being aware of oneself *as* something (although there will always be such a thing in any particular case). The question remains: “What is involved in developing such a sense of self-awareness in the richest possible sense?” The key here is the network of relationships we form with others – specifically, other persons.

The Primacy of Language

Among the various properties that demarcate personhood, the presence and shared use of *language* are especially distinctive, precisely because language is an observable and scientifically explainable phenomenon. Persons, then, are those creatures which populate language communities. Returning to the PPW, I am claiming that

⁵ Claims to propositional knowledge (“knowing *that*”) involve assertions of belief. But, following Davidson, one cannot be a believer unless one has the concept of belief which, in turn, involves grasping the distinction between what is claimed to be true and what is actually true (i.e. the concept of *error*).

the distinctive moral status bestowed upon persons relies on the deceptively simple idea that those things which possess and utilize language are valuable in ways which non-language users are not. While this claim may seem blatantly self-serving on behalf of us persons, it is, I think, irresistible. For one thing, it is hard to imagine any functioning society not adhering to it: I hate the idea of killing any animal, but first, if we remember that flies, worms and other small creatures are animals, I do so regularly and, second, if faced with the unpleasant choice of running over a dog – even my child’s pet – and running over a child, even one who bullies my child remorselessly, my moral obligation here is clear. Further, it is no accident that much of our ordinary language applies to those aspects of ourselves which are not entirely physical. The point is not just that we have an endless number of terms and phrases to describe how we feel and what we think, intend, desire, etc., but that in uttering them, we describe and discriminate among aspects of our own lives and those of others that would, otherwise, remain unintelligible. It may be true that dolphins and certain other creatures have sophisticated calls that enable them to communicate with their fellows – much as young infant humans do with their first cries and murmurs of “Mama” or “Dada”, but the degree of sophistication is relative here: it does not follow that birds – who, after all, have *birdbrains* – have much mental life to speak of. Indeed, if Davidson is right, they have precisely as much mental life as they do language.⁶

Once we embark on the task of explaining, or even describing, what we, as persons, do in terms of *any of* our motives, beliefs, desires, hopes, fears, goals, intentions and so on, we are committed, semantically, to an indefinite process in which our own mental states and activities – along with those of others – are bound together in ever more encompassing networks (in simpler terms, our beliefs and other attitudes do not come one by one but in combinations that become more complex as we probe them further). This is Davidson’s thesis of the *Holism of the Mental*, and it is the major component in his overall argument for Anomalous Monism. But by the very terms of AM, these networks are neither part of the physical world (whether of macro objects like ourselves or micro objects like neuron firings) nor part of any mental world; the only domain in which they can function is that of *language* itself (whose networks are both syntactic and semantic, structured by logic as well as grammar). But language – whether taken collectively or one by one – exists, in practice, through the actions of language speakers and interpreters, i.e. persons.

Persons are capable of making moral judgements (for example, about what constitutes right and wrong, etc.) and, accordingly, are ethically bound to do so. I am suggesting that persons, thus categorized, are also those who participate in language communities and, thereby, in networks of relationships with other persons (as well as with non-persons, albeit asymmetrically: I may talk to my cat or my doll, but it does not *really* talk back). It is no coincidence, then, that conceptions of both

⁶Nothing I am saying here is threatened by the prospect of “discovering” that certain non-human creatures (dolphins?) possess sufficient language to qualify as persons. What might follow is that they deserve an education that goes considerably beyond the kind of training most commonly imposed on them.

language and morality make sense only on the assumption that persons construct, participate in and see themselves as participants in *relationships* of one sort or another. Moreover, the boundaries of such relationships (or networks of relationships) are not necessarily defined by differences in language, culture, religion or anything else. The only relevant boundary is that between persons and non-persons. It is an empirical truth that we can (if we choose to) find ways to communicate successfully with *any* other living person. In practical terms, language is both a unifier and a divider; still, in referring to the concept of language *communities*, I am pointedly *not* intending to carve up such communities along the lines of our ordinary language differences (i.e. I am not referring to the community of native English speakers, of German or Cantonese speakers, etc.). Granted, I cannot readily communicate with a native Hongkonger who does not speak English. But we can surmount this barrier via some mode of *translation*, be it a dictionary, a bilingual companion or a painstaking process of shared reflection on how each of us uses words to pick out objects that belong to the realm of our common experience. Going back to Davidson’s triangulation model, according to which my understanding of my own words and concepts is tied up with my understanding of both your words and concepts, and that of the external world we share, we can see that the interdependence of the three sides of the triangle holds even *within* a particular language community; otherwise, we could have no confidence at all that when you and I use the same words, we mean or refer to the same thing by them.

As with language, so with morality. Once we accept both that the framework defined by the concept of a person is appropriate for prescribing the boundaries, or limits, of those characteristics that we ascribe to persons, and that these limits are determined by the limits of language and communication, then we can – indeed, we *must* – accept that the limits of our morality, likewise, extend to include all persons. The notion that specific moral rules, norms or values apply to one specific group of persons is challenged by the transcendent power of language. We *can* find ways to communicate with those who are, in some ways, *different*, thereby joining in a dialogue in which both sides may participate, a dialogue which enables each person, in principle, to *empathize* with each other person. We may not always reach agreement on specific moral issues, but you have the right to ask me to explain and/or justify my beliefs or traditions, and I, as a participant in the broad community of persons, am obliged to respond.

The idea of an interconnected network of interpersonal relationships – a network of networks – begins with the most intimate of relationships (parents, family, close friends, etc.) and extends to and beyond barriers of local community, nationhood, ethnicity, culture, religion and all the other classifications which we apply to persons, to embrace, again in principle, *all* persons, even those, if there are such, of different kinds from ourselves. It follows that whatever theoretical basis one opts for in order to ground our views on morality – e.g. consequentialist, deontological or virtue-based theories – we can expect common agreement about the domain to which such theories apply. We may even take a religious perspective, noting that something like the Biblical rule of interpersonal reciprocity (“Do not do unto others that which you would not have them do to you”), which is really a powerful

expression of *empathy*, is part of the bedrock of most of the world's religions. Once again, such a rule applies to *all* (and only) persons, but does not, in itself, circumscribe the actual limits of this concept. It follows, presumably, that I may not eat you (certainly not while you are still alive), but what about other animals? I am, for better or worse, a meat-eater, but I do not thereby bestow upon chickens, cows and fish the right to eat me. This is because I do not bestow *any* rights on them, since they are not persons. Accordingly, if I should be attacked and consumed by a chicken (a very large and angry one, presumably), I should be appropriately unhappy about it, but I could not condemn its behaviour. Identifying personhood as an irreducibly *relational* construct enabled and enlivened through dialogue is a project articulated by writers and theorists in several disciplines and coming from several distinct perspectives. It is a recurring theme in the pragmatists C. S. Peirce, G. H. Mead and, of course, John Dewey, no less so in the work of Mikhail Bakhtin, Charles Taylor, Jürgen Habermas and Hans-Georg Gadamer and, again, in the theoretical and applied research of Lev Vygotsky and Jerome Bruner. Interpersonal relationships may be identified at all points on the spectrum from individual to universal. From the intimate perspective of Buber's "I-Thou" to the broadest conception of global citizenship, the key building block is the idea of persons in relationship with one another.⁷

The Challenge of Education: Becoming Persons

Assuming that personhood is characterized by networks of relationships that have semantic/linguistic and moral/ethical dimensions, how is it that (some) creatures actually *become* persons? By developing, sustaining and enriching the relationships they have with others who are also (at various stages of becoming) persons. We do these things as children and as adults throughout our lives, whenever we meet new people, perceive someone we already know differently or more deeply, etc. It might be claimed that such interactions are just a normal part of growing up in the world, and so they are. But my interest is in the *normative* aspects of personal development which cannot be left merely to chance and circumstance. I believe we need to assist young people to improve the quality of their interpersonal relationships. Here, I suggest, is where schools and classrooms have a crucial role to play. Moreover, when we understand the full implications of personal development, we find a powerful synergy between becoming a person *in* and learning *about* the world.

⁷ Buber 1937; see also Bergo 2011 on Levinas.

The Community of Inquiry (CoI)

It may be that the base of Davidson’s triangle – viz. the link between myself and others – requires merely the existence of one other speaker with whom I can communicate (as Davidson sometimes suggests). But a more reliable base for knowledge involves a larger number of such speakers. In practice, we play off a range of assertions, beliefs and perspectives as we work out which ones meet appropriate standards of reason, evidence and justification. Such a range is provided within a cooperative *community of thinkers*, all of whom are inquiring after truth by way of determining, interpreting and evaluating what is presented to them. Interestingly, while it is not clear that he intended to make the shift from a single interlocutor to a community, Davidson writes: “A community of minds is the basis of knowledge; it provides the measure of all things” (Davidson 2001c, 218). Further, rather than speak, vaguely, about the community of *all* persons, in practice, we need a more localized, accessible notion of community to work with. We cannot, in fact, interact with *all* persons, whether we are learning a language, communicating with others or developing as moral beings. Here, I suggest, is a link, hitherto unremarked upon, between Davidson’s holistic views on mind, language and the world, on the one hand, and a distinctive concept of *community*, on the other, which has important implications for how we think about such key aspects of education as classroom organization and pedagogy enter the *community of inquiry*.

A “community of inquiry” is a group of individuals who are engaged collaboratively in a process of inquiry or powerful thinking. Needless to say, this will not take us far unless we explore both the kind of group that constitutes a community and the kinds of activity that warrant being called “inquiry”. Let us allow that a community comprises individuals who are engaged (whether self-consciously or not) in working toward a common purpose or goal, who have appropriate affective relations of care, respect, trust and empathy toward one another and whose power relationships with respect to one another are clearly defined and accepted by the members (not all communities are democratic; indeed, some may be strongly hierarchical, but at least, each member “knows his/her place” within the community). Inquiry, on the other hand, is a process driven by the desire to solve or, more broadly, *understand* something which is *puzzling* or unknown. The concept itself suggests a *quest* of some kind, a fitting term because it reminds us that a great part of any inquiry – including in the classroom – is to *question*. Philosophers C. S. Peirce and Matthew Lipman (both powerful advocates of the community of inquiry) add to our understanding of the concept of inquiry that those engaged in inquiry must follow it where *it* leads (Peirce) and that inquiry is a form of *self-correcting practice* (Lipman). The latter, in particular, resonates strongly with the ideas I am promoting here.

How does the environment of a CoI differ from that of other teaching and learning environments? I have found it convenient to answer this question by referring to three interconnected dimensions:

- Dimension 1: The affective and social (interpersonal) characteristics: safe, caring and respectful; seeing oneself as one among others
- Dimension 2: The dynamics of the classroom (cognitive and metacognitive aspects): dialogue, reflection, questioning, reasoning and other markers of powerful thinking, together with intellectual risk-taking which is supported by D1
- Dimension 3: The content focus of the classroom: challenging, conceptually rich and experientially rich subject matter

I have elaborated elsewhere on each of these dimensions.⁸ Here, I am interested specifically in how they connect to the three modes of knowledge and awareness (of oneself, of others and of the world we share) which characterize the model of triangulation outlined above. Consider, first, Dimension 1 (D1). Regarding self-awareness, the knowledge that I am respected and cared for as an individual, that I am encouraged to share my thoughts and that I am listened to and taken seriously (even when I am mistaken or confused) can only enhance my self-esteem and boost my self-awareness. Regarding my awareness of the world to which I (and others) belong, a nurturing and safe learning environment will not be *sufficient* to generate or sustain such awareness; but it is reasonable to insist that it is *necessary*. Students whose subjective sense of self is unbalanced – either because of an under- or over-inflated ego – are unlikely to have a balanced perspective of the world beyond themselves. However, it is when we bring in the remaining form of awareness – that of others with whom I share knowledge of a common world – that D1 comes into its own. More accurately, what highlights the affective and social dimensions of the CoI (i.e. D1) is the *interdependence of self-awareness and awareness of others* (note, not just “others” in general but those others with whom we are in close and immediate contact and communication), which is crucial to the triangulation model. My own self-regard is enhanced – indeed, one might say *enabled* – by my being and seeing myself as *one among others*. As a member of the CoI, I appreciate that my awareness and valuing of myself is linked to my awareness and valuing of others with whom I interact, in large part because the former depends upon *their* awareness and valuing of me which, in turn, depends upon the latter.⁹

I turn to Dimension 2 (D2) – the dynamic component of the CoI. A key question here is: How *well* are our students thinking, and what can we do to ensure that they are developing and manifesting *powerful thinking* which “digs deep” into issues with a view to solving or resolving them; challenges students without overwhelming them (I call this *puzzlement without confusion*); allows students to see themselves – and one another – as metacognitive and reflective thinkers; and is never entirely satisfied with its own conclusions and, so leads, inevitably, to more questions? This kind of thinking does not allow itself to become stale or dogmatic; it

⁸ Splitter and Sharp 1995; Splitter 2006a, b, 2009a, b, 2010b, 2011.

⁹ I have lived in both Eastern and Western societies in which young people are under tremendous pressure to “succeed” in the name of social and cultural forces which pay scant respect to them as individual persons. This is a fairly egregious violation of the Principle of Personal Worth.

reminds students that they are part of a community of thinkers.¹⁰ Powerful thinking involves the self-conscious (metacognitive) deployment of a range of strategies ranging from reasoning and detecting assumptions to exercising moral imagination and arguing analogically. It empowers students of all ages when they can not only provide a counterexample or offer a generalization but articulate that *they are doing just that* (“I have a counterexample to her generalization”, etc.). Interwoven with these strategies are appropriate *dispositions* such as fair-mindedness, intellectual courage and humility, openness and curiosity.¹¹ Finally, in exercising these and other strategies, students need to develop a sense of appropriateness or context-sensitivity – when to utilize which skill. All of these cognitive dimensions are enhanced – indeed, enabled – when students engage with one another in dialogue.

The first two dimensions of the classroom CoI – seeing oneself as *one among others* and engaging in powerful thinking – suggest a tension that can work against students self-consciously engaging in thought-provoking and inquiry-based activities. Irrespective of how much time and attention are devoted to building a nurturing and supportive classroom environment à la D1, and to urging students to think more deeply à la D2, the most popular and intuitive conception of thinking connotes an essentially *private* activity, one which feeds, rather than challenges, individualism and impedes a deep sense of connectedness. This clash of focus – strong interpersonal connections at the affective level and weak interpersonal connections at the cognitive level – is one manifestation of a learning tradition which ignores the reality that as persons, we are thinking *and* feeling beings, preferring instead to perpetuate the myth that our feelings and our thoughts have little or nothing to do with each other. In this context, I note the following comment from Galton:

In particular there seems a major problem in the way that teachers go about encouraging children to be autonomous learners, since on the one hand they convey the message ‘when it’s learning, I want you to think for yourself’ and on the other hand, when it’s behaviour ‘I want you to do as you are told’.

It might seem that Galton and I are making contrary claims, since he appears to suggest a clash between cognitive strength (thinking for yourself) and interpersonal or affective impotence. However, where Galton perceives a real world in which students’ affective bonds are overridden by imposed rules of behaviour, I envisage a sense of community in which relations of caring and respect are internalized, thereby eliminating the need for such imposition; and while the imperative to think for oneself is laudable and important, I do not see it being realized outside a framework in which students learn that their own thinking is inextricably bound up with that of others.

In any case, resolution may be found by reference to the triangular model of awareness. We can resist the traditional view of thinking as intrinsically private, set against a world which is intrinsically public, in favour of one which is *interpersonal*,

¹⁰I prefer the term “powerful (or better) thinking” to such commonly used terms as “critical/higher-order thinking”. The latter reflect assumptions and constraints that I find distracting.

¹¹I have examined the relationship between skills/strategies and dispositions and the contribution played by each to actual behaviour (Splitter 2010a).

intersubjective and *holistic* from the start, so that the sense of community which operates at the affective level is also functioning cognitively and metacognitively. This, after all, is the point of insisting that self-awareness and the awareness of others are conceptually interdependent. How, then, does an individual thinker gain access to the thinking of others? Complementing the empirical work of Vygotsky and others on the importance of internalization as a learning strategy is the Davidsonian thesis that language, especially *spoken* language, and thought are conceptually interdependent – we need the former both to express and communicate *and to generate* and give structure to the latter. Here, again, is Davidson, acknowledging one of the history's greatest advocates of dialogical thinking:

Writing may portray, but cannot constitute, the inter-subjective exchanges in which meanings are created and firmed. Socrates was right: reading is [also] not enough. If we want to approach the harder wisdom we must talk and, of course, listen. (Davidson 1994, 432, emphasis added)

The interdependence here is conceptual in that we cannot make proper *sense* of the so-called subjective activity of thinking without the assumption that thinkers are members of dialogical communities who can, and do, interpret one another's observable actions – including what they say. Powerful thinking is enabled and enhanced by way of both self-awareness and the awareness of others *as thinkers*; and these modes of awareness, in turn, are enabled and enhanced when we think together through dialogue. Put succinctly, a community of inquiry is, necessarily, a community of dialogue.

Turning to Dimension 3 (D3), the rich content dimension of inquiry, it is a commonplace that thinking – in whatever form it occurs – cannot be merely procedural. When I reason, infer, predict, hypothesize, explain, doubt, and reject, there must be *something* about which I reason, infer, and predict – a content-less or empty thought is no thought at all. Even our most inward-directed thoughts are thoughts of or about something. The reliance of our thinking on some kind of worldly content is even clearer when we consider the thinking that involves two or more thinkers, typically through dialogue. As I remarked earlier, what gives dialogue its impetus is the presumption of something which is puzzling or unknown and of which we share some common experience or understanding. That *something*, whatever its ultimate status, belongs to the world of our shared or common experience.

So some kind of content is inevitably involved when we think. But what of the converse relationship? Consider what is involved when students are confronted with new or unfamiliar content which they are required to learn. How does this content impinge on the three modes of awareness which make up the triangulation model? The answer to this question depends largely on how effectively the pedagogy being used integrates and ultimately assimilates that content into the existing cognitive structures and belief systems students bring to the classroom. This is a familiar (if politically divisive) notion, reflecting a *constructivist* perspective (which Galton claims to observe in education systems around the world, including in East Asia), according to which learners construct knowledge – and, I would add, understanding or meaning – out of ingredients which they already possess in some sense. Along

similar lines, scholars including A. N. Whitehead, John Dewey and Paulo Freire; philosopher Richard Paul; and historian Peter Seixas have warned of the dangers of presenting to students (of any age) *predetermined* content as the outcome of (previous) inquiry or thought and expecting them simply to “learn” it.¹² Content cannot be taught independently of the thinking and inquiry processes with which it is intertwined, and new content cannot be “imposed” on students without taking account of the beliefs (knowledge claims), values and attitudes that they bring to any new learning situation. Imposed learning is *inert* or lifeless because, while it may well be distilled from the great traditions of our culture and society, it is not seen by students to be connected to what is of value and significance to them.

As it happens, the thinking and inquiry processes which underpin the content students are required to learn, and the processes in which students need to engage in if they are to assimilate new understandings into their existing epistemological frameworks are, with one qualification, the same. In science, for example, effective teachers seek ways to integrate such procedures as hypothesis formation and testing, induction and deduction, falsification and corroboration of theories, into their teaching, the qualification being that as with content, teachers need to find ways to *translate* the language and methods of “adult” science into terms which make sense to students, subject to their age, maturity level, and prior learning.

These challenges, along with what it takes to resolve them may, once again, be paraphrased in the language of triangulated awareness. In order to effectively bring “new” content to the awareness of students, so that the former is properly understood by the latter – and not merely memorized to be later discarded – teachers need to do more than present or *deliver* it to them. They must *organize* it – together with the modes of inquiry and thought by which they were learned in the first place – so that students can, in due course, feel a genuine sense of *connection* to, and *ownership* of what is, initially, not merely new to them, but quite possibly alien or confusing. Further, teachers must be willing to spend time *persuading* students – on well-reasoned grounds – that some ways of thinking and viewing the world are better than others. We may hope that they will internalize what they are being asked to learn and become metacognitively aware of how this new content connects with and impacts on what they already believe, feel and value. Finally, while the process outlined here points to a strong, supportive and caring relationship between teacher and student, it is in collaboration with their peers – under the guidance of skilled teachers – that students will construct and internalize the knowledge which will be of greatest value to them.

We need to change the way content itself is regarded by both teachers and students, from seeing content as objectively or factually correct – and, accordingly, as unassailable and impenetrable – to seeing it as essentially *problematic*, open to question, critical examination and revision, in short, as open to being *thought about*. We do not achieve this transition by merely accepting the responses and ideas that students may have about the content in question, to do so runs the risk of replacing “hard” facts with the unreliably subjective viewpoints of uninformed students. But

¹²Whitehead 1929, Dewey 1938, Freire 2006, Paul 1993, Seixas 1993.

we might utilize some familiar techniques to bridge the (apparent) divide between objective fact and subjective opinion, including:

1. Asking the kinds of probing questions which invite students to reflect on, even challenge, their own – and others’ – preconceptions. The most famous exponent of this mode of inquiry, Socrates saw himself as a “midwife” helping others “give birth” to new and better ways of thinking, but gained the reputation of being a “gadfly” – an annoying insect that buzzes around relentlessly, no matter how many times you wave it away. This style of questioning is deliberately *open-ended*, not necessarily in the sense of having multiple or even no correct answers, but because it *opens up* what is presented to further investigation and inquiry. Teachers might begin a new topic “X” by asking students questions like: “What ideas do you (already) have about X (or about a related topic Y, which will lead to X)?” Assuming that the classroom environment is a *safe place*, in the sense elucidated under D1 above, these questions invite students to share thoughts that may initially be confused, naïve or simply mistaken. But such is the way of all genuine inquiry as it seeks to integrate the various components that are brought to it.

While it is natural to want student learning to be as “objective” as possible, it is easier for teachers to move students to engage in deeper thinking when the starting point is an opinion or viewpoint (even – perhaps especially – when it is confused or mistaken) than when it is “factual” information from a textbook or the teacher’s own mouth. This is partly because students who are accustomed to receiving “the truth” from those in authority are less likely to question or challenge it and also because the teacher (or another student) is more likely to question an opinion than (what is perceived as) a fact. In this context, there is one small but powerful question that should be in every teacher’s repertoire (and schedule): “*Why* (do you say/think that)?” In requesting a *reason* for even the most subjective of viewpoints, we shift the entire focus onto a more objective footing. Opinions – like facts – may seem impenetrable, but reasons lead almost inexorably to further expressions of agreement or disagreement, hence more reasons and so on. The classroom community, having internalized the logic of inquiry will, in due course, determine whether (as likely) or not the “received” truth from the “experts” should continue to be accepted.

By asking more open-ended questions, the teacher may, in fact, shift the element of risk from the students – who are often scared of giving the “wrong” answer – to herself, because now she faces responses or further questions which she did not anticipate (the traditional lesson plan is the enemy of open questioning). It may even turn out that in the process of exploring a particular topic, her own preconceived views about what constitutes “the truth” may change. Good teachers are not threatened by such a turn of events; indeed, they welcome it, precisely because it reflects students’ willingness to think for themselves.

2. Shifting the focus away from what is given to students in the form of “objective” facts, knowledge or information to a more *concept-driven* approach. I hinted at this when suggesting the kinds of questions that teachers might use to open up

the subject matter to student inquiry: “What ideas do you (already) have about X ?” Whether “ X ” stands for the Second World War, the force of gravity, the irrational number π or the social impact of globalization, it is presented to students as a theme, idea or *concept* to be thought about, rather than as a fact or datum merely to be learned. Where facts are objective (if they are anything) and opinions subjective (if anything is), concepts nicely bridge the gap; indeed, in line with the theory of triangulation, concepts encapsulate and integrate the different forms of awareness we have been considering. When asked what I *think* about gravity or π , I draw upon my own understanding or awareness of these abstract entities. In the context of a one-one relationship between student and teacher, the student’s view may fall embarrassingly short of what is expected (“I think gravity is just the weight of something”; “I think that π is the area of a circle”, etc.); but in the context of the peer community to which he belongs, his view is accepted – not as true, but as *one among others* – to be considered and evaluated accordingly. And let us note here that these *others* are, like me, engaged in a process of personal development. Indeed, in addition to my earlier characterization of personhood in terms of language, rationality, reflection/self-awareness and ethical standing, I might have stated that persons are those creatures who construct and work with concepts.

At the beginning of the chapter, I cited Galton’s claim that the nature of instruction in the schools has remained more or less static and suggested that a key factor behind such stasis is a persistent misunderstanding about what knowledge is and, accordingly, how it is obtained. Both knowing and coming to know must confront the classic epistemological divide between the knower and that which is (to be) known. Further, many common assumptions about teaching and learning rely on the possibility of bridging this divide, with the teacher charged with what may seem the impossible task of taking what is objectively known and, by way of a process of transmission or delivery, conveying it to those who are hitherto ignorant, while preserving or enabling that which qualifies it as genuine knowledge (not just “stuff” to be absorbed). Granted, contemporary constructivist theories of knowledge have contributed to a richer and more subtle picture of the relationship between the knower and the known, by proposing (i) that the process of coming to know (in whatever field of inquiry) involves a broad range of analytic/deductive, synthetic/inductive and evaluative tools, not just those most commonly associated with instruction (viz. comprehension, memorization, etc.); (ii) that the raw materials used in this process of construction include those that learners themselves bring from their own perspectives and experiences, not just those introduced by teacher or textbook; and (iii) that the process in question is a collaborative one, involving a range of learners, each of whom brings and communicates their own perspectives and ways of thinking. Still, it has been tempting for some constructivists to avoid the epistemological divide referred to by giving up the idea of objective knowledge altogether, allowing that learners may construct “their own” realities. This, I submit, is both conceptually unsound and strategically dangerous (the latter because it likely inflames those looking to revert to traditional teacher-centred models). For, to

repeat, our claims to knowledge may turn out, in any given case, to be mistaken and are open to challenge and revision by others either within or outside our own community of inquiry. Such possibilities make sense *only* on the premise that there is something beyond what we may think, *to be mistaken about*. As the scope of our inquiries expands to include – or connect to – the most up-to-date findings of the relevant community of experts, be they scientists, historians, mathematicians or even philosophers, we may be increasingly confident as to the veracity of our own conclusions. But we should not forget that even these expert communities are fallible and that what is now claimed as genuine knowledge may turn out not to be so in the future.

A well-functioning community of inquiry accommodates the growth and depth of knowledge among its members while acknowledging its own fallibility. Its members continually move among their different modes of awareness as the latter expand over time: each student's growing self-awareness, awareness of the thoughts of others and awareness of the external world mutually interact, not merely contingently, but as a matter of necessity. The upshot of these considerations is that the transformation of classrooms into communities of inquiry offers a genuine and powerful response to the problem of stasis identified by Galton.

Concluding Comment

In the separate journeys which constitute our individual lives, while we may be pushed or pulled in many directions, it is the power that derives from our relationships with others that ultimately determines both the quality and the direction of our lives. In building, developing and reflecting on these relationships, we truly discover who we are. If we take seriously the ideas that have been mooted in the present chapter, we should realize that there is no contradiction between a “traditional” view of education as a process of *learning about the world* and a “progressive” view of education as a form of *personal (and interpersonal) development*. Indeed, they merely reflect different *perspectives* on the same holistic enterprise of *being* – or better, *flourishing* – in the world.

References

- Bergo, B. (2011). Emmanuel Levinas. In: *Stanford encyclopedia of philosophy*. <http://plato.stanford.edu/entries/levinas/>
- Buber, M. (1937). *I and Thou*. (R. G. Smith, T. Edinburgh, & T. Clark, Trans.), (2nd edn.). New York: Scribners, 1958. 1st Scribner Classics ed. New York, NY: Scribner, 2000, c1986
- Davidson, D. (1982). Rational animals. *Dialectica*, 36, 317–328.
- Davidson, D. (1994). Dialectic and dialogue. In G. Preyer, F. Siebelt, & A. Ulfig (Eds.), *Language, mind and epistemology* (pp. 429–437). Dordrecht: Kluwer Academic Publishers.

- Davidson, D. (1998). The irreducibility of the concept of self. In D. Davidson (Ed.), *Subjective, intersubjective, objective* (pp. 85–91). Oxford: Oxford University Press.
- Davidson, D. (1999). The emergence of thought. In D. Davidson (Ed.), *Subjective, intersubjective, objective* (2001, pp. 123–134). Oxford: Clarendon Press.
- Davidson, D. (2001a). Epistemology externalized. In *Subjective, intersubjective, objective* (pp. 193–204). Oxford: Clarendon Press.
- Davidson, D. (2001b). Mental events. In *Essays on actions and events* (pp. 207–225). Oxford: Clarendon Press. Originally published in 1970.
- Davidson, D. (2001c). Three varieties of knowledge. In D. Davidson (Ed.), *Subjective, intersubjective, objective* (pp. 205–220). Oxford: Clarendon Press.
- Dewey, J. (1938). *Experience and education*. New York: Collier.
- Freire, P. (2006). *Pedagogy of the oppressed*. New York: Continuum.
- Halstead, J. M. (2006). Does citizenship education make moral education redundant? In R. H. M. Cheng, J. C. K. Lee, & L. N. K. Lo (Eds.), *Values education for citizens in the new century*. Hong Kong: The Chinese University of Hong Kong.
- Halstead, J. M., & Pike, M. A. (2006). *Citizenship and moral education: Values in action*. Oxford/New York: Routledge.
- Paul, R. (1993). *Critical thinking: What every person needs to survive in a rapidly changing world*. Rohnert Park: Center for Critical Thinking and Moral Critique.
- Seixas, P. (1993). The community of inquiry as a basis for knowledge and learning: The case of history. *American Education Research Journal*, 30(2), 305–324.
- Splitter, L. (2006a). Philosophy in a crowded curriculum. *Critical and Creative Thinking: The Australasian Journal of Philosophy for Children*, 14(2), 4–14.
- Splitter, L. (2006b). Teaching teachers to “teach” philosophy for children in the US and Australia. *Critical and Creative Thinking: The Australasian Journal of Philosophy for Children*, 14(2), 15–31.
- Splitter, L. (2009a). Authenticity and constructivism in education. *Studies in Philosophy and Education*, 28(2), 135–151.
- Splitter, L. (2009b). *The classroom as a community of mathematical inquiry*. Proceedings of the thirty-third conference of the International Group for the Psychology of Mathematics Education (Vol. 1, pp. 171–176). Thessaloniki, Greece: PME.
- Splitter, L. (2010a). Dispositions in education: Non entities worth talking about. *Educational Theory*, 60(2), 203–230.
- Splitter, L. J. (2010b). Caring for “the self as one-among-others”. *Thinking: The Journal of Philosophy for Children*, 19(4), 33–39.
- Splitter, L. (2011). Agency, thought, and language: Analytic philosophy goes to school. *Studies in Philosophy and Education*, 30(4), 343–362.
- Splitter, L. J., & Sharp, A. M. (1995). *Teaching for better thinking: The classroom community of inquiry*. Melbourne: The Australian Council for Educational Research.
- Whitehead, A. N. (1929). *The aims of education and other essays*. New York: Free Press. 1976.

Chapter 40

Life in Schools and Classrooms: A Personal Journey and Reflection

Maurice Galton

Abstract This chapter begins with a brief personal history of my introduction to educational research. It then traces the beginnings of the use of systematic observation, first in the USA and then in the UK to tease out the distinctions between various frequently used constructs such as *direct teaching* and *direct instruction*. A considerable proportion of the chapter is then devoted to the series of key findings which emerged during the 1975–1980 Observational Research and Classroom Learning Evaluation (ORACLE) research programme, not only because it is one of the most cited studies in education but also because it spawned a number of other initiatives based on similar methodology. Various criticisms of the approach are also considered. The chapter concludes by looking at some of the unsolved problems to emerge as a result of nearly a century spent studying life in classrooms from various perspectives.

Keywords Classroom research • Systematic observation • Teacher-pupil interaction • Changing teaching

Personal Prologue: Starting to Do Classroom Research

Today, anyone seeking to develop an academic career in educational research has a formidable number of obstacles to overcome. As a minimum, candidates will generally be expected to have a good honours degree, solid teaching experience, preferably in the maintained sector, and at least a master's degree with the promise of completing a doctorate in the not too distant future. A journal publication would be an additional advantage. I simply had three strokes of good fortune.

M. Galton (✉)

Faculty of Education, University of Cambridge, 184 Hills Road, Cambridge CB2 8PQ, UK
e-mail: mg266@cam.ac.uk

My First Piece of Luck: Attendance at a Boarding School

I began my academic career as a chemist taking a science degree at what was to become the University of Newcastle upon Tyne, although at the time it was an adjunct of the University of Durham. I stayed on after graduating and began a doctorate exploring the capacity of solutions to conduct electricity at high temperatures. Two years into this investigation, with no consistent results to show for it, the apparatus which had taken a year to build disintegrated. I hadn't the heart to start all over again and with a pregnant wife to support asked the Professor what I should do. 'Try teaching', he replied. 'You might be better at that'.

With no postgraduate certificate in education, the maintained sector offered limited possibilities. The *Times Educational Supplement* in that week offered two openings for chemists in the private, independent sector at Truro Cathedral School in Cornwall and St. Paul's School in London. I applied for both, got asked for interviews and arranged to go to Truro via London.

At St. Paul's School, the headmaster's (or High Master as he was called) office was an enormous room. It had been used by General Bernard Montgomery, a former pupil, as his headquarters when planning the 1944 D-Day invasion. After the usual enquiries about my background, the following exchange occurred:

High Master: You went to a boys' boarding school then?

Me: Yes sir.

High Master: Was there much err... er... er... ering [stuttering] between boys?

Me: Some

High Master: What would you do if you found two boys er... er... er... ering together?

To this day I cannot remember what I said in reply. All I know is from that point, the High Master stopped prefixing his remarks with 'If you come to St. Paul's' and instead replaced the 'if' with 'when'.

I cancelled my trip to Truro. I had entered the teaching profession.

A Second Piece of Luck: My Head of Department Had a First-Class Cambridge Degree

St. Paul's was a good place to learn to teach. There were few discipline problems, and I gradually gained a reputation for getting the less able pupils through their A levels. At the time there was increasing national interest in the 'swing away from science' among undergraduates and a leading chemist at Leeds University, Professor, later Lord Dainton, was asked to chair a government committee to investigate the problem.¹ Professor Dainton had gained first-class honours in the science tripos at Cambridge. The only other person from his college to obtain the same degree was

¹Council for Scientific Policy (1968) *The Flow of Technologists and Scientists into Higher Education*. The Dainton Report, London: HMSO.

Head of the Science Department at St. Paul's. Professor Dainton became convinced, as his enquiry progressed, that the drop-off of students in the first year of the degree course at Leeds was due to inadequate teaching by lecturers who were only interested in their research. He decided to appoint someone with a reputation as an effective practitioner to teach the first year undergraduate course. As Professor Dainton had little knowledge of schools, he sought advice from the person who had gained a first-class honours degree with him at Cambridge, whom he knew from a previous college reunion taught at St. Paul's. He wrote to my head of department and the head recommended me. I was the only person interviewed.

The Third Piece of Luck: Learning to Write Computer Programmes

At the beginning of the 1970s, I gave up my career as a chemist at Leeds University to join the School of Education at the University of Leicester. I applied for the post of senior researcher on a project directed by Professor Jack Kerr and Jim (Biology) Eggleston, later professor at Nottingham University. The subject was often appended to the latter's name to distinguish him from Professor John (Woodwork) Eggleston, who also became Professor of Education at the University of Warwick, the two subjects indicating the areas which they had taught while schoolmasters. Professor Kerr had recently been awarded a grant by the then Schools Council to evaluate the new science curriculum which was sponsored by the Nuffield Foundation. *Nuffield Science*, as it became known, was the first attempt in the UK to introduce constructivist ideas in the teaching of science, following on from American initiatives such as the *Harvard Physics Project* and the *CHEM Study Curriculum*. Subsequently, when I became a Professor at Leicester, I was able to access my application form. Two things seemed to count particularly in my favour because they had been underlined several times and starred. First, it was thought that the 5 years spent working at a university chemistry department would impress heads of science in the schools, and, second, I was able to write computer programmes, a skill which was at the time not available in the Leicester School of Education. Professor Kerr was quick to see the potential value of this addition to the School's expertise in that it created the capacity to improve the range of quantitative methods currently in use. Thus, a mediocre talent in the context of a University Chemistry Department, where everyone was computer literate, was viewed as a highly valued attribute in education.

On such chance occurrences therefore whole careers are sometimes fashioned.

The Beginnings of Systematic Observation in the UK

However, because I had been out of school teaching for 5 years, Professor Kerr suggested that I should familiarise myself with the Nuffield scheme by visiting a number of local schools which had adopted the new curriculum. On one of these visits, I met a physics teacher who claimed to 'out Nuffield, Nuffield'. In a particular instance, the work scheme provided a very elegant way of establishing Ohm's law. This states that the current generated is equal to the voltage divided by the resistance in the circuit. In the Nuffield scheme, pupils first experimented with water flowing down a series of pipes. The pressure of the water (varied by altering the height of the filter funnel into which the water was poured) was the equivalent of the voltage. Various constrictions in the pipe down which the water flowed were equivalent to the resistance and the rate of flow to the current. By varying the pressure and measuring the flow, the students were able to gain some insight into the relationship with the width of the tubes down which the water was flowing. In turn they could then make use of this water analogy to predict how the current might vary when a series of resistances were introduced into an electrical circuit, powered by batteries. The lesson I observed was the one in which the students were to test their predictions.

A life-changing moment occurred at the start of the lesson. The teacher began by telling the pupils that in this lesson they would be testing their predictions, which they had written in their books for homework and which he had collected. He then went on to describe the apparatus and how they should set it up, but concluded with the words:

You will need your books in order to check your predictions. You will see that I have marked them right or wrong.

In their design of the study, Professor Kerr and Jim Eggleston had intended to distinguish between Nuffield and non-Nuffield teachers using a questionnaire which would ask them about their educational philosophy in the teaching of science, question them about the use of Nuffield texts and whether they had carried out what were seen as certain key experiments, such as the one described. On the basis of the respondents' answers, teachers would then be divided into two groups, those who were pro-Nuffield and those who were less inclined. Classes would then be given pretests and post-tests using specially constructed measures, some which favoured traditional ways of studying science and some which supported the more problem-based Nuffield approach. Under this design it was clear that the teacher I had observed would have found himself in the pro-Nuffield category. However, the fact that he had marked their predictions meant that in practice his lesson was very similar to one where in a more traditional style, the teacher supplied the answers and the pupils by carrying out the experiment were tasked with checking that the teacher had presented the new knowledge correctly. At that time standard practice, used by nearly all chemistry teachers, myself included, was on occasions to substitute our own set of results where those of the pupils didn't corroborate the textbook theory because of experimental error.

I returned to the School of Education convinced that we could not rely on the teachers' self-report to decide whether a teacher was pro-Nuffield or not. It was clear that only by sitting in classrooms and watching the action would we be able to tell who was implementing the Nuffield scheme faithfully. The rest is history. Jim Eggleston and I together with the other researcher, Margaret Jones, sat down and devised the first UK-based systematic observation system which we called the *Science Teacher Observation Schedule* (STOS). Its purpose was to distinguish between the teachers' use of different types of questions, statements and directions. Thus, there were questions of fact, of closed problem-solving, of open-ended problem-solving and of inference, hypothesis, experimental design and categories of statements and directions which paralleled these. Nuffield teachers were those that were high on the hypothesis, inference and experimental design categories and low on closed questions and factual statements. In the analysis only a small proportion of teachers (19%) were found to have adopted the Nuffield approach to any great extent (Eggleston et al. 1976).

Early Systematic Studies of Classrooms

Although relatively little used by UK researchers at the time of STOS, the recording of specific categories of behaviour to describe classroom practice had been a regular feature of research in the USA since the 1930s. Barr (1935) was the first to introduce *time sampling* where various designated behaviours were recorded at fixed intervals.

The early developments of this strand of educational enquiry are described by Medley and Mitzel (1963) in the first *Handbook of Research on Teaching* which was produced by the American Educational Research Association (AERA). Some of the early workers in the field had arrived in the USA during the 1930s as refugees from totalitarian regimes in European countries. They contrasted the rigid and authoritarian methods of teaching the young to be model citizens in countries such as Germany and Italy with what they saw as the 'democratic' methods underpinning American society where in schools pupils were allowed to express opinions and exercise a degree of choice in their work.

This perspective informed the classic study of kindergarten children's patterns of aggressive behaviour by Lewin et al. (1939) which sought to determine whether certain teaching methods fostered undesirable behaviours such as scapegoating and bullying on the part of 'dominant' groups and apathetic submissiveness to authoritarian domination by the persecuted. Patterns of teaching were rotated between authoritarian, democratic and laissez-faire. In authoritarian teaching all determinations of policy and the steps in the activity were dictated by the playgroup leader who directed personal criticism or praise at individual pupils but remained neutral to the group as a whole.

In the democratic situation, all policies were a matter of group discussion, and joint decision-making was encouraged among the children. Children were free to

work with whoever they chose, and the playgroup leader endeavoured to develop a friendly, warm atmosphere within the group. In the laissez-faire approach, children were given complete freedom to decide what they wished to do without any participation by the playgroup leader. The adult supplied materials but made it clear that she/he would only take part in the discussions when asked.

Two experiments were carried out. In one experiment the democratic approach was used for 6 days, there was then a transition day, and this was replaced by authoritarianism for a further 6 days followed by another transition day when the approach switched back to democracy. As a control a comparable group of children started with autocracy and then moved to democracy and then back to autocracy. In the second experiment with two other groups of children, the approach was changed from laissez-faire to autocracy and then to democracy and in the control from authoritarianism to laissez-faire and then to democracy. The outcome measure used to determine the success of different teaching methods was the number of aggressive actions recorded per meeting of the playgroup. The researchers found that there was an average of 38 such actions per meeting during laissez-faire, 30 during authoritarian lessons but only 20 when the democratic approach was used. More importantly they found that whenever they moved out of an authoritarian mode during the transition day, the number of aggressive behaviours increased markedly, and the tendency for certain children to be singled out by the rest of the group as scapegoats for failure also increased. The implication of this study was that the approaches adopted by teachers in countries such as the UK and the USA accounted in part for their relative political stability in contrast to Central European states, such as Italy, Spain, Germany and Russia, where the regimes were characterised by their extreme violent actions and the persecution of minority groups.

This study undoubtedly influenced Anderson's (1939) definition of *direct* teaching, which he recorded whenever a teacher was 'telling things to pupils' in contrast to *indirect* teaching where pupils were 'asked things'. This distinction was based upon Anderson's view that *direct* teaching was usually accompanied by other dominative techniques such as the use of force, commands, threats, shame and blame which he claimed 'obstructed [children's] natural growth processes', whereas *indirect* teaching, which acknowledged differences in individual behaviour and was an expression of the democratic process, was 'consistent with growth and learning'. Based on these assertions, Anderson constructed an observation system in which eight categories recorded dominative contacts with the teacher, whereas ten were said to represent integrative forms. Dominative categories included direct refusals, warnings, threats and lecturing, whereas integrative behaviours involved inviting rather than telling children to take part in an activity, participating in that activity and expressions of sympathy, as, for example, giving permission to leave the room in order to get a drink. Three kindergarten teachers were observed. What was striking about the data was that across different sessions there seemed a constant ratio for each teacher between the number of dominative and integrative contacts. For two of the teachers, the ratio lay between 2.1 and 2.3, respectively, whereas for the third teacher, who was observed for three sessions, the ratio was 5.0, 4.9 and 4.8. This finding, although the result of only a small-scale study, gave a boost to the

claim that there was a 'scientific' basis for the study of teaching, as it appeared to have established a basic rule concerning teaching behaviour, namely, that the ratio between dominative and integrative activity for any particular teacher was constant.

The next 30 years was to be dominated by studies of 'direct' versus 'indirect' teaching principally through the use of the Flanders' (1970) Interaction Analysis Category (FIAC) system. This system had ten categories, the first three were recorded whenever teachers *accepted* and were sensitive to pupils' feelings, *praised* or *encouraged* or *accepted* and *used* pupils' ideas. The next four categories noted when a teacher *asked a question* requiring answers which conformed to the teachers ideas (what we call a closed question), *lectured*, *gave directions* or *criticised* and *justified* his/her authority. Categories 8 and 9 distinguished between pupils *responding* and *initiating* an exchange with the teacher while the final category recorded as *silence* was mainly used when the observed behaviour could not be coded. The totals for columns 1–4 were summed and divided by the sum of columns 5, 6 and 7 to give the indirect/ direct ratio.

Flanders went on to do a number of process-product studies in which pupil performance on tests of attainment and also aspects of their attitude and motivation were measured. The majority of these studies were naturalistic in that teachers were observed, their ID ratios recorded and then an arbitrary division was made into those that were indirect or direct. This was usually done by ranking the teachers in order of their ID ratios and then dividing them into three groups. Some studies, however, were true experiments in that teachers were randomly assigned to two groups, deliberately encouraged to be either direct or indirect, and the performance of pupils then subsequently assessed. The results of this research were reviewed in great detail by Dunkin and Biddle (1974). Of the naturalistic studies, some 14 showed that teacher indirectness was unrelated to pupil achievement, whereas ten others showed some positive differences. However, in the five experimental studies examined, none showed a positive relationship with indirectness, although in one study, it was related to improved pupil attitude. To use a sporting analogy, there were some wins, lots of draws but no losses. Soar and Soar's (1972) explanation of these findings was that the relationship between direct teaching and pupil performance was curvilinear so that the maximum effects tended not to occur at the extremes but when a mixture of the alternative approaches were used. Nevertheless, when Simon and Boyer (1970) published their anthology of classroom observation instruments consisting of around 200 entries, nearly 90% of these were derivatives of FIAC.

Process-Product Research and the Use of Direct Instruction

The 1960s saw a shift away from the view of intelligence as a fixed trait, with the consequence that while teaching could improve the performance of all pupils, it could not close the gap between the able and less able. New theories developed by writers such as Carroll (1963) offered more optimistic notions of school learning in

arguing that any pupil, in principle, could be taught anything if allowed sufficient time. Carroll's notion of mastery was expressed in the proposition that the degree of learning was directly proportional to the ratio *of time actually spent by a pupil on a task divided by the time needed by the pupil to master the demands of that task*.

Taking Carroll's ideas forward, Harnischfeger and Wiley (1978) produced a model of learning which mediated the influence of time as a key variable. These researchers distinguished between the *allocated* and *instructional* teaching time. The difference, the *evaporated* time, was mostly taken up by changeovers between periods and interruptions during lessons, (handing out books, collecting homework and dealing with pupils' misbehaviour, etc.).

A key question within this approach, therefore, is to identify those factors which maximise pupils time on task and hence their achievement. 'Time on task', that is engaged time, thus became a critical output measure of effective teaching. Among the characteristics identified in those classrooms with the highest levels of on-task behaviour were the following:

- Teachers were accurate in their diagnosis of pupil performance levels.
- Teachers were able to set appropriate tasks such that they matched the children's learning needs.
- High levels of pupil-teacher interaction took place concerning the presentation of information on academic content, monitoring work and giving feedback about performance. Such interactions usually took place in a group or class setting and were not characterised by individual work.
- Teachers spent more time discussing the structure of the lesson.
- Teachers gave satisfactory responses to students' requests.
- Teachers' value systems emphasised academic goals.
- Teachers encouraged students to take responsibility in helping each other and sharing materials.

These characteristics were referred to as *direct instruction* by Rosenshine (1979). The term direct instruction was deliberately chosen to distinguish the process from Anderson and later Flanders' use of direct teaching as discussed in the previous section. For Anderson, in particular, direct teaching involved a teacher telling pupils things in an authoritarian manner. Rosenshine and others saw no reason why teachers could not instruct pupils within a warm friendly unthreatening classroom climate. The basic steps in *direct instruction* are that pupils are first presented with the new information, then allowed practice, then assessed either through testing or questioning and then retaught those parts which they have failed to master.

The results of a large number of studies of this period are summarised by Brophy and Good (1986). Few of those advocating the use of direct instruction failed to acknowledge the limitations expressed by these authors, particularly that the outcome measures used in this process-product research consisted almost entirely of standardised tests of factual knowledge rather than tests of more complex learning activities. Thus, Rosenshine (1987) concludes that the findings on direct instruction

are most relevant when the objective is to teach procedures, explicit concepts or a body of knowledge. Specifically, these results are most applicable when teaching mathematics concepts and procedures, English grammar, sight vocabulary, historical knowledge, reading maps and charts and science knowledge and procedures. These findings are less relevant when teaching areas where the skills to be taught cannot be broken down into explicit steps. Such areas include mathematics problem solving, analysis of literature, writing papers or discussion of social issues. (Rosenshine 1987, p.258)

Systematic Studies of UK Classrooms in the 1970s and 1980s

Throughout the 1970s and 1980s, a series of studies based upon systematic classroom observation were carried in British classrooms. The first of these was Neville Bennett's (1976) study, *Teaching Styles and Pupil Progress*. In this study teaching styles were identified through the use of a questionnaire, teachers were categorised as being either formal or informal. However, in attempts to explain differences between the relative successes of the different styles, pupils were observed and the amount of work related and social interaction between pupils noted. In the formal (class taught in silence, regular testing, competition encouraged) classrooms, the work rate was around 70% at a maximum, whereas in the informal classroom (integrated subject teaching, free movement, choice of where to sit), it never exceeded more than 60%. A more detailed study was then carried out between 1975 and 1980 at Leicester and was called the Observational Research and Classroom Learning Evaluation (ORACLE) research. Thirty-seven years later, *Inside the Primary Classroom*, the first of five volumes resulting from the ORACLE research (Galton et al. 1980), is still the most frequently cited piece of research concerning primary classrooms in the UK. The findings have been replicated in a number of other studies, including *Curriculum Provision in the Small Primary School* (Prisms Project) by Galton and Patrick (1990). This was similar to the ORACLE but carried out in small rural schools (with less than 100 pupils on roll across 14 local authorities). Although the study was to ascertain how far the curriculum matched that taught in larger schools, data was also collected on patterns of teacher and pupils' behaviour within the classroom using the same observation system to that used in the ORACLE research. Also during the 1980s, two studies were carried out in London, one in junior schools (Mortimore et al. 1988) and the other in the infant classes of primary schools (Tizard et al. 1988). The Mortimore study used the same observation instrument as in ORACLE. During the late 1980s and early 1990s, a further study was carried out in schools in Leeds by Robin Alexander et al. (1989). These various studies showed a gradual decrease in the proportion of time teachers were interacting with individual children in favour of whole class activity. Whereas in ORACLE 72% of time was spent with individual student by the 1990s, this figure had fallen to 50% (Pollard et al. 1995). What was equally significant, however, was the consistent pattern of teachers' interactions associated with the different forms of classroom organisation and the behaviour of pupils in response to these different instructional strategies. ORACLE studied this relationship in great detail.

The ORACLE research identified six main types of instructional strategy. The first of these, named *group instructors*, as the name implies, spent around 20% of the time with groups of pupils. When with groups they concentrated on giving pupils instructions and routine information rather than engaging in discussion of ideas. But they gave pupils plenty of verbal feedback and asked a number of open questions. The second group, *class enquirers*, taught the whole class for 31% of the time. These teachers were highly organised, clear and lucid when explaining tasks and devoted much of the class time to asking questions and making statements, including statements of ideas.

A third group were called *individual monitors* who worked mainly one to one with children, using lower levels of group and class teaching than the other teaching approaches. They spent much time telling children what to do rather than discussing ideas and talked less than other teachers, often tending to sit at their desk silently marking children's work and then having the pupil to come out to hand back work and discuss errors.

The fourth group were 'super teachers' called *infrequent changers* who interacted with individual children for around 90% of the lesson. When they did change their approach from individual to whole class teaching, this was carefully planned with a clear purpose in mind. In this they differed from another group of *habitual changers* who made impromptu, seemingly unplanned switches in organisation often when pupils displayed signs of inattention or poor behaviour. Infrequent changers asked the most cognitively challenging questions and encouraged pupils to show a degree of independence in choice of tasks and ways of tackling them. The final group of *rotating changers* moved pupils around different curriculum tables or had children stay in their place but change to another subject so that in each case the teacher was coping with four or five different disciplines at one and the same time. Both habitual and rotating changers had the lowest levels of task-related interactions.

There were corresponding patterns of pupil behaviour. The four categories consisted of *intermittent workers*. These pupils tended to work when they were the focus of the teacher's attention, but at other times when the teacher was involved elsewhere, the children engaged in conversation which rarely related to the work in hand. Intermittent workers seemed therefore to take advantage of the opportunities to talk when the teacher was engaged elsewhere.

The next group were known as *solitary workers*. Such pupils tended to receive very little individual attention from the teacher but were usually part of the teacher's audience when they were addressing the whole class. They tended to listen and watch while other pupils were the focus of the teacher's attention. Although solitary workers were not active participants in class discussions, they were a considerable asset in that they could be trusted to maintain high work rates irrespective of the presence or absence of the teacher in their vicinity.

The third major group were known as *attention seekers*. They were not only pupils who would seek out the teacher to enquire whether they had performed the task correctly often asking very trivial questions such as *I've done number one now Miss, shall I go on to number 2?* But there were also other pupils who did not so

much seek the teacher's attention as were the objects of it usually as a result of a misdemeanour. The observers described such pupils as being very adept at finding things to do in other parts of the classroom that allowed them to avoid getting on with their own tasks. They would often, for example, appear to be intensely interested in other pupils work, and sometimes if required to queue at the teacher's desk, they would step backwards when another child joined the queue allowing them to go in front, thereby delaying their own encounter with the teacher. The final group of pupils were known as *quiet collaborators*. These pupils differed from the solitary workers in that they were often working in groups but within such groups were reluctant to take part in conversations with other pupils. When they did collaborate, it generally involved the sharing of material.

There were direct relationships between the approach adopted by the teacher and the pupils' behaviour. Nearly 50% of pupils taught by individual monitors were in the group who worked intermittently, while at the other extreme, class enquirers contained only 9% of this type of pupil. Class-directed activities, therefore, succeeded in cutting down the amount of distraction. However, although class enquirers had the highest numbers of solitary workers, a distinction needed to be made between those who were *hard grinders* working conscientiously and consistently and *easy riders* who found ways of slowing down their work rate by doing legitimate routine tasks without attracting the teacher's attention. These pupils would spend an excessive amount of time sharpening a pencil or washing out a paint pot and in extreme cases, when queuing to see the teacher, would let other children go in front of them to delay the point at which they reached the teacher's desk.

Group instructors had the greater proportion of quiet collaborators and the lowest number of attention seekers, whereas the reverse was true of infrequent changers. The two other teaching approaches, habitual and rotating changers, had little to recommend them in that they had the lowest levels of time on task with the highest proportion of intermittent workers and easy riders between them. These patterns were reflected in the correlations between teaching approach and academic performance where class enquirers and infrequent changers did best on standardised tests of attainment and also tests of study skills based on measures such as following instructions, formulating questions and demonstrating originality (Galton and Simon 1980).

Two decades later, the ORACLE study was replicated, mostly in the same schools as those participating in the original study, and this research produced almost identical findings (Galton et al. 1999). The observation system, with slight modifications, has been used to study the reduction in class size in Hong Kong primary schools (Galton and Pell 2012) with similar patterns of teacher and pupil behaviour despite the cultural differences. Parts of the system dealing with collaborative learning have been extended and used by Galton and Williamson (1992) and by Hargreaves and Galton (2002) to study group work in upper primary and lower secondary classrooms. Mention has already been made of the observational studies of Tizard et al. (1988) in the early years of primary education. This has influenced the later work of Peter Blatchford who was a member of the original Tizard team, in, for example, his research on class size (Blatchford 2003). Frank Hardman and colleagues (Smith and

Hardman 2003) have made important technical advances by making the process of recording and tallying the observed behaviours instantaneous. Both Blatchford and Hardman have contributed to this volume and provide their own perspectives on the value of systematic observation for studying classroom interactions.

Objections to the Use of Systematic Observation to Study Classrooms

Systematic observation has not been without its critics, mainly during the 1970s and 1980s during the so-called the *paradigm wars* (Gage 1989). Hamilton and Delamont (1974) criticised the early schedules such as FIAC on account of their limited applicability to situations where teachers were stood at the front of the classroom and pupils were sat in single rows of desks in pairs. Apart from writers such as Mehan (1979) who espoused an 'interpretative' viewpoint and objected to the use of 'positivist' approaches in general, on the grounds that the use of numbers alone failed to capture the complexities of classroom life or to interpret the different cultural nuances associated with individual and group behaviour, Scarth and Hammersley (1986) directed their criticisms at ORACLE in particular. These two authors argued that the distinctions between statements and questions are not clear cut and that the use of subcategories such as open and closed questions and statements of fact and directions is even more problematic and leads to 'high-inference' unreliable judgements. A more general criticism of systematic observation was that it sampled a very small proportion of teacher and pupil behaviour, but nevertheless used such limited results to draw conclusions about whole populations: in the case of ORACLE, all primary teachers in England. ORACLE, for example, sampled a mere 58 classrooms in 19 different 'all through' primary, 'junior' primary or 'primary-middle' schools spread over three local authorities. Each class was visited for 3 days, each term over 2 years and six observation sessions each lasting approximately 55 minutes undertaken. Nineteen of these 55 minutes were spent observing the teacher and 36 minutes observing a sample of eight pupils.

In answering these specific points, Croll and Galton (1986) point to the key role that replication plays in establishing the reliability and validity of the conclusions drawn from systematic observational data in that if patterns emerging from one set of observations are to be regarded as unrepresentative of the population of a whole, then this must be equally true of a second set. The chances therefore of two untypical samples producing the same patterns and relationships would be extremely rare. On the issue of questioning, the observations were low inference because observers judged the nature of the question not on what they gauged to be the teacher's intention but based on the pupils response and the teacher's subsequent reaction. Thus, if the teacher asked the pupil, 'what do you think?', but the pupil replied, 'the solution has turned blue', the observer would only classify this as an *open, challenging* question if the teacher then said something such as 'Why blue?'; otherwise if the first

answer was accepted, the *closed* question category would have been ticked. ORACLE therefore measured successful open questions not intended ones which explains why the category was highly correlated with attainment unlike some other studies (Dillon 1981). In retrospect, history tended to support ORACLE's conclusions. Two decades later Galton et al. (1999) in their replication of the original found that although the number of questions asked by teachers had increased – the result of government pressure to engage in more ‘interactive teaching’ – the proportions of closed to open questions had remained constant at around 80% of the former and 20% of the latter. Moreover, when observations were made, not in situ, but from videotapes of lessons and with different observation system (Hardman et al. 2003), similar patterns of teacher-pupil interactions emerged.

Life in Classrooms Today

The above findings and that also by Hargreaves et al. (2003) which produced similar interaction questioning patterns point to an unresolved issue, namely, why is it so difficult to bring about changes in the way that teachers engage in the moment-to-moment exchanges with their pupils as identified in systematic observation studies? While there have been changes in the nature of classroom organisation (use of whole class teaching, more group work, etc.), the use of certain kinds of statements, questions and feedback has remained remarkably stable over four decades of classroom observational research. This is not just a British or American phenomena. More interesting has been the efforts of advanced societies around the Pacific Rim and East Asia to cut down on the amount of direct instruction in favour of more active pupil participation. Thus, in Singapore teachers have been advised to *teach less* so pupils *learn more* (Gopinathan 2010), while in Hong Kong, the emphasis on *Learning to Learn* was introduced by the Curriculum Development Council at the beginning of the millennium (CDC 2001), yet in both countries, despite large investments in professional training, research has shown that teacher instructional talk still dominates (Hogan and Gopinathan 2008; Hogan et al. 2013; Galton and Pell 2012). Cuban's (1984) assertion that ‘teaching is a very conservative profession’ would appear amply justified not only in the USA but worldwide.

Although ORACLE has therefore clearly had an impact among researchers and those responsible for teachers' professional development, it is more difficult to estimate the contribution that the various studies and other systematic observational approaches have made to the advancement in teaching. For teachers taking certificated professional development courses, it can provide a stimulus with which to explore their own classroom practice. But the evidence of the previous paragraph would suggest that once these practitioners return to their classrooms, the forces of reaction prove too formidable for them to maintain their resolution to change the way they teach. In the West, the strong elements of accountability coupled with the sanctions that can result in failure have presented a stark choice for many teachers. Either they teach to the tests or they leave the profession and in the UK, for example,

over 50,000 teachers resigned or took early retirement in 2014–2015. New recruits are failing to make up these losses. In English and mathematics, the numbers are 12% and 11%, respectively, below targets. In design the figure is a staggering 57%.² There are many reasons for this situation, but some have to do with the fact that teachers no longer feel in control, cannot expand on their subject knowledge nor teach creatively or find time to cater for pupils' social and emotional wellbeing. Indeed one UK education minister has characterised these latter aspects of children's development as 'peripherals' which get in the way of the 'essentials' of learning. All mention of wellbeing has consequently been removed from the inspection framework by which schools are now judged.

In the Asia Pacific, matters are less clear cut. Among the politicians and administrators, there is a recognition that a model of twenty-first century learning is required that can produce 'flexible, self-regulating learners with the skills to meet the demands of an ever-changing labour market' (Stobart 2014). In Hong Kong, for example, although parents still put great store on traditional methods, because the end of primary school examination still determines the band (and status) of secondary school attended while the secondary leaving diploma is the passport to university, the Education Department has made serious attempts to widen the curriculum and introduce new teaching methods, based on the observation categories highlighted in ORACLE. In some schools, for example, a 20%, 60%, 20% rule operates. For homework, pupils have to use their laptops and iPads prior to the lesson to inform themselves of the subject matter to be taught, so that teacher instructional time takes up a maximum 20% of the teaching period. The bulk of the lesson (60%) is given over to extended classroom dialogue, group and pair work with the remaining 20% taken up with subsequent reflection and evaluation.

Despite, therefore, nearly a century of research into teaching making use of both quantitative and qualitative observation studies (and increasingly combinations of both), we still have no universal agreed, sound practical model of *how teachers learn to teach better*, based on current theories of developing expertise such as those proposed by Berliner (2002). While there are promising approaches to school-based professional development, based on notions of 'learning communities' as discussed by Chris Watkins (2005) in this volume, we still need to align these improvements in teachers' *professional knowledge* with what we have learned over the years concerning the principles that govern human behaviour within the classroom. Desforges (2003: 15–16) offers a similar perspective but observes that since much of this professional knowledge is 'generated behind the closed doors of an individual teacher's classroom it is rarely written down and consequently it is difficult to articulate'. He contends that

Schools could be even more successful than they are now in promoting achievement if we could all learn to share and use the knowledge we have now about learning. I recognise that there is a vast body of knowledge about learning evident in the everyday practices of teachers. This knowledge is difficult to get at and so it is difficult to share. There is also a small but strong body of scientific knowledge about learning to be gleaned from research. This

²D. Buffey & T Helm, *The Guardian* Newspaper, Saturday, 29th May, 2015.

knowledge is easy to get at but difficult to apply. The trick we need to perform is to bring the practical knowledge and the theoretical knowledge together to promote advanced teaching practices.

This remains our greatest challenge.

References

- Alexander, R., Willcocks, J., & Kinder, K. (1989). *Changing primary practice*. London: Falmer Press.
- Anderson, H. (1939). The measurement of domination and of socially integrative behaviour in teachers' contacts with children. *Child Development*, 10, 73–89.
- Barr, A. (1935). The validity of certain instruments employed in the measurement of teaching ability. In H. Walker (Ed.), *The measurement of teaching efficiency*. New York: Macmillan.
- Bennett, S. N. (1976). *Teaching styles and pupil progress*. London: Open Books.
- Berliner, D. (2002). Learning about and learning from expert teachers. *International Journal of Educational Research*, 37(6), 463–482.
- Blatchford, P. (2003). *The class size debate: Is small better?* Maidenhead: Open University Press.
- Brophy, G., & Good, T. (1986). Teacher behaviour and student achievement. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.). New York: MacMillan.
- Carroll, J. (1963). A model for school learning. *Teachers College Record*, 64, 723–733.
- CDC [Curriculum Development Council]. (2001). *Learning to learn*. Hong Kong: Government Printer.
- Croll, P., & Galton, M. (1986). A comment on questioning ORACLE by John Scarth and Martyn Hammersley. *Educational Research*, 28(3), 185–189.
- Cuban, L. (1984). *How teachers taught: Constancy and change in American classrooms, 1890–1980*. New York: Longman.
- Desforges, C. (2003). On learning and teaching. In *Learning texts*. Nottingham: National College for School Leadership (NCSL). www.ncsl.org.uk
- Dillon, J. (1981). The effects of questions in education and other enterprises. *Journal of Curriculum Studies*, 14(2), 127–152.
- Dunkin, M., & Biddle, B. (1974). *The study of teaching*. New York: Holt, Reinhart and Winston.
- Eggleston, J., Galton, M., & Jones, M. (1976). *Processes and products of science teaching, Schools council research series*. London: Macmillan.
- Flanders, N. (1970). *Analysing teacher behaviour*. Reading, MA: Addison-Wesley.
- Gage, N. (1989). The paradigm wars and their aftermath. *Educational Researcher*, 18, 4–10.
- Galton, M., & Patrick, H. (1990). *Curriculum provision in the small primary school*. London: Routledge.
- Galton, M., & Pell, T. (2012). Do class size reductions make a difference to classroom practice? The case of Hong Kong primary schools. *International Journal of Educational Research*, 53, 22–31.
- Galton, M., & Simon, B. (Eds.). (1980). *Progress and performance in the primary classroom*. London: Routledge/Kegan Paul.
- Galton, M., & Williamson, J. (1992). *Group work in the primary classroom*. London: Routledge.
- Galton, M., Simon, B., & Croll, P. (1980). *Inside the primary classroom*. London: Routledge/Kegan Paul.
- Galton, M., Hargreaves, L., Comber, C., Wall, D., & Pell, T. (1999). *Inside the primary classroom: 20 years on*. London: Routledge.
- Gopinathan, S. (2010). Introduction to the National Institute of Education (1991 to 2010). In A. Y. Chen & K. S. Luan (Eds.), *Transforming teaching, inspiring learning: 60 years of teacher education in Singapore*. Singapore: National Institute of Education.
- Hamilton, D., & Delamont, S. (1974). Classroom research: A cautionary tale. *Research in Education*, 11, 1–16.

- Hardman, F., Smith, F., & Wall, K. (2003). Interactive whole class teaching in the national literacy strategy. *Cambridge Journal of Education*, 33(2), 197–215.
- Hargreaves, L., & Galton, M. (2002). *Transfer from the primary classroom: Twenty years on*. London: Routledge.
- Hargreaves, L., Moyles, J., Merry, R., Patterson, F., Pell, A., & Esarte-Sarries, V. (2003). How do primary school teachers define and implement interactive teaching in the national literacy strategy in England? *Research Papers in Education*, 18(3), 217–236.
- Harnischfeger, A., & Wiley, D. (1978). Conceptual issues in models of school learning. *Curriculum Studies*, 10(3), 215–231.
- Hogan, D., & Gopinathan, S. (2008). Knowledge management, sustainable innovation and pre-service education in Singapore. *Teachers & Teaching*, 14(4), 369–384.
- Hogan, D., Chan, M., Rahim, R., Kwek, D., Aye, K., Loo, S., Sheng, Y., & Luo, W. (2013). Assessment and the logic of instructional practice in secondary 3 English and mathematics classrooms in Singapore. *The Review of Education*, 1(1), 57–106.
- Lewin, K., Lippitt, R., & White, R. (1939). Patterns of aggressive behaviour in experimentally created social climates. *Journal of Social Psychology*, 10, 271–299.
- Medley, D., & Mitzel, H. (1963). Measuring classroom behaviour by systematic observation. In N. Gage (Ed.), *Handbook of research on teaching*. Chicago: Rand McNally.
- Mehan, H. (1979). *Learning lessons*. Cambridge, MA: Harvard University Press.
- Mortimore, P., Sammons, P., Stoll, L. D., & Ecob, R. (1988). *School matters: The junior years*. Wells: Open Books.
- Pollard, A., Broadfoot, P., Croll, P., Osborne, M., & Abbott, D. (1995). Changing English primary schools. *British Journal of Educational Studies*, 43(3), 356–358.
- Rosenshine, B. (1979). Content, time and direct instruction. In P. Peterson & H. Walberg (Eds.), *Research on teaching concepts, findings and implications*. Berkeley: McCutchan.
- Rosenshine, B. (1987). Direct instruction. In M. Dunkin (Ed.), *Teaching and teacher education*. Oxford: Pergamon.
- Scarth, J., & Hammersley, M. (1986). Questioning ORACLE: An assessment of ORACLE's analysis of teachers' questions. *Educational Research*, 3(28), 174–184.
- Simon, A., & Boyer, G. (1970). *Mirrors for behaviour: An anthology of classroom observation instruments*. Philadelphia: Research for Better Schools, Inc..
- Smith, F., & Hardman, F. (2003). Using computerised observation as a tool for capturing classroom interaction. *Educational Studies*, 29(1), 39–47.
- Soar, R., & Soar, M. (1972). An empirical analysis of selected follow through programs. In I. Gordon (Ed.), *Early childhood education*. Chicago: National Society for the Study of Education.
- Stobart, G. (2014). What is 21st century learning and what part does classroom assessment play? In *Assessment and learning, issue 3*. Hong Kong: Assessment & Support Team (formerly Basic Competency Assessment Team) Education Bureau.
- Tizard, B., Blatchford, D., Burke, J., Farquhar, C., & Plewis, I. (1988). *Young children at school in the inner city*. Hove: Lawrence Erlbaum.
- Watkins, C. (2005). *Classrooms as learning communities: What's in it for schools?* London: Routledge.