Brian Wattchow · Ruth Jeanes
Laura Alfrey · Trent Brown
Amy Cutter-Mackenzie
Justen O'Connor *Editors*

The Socioecological Educator

A 21st Century Renewal of Physical, Health, Environment and Outdoor Education

Springer

The Socioecological Educator

Brian Wattchow • Ruth Jeanes • Laura Alfrey
Trent Brown • Amy Cutter-Mackenzie
Justen O'Connor
Editors

The Socioecological Educator

A 21st Century Renewal of Physical, Health, Environment and Outdoor Education

Springer

Editors
Brian Wattchow
Faculty of Education
Monash University
Frankston, VIC
Australia

Laura Alfrey
Monash University
Frankston, VIC
Australia

Amy Cutter-Mackenzie
Southern Cross University
Gold Coast, QLD
Australia

Ruth Jeanes
Monash University
Frankston, VIC
Australia

Trent Brown
Monash University
Frankston, VIC
Australia

Justen O'Connor
Monash University
Frankston, VIC
Australia

ISBN 978-94-007-7166-6 ISBN 978-94-007-7167-3 (eBook)
DOI 10.1007/978-94-007-7167-3
Springer Dordrecht Heidelberg New York London

Library of Congress Control Number: 2013946661

© Springer Science+Business Media Dordrecht 2014
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. Exempted from this legal reservation are brief excerpts in connection with reviews or scholarly analysis or material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work. Duplication of this publication or parts thereof is permitted only under the provisions of the Copyright Law of the Publisher's location, in its current version, and permission for use must always be obtained from Springer. Permissions for use may be obtained through RightsLink at the Copyright Clearance Center. Violations are liable to prosecution under the respective Copyright Law.
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.
While the advice and information in this book are believed to be true and accurate at the date of publication, neither the authors nor the editors nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Preface

This book is for educators in schools, universities and the community, who are passionate about providing people with the values, knowledge and skills required to face the complex social and environmental challenges that are emerging in contemporary times and will prevail in the future. Socio-ecological approaches have been used successfully for some time in public health, but this book is the first to consider adapting a socio-ecological philosophy and practice to education. This new approach to education considers the personal, social, community, environmental and political dimensions that shape all learning experiences.

It is increasingly difficult to respond to social and environmental challenges from within a singular discipline. Instead, interdisciplinary approaches, forging connections across boundaries and being responsive to community and environmental contexts is an approach more likely to result in success. *The Socio-ecological Educator: A 21st Century Renewal of Physical, Health, Environment and Outdoor Education* presents an argument for a more collaborative and integrated approach within the movement disciplines. These separate subject areas, as they are often presented in schools and learning institutions, will benefit enormously from increased collaboration, cooperation and dialogue. A socio-ecological approach to movement and physical activity will provide students and programme participants with better ways to learn about and respond to real-world issues that impact their lives. Innovations in theory and practice in these subjects already provide rich opportunities to consider what will be required in a socio-ecologically inspired renewal of education. Drawing together these new ways of thinking about and doing sport coaching, physical education, and environmental and outdoor education provides a synergistic and powerful body of work for a futures-oriented approach to curriculum and pedagogy.

In Part I of the book, readers will encounter a discussion and critique of the four foundations of a socio-ecological education. First, the student's lived experience of learning is considered fundamental to a socio-ecological approach. A focus on lived experience reminds educators to educate the whole person where the ultimate aim is to provide a rich and fulfilling encounter with learning. The second foundation is a responsiveness to the learner's context and situation. This reminds the educator that they are always working with learners and participants in a specific social, cultural and environmental setting. When a young person's learning is responsive to their context, they experience a sense of reconnection to place and the value of building relationships. The third foundation considers what kind of teaching and learning practices are likely to be most successful in a socio-ecologically inspired education that involves movement and physical activity. Experiential pedagogies shift the focus onto the processes rather than the product of learning. The history, values and practices that underpin experiential approaches are examined and considered from a socio-ecological perspective. The final foundation introduces the ultimate aim of socio-ecological educators, which is that learners, through genuine participation in their educational experience, will develop a powerful sense of agency. This sense of agency is the catalyst for young people to engage with educational, environmental and community agendas and issues.

Part II of the book presents a series of case studies that demonstrate the socio-ecological foundations in practice. Readers are taken on a journey through many educational settings in multiple countries. Each case study is presented as a chapter, and they range from early childhood through primary and secondary education to university. Community programmes with both children and young adults are also included. All of the levels of a socio-ecological perspective, from the personal to the political, are explored in depth through real-world examples. These examples take the reader from considering what is required for sport coaches to work with disengaged youth in the UK, to a community building a new school on the Canadian prairie. The story of an alternative approach to outdoor education on the Spey River in Scotland is counterbalanced by a consideration of the social and environmental agenda of adventure education experiences in the USA. Another case study looks at the process of renewal of the Health and Physical Education curriculum in New Zealand, while another goes inside an Australian secondary school to examine how students can gain a sense of agency and control over their learning. These case studies are not intended as perfect working examples of socio-ecological education. Instead, each embodies one or more of the foundations discussed in Part I of the book and requires readers to think across boundaries and to develop their own views about the philosophy and practice of becoming a socio-ecological educator.

The arguments and examples presented in this book do not attempt to provide a simplistic or formulaic model for education. Rather they present discussion, critique and example and aim to provoke and stimulate reflection and debate. Part III consists of the final chapter of the book that concludes with reflections about the socio-ecological journey so far. Despite convention and obstacles, new and alternative approaches to education are constantly emerging. The case studies presented in Part II of the book bare testimony to that fact. What *The Socio-ecological Educator: A 21st Century Renewal of Physical, Health, Environment and Outdoor Education* strives to do is to encourage educators around the globe to build new relationships and forge new learning communities for the benefit of young people.

Frankston, Australia Brian Wattchow

Acknowledgements

The editors would like to thank all of the authors, particularly their patience with the editorial process; the anonymous reviewers for their constructive comments on the manuscript; and the Faculty of Education at Monash University for ongoing support in the production of this book.

Contents

Part I

1 **Starting with Stories: The Power of Socio-Ecological Narrative** 3
Brian Wattchow, Ruth Jeanes, Laura Alfrey, Trent Brown, Amy Cutter-Mackenzie, and Justen O'Connor

2 **Social Ecology as Education** 23
Trent Brown, Ruth Jeanes, and Amy Cutter-Mackenzie

3 **Becoming a Socio-ecological Educator** 47
Justen O'Connor, Ruth Jeanes, Laura Alfrey, and Brian Wattchow

Part II

4 **Through Curriculum Renewal: An Aotearoa-New Zealand Case Study** 71
Brian Wattchow and Mike Boyes

5 **Through Coaching: Examining a Socio-ecological Approach to Sports Coaching** 89
Ruth Jeanes, Jonathan Magee, and Justen O'Connor

6 **Through Community: Connecting Classrooms to Community** 109
Laura Alfrey and Justen O'Connor

7 **Through Belonging: An Early Childhood Perspective from a New Zealand Preschool** 125
Jane Bone

8 **Through Adventure Education: Using a Socio-ecological Model in Adventure Education to Address Environmental Problems** 139
Wynn Shooter and Nate Furman

9 Through School: Ecologising Schooling: A Tale of Two Educators ... 153
Amy Cutter-Mackenzie and Carol Fulton

10 Through Outdoor Education: A Sense of Place on Scotland's River Spey ... 173
Brian Wattchow and Peter Higgins

11 Through Physical Education: What Teachers Know and Understand About Children's Movement Experiences ... 189
Trent Brown

Part III

12 Conclusions and Future Directions: A Socio-ecological Renewal ... 205
Brian Wattchow, Trent Brown, Ruth Jeanes, Justen O'Connor, Amy Cutter-Mackenzie, and Laura Alfrey

Index ... 229

Contributors

Laura Alfrey Faculty of Education, Monash University, Frankston, VIC, Australia
Laura Alfrey is a Lecturer in Sport, Health and Physical Education within the Faculty of Education, Monash University. She is a foundation member of the Sport and Physical Activity Research Group at Monash University. Laura's research focuses on four main themes: (i) the performative focus of Health and Physical Education (HPE), (ii) HPE teachers' professional learning and development, (iii) curriculum and pedagogy and (iv) the role of HPE in community development. Laura worked for Loughborough University (UK) and the Institute of Youth Sport (UK) before joining Monash University in 2008. Laura's recent publications include 'Activating the curriculum: a socio-ecological action research frame for health and physical education' in *Sport, Education and Society* (2013 with J. O'Connor) and 'A crack where the light gets in: a study of health and physical education teachers' perspectives on fitness testing as a context for learning about health' in the *Asia-Pacific Journal of Health, Sport and Physical Education* (2013 with M. Gard).

Jane Bone Faculty of Education, Monash University, Frankston, VIC, Australia
Jane Bone is involved in research in the area of early childhood education in Australia (and formerly in New Zealand). Her expertise is in holistic approaches to pedagogy, including research involving Steiner-, Montessori- and Reggio Emilia–based preschools. Her main research area explores spirituality and is internationally recognised. This research supports her work about the connections between children, animals and the environment. Jane is also known for her work about ethical approaches to research with young children. Her research contributes to wider understandings about the significance of early childhood education in terms of wellbeing, belonging and social justice.

Mike Boyes School of Physical Education, University of Otago, North Dunedin, New Zealand
Mike Boyes is an Associate Professor in Outdoor Education at the School of Physical Education. Mike's research primarily focuses on outdoor education and outdoor recreation. He is particularly interested in teaching and learning in the out-

doors, ecojustice and sustainability, outdoor leadership, and adventure engagement by older people. Mike works with both postpositivist and interpretive methodologies and regularly employs mixed-methods research designs with qualitative and quantitative data gathering and analysis. In 2007, he was awarded the NZ Sport and Recreation Commission's (SPARC) supreme award for services to outdoor recreation and, in 2010, was awarded membership of the New Zealand Order of Merit for services to mountain safety and outdoor recreation.

Trent Brown Faculty of Education, Monash University, Frankston, VIC, Australia
Trent Brown is a Senior Lecturer in the Faculty of Education at Monash University. His research aims to advance empirical, theoretical and philosophical insights into the emerging study of physical education, via the lived experiences, meaning-making and phenomenological dimensions. This is primarily expressed in research streams, namely, movement and meaning making, curriculum development (Foundation to Year 12) and professional learning related to physical education pedagogy and development. His publications and presentations at both national and international conferences have been well received, and his work is acknowledged for its theoretical strength and capacity to challenge established thinking in the field. He is on the editorial boards of the *Asia-Pacific Journal of Health, Sport and Physical Education* (Australia/International) and *Physical and Health Education Journal* (Canada). Trent contributes to the leadership of the profession via the Presidency of Australian Council for Health Physical Education and Recreation – Victorian Branch (1,350 members), an organisation he has been involved with for the past 6.5 years as board member and as President (2011–2013).

Amy Cutter-Mackenzie School of Education, Southern Cross University, Gold Coast, QLD, Australia
Amy Cutter-Mackenzie joined Southern Cross University (School of Education) in December 2011 as an Associate Professor in Sustainability, Environment and Education. She is the Director of Research for the School of Education as well as the Research Leader of the 'Sustainability, Environment and Education' (SEE) Research Cluster. Amy commenced her career as a primary school teacher in Queensland, Australia, and later moved into academia after completing her PhD. Amy's research is clearly situated in the area of children's and teachers' thinking and experiences in environmental education in a range of contexts and spaces (including early childhood education, schools, teacher education, higher education and communities). She is the Editor of the *Australian Journal of Environmental Education* (Cambridge University Press) and Consulting Editor for the *Journal of Environmental Education*, the *International Journal of Early Childhood Environmental Education* (NAAEE) and *International Journal of Environmental and Science Education*. Further, Amy was awarded a prestigious Australian Learning and Teaching Council (OLT) National Teaching Excellence Award (November 2010) for 'leading school-community teaching and learning practices and partnerships that influence, motivate and inspire pre-service education students and schools to engage in environmental education and sustainability'. She was also awarded the

Vice-Chancellor's Teaching Excellence Award at Monash University in September 2009 and a prestigious OLT Citation for Outstanding Contributions to Student Learning (August 2008).

Carol Fulton Faculty of Education, University of Regina, Regina, Canada
Carol Fulton is a Professor Emeritus who has recently retired from the Faculty of Education at the University of Regina in Saskatchewan, Canada. Carol's research interests include indigenous education, socio-ecological pedagogies that focus on environmental and social justice, place-based learning and outdoor education, food security and sustainable living practices, and activism through community engagement. Before coming to the University of Regina, she taught at all grade levels, including adult education. She piloted one of the first provincially funded kindergartens and served on the first provincial kindergarten curriculum committee. Carol also worked as a curriculum consultant for two school divisions. Her positions at the University of Regina have included working as a Research Associate developing instructional materials and presenting workshops to teachers around the province, serving as the first Director of the Teaching Development Centre at the University, serving as manager of the Student Program Centre and as Chair of the Elementary Program. She is a founding member of a new independent school that focuses on bioregionalism, is on the board of the Heritage Community Association and is a ballroom dance instructor. She enjoys spending time with her two young grandchildren who attend the school she helped to establish.

Nate Furman PhD Green Mountain College, Poultney, USA
Nate Furman PhD is an Assistant Professor at Green Mountain College in Poultney, Vermont, where he also serves as Program Director of the Adventure Education program. Green Mountain College is a leader in the sustainability revolution, having been selected as the Sierra Club's number one "Coolest School", a ranking recognizing colleges that prioritize climate neutrality and sustainability education. In 2012, Nate received Green Mountain College's Robert W. Leonard Award for Outstanding Teaching.

Nate's scholarly interests center on learning transfer and decision theory. His interests in learning transfer focus on developing curricular components that optimize opportunities for transfer from an academic setting to life post-program. Nate specifically focuses on the transfer of leadership and prosocial behaviors in adolescents.

Nate is a climbing and mountaineering guide for Adventure Spirit Rock, Ice, and Alpine Adventures; the American Alpine Institute; and the National Outdoor Leadership School. His climbing and guiding adventures have taken him across the globe, from Greenland to the French Alps, and from Patagonia to high Alaska.

Nate lives in rural Vermont, where he enjoys maple syrup tapped from trees on his property and spending time hiking and skiing with his wife, Jessica.

Peter Higgins School of Education, Edinburgh University, Edinburgh, UK
Peter Higgins is Chair of Outdoor and Environmental Education at the University of Edinburgh and teaches academic and practical elements of these fields. He is a member of a number of national and international panels and advisory groups on outdoor and sustainability education and is an advisor to the Scottish government. He has published extensively in the research literature and has co-authored/edited several books on the theory, philosophy and practice of outdoor education, particularly in relation to environmental and sustainability education. His most recent (joint-authored) book is *Learning Outside the Classroom* (2011).

Ruth Jeanes Faculty of Education, Monash University, Frankston, VIC, Australia
Ruth Jeanes is a Senior Lecturer in Sports Coaching and Community Development within the Faculty of Education, Monash University. Ruth is Leader of the Sport and Physical Activity Research Group at Monash. Her research interests focus on the use of sport and recreation as a community development resource, particularly to address social exclusion among acutely marginalised groups. Ruth has previously worked as a research fellow at the University of Central Lancashire and Loughborough University, UK. Her recent publications include 'Educating through Sport? Examining HIV/AIDS and sport for development through the perspectives of Zambian young people' in *Sport, Education and Society* (2013) and'Football's coming home: a critical evaluation of the homeless world cup as an intervention to combat social exclusion' in *International Review for the Sociology of Sport* (2013 with J. Magee).

Dr Jonathan Magee School of Sport Tourism and the Outdoors, University of Central Lancashire, Preston, UK
Dr Jonathan Magee is a Senior Lecturer in the Division of Sports Coaching and Development, having joined the staff in 2003. He has taught widely across the suite of sports studies courses and published extensively in international journals regarding the socio-cultural aspects of sport. Jonathan was also recruited by West Bromwich Albion Football Club as a Consultant to their Recruitment Department in 2008 and 2009 and has also conducted evaluation work for the Football Foundation.

Justen O'Connor Faculty of Education, Monash University, Frankston, VIC, Australia
Justen O'Connor is a Senior Lecturer in Sport, Health and Physical Education within the Faculty of Education, Monash University (Australia). His research interest focuses on engaging children in physical activity through applying socio-ecological frameworks. His research has been applied to sporting organisations and community recreation settings and to developing Health and Physical Education curriculum in schools. Justen is a foundation member of the Sport and Physical Activity Research Group at Monash, teaches into the undergraduate programmes and supervises at the postgraduate level. His co-authored publication 'Beyond games and sports: a socio-ecological approach to physical education' in *Sport, Education and Society*, Vol. 17, Iss. 3, 2012 (with Alfrey and Payne), establishes a research agenda that is currently being developed in a range of schooling contexts.

Wynn Shooter Utah Education Policy Center, University of Utah, Salt Lake City, USA
Wynn Shooter is a Research Associate at the Utah Education Policy Center. He has worked within a wide variety of education programme areas, including wilderness experience programmes, corporate group trainings, therapeutic recreation programmes and university outdoor programmes. Throughout his career, Wynn has focused on implementing principles of experiential education to achieve a variety of learning and developmental outcomes for diverse populations of students in outdoor and classrooms settings. His research has focused on outdoor experiential education, decision making, trust development and education evaluation.

Brian Wattchow Faculty of Education, Monash University, Frankston, VIC, Australia
Brian Wattchow is a Senior Lecturer in Sport and Outdoor Recreation (SOR) in the Faculty of Education, Monash University (Australia), and has taught outdoor education in secondary schools and universities for 30 years. He is a foundation member of the Sport and Physical Activity Research Group at Monash and supervises a number of postgraduate students in outdoor education–related studies. Brian has over 40 publications in academic journals, scholarly book chapters and, in the public domain, most often centring upon his interests in outdoor pedagogy, sense of place and land identity. In 2010, he completed a 2,500-km canoe descent of Australia's River Murray and published his first collection of poetry titled *The Song of the Wounded River* (Ginninderra Press, 2010). He recently co-authored *A Pedagogy of Place: Outdoor Education for a Changing World* (Monash University Publishing, 2011) with Dr. Mike Brown.

Part I

Chapter 1
Starting with Stories: The Power of Socio-Ecological Narrative

Brian Wattchow, Ruth Jeanes, Laura Alfrey, Trent Brown, Amy Cutter-Mackenzie, and Justen O'Connor

Abstract In this first chapter we felt it important to introduce the editors of the book via a series of short autobiographical stories. In each case the author has chosen a few influential experiences that they believe have been crucial in shaping the development of their socio-ecological outlook as educators and researchers. In other words, in this first section of the book we are putting practical, lived experience prior to the theoretical explanation of what it means to be a socio-ecological educator. In this first chapter of Part I we want to lead with example and narrative. We then explore and reinforce the message with sound theoretical discussion of the crucial concepts that make up this unique perspective on educational philosophy and practice. In Part II of the book, different authors from a variety of backgrounds and work contexts explore socio-ecological ideas and practices via a range of case studies. Finally, in the conclusion chapter we summarise the book and reflect on the incorporation of a socio-ecological approach into educational and research settings.

Keywords Narrative • Socio-ecology • Reflection • Experience

B. Wattchow (✉) • R. Jeanes • L. Alfrey • T. Brown • J. O'Connor
Faculty of Education, Monash University, McMahon's Road, Frankston,
VIC 3199, Australia
e-mail: brian.wattchow@monash.edu; Ruth.jeanes@monash.edu; Laura.alfrey@monash.edu; Trent.brown@monash.edu; Justen.oconnor@monash.edu

A. Cutter-Mackenzie
School of Education, Southern Cross University, Gold Coast, QLD, Australia
e-mail: acutterm@scu.edu.au

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_1, © Springer Science+Business Media Dordrecht 2014

Introduction

The brief stories that follow are, of course, something of a simplification of the complex life experiences that contribute, in both obvious and less obvious ways, to each educator's knowledge and beliefs. The accounts are not intended to be complete or even substantial, but there are several important reasons why educators' stories provide a good place to start. First, they introduce the editors of this book as 'real' people who learn through experience, and who teach, think about and research educational practices. We want to signal to the reader that we each work within what Donald Schon (1987) has called the messy world of practice. Second, the diversity of stories shows that socio-ecological approaches are not 'siloed' into separate educational disciplines. Rather, diversity and difference are accommodated and even celebrated in socio-ecological approaches to education. Finally, we offer these stories because we want to signal the importance of narrative ways of knowing in developing beliefs and ideas about educational and research practice. As a series of starting points, each story raises a number of questions about the nature of learning in physical and health education, and in outdoor and environmental education.

Patton (2002, p. 115) suggests two foundational questions in relation to the kind of narrative work we present in this chapter:

> What does the narrative or story reveal about the person and world from which it came? How can this narrative be interpreted so that it provides an understanding of and illuminates the life and culture that created it?

The short narratives that follow provide the reader with the opportunity to pose Patton's questions. The emphasis here is on story, context and interpretation where the reader engages with the text in an act of meaning-making. What results, inevitably, is a 'polyvocality' (Hopper et al. 2008), reflecting a multiplicity of different voices, which brings complexity and nuance to the ways that researchers and educators write about physical activity and its socio-ecological connections. Sparkes (1992, 2002) has suggested that sport and physical activity researchers need to embrace alternative methodological approaches to counterbalance the dominance of scientism in these fields. Only through qualitative methods such as narrative inquiry, case study, semi-fictional and poetic representations and other phenomenological orientations can we hope to illuminate the character and essence of people's lived experiences. It is not our intention to mount an attack on the natural sciences, for many important discoveries about human nature have had there origins there. However, the narratives here do draw inspiration from the social sciences in the approaches they adopt. This is because our interest in this book is to attempt to gain an insider's view of how people experience sport, physical activity, physical, outdoor and environmental education. We want to portray the subjective 'lifeworlds' of the people and communities that these accounts are about.

As a result we hope that you, the reader, will be encouraged to approach the writing that follows as a 'search for these patterns, narrative threads, tensions, and themes' (Clandinin and Connelly 1998, p. 171). There is no clear-cut, single theory of socio-ecological education, so we use these stories to begin the process of teasing out this complex concept somewhat gently, and then develop it as a powerful way of thinking about and practising education in the chapters that follow. We begin with Amy's story.

'This Was No Ordinary School Project': Amy Cutter-Mackenzie

I am the youngest of six siblings. My childhood was somewhat nomadic. My father was a boilermaker and my mother an active gardener while caring for my brothers, sisters and me. I was born in Melbourne, where I lived until I was 2 years old. Then the family moved to a small farm in Bahrs Scrub, on the Gold Coast in the hinterland of Queensland. When I was five, we moved again, this time to a small mining town, Tieri, in Central Queensland, 400 km inland from Rockhampton. We lived in Tieri until I was 14, at which point we then moved back to Bahrs Scrub (to the same place that we affectionately called the 'the farm').

My experience of growing up in an open-cut mining town had a profound impact and was, I feel, crucial in the development of my environmental disposition. Around the dinner table, the conflict between environmental conservation and destruction was always a subject of lively discussion. Often the 'destruction line' seemed to be favoured, which was hardly surprising given my family's livelihood depended on the use or exploitation of natural resources. However, this small town also provided a natural playground, as it was surrounded by dense bushland. As a very young child and then a teenager, I often spent full days either alone or with my siblings and friends exploring the bush with no supervision by my parents or other adults.

My experience of our farm was equally significant. In many respects it was 'home'. Since an early age I have had a strong and personal affinity with animals. Dogs and cats lived outside and inside the house and slept in our beds. The farm included a mélange of chickens, pigs, cows, goats and sheep ranging free on our land. We all raised and loved all the animals on our property. My job, from just 2 years of age, was to help Mum milk the cows and collect the eggs. My parents did not sell their stock. I can remember becoming very distressed and often inconsolable each time one of our animals was to be slaughtered. It seemed beyond my comprehension. My Mum always said the same thing to me, 'It's important for you to understand that this is where *your* meat comes from. It may seem cruel, but all of our animals have had a very good life'.

My internal conflict never ceased and at the age of 15 I became a vegetarian after doing a school project on the environmental effects of beef cattle farming in Australia. This was no ordinary school project. A national food (cereal) company, selected and sponsored a number of science students, nominated by their schools, to investigate the production of beef in Australia. For 3 months I lived in Alice Springs (in the Northern Territory of Australia), where I visited abattoirs and lived and worked on multiple cattle stations. During my farm stays, my job was to milk the cows at 5 o'clock each morning, which was followed by working the land (largely fencing and preparing animals for slaughter). This significant life experience not only led me to make a decision to never eat meat again, but the process awakened the researcher within me, as I witnessed the mass production of meat (from paddock to feedlot to market), where animals were treated as a commodity with little dignity, integrity or compassion. This awakening led me to become a teacher and then later a researcher in the area of environmental education, so that I could make a difference for the environment, animals and the way people live their lives.

My passion for teaching and the environment came together during my studies towards a Bachelor of Education at Griffith University. In the third year of my degree I also commenced an Honours degree in environmental education. Already I had in mind that I would become a teacher-researcher. That journey, which began with my nomadic childhood and confronting the harsh realities of food production and its impact upon the lives of animals, the land, and the surrounding communities, has led me to becoming a teacher and environmental educator in Australia and overseas, while completing a doctorate in environmental education.

'I Am a Physical Educator': Trent Brown

In the beginning … First and foremost I am a physical educator. I was interested in 'sports science' as an undergraduate until a not-so-positive work experience opportunity at an institute of sport. This experience provided an awakening that educative physical activity and movement experiences for youth was more important to me than studying the stroke rate of an elite flatwater kayaker for 3 days. This 'awakening' reinforced the importance of physical education and its place in the curriculum for all young people, as opposed to the precious resources flowing to an elite few. It set me on a path that continues to this day.

An early entrée … I first heard the term 'socio-ecological' when I was a graduate student studying for my PhD. It came up when I was collecting articles and writing the literature review for my doctoral dissertation (Brown 2004) on physical activity and wellness. However, the term was not applied to physical education. It seemed to have more to do with health promotion and health education, as it was used as a framework for understanding practices with health-promoting schools (St Leger 1998). Later I remember it being connected to physical activity participation (Cale 2000) and, given the links to my developing research work, there were clearly parallels with socio-ecological approaches and its potential contribution to further understanding physical education. But it was not until some years later, during my first academic appointment, that I began to develop and apply socio-ecological approaches to my teaching practice and research.

My first appointment … In my interview for my first academic appointment I was asked, 'How do you see yourself – as a researcher, a teacher, an administrator or something else?' Given that I had prepared some answers, via a discussion with my doctoral supervisor, I was comfortable in answering the question:

> I see myself primarily as a teacher. This is not to say that I don't think that I can engage with research and see this as contributing additionally to my career as an academic, it is just that who I am and how I see myself, is first and foremost as a teacher.

I was pretty sure that I gave a coherent answer to this question. But what I did not know or engage with at the time was the broader direction of teacher education research. I came from a school of performance and exercise situated in a medical faculty. All they seemed to argue about in research was whether anything was significant beyond the $p < 0.05$! To move into a Faculty of Education, where teaching and research were more about qualitative approaches, epistemologies, ontologies, post-structuralism and interpretivism, was a difficult enough transition, let alone trying to set up a research agenda that was supportive of quantitative approaches to studying physical activity. However, I persevered. With the benefit of hindsight, I can see that the social, cultural and historical aspects of the ideas, ideals and practices that I held dear in physical education were indeed socio-ecological in nature.

Responding to the socio-ecological in my teaching and research TODAY! … Over the past decade I have been somewhat eclectic in my research activity: physical activity participation, physical education teacher knowledge, curriculum development, test scale development and validation, professional learning and, more recently, meaning and meaning-making of teachers as physical educators. This latter research area grew out of what I see as the marginalisation of physical education in the broader curriculum. In addition, I had begun to question the 'invisible authority' it seemed was often assumed by the author of research papers. In the research that I was reading it seemed that the concept of 'I', that first-hand account of lived experience, was seldom seen. I had begun asking questions that my quantitative statistical training as a researcher could not answer.

My transition from quantitative to qualitative researcher (and perhaps to a more socio-ecologically orientated educator) was a difficult one. Each time I tried to bridge my understanding I confronted the barriers of unfamiliar language and terms in the qualitative research literature. I had never even heard of 'the paradigm wars' that raged between quantitative and qualitative proponents and antagonists in the research world. For some time I felt adrift between two distinctly different views of the world. Eventually, I found support from some senior staff within my faculty, who encouraged me to persevere. I needed to succeed. I needed to engage, to find a way through this impasse. I began with a small academic piece on meaning and meaning-making in physical education (Brown 2008), before attempting to conceptualise a phenomenology of movement (Brown and Payne 2009). I forced myself to read more widely, including Arnold, Kleinman, Sartre, Merleau-Ponty and Dewey. At times I still felt I was an outsider looking in. But there were glimpses. I had started down a path and felt like I had begun my Ph.D. all over again. For me, socio-ecological education it is about understanding the individual as an actor and meaning-maker. This is something I have lived through in my own development as a physical educator. In essence, I feel that I have gained some of my most valuable insights into a socio-ecological perspective by becoming a socio-ecological educator.

‘Experience, Time, Epiphany’: Laura Alfrey

Why do I call myself a socio-ecological educator? Three words spring to mind when I reflect upon this question: ‘experience’, ‘time’ and ‘epiphany’. The latter may seem a little sensationalised, but if an epiphany may be thought of as finding the special piece(s) of a jigsaw puzzle that sees the whole picture emerge, then it makes sense. With the benefit of hindsight I am able to track my (physical) education ‘experiences’ and see how often it was the unplanned and unintended that allowed me to find more pieces of the puzzle. I would be naive to say that my jigsaw is complete, but I have definitely now accrued enough pieces to know what I am working towards. And that is, educating, and helping others educate, in ways that acknowledge the multiple levels of our personal, social and environmental ecologies. Each of these levels needs to be responsive to people and place and thus become more relevant, engaging and likely to result in meaningful learning. If this is my current position, how did I get here?

I grew up in Gomersal, a little village in Yorkshire, in a house where my parents live to this day. As a child, any free time at home was spent with friends, dodging bulls in the barley fields, riding my bike along the country lanes, running races or reinventing the age-old pastime of playing marbles. I don’t like to brag but my success on the marble circuit was quite impressive and was evidenced by a large glass jar in my parents’ hallway that housed my winnings. Every weekend my parents and I would pack up the cherry-red Volvo 340 and head for pastures new. Our travels took us to the riverbank in Burnsall, the tarn (glacial lake) in Malham, or the forests of Sherwood (where Robin Hood used to roam … according to the legend). Such trips instilled in me a love of the outdoors and being active from a young age. At the time I thought that this was what all families did. I can now see that I was in a privileged situation and that the opportunities my parents presented to me were invaluable in terms of developing a love for movement and the outdoors. A socio-ecological perspective encourages you to look beyond individuals and appreciate how their relationships with others and the environment influence their thoughts and behaviours. Looking back through a socio-ecological lens I can now see that my current interests and approaches as an educator and researcher have been influenced heavily by both my parents and my formative experiences in the wild countryside of Yorkshire.

My parents were never particularly sporty, but they were very active and supportive of my physical and adventurous ways, even when I came home with my new shoes scuffed and worn within an inch of their lives because I had used them to slow my bike down on a big descent. As I grew up and began to play in the school sports teams, the support of my parents was manifested by transporting me to and from events, and financing my hockey, netball, athletics, karate, judo, swimming, and so on. You can tell where this story is going, can't you? At school my favourite subject was physical education, closely followed by geography. Both of which involve movement, people and places. It is the relationship between these three aspects of social ecology that continue to grasp my attention.

Out of a class of 30 girls, I remember wondering why only three or four of us enjoyed and willingly participated in our physical education. To me it was natural and fun and I experienced success to fuel my passion further. For a short time I ran the 100 metre sprint faster than any girl at St John Fisher Secondary School and I thought selection for the Olympics was the next stop. I was a big (or rather – fast) fish in a small pond. But my initial and positive experiences of physical education meant one thing: if I wasn't going to the Olympics I was going to be a – you guessed it – physical education teacher. I wanted to help everyone enjoy movement and games as much as I did.

So, with that in mind, I went to university in Chester, England, at a college of the University of Liverpool. I was getting good grades and graduation was close. But then I enrolled in a unit entitled 'Issues in Physical Education' that was taught by (now) Professor Ken Green. Until this point I had never been encouraged to think critically about physical education or its role within the school curriculum and society more broadly. As the unit progressed, I developed new and critical understandings about an activity that I had taken for granted. I began to gain some insights into why most of the girls at school had not liked physical education and realised that the subject as I knew it did little to promote in *all* a love and understanding of movement. I began to doubt some aspects of physical education. I wanted and needed to learn more.

I started working in schools and at the same time began working towards a Masters degree in Sociology of Sport, Physical Education and Exercise. Holding my Masters certificate in my hand a few years later, I still wanted to know more about the theoretical underpinnings of physical education and the ways in which theory translated into pedagogical practices. I accepted a scholarship to do a Ph.D. at Loughborough University and this allowed me to pose and seek answers to some deep personal and professional questions about my field. While doing my doctorate I continued to work with schools and the Institute of Youth Sport. This again gave me the valuable opportunity to test my ideas in practice and also have the messy world of work upset the apparent certainty of theory.

My doctoral research was concerned with the promotion of healthy, active lifestyles and as part of a literature review I explored the concept of an 'Active School' (Cale 1997). The Active School uses a socio-ecological approach to promote opportunities for physical activity. I remember the first time I read the term 'socio-ecological'. I probably muttered the word 'What?' aloud at the time. That said, as soon as I read the explanation provided by Cale and Harris (2005) it made immediate and complete sense. This was my epiphany. I had found a big piece of the puzzle: recognising that early research on physical activity was largely individualistic and was thus a very narrow and incomplete way of understanding the complexities of human choices and behaviour.

Socio-ecological approaches, however, have at their core the notion that physical behaviour ‘is influenced by multiple facets of the intrapersonal, interpersonal and physical, and policy and legislative environments’ as well as the natural environment (Cale and Harris 2005, p. 83). Applying social ecology to a school setting provided me with a multi-levelled frame through which I could make better sense of the many factors and influences that affect how, what and why teachers teach. It also helped me appreciate how knowledge of social (people) and ecological (environment) interdependencies can help us better understand the teaching of physical education. Over time I have come to better understand and rethink ways of knowing, and have utilised socio-ecological approaches in a range of contexts (schools and communities) and for a variety of reasons (to develop understandings of physical education practices and to promote active transport). More recently I have begun to draw on socio-ecological principles in my teaching and it has been a very rewarding experience. I have seen and experienced ways of doing physical education that has allayed some of my earlier doubts and fears about participation for all.

I was an educator before I was a socio-ecological educator but, returning to the three words I referred to at the start of this narrative, my epiphany and subsequent experiences have led to a gradual and enjoyable piecing together of a puzzle. The process has, I think, made me a better educator.

‘For Me, It’s About a Sense of Place and the Quality of the Experience’: Brian Wattchow

I am not a person who places a great deal of store in labels. I would not be comfortable wearing a T-shirt stating ‘I’m a socio-ecological educator’, or a badge that says ‘Place-responsive outdoor educator’ or ‘human geographer’. However, having said that, I do see considerable merit in attempting to carefully articulate the conditions and qualities that I believe make my educational practice both socio-ecological and place-responsive in character. I trace my own approach to working socio-ecologically to a range of formative experiences. In this brief narrative account I want to talk about the three elements that I find most compelling in the socio-ecological approach and, in each case, demonstrate how remembering our past is a good way of beginning to understand the present. The first recollection I wish to consider has to do with my belief in the value of inter-disciplinary approaches to inquiry and experience.

My introduction to inter-disciplinarity … I grew up in an inter-disciplinary household. My father was a school principal and humanities teacher. He had a great knowledge of English and Australian literature and an active interest in history and geography. Over the years, he and I shared many long and pleasurable conversations that ranged across topics as diverse as the health of the land, politics, Australian poetry and make-up of the Australian cricket team. My mother was an artist and art teacher. She has a wonderful sensitivity for landscape. When I was growing up our house was always full of books, many informing my parents' interests in literature, land, art and history. My experience of these various 'disciplines' was that they were active pursuits. The books were for inspiration and reflection in quieter moments. Most of the time we were actively encouraged to be out and about. Along with my siblings and cousins I would keep 'project' books during our regular caravan holidays and camping trips. These books consisted of collections of drawings, photographs, stories about each day's explorations and experiences, as well as early attempts at writing fiction and poetry. Crowding around a table at one end of the caravan each evening the children would work assiduously on their projects. The adults discussed politics, family history and so on down the adult end of the van. At the end of the evening our project books would be passed around, commented on and, finally, the 'treats' drawer in the van would be opened by my grandmother and our efforts rewarded.

Every school holidays saw us travelling to the south or west coast of South Australia, or inland to the River Murray or Flinders Ranges. Occasionally we would venture further afield to the snow-capped alps across the border in Victoria. I would cart along a wooden box my grandfather had made me. It was full of books, sketch pads, comics, and another smaller box of pens and colour pencils. This was long before the age of the digital camera and laptop computer. I am not trying to present some sort of sentimental view of the past as preferable to modern times. But it was an experience of childhood that would be difficult to imagine today.

When I think back to those evenings working on the project books I realise now that the pages I was filling developed like mosaics and the process of their production was as much about exploring meaning as it was about simply recording events. One page might have a sketch of a sand dune and the sea, a pressed flower sticky-taped alongside it, a local postcard glued into place, and a story about the day. Another page might have a scientific-like drawing of a crab, a sketch of its rock pool, and maybe a few clumsy poetic lines of description. The advocate of ecological literacy Orr (1992, p. 125) would, I think, have approved of this approach. Like Henry David Thoreau's classic *Walden*, what results from an inter-disciplinary approach 'is a mosaic of philosophy, natural history, ecology, folklore, archeology, economics, politics, education, and more'.

Each vacation's projects were naturalistic, small-scale, inter-disciplinary studies. This early exposure to a broad cross-section of the humanities has stayed with me ever since and has, no doubt, influenced choices I have made about study, my work as an educator and how I think about and go about research. When I look at a landscape I am immediately searching for colour, shape and form – the play of light on different surfaces. But I am also trying to work my way into the place. I am looking for evidence of human occupation – tensions between natural and cultural elements. I want to experience the place's character and what it has to show and teach me. I want to physically explore the place with my body. And, I want to read stories, fact and fiction, about the place and its human history. I take great joy in this experience of physical and intellectual inquiry – of slowly getting to know a place, of it revealing itself to me, over time.

I now realise what a gift my parents gave me in the simplicity of our holiday life and the 'projects' we completed. I want to pass that along to others – to my own children and my students. I want them to re-engage with ways of knowing that have often been sidelined and even discredited as they have advanced through their years of formal education. Inter-disciplinary inquiry, especially when done for its own sake, brings great richness to our experience. For me it is the rawness of the embodied encounter and how this mixes with more composed and quiet moments of reflection and still later attempts at creative representation that define this inter-disciplinary form of practice.

Outdoor Places … Professionally I have come to realise that my approach to teaching and writing is more place-based and place-responsive (Wattchow and Brown 2011) than anything else. This is a very different style of teaching in outdoor recreation and education, where the common approach is still one of treating nature and the outdoors as an adversary, against which students are expected to test themselves and build their character or develop better teamwork. There is an immersive quality in the type of approach to teaching and learning in a socio-ecological and place-responsive way. It is about an unfolding sense of place and the quality of the experience rather than striving to attain some sort of predicted educational outcome. Certain educational strategies can be employed by a teacher or leader to assist students to open their senses to a place. The Australian social ecologist and academic John Cameron (2001, p. 32) described the pedagogic process involved in this approach as follows:

> open attentiveness, the willingness to suspend judgment and 'listen' to a place, the capacity to reflect on both affective and intellectual responses. These are abilities which are best communicated by the presence and attitudes of the educators themselves – by how they are rather than what they say when they are outdoors with the students. It sets the outdoor educators on just as much a journey as the students; always broadening and deepening their relationships with places.

Periods of stillness and quietness (often hard to find in our modern societies, and harder still to elicit in time-pressured undergraduate students), repeat visits, getting to know a place on macro and micro levels, moving slowly, consciously exploring how each of the human senses allows the qualities of a place to permeate the skin and become a part of memory – are just some of the many possibilities of sensing a place. Ed Relph, author of *Place and Placelessness* (1976), called this searching for an empathetic insidedness to a particular location on the Earth's surface.

But places are about more than just our embodied encounter of them. I have realised over the years in my teaching and guiding in the outdoors that it is all too easy for both myself and my students to dwell a little too long in a state of romantic revelry amidst the sublime qualities of a beautiful wild place. We need to also consciously learn the ecology, economy and politics of a place. How these elements interact influences the place that is before our eyes, beneath our feet, and working its way under our skin.

At its most basic level, a socio-ecologically inspired educator begins with a sense of attachment to, and therefore a desire to sustain, the people, communities and places where they live and work. It doesn't matter to me if that place and community is found in the city, on the suburban fringe, or in rural or remote locations. It doesn't even matter to me if we are only temporary visitors to a place or long time inhabitants. The realisation that our wellbeing is simply an extension of ecological and community wellbeing brings a sense of socio-ecological responsibility. Individual, community and ecology are all nested within wider systems that reach and spread through time and space. We need to think and learn historically, geographically, economically and ecologically, as well as physically. We need to look for connections, through both current networks of relations between individuals, and through their communities and ecologies. As an educator, I think I am working at my best when I can encourage a learner to *experience* a sense of these connections rather than to have them only *think* about them. My hope is that these *experiences* will be so profound that the student will feel an inevitable call to action to contribute to the unfolding richness of a place and ensure its health into the future.

'A Sports Coach on the Margins': Ruth Jeanes

My journey to understanding the value of social ecology within my teaching and research focus on sports coaching has been a slow but steady one. Recently, I have been actively pursuing ways of thinking about and practising coaching within this broader framework. Reflecting on my past, I can see a number of critical moments within my own experiences of being coached and subsequently becoming a coach that have shaped my current practice and influenced why I feel a social ecological approach has so much to offer.

My first memory of being coached was when I started playing cricket as a 15-year-old with Daventry Youth Club. There were no local teams for girls but my Dad had organised for me to attend practice sessions with the youth section of the local men's team, who had a 'great coach'. He was an ex-professional player. Club members said 'He really knows his stuff' and 'He's a great technician'. At my first session I was asked to bat in the practice nets fairly early on. With some help from Dad, I buckled on the pads that protect a batter from injury and walked down to the end of the net, feeling the weight of the cricket bat in my hands. A line of 10 or so 15–18-year-old boys eyed me from the end of their bowling run-ups. I wonder now what they were thinking. Were they torn between whether they should attempt to take my head off or bobble one in nice and slowly to 'give the girl a chance'. Being a hockey player, I had reasonably good hand-eye-ball coordination and when the first ball came in it was full and wide. I moved my feet into position, swung hard and caught it with that lovely 'puck' sound that signals you've hit the ball just right. It smashed into the side of the net and I was off. Next ball was straight and faster and I swung again to hit it straight back, just to the side of the bowler's outstretched right hand – a 'straight drive' (a shot Dad would later tell me is one of the hardest to master).

Immediately the ‘coach’ came marching down towards me. He was six foot four, incredibly imposing and what I’d now describe as a ‘very busy coach’. A busy coach is someone who is always giving instructions, continually telling the bowlers how they should adjust, batters how to move their feet, and so on. He strode towards me, shouting that I needed to stop ‘waving my bat about like I was swotting flies’ and before we went any further I had to ‘sort my defence out’. I was taken out of the net to one side and for the next 30 min he painstakingly explained how to execute the forward defence shot and told me I was not to play anything else for the following 3 weeks. Defence, I was told, was essential, as ‘you can’t score runs if you’re sat back in the pavilion’. Slowly over the coming weeks he ‘coached’ any natural exuberance and the ability to play freely out of me and I have remained a very conservative player ever since. This crucial, early introduction to the game turned a possible flamboyant ‘Bothamesque’ young female cricketer into just another dour, Boycott-like defensive, ‘safe’ player. It has, perhaps, influenced how I see and feel about the game and, as sport plays such a central part in my life, how I feel about myself. Even then I had a sense that I had to question what was good and effective coaching. My coach, though highly qualified, failed to build on the natural resources and abilities I brought to *his* cricket nets.

When I first began coaching, I was aware of not wanting my young players to have experiences similar to the one that I had had as a young cricketer. But, despite completing an undergraduate sports science degree and undertaking numerous coaching education courses, I felt very unsure of the ‘best way’ to coach. All I had gained from the classes was expertise in breaking down particular skills, devising drills and making sure I also put a short, adapted game somewhere into my coaching session. My first coaching role was with the Wollaton Girls Cricket Club. The girls who came to the first training sessions had an incredibly diverse range of ability. I had been made aware of gender issues and how young people become socialised into sport at university, including the lack of support and encouragement girls receive to develop core movement skills at an early age. But this was now reality for me as a new coach and I was finding coaching difficult as a result. All the courses I had been on had assumed learning was a linear process and I had always worked with athletes of similar ability. A further issue I quickly became aware of was that most of the girls were not participating because they had a particular interest in playing cricket. Most had grown tired of spending Friday evening sitting in the pavilion while they waited for fathers or brothers to finish practising and thought they would give playing a go instead.

As I learnt more about the girls, it was clear that skill development, all that I had really been trained to help them with, was at the bottom of their priorities. Instead, they wanted to talk to each other, talk with me, learn a few skills and generally enjoy getting to grips with a new sport in a fun, supportive setting. Some also wanted to ‘play seriously’, creating further challenges for me to develop an environment that would meet their diverse needs. It was probably my first realisation that to be a ‘good coach’ I had to do more than undertake the ‘coaching process’ I had learnt through my studies and training. I started to think about the ‘bigger picture’: Who were the girls? Why were they coming to my sessions? What did they want from me?

What experiences were they bringing with them? All of the girls brought different histories, interests and expectations that I had to understand and respond to.

My coaching journey took a further turn several years later when I received a phone call from a local women's refuge hostel that offered housing and support to homeless women. Staff at the hostel wanted to develop a physical activity program, as a group of women had expressed interest in playing soccer. Would I be able to provide weekly soccer sessions for them? I agreed and turned up to my first session on a cold windy day in the middle of an English winter. We were meeting at a local authority all-weather pitch. These seem to always be built next to an elevated, open space of wasteland, so the wind whips across them, with limited shelter. Eight women of various shapes and sizes stood in front of me. I could see that they were eyeing me with various levels of suspicion. Only two were wearing sports shoes and sports clothing. Three appeared to be chain smoking and one, despite the cold, was wearing a T-shirt revealing arms that were a mass of purple bruises and raised criss-crosses of scars and cuts. All were shivering and seemed to have been forced to the session under duress by an exceptionally bubbly, slightly irritating, social worker. Mentally I saw my 'coaching plan' dissolving in front of my eyes.

As the weeks progressed, the women reinforced to me continually the importance of understanding 'beyond the pitch' before I could work with them effectively. I began to get to know them as individuals, ensuring I made space in each session for interaction, using particular tasks to help us communicate. I tried to find out about them, their histories, stories and hopes. Most had been through incredible trauma; domestic abuse, child abuse, loss of family networks and jobs, and these experiences had contributed to the situation in which they now found themselves. I quickly understood that for these women, 'good coaching' meant providing an environment where they felt safe, valued and important, where they could achieve what *they* wanted to get out of the sessions.

While humanistic approaches to coaching are advocated in academic coaching literature (Lyle 2002) I found my situation required a different level of understanding. The women started asking my advice on various aspects of their lives, from filling in social security forms to issues with ex-boyfriends or accessing children in care. My role was extended to one of 'cultural intermediary' (Crabbe 2009), connecting the women with people, places and communities from which they had become marginalised. I was younger than them and did not feel that I had the necessary life experience to advise them. I continually felt guilty and inadequate at being unable to do more to help. But, once a rapport was established, this did not seem to matter. To them I was a female, I had a good job, I had a home and I was kind to them and treated them with respect. I was therefore a person to turn to, to rely on. Perhaps I had become a sports coach on the margins and of the marginalised.

For me, it was this experience that crystallised the need for broader thinking, using multiple lenses to guide my coaching philosophy and practice. While I had read extensive literature on creating democratic environments within the coaching context and the importance of athlete-centred approaches, these arguments seemed one dimensional when I considered the breadth of factors that were impacting on my sessions with the soccer group. I began to examine other disciplines and particularly gained insights from youth work and community development literature that focused on developing relationships, collective action and the fostering of critical consciousness. All of these areas became relevant as I took a large step backward and attempted to view the situation holistically or through a socio-ecological lens, recognising all the 'layers' influencing the coaching process. To do this, and appreciate what people brought to my coaching sessions and how to respond to it appropriately was, and is, a difficult and uncomfortable process and one I continually feel inadequate undertaking. However, I now recognise that this is the only way I can fully connect with the people I coach, whoever they might be and wherever we may be, and provide an experience that offers so much beyond developing skills and learning to play a game.

'Balls, Bats, Sticks, Stones and Earth': Justen O'Connor

Growing up in a small country town in regional Victoria, Australia, my childhood was full of wild and wonderful experiences, the vast majority involving some sort of physical activity. The long driveway was our cricket pitch, the large backyard our football field, the clothesline held a ball on a string that I would repeatedly hit with a stick appropriated from the nearby fence. My bicycle, a shiny gold BMX, was my freedom; it opened up a multitude of playgrounds – the like of which I wish my own children could access today. Every day was an adventure. I would get home from school, wolf down a sandwich and then it was outside until the street lights came on. Building Lego models was for cold or wet days and television programming in 'the bush' presented few choices. Balls, bats, sticks, stones, and earth – being active and outside – this was the stuff that filled my world.

Upon reflection, I can now see the many things that shaped my participation in sports and physical activity as a boy. Good at everything, master of nothing, I was never going to represent my country, but I loved sport, almost as much as I loved the free time exploring, creating and playing outdoors with friends. There were many layers of influence to my participation in sports and physical activity. My parents were both active, my father was a good Australian Rules footballer with the Robinvale Eagles. My mother was always active in sports and other activities like gardening. They also took great interest in my participation.

My older brother was my benchmark. We were competitive and drove each other to improve. I lived in a town where no one locked their doors, most people knew each other, so strangers were rare and certainly not worth worrying about. The risk of injury seemed to pale into insignificance when compared with the benefits obtained from independence and experimentation. I had access to a river, two ovals across the road, community sporting clubs, a basketball court, a large yard, sporting equipment, financial support, good weather, few hills, and a town with little traffic. My peers were also active. I quickly adopted the dominant masculine social norms expected of a young lad growing up in the country. Fishing, cricket, football and basketball were an important part of my identity. Even though I was small for my age, I loved physical education class in primary school because I knew I was not the worst, and every now and then, I could be one of the best.

As I grew, my delayed physical development meant that I avoided contact sports like Australian Rules football for fear of being hurt or injured by the larger-bodied boys. I began to specialise in cricket, which was also shaped by my environment. The many hours spent batting against my brother in our long narrow driveway meant I became competent at front-foot shots. Alas, I did not develop a pull or hook stroke, as this would often mean the ball would travel over our neighbour's fence and result in an encounter with their dog, 'Bruiser'.

The fitter I became, the further I could ride my bike and the more I could explore. This constant exploration along the boundary of my environment led to ever-increasing circles of experience, throughout which I was developing skills, fitness and the attitude to push what I perceived to be my limits. This sometimes led to misadventure and injury, which was a most effective and natural way of reminding me of my limitations. The environment provided me with a host of opportunities and constraints for movement, to test my physical prowess or to simply move from one place to another for another purpose. It was a dynamic interaction between multiple layers of influence, constantly changing and far removed from the idea of refining motor skills. My country childhood provided an ever-expanding set of opportunities.

As an undergraduate in a Human Movement Science degree, I was drawn into the biophysical discourses of physiology, biomechanics and exercise prescription. I adopted a reductionist logic exemplified in a final-year project and honours thesis in which I reduced a host of team games and sports to a few key fundamental movement skills. My thoughts were, that if I could teach kids the skills that are fundamental to a range of sports, they could play any of these without too much trouble. There was a considerable naivety in my ideas and logic that participation in sports could be boiled down to only an individual's motor competence. These reflections reveal a host of supportive environmental, social, physical and behavioural factors that have coalesced to produce a lifetime that has turned out to be engaged in physical activity and sports. It is the multi-layered complexity that is important and, while the temptation exists to reduce sports to a set of skills or tactics, the reality is far from reductionist logic and is, perhaps, beyond scientific forms of measurement.

In more recent years, organised team sports have became less of a priority. I took up road cycling, which challenged me in new ways. The dynamic interplay between my moving body regulated by physiology and attitude, the fast changing landscape beneath my wheels, the push and pull of the fluid air environment and the appeal to my 'wild' inner self drew me in. I felt a return of that freedom I experienced as a young lad. Unconstrained, wind-in-the-face freedom – an experience of wildness that is formed through a symbiotic relationship with the environment and your fellow cyclists. Socio-ecological systems are dynamic in nature and place a focus on environmental affordances to drive behaviour. At a more micro level, the act of cycling reflects such a system and speaks to a primacy of practice (Archer 2000). I have borrowed heavily from Matt Rendell's (2004) account of cycling with others to highlight this dynamic interplay between environment, task and organism.

> Whirring out of the pre-dawn darkness they come, transferring energy from muscles into the fluid atmosphere, tunnelling through still air and creating a moving stream in their wake. '*In normal life, the petty turbulence that fills the spaces we vacate, the insignificant by-product of lives spent scurrying like sea insects over the floor of an atmospheric ocean of air, melts inconsequentially*' (p. 6). For cyclists, this pocket of moving air becomes far more significant, a powerful attractor for movement. By instinctively '*diving into the comet's tail of chasing air*' the following rider is sheltered from work (p. 6). Instead of exploiting the lead rider's efforts, those who have the capacity, cooperate, '*taking turns pulling at the front and recovering behind*' (p. 7). The more riders taking turns at the head of the bunch, the greater the energy saved, the higher the speed attained, the more powerful and alive the collective becomes. Dynamic, like birds flying in formation or a fish shoal under attack, '*the play of accommodation and opposition creates complex systems in dynamic equilibrium, yet rarely chaotic for long, oscillating around limits defined by shared interest*' (p. 7). 'Holding the wheel' in cycling is an embodied, 'wild' and, at the same time, a socially constructed imperative. (With adaptation from Rendell 2004, pp. 6–7)

To observe cyclists in action is to observe first hand how movement is shaped and influenced by the environment. It is the emphasis of this relationship that separates social-ecology from socio-cultural perspectives and it places a primacy on practice. There is no denying that much of the behaviour of cyclists is socially constructed, from shaved legs to many bunch-riding practices. But there is something more natural, primal and embodied when movement and environment are so closely entwined.

This dynamic interplay between my biology, attitude, social context and the environment begins to shed light on the interplay between and across multiple layers of influence. In both my broad physically active life, as well as within specific acts of moving (like cycling), I exist in this expanding and dynamic interaction between the environment, the tasks and my body, which have shaped and continue to shape my participation in sports and physical activity (Handford et al. 1997). At a macro level I can see how my own physical education has been influenced by my natural and built surroundings, my socio-cultural and historical context and my own attitudes, beliefs and indeed by my biological capacity. I can also zoom in and note that when I move through an environment it is the environment that is pushing and pulling me as much as I am acting on it. It is no surprise, then, that in the physical education profession we are seeing a proliferation in more complex ways of viewing sports and physical activities. Games Sense, Play Practice, Teaching Games for Understanding and ecological approaches for Active Schools are all examples of an acknowledgment that movement is not simply the execution of a motor program, controlled by an individual's desire to move, in isolation of other movements or the environment.

If I am to encourage others to lead healthy, active lifestyles, I have to be aware that many connections conspire to influence its possibility, even if I don't or can't understand all of them. These connections include those to the built environment and to the broader natural systems that sustain life. Our wellbeing is intimately connected to that of our community and its broader ecology. Today I view movement through many lenses, which are complex and interactive. I see physical education as a much broader concept than the mastery of tactics or motor skills for the purpose of playing competitive games and sports. For me there is an inherent connection between physical activity, the immediate and broader environment, and the idea of living healthy, sustainable lives. As you can see by the stories from my colleagues, a social-ecology for sport, physical activity and active leisure can be many things to many people. It is multi-disciplinary, multi-layered and inclusive of a host of approaches to teaching and learning. Because of this it can seem uncomfortably messy. But for me, like a 3D eye puzzle, once you squint for a while, the eyes adjust and you can become comfortable with the messiness that is the reality of people's day-to-day lives and a clearer picture begins to emerge.

Conclusion

Promoting the kind of narratives about educators' and researchers' beliefs and practices contained in this first chapter (and throughout the book) is an important place to start. It provides descriptions of how educators have developed their educational philosophies and pedagogic practices over time, and how these continue to unfold throughout a career. Personal and professional narratives, with their idiosyncratic twists and turns, challenge the apparent certainty of theory often presented in textbooks about coaching, teaching and leading. It reminds us of the importance of reflection, self-understanding and the unfolding journey of discovery that is the everyday reality of each and every educator. These narratives also bring to the surface the importance and impact of the social and environmental setting and the key roles that they play in the narrative journey of the self. Instead of acting as independent components we can begin to see the personal, social and environmental character of experience as an unfolding, co-dependent phenomenon.

These stories provide an introduction to this book and, we hope, signal to the reader something about our motivations for teaching, guiding and researching with a socio-ecologically approach. There will be elements of some of these short narratives that resonate with different readers. We hope that you will reflect on your own narrative journey as a sports or outdoor person and as a researcher, teacher, guide or coach. The stories also work collectively. We begin to see commonality of experience across seemingly diverse educational disciplines. This diversity and difference raise new possibilities as well.

Consider how a supportive social and natural environment, in the case of Laura, Justen and Brian, provided such a profound influence upon their childhood experiences. Children, and young people, can also perceive social and environmental injustices, and we see this surface in Ruth and Amy's stories. Equally, adults draw on the principles of social ecology as they develop a philosophical framework that guides their research and teaching. We see this emerge in Trent's narrative. We suggest that writing a socio-ecological autobiography is a meaningful starting point. Producing one's own lifelong physical activity lifeline, as Penney and Jess (2004, p. 275) note:

> is not merely a tool for description. Rather, it also represents a potentially powerful reference point for policy and curriculum development relating to physical education, sport, physical activity and health.

In this process of reflective writing we feel that it is important to ask the following questions: What can I learn about the social and environmental context that I live and work in? How have my opportunities and experiences been both limited and made possible by my circumstances? How have I been able to make decisions and take actions that have changed my circumstances?

Having begun to explore a socio-ecological approach through a process of critical reflection and narrative we are ready to move on. The next two chapters highlight some of the essential qualities and characteristics of a socio-ecological approach. The case studies in Part II then describe examples of how such an approach can renew teaching, guiding and coaching practice. We also hope that introducing the human element early makes a clear statement that we consider that people and places, the contexts in which we all find ourselves, encourages a sense of empathy. People and places are complex and ever changing and a socio-ecological perspective requires we are vitally interested in the lives and locations of those we are privileged to teach, guide or coach.

References

Archer, M.S. 2000. *Being human, the problem of agency*. New York: Cambridge University Press.

Brown, T.D. 2004. *The development, validation and evaluation of the physical activity and fitness teacher questionnaire (PAFTQ).* Doctoral dissertation, RMIT University, Melbourne.

Brown, T.D. 2008. Movement and meaning-making in physical education. *ACHPER Healthy Lifestyles Journal* 55(2/3): 1–5.

Brown, T.D., and P.G. Payne. 2009. Conceptualizing the phenomenology of movement in physical education: Implications for pedagogical inquiry and development. *Quest* 61(4): 418–441.

Cale, L.A. 1997. Health Education in schools – In a state of good health? *International Journal of Health Education* 35(2): 59–62.

Cale, L. 2000. Physical activity promotion in secondary schools. *European Physical Education Review* 6(1): 71–90.

Cale, L., and J. Harris. 2005. *Getting the buggers fit*. London: Continuum.

Cameron, J. (2001). Beyond dualism: Wilderness, outdoor education and everyday places. *12th national outdoor education conference proceedings.* Latrobe University, Bendigo, 15–18 Jan, pp. 27–32.

Clandinin, J., and M. Connelly. 1998. Stories to live by: Narrative understandings of school reform. *Curriculum Enquiry* 28: 149–164.

Crabbe, T. 2009. Getting to know you: Using sport to engage and build relationships with socially marginalised young people. In *Sport and international development*, ed. R. Levermore and A. Beacom, 176–197. Hampshire: Palgrave Macmillan.

Handford, C., K. Davids, S. Bennett, and C. Button. 1997. Skill acquisition in sport: Some applications of an evolving practice ecology. *Journal of Sports Sciences* 15(6): 621–640.

Hopper, T.F., L.E. Madill, C.D. Bratseth, K.A. Cameron, J.D. Coble, and L.E. Nimmon. 2008. Multiple voices in health, sport, recreation, and physical education research: revealing unfamiliar spaces in a polyvocal review of qualitative research genres. *Quest* 60: 214–235.

Lyle, J. 2002. *Sports coaching concepts: A framework for coaches' behaviour*. Abingdon: Routledge.

Orr, D. 1992. *Ecological literacy: Education, and the transition to a postmodern world.* Albany: State University of New York Press.

Patton, M. 2002. *Qualitative research and evaluation methods*. London: Sage.

Penney, D., and M. Jess. 2004. Physical education and physically active lives: A lifelong approach to curriculum development. *Sport, Education and Society* 9(2): 269–288.

Relph, E. 1976. *Place and placelessness*. London: Pion Limited.

Rendell, M. 2004. *A significant other*. London: Weidenfeld & Nicolson.

Schön, D. 1987. *Educating the reflective practitioner*. San Francisco: Jossey-Bass.

Sparkes, A. 1992. *Research in physical education and sport: Exploring alternative visions*. London: Falmer Press.

Sparkes, A. 2002. *Telling tales in sport and physical activity: A qualitative journey*. Champaign: Human Kinetics.

St Leger, L. 1998. Australian teachers' understandings of the health promotion school concept and the implications for the development of school health. *Health Promotion International* 13(3): 222–235.

Wattchow, B., and M. Brown. 2011. *A pedagogy of place: Outdoor education for a changing world*. Melbourne: Monash University.

Chapter 2
Social Ecology as Education

Trent Brown, Ruth Jeanes, and Amy Cutter-Mackenzie

Abstract This chapter presents the historical and foundational elements of social ecology as it relates to physical and health education, outdoor and environmental education. Four foundational concepts central to the socio-ecological educator are introduced, namely: (a) lived experience, (b) place, (c) experiential pedagogies and (d) agency and participation. While socio-ecological models exist in diverse disciplines, our purpose is to introduce readers to an interdisciplinary philosophy and pedagogical approach that specifically considers the potential of social ecology to education. In doing so we acknowledge that a social ecology for education exists across multiple levels, embracing a broad array of social, cultural, environmental and geographical influences that shape individuals, identities, family, policies and the environment.

Keywords Agency and participation • Lived experience • Place • Experiential pedagogies

Introduction

Traditionally the disciplines of physical and health education, outdoor and environmental education have been viewed as isolated areas largely operating in separate 'silos'. By way of contrast this book provides rich research case studies, from a range of different vantage points, through which a socio-ecological approach to

---

T. Brown (✉) • R. Jeanes
Faculty of Education, Monash University, McMahon's Road, Frankston, VIC 3199, Australia
e-mail: trent.brown@monash.edu; ruth.jeanes@monash.edu

A. Cutter-Mackenzie
School of Education, Southern Cross University, Gold Coast, QLD, Australia
e-mail: acutterm@scu.edu.au

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_2, © Springer Science+Business Media Dordrecht 2014

education can be theorised, framed and enacted. Each chapter is underpinned by a socio-ecological approach that will be outlined in this chapter.

Educating individuals about concepts in these diverse disciplines, be they children or adults, requires thinking, acting and doing education differently. Our position is that traditionally the disciplines of health, physical, outdoor and environmental education do not educate holistically and in fact at times might actually be mis-educative, to use Dewey's (1938/1998) term, in their endeavours. In using a socio-ecological approach to education that is informed by interdisciplinary insights, our work as researchers and educators is more likely to promote concepts of movement, wellbeing, health and education that develop lifestyles in tune with students' emotions, the places they live, the education they receive and the meanings that can be developed from their interactions with these unique educative disciplines. A socio-ecological framework encourages collaboration across academic disciplines, attempting to break down discipline 'silos' that often pervade the research and education climate.

Social Ecology: A Brief History

Historically, socio-ecological models have been developed from the disciplines of psychology and public health. Lewin (1936) first coined the term 'ecological psychology' to examine the influence of the 'outside', be that culture or environment, and its affect on the individual. Bronfenbrenner's (1979) model built on this initial work, suggesting that there existed *multiple* systems of influence on a person's behaviour. He proposed that there existed four such systems: the micro (individual), the meso (interpersonal), the exo (community and organisational) and the macro (intercultural).

At the same time as Bronfenbrenner, Rudolph Moos (1980) proposed a model of health-related behaviour that drew on four categories: physical settings which include natural environments; organisational settings such as schools and worksites; human aggregate made up of socio-demographic and socio-cultural characteristics of people inhabiting a certain environment; and social climate, or the perceived supportiveness of an environment. Following the work of Bronfenbrenner and Moos a range of socio-ecological models, or 'frames', have been developed that continue to be focused on health as a primary outcome. Those researchers who are interested in the process of educative learning have also begun to conceptualise such models to further understand human experiences in physical and health education, outdoor and environmental education (Boyes 2000; Brown and Payne 2009; Greenwood and McKenzie 2009; Krasny et al. 2010; Kyburz-Graber et al. 1997; O'Connor et al. 2011; Reid et al. 2008).

As an example, Wattchow and O'Connor (2003) argued that natural systems supporting healthy life have not yet found a 'voice' in the discourses of the 'physical' in the Health and Physical Education (HPE) curriculum where a positivist deficit-model perpetuates. They claim that socio-cultural perspectives fail to explore a more ecocentric view of health and physical activity in which emerging socio-ecological approaches argue that "…any consideration of lifestyles of health (through the physical) must extend beyond the social, to include a mutual relationship with the environment" (p. 7). In many ways this example from HPE mimics a similar tension between the competing ideologies of anthropocentrism and ecocentrism that exists in environmental education. As Pepper (1984) articulates, the anthropocentric perspective, sometimes alluded to as a technocentric perspective, is grounded upon the belief that the environment is a resource to be used, whereas the ecocentric perspective is said to value the environment for 'its own sake' (see Eckersley 1992). O'Riordan (1990, p. 143) argues that this dichotomy represents:

> … the clash of two world views … between those who believe that the earth is capable of being improved or manipulated for the benefit both of human kind as well as for life on earth itself, and those who believe that human beings should at best be only equal with other forms of life on the planet and that societies must learn to adjust their economics and aspirations so as to cohabit with the imperatives of earth and life processes for the survivability, or sustainability, of the earth.

Such perspectives afford the opportunity to consider the emergence of 'sustainable development' as a central concept in social ecology. Since the 1980s sustainable development has been touted as the most appropriate response for future environmental, social and economic development. Kyburz-Graber et al. (1997) have suggested that foundations of socio-ecological approaches in environmental education must acknowledge that: (i) environmental education is a component of societal processes towards a sustainable society; and (ii) environmental education contributes to general education. Besides the importance that the authors articulate about environmental education's relationship to general education, it could be claimed that the key objective here is to emphasise that both social systems and ecological systems are inter-related, and that any future education must consider this inter-dependency. As Kyburz-Graber suggest:

> In order to change a social lifestyle that is environmentally harmful, it is necessary to include the socially embedded actions that accompany this behaviour, i.e. the actual conditions for action of individuals, social groups, businesses and institutions. (p. 22)

Furthermore, for social ecological approaches to be enacted, educators and researchers must consider the reciprocal relationship between social and natural environments. We concur with these sentiments, but offer that the broader disciplines of physical and health education and outdoor and environmental education can also contribute meaningfully to a sustainable society as well as to general education espoused by these authors. In this book we advocate that educators and researchers must take the next step, which is begin to think and work towards dissolving the old binaries that divide culture and ecology, society and nature.

We believe in acknowledging the personal and embodied experiences that often get lost or over-looked in sociological and ecological descriptions and theories in education (Archer 2000). We seek to remedy this by privileging an intra-personal layer (lived experiences, action and agency) that sits alongside societal and environmental processes (place). We acknowledge that this adds complexity to socio-ecological models, but it adds many more positive layers to our understandings of health and physical education and outdoor and environmental education.

While socio-ecological models exist in diverse disciplines, our purpose is to introduce readers to interdisciplinary concepts that borrow from psychology, health and environmental studies and build upon these to enable academics, researchers and practitioners to better understand social ecology in education, specifically in the areas of physical and health education and outdoor and environmental education. The points of departure for these current discourses, both those aligned to positivism and more socio-critical stances, as we see it is:

- To continue to theoretically develop the inter-disciplinarity of these fields while working towards healthy, active and educated communities;
- To focus on understanding behaviour within a socio-ecological context rather than seeking to change it;
- That education or educative experiences are 'key' in the ongoing theoretical development of socio-ecological models;
- That much of the previous conceptualisation work has omitted or marginalised the spatial, place and geographical understandings of selves, identities, cultures and social practices;
- To re-acknowledge the myriad environments that shape human, social, family and cultural behaviours and in this way we privilege the use of 'ecology' in the term socio-ecological, as it better represents the relationship between humans and environments; and
- That socio-ecological education is an approach that encompasses and promotes socio-cultural understandings and practices. As educators and researchers we have no problem with socio-cultural approaches, more ecocentric approaches or phenomenological approaches to understanding physical and health education, outdoor and environmental education. As the name implies, it is both a philosophical position and framework that asks us to consider connections, relationships and consequences that are often not given importance in traditional approaches to education.

We acknowledge that a social ecology for education exists across multiple levels that embrace a broad array of social, cultural, environmental and geographical influences that collectively shape individuals and their identities, families and communities, policies and the environment. We also acknowledge that if socio-ecological models strive to accommodate everything and anything, that this presents itself as an inherent weakness. Attempting to be an all encompassing framework can make using it an exercise in futility, because its size and scope, fails to serve at a practical level. Our promotion of a socio-ecological education must be more humble. It must 'pass the test' of practicality. Whilst we do not claim to, nor indeed wish to explore the entire jigsaw in any one project; socio-ecological frames serve to help us to acknowledge that our piece is just a part of a bigger puzzle. Used in this book, we see it as a reference from which teachers, researchers and students can ask questions about health, physical activity and sustainability in ways that shift beyond individual decision making psycho-social influences.

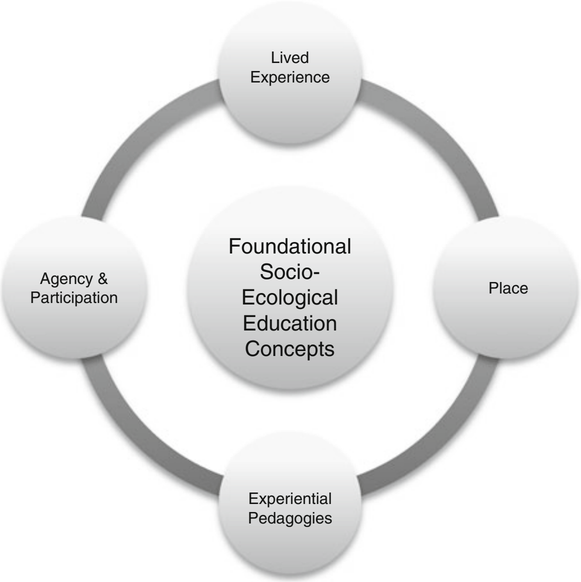

Fig. 2.1 Foundational socio-ecological education concepts

Prior to our presentation of four foundational concepts that are central to our understanding of a socio-ecological education: lived experience, place, experiential pedagogies, and agency and participation, we provide a brief rationale on the importance of these concepts as educators in our diverse fields (Fig. 2.1).

Foundational Concepts

A Rationale

In elucidating a socio-ecological approach to education in the following section we outline the four principles in greater detail. We do so in an effort to provide readers with a modest understanding and interpretation of such concepts as they inform our work as educators in the marginalised fields of physical and health education, outdoor and environmental education. Our collective engagement as educators and researchers has provided us with lived experiences that we draw on in our day-to-day work, which have been influenced by these concepts. We see that many educators continue to teach content that students fail to meaningfully engage with. In some instances students seem to still be considered as empty vessels in the classroom as outside experts argue over what should or should not be in the curriculum. As a result students fail to get the opportunity to connect meaningfully with what is taught and how they are being required to learn. As a result, we highlight the importance of dual concepts to socio-ecological education, students' *lived experience(s)* and their *agency and participation*. The concept of *place* shares similarities with lived experience in that neither are well understood. It is an issue of balance. We hope to contrast and counter-balance this by advocating for place and its importance within the communities and ecologies where we live. Finally, we highlight the importance of *experiential pedagogies*. We acknowledge that many educators and practitioners are involved in using experiential pedagogies, often not realising how this represents a significant departure from a conservative or traditional (Dewey 1938/1998) view of educational practice. Here the importance of Deweyan co-dependent concepts of the learner's experience and reflection become an important part of our work. The well-articulated philosophies and practices of experiential educators, extending Dewey's ideals, have much to offer and we share their enthusiasm. Even though it is necessary to discuss the foundational concepts individually, we deliberately follow this discussion with their application through a series of practical vignettes in the next chapter and with a series of case studies in Part Two of the book, to highlight how they work collectively. In doing so we draw the foundational concepts of place, lived experience, agency and participation together with the ongoing development of experiential pedagogies.

Lived Experience

> All phenomenological human science research efforts are really exploration into the structure of the human lifeworld – the lived world as experiences in everyday situations and relations. Our lived experiences and the structures of meanings (themes) in terms of which these lived experiences can be described and interpreted constitute the immense complexity of the lifeworld. (van Manen 1997, p. 101).

Conceptually socio-ecological approaches to education emphasises the importance of a 'lived experience' (van Manen 1997) and give the body a primacy that is often not seen. The above quote from van Manen provides a succinct introduction to 'lived experiences', the 'lifeworld', or 'Lebenswelt', as Husserl called it. 'Lived experience' is highly personal and subjective. To more fully understand how participants in the diverse disciplines of physical and health education, outdoor and environmental education come to make sense of and understand their 'experiences', the concept of social ecology draws on such existential qualities as spatiality (lived space), corporeality (lived body), temporality (lived time) and relationality (lived other) (Connolly 1995; van Manen 1997).

One approach that is consistently used to understand the lifeworld is that of phenomenology. In this context phenomenology is 'a philosophical approach to studying the nature and structure of experience as it is "lived" and is understood primarily from the subjective position through which meaning and meaning-making of agents as actors is made sense of' (Brown and Payne 2009). Primarily, such sense is likely to be as a result of the agent's 'intrinsic perspective', which also acknowledges the importance of their social, cultural and historical background: As Ryan and Rossi (2008, p. 40) stated:

> meaning-making that is regarded as exclusively socially constructed does not account for the varied and often contradictory perspectives that an individual simultaneously takes up and rejects, yet theories that consider meaning-making to be based only on individual psychology neglect to explain the influence of the social milieu on any verbal or non verbal interaction.

Beyond philosophy, and according to Patton (2002), phenomenology can also refer to an inquiry paradigm (Lincoln 1990), an interpretive theory (Denzin and Lincoln 2000), a social science analytical perspective or orientation, a qualitative tradition, or a research methods framework (Moustakas 1994). There exist many differing perspectives within phenomenology. Transcendental, existential, hermeneutic and phenomenological representation are contested traditions that have been informed by the three best known phenomenological philosophers of the twentieth century, namely Edmund Husserl (1859–1938), Martin Heidegger (1889–1976) and Maurice Merleau-Ponty (1908–1961). Given that phenomenology has been considered as both philosophy and methodology, it is often referred to as a moving philosophy (Spiegelberg 1982). Phenomenology as an approach is anti-reductionist in nature and attempts to get at 'the essence of an experience' (Thorburn 2008, p. 265).

In attempting to understand the essence of experience, specifically the Husserlian strand of phenomenology, we must first attempt to 'bracket' or limit our preconceived notions of the essence of the thing being studied. Proponents of Husserlian phenomenology use terms such as 'noema' (that which is experienced) and 'noesis' (the perceptual meaning; the way it is experienced). Heideggerian phenomenology is also known as *existential phenomenology* or *philosophical hermeneutics*. Heidegger further developed Husserl's ideas by deriving two important notions: the history of understanding and the hermeneutic circle. Further to these concepts are the sub-concepts of the hermeneutic circle known as background, pre-understanding, co-constitution and interpretation, which are all interrelated. These sub-components are part of the fundamental difference between Husserlian and Heideggerian phenomenology. Heidegger's belief was that personal background and pre-understanding of an essence cannot be bracketed out; that researchers bring their own background and pre-understanding, making approaches such as Husserl's inappropriate for use in movement or practical subjects. The final philosophical position is that of the French philosopher Maurice Merleau-Ponty. His contribution to phenomenological philosophy included the role of the body in perception and society. In direct contrast to the objectified body, Merleau-Ponty's position was that the subjective body should be given ascendency where it 'refers to the basic, intuitive experience of bodily existence as being-in-the-world' (Kerry and Armour 2000, p. 7).

Our interest in physical and health education, outdoor and environmental education and their respective meaning-making capacities, orients our attention in inquiry to dimensions of human experience, via lived experiences, as a hidden precursor of learning. Imagine a student, let's call him Oliver. Oliver regularly goes for a run in a national park only a short distance from his house. Prior to attending university, where he studies physical education, he would often wear a heart-rate monitor that gave off an alarm whenever his heart rate dropped below a certain threshold point, suggesting that his run pace was too easy and he needed to push himself harder. After he completed a tutorial in one of his first-year classes he discarded the heart-rate monitor and went for a run on the same circuit. This time his focus was solely on what he experienced subjectively – what did he feel when running on the track, what did he 'listen' for in his body, what did he hear in his body or in the park around him? At the end of both episodes of training he wrote his reflections. Not surprisingly, there was a marked contrast in the 'knowledge' that he reflected on. Physiology, heart rate and science were the focus of his initial journal writings, whereas his second entry was a rich narrative description of interconnectedness of many aspects of his run.

While both examples provide Oliver with lived experiences, according to van Manen (1997, p. 37) they only gain 'significance as we [reflectively] gather them by giving memory to them. Through meditations, conversations, day dreams, inspirations and other interpretive acts we assign meaning to the phenomena of lived life'. What this also highlights are that educators and policy makers' conception of lived experience directs our teaching practices and curriculum inquiry and development. We become far better informed to work with people, places and communities if we understand how individuals experience (live) their health, movement or engagement with the environment.

The essence of lived experiences occurs through the body, where intrinsic and subjective qualities of experiences provide us with opportunities for insight and understanding. This method or approach prioritises how the body feels, sees, reacts and thus knows and understands. The body therefore becomes a 'site' for experience, knowledge creation and knowledge understanding (Kirk 1993). For our work within the diverse contexts of education previously mentioned, the importance of 'lived experiences' clearly frames the intrapersonal lens of any (re)conceptualised socio-ecological approach. As educators and researchers, both our ontological and epistemological 'stances' attempt to deconstruct inherent dualisms in our work from mind–body, organism–environment, biophysical–sociocultural, and so on. Importantly for the educator, their role is *not* to impose a predetermined experience upon the students they are working with. Rather it is to allow individuals to engage with movement (in physical and health education), the environment (in environmental education), the place (in outdoor education), the community (in physical activity) sensually. In other words, the initial task for the educator is to craft a learning encounter where students fully experience their moving bodily response and their personal aesthetic of human understanding via its perceptual, sensory and kinaesthetic dimensions.

Place

Place is dynamic by its nature. Human perceptions of places and the ways they are experienced and interpreted are derived from the natural environment and the social, political and cultural responses that people have to a location. Place within our socio-ecological approach is about how people develop and experience a sense of attachment to particular locations and has both imaginative and physical realities (Wattchow and Brown 2011). Notions of place are important in the work of health and physical education, outdoor and environmental education. This is because a focus on place helps educators: (a) historically understand how humans live (including their experience of games, sport and the outdoors) and are intimately connected to places; (b) explain how a meaningful life is unlikely to occur if people's identity is severed from a deep attachment to a place; and (c) to investigate how contemporary assumptions, ideals and practices in education can silence or deny the experience of place (Wattchow and Brown 2011). As a result, place and how it is constructed, experienced and understood is inherently part of the work that educators and researchers do.

According to Gruenewald (2003b) there is a need for placed-based education and pedagogy, as the educative process is vitally important in the development of a community that values the social and the environmental location. Several terms are often used to describe the intention of place-based education, such as *place-based teaching*, *place-responsive teaching*, *pedagogies of place*, *ecological or eco literacy* (Cutter-Mackenzie and Smith 2003; Orr 1992) and *ecological identity* (Thomashow 1996). A place-based or place-responsive approach, by its very nature, connects learning in school with community life and the ecologies that sustain these communities. Staff and students can participate directly in their community and become involved in local political processes that inevitably shape their lives.

Place-based approaches to education have been linked to experiential learning, experiential education, problem-based learning, outdoor education, environmental education, as well as rural education. While in and of itself this is not problematic, the way that place is presented may perpetuate a dichotomy between rural and natural places on one hand and urban, suburban and industrial places on the other. Gruenewald's (2003a) work provides a meta-theory for education to consider the pedagogical significance of places. His critical pedagogy of place (Gruenewald 2003a) presents places as centres of human experiences, as they give us knowledge about our 'place' in the world and how it works. In other words, all places are profoundly pedagogical. Further, he writes that there are five dimensions of places.

The perceptual: Gruenewald draws on the work of David Abram and Merleau-Ponty to explore the importance of the human perception and how people imagine and interpret places. He suggests that, '[p]henomenologically, places are the ground of direct human experience' (2003b, p. 623). In his book *Spell of the sensuous*, Abram (1996) laments the modernist perspective, which disconnects the human from the natural world. He attempts to bridge and reawaken human experience via sensual perception of the worlds that humans inhabit. It is this connection, or coupling, where the reciprocal possibilities between the human body and its environment are continually forged that lends plausibility to an ecological ethic that enables a caring and understanding of place and its connections to others.

The sociological: Grunewald writes that 'place is where the world manifests itself to human beings' (2003b, p. 625). As several authors have noted (Grunewald 2003a, b; Wattchow 2007; Wattchow and Brown 2011), dependent on our philosophy and ideologies, places are said to hold culture and are sites where identities develop. In this way our experience of places is mediated by culture, education and personal experience. But places themselves are also products of culture. Highlighting the reciprocal relationship between people and their places is what makes place, as opposed to nature, environment, landscape, etc, such a useful and dynamic concept. Drawing on Casey (1996), our experiences of places are never free of culture or sociality. Importantly for education, as Gruenewald (2003b) writes, understanding the sociological dimension of places requires humans to undertake conscious reflection to understand and critique not only their beliefs, but those before them (indigenous peoples, ancestors, etc.), and potentially to contemplate those who will come after them. Abram (1996) would have us go even further, arguing that a fuller consideration of place must also include our interactions with the more-than-human-world which includes other beings, inorganic matter the webwork of ongoing relationships that continue to unfold through time.

The ideological: Drawing on the work of Lefebvre (1976), Gruenewald describes how relationships of space shape culture, identity and social relationships. According to this dimension, if space is moulded from historical, cultural and natural environments then it becomes political and ideological in character – our perception of place moves from being inert and relatively empty to something that is full of life, with values, beliefs, thoughts and actions, 'when social relationships are analyzed with respect to the material spaces that contain them, one discovers that these spaces are not just cultural products; they are, reciprocally, productive of particular social formations' (2003a, p. 628).

The political: highlights the role and distribution of power and capital and its consequential impacts on places. For educators places inform as a result of interactions with people and cultures. Within the literature on place, the political element for those groups that are oppressed is often described using terms like ethnic space, marginality, displacement, segregation, territoriality, annexation, and these terms are used to further understand how places are used by the powerful to exert forms of social control. As Gruenewald states 'Exploring any single metaphor – such as territoriality, habitat, colonization, or marginality – can yield new insights on social relationships' (2003a, p. 631).

The ecological: According to Grunewald, ecological consciousness of places is fundamentally at odds with schooling, primarily due to schooling being seen as part of a modern globalised economy. As a result, not only can the curriculum be experienced as abstract and disconnected to where we live and learn but it can ultimately contribute to ecological degradation. One concept that potentially fulfils the ecological promise of place is the notion of bioregionalism, which merges ecological and cultural thinking. As an example: wherever and whenever possible, people should produce food and materials, consume them, recycle and re-use them and manage their waste products locally. This focus on the local as opposed to the global provides opportunity and knowledge that will lead people to care more for places that they share with others. The archetypal bioregionalist tends to be fairly trenchant in this view, valorising the local and demonising the global. A place-responsive approach acknowledges the continuum of experience from local, through regional, national and even to the global. But Grunewald's main points stand, where much of contemporary educational curricula and practice ignores the local in preference for a globalising agenda.

Some authors and researchers, such as Wattchow (2007), agree with the premises made by Gruenewald on the importance of place-responsive pedagogies, but believe that these stem from predominantly Western ideologies of space, where 'places are [seen as] empty spaces upon which certain desires and ideologies can be projected' (Wattchow 2007, p. 87) and that this does not take into account how indigenous peoples understand and conceptualise the places where they live. More in tune with indigenous thinking is the idea that a place has its own inherent spirit and meaning, waiting to be discovered (see, for example, Tacey 1995, 2000), and that humans must strive to maintain a place and live within its limits. Wattchow (2007) poses the question, 'Which comes first, space or place?' (p. 87). Differences between place as culturally constructed and place as a site of intrinsic meaning are important to understand. Exploring conceptualisations of 'insider' and 'outsider', where Wattchow and Brown (2011) draw on the work of Heidegger and Relph, is a useful way of examining such fundamental questions. 'To be an insider' according to Wattchow (2007), 'is to belong. To live in a place is to be safe and secure in the world, to have a centre of meaning and existence' (p. 62). By way of contrast, the outsider is someone who is adrift; someone who does not possess a home; someone who is alien to a place.

As we have previously highlighted, place is important to education. We share Gruenewald's position that as individuals we are capable of perceiving places and learning through that direct experience, and secondly that our ability to perceive places can be either thwarted or fostered by educational experience. As a result, there is much potential 'power' in the concept of place in the processes of education for health, environmental, outdoor and physical education. In their book, *A pedagogy of place: Outdoor education for a changing world*, Wattchow and Brown (2011) have provided (outdoor) educators with 'signposts' for a place-responsive approach to teaching and learning in the outdoors. They ask educators to take up the challenge to 'explore new ways of practice in order that they may enrich the lives of their students, their communities and their places' (NP; Book dedication). For such 'signposts' to be enacted, it is important to consider that lived experience, place, experiential pedagogies and agency/participation must be combined to offer those we are educating lived, meaningful educative experiences. These signposts consist of the following (adapted from Wattchow and Brown 2011):

Signpost 1: Being Present in and with the Place As an example, educators need to acknowledge that places are significant and meaningful, and that there is opportunity for the learner to explore and develop their thoughts of a place through their experiences.

Signpost 2: The Power of Place-Based Stories and Narrative It is well accepted that conscious reflection is an important part of experience, what is less well acknowledged is that as individuals we have been enculturated in society (via technology, schools, media, culture, family, friends) in a way that filters and conditions our sensory experiences. In better understanding these meanings and their personal interpretations, Wattchow and Brown encourage the use of stories and story telling as a mechanism for developing meaningful understanding of place(s) and their connections with lived experiences.

Signpost 3: Apprenticing Ourselves to Outdoor Places This signpost suggests that a combination of signposts 1 and 2 is required, as neither is enough – the embodied (sensed) and the rational/interpretive (reflective) – to gain a more holistic experience of a place.

Signpost 4: Representation of Place Experiences This signpost guides educators to consider how learners develop their critical competencies to interpret place. It seeks to ask questions of learners about how place is currently represented (cultural literacy, word, image, etc.). It suggests learners seek to represent their experiences using multi-modal forms: prose, poetry, video, photos, sculpture, drama.

As can be seen from the analytical work of Gruenewald more generally and Wattchow and Brown (2011) within the context of outdoor education, place is a complex concept. As physical and health education, outdoor and environmental education educators and researchers, we believe that place is an underlying foundational concept of a socio-ecological approach to education. We sense that there is an opportunity for proponents of socio-ecological approaches to be more place-responsive in their work. There are several examples from physical and health education, outdoor and environmental education that follow in this book, which highlight this promise. We finish this section with a quote from Gruenewald (2003b, p. 627):

> Recognizing that places are what people make of them – that people are place makers and that places are a primary artifact of human culture – suggests a more active role for schools in the study, care, and creation of places.

Experiential Pedagogies

> An ounce of experience is better than a ton of theory simply because it is only in experience that theory has vital and verifiable significance. – John Dewey

The following section on experiential pedagogies will seek to expand the concept of experiential learning and experiential education, and how it fits within a socio-ecological approach to education. Philosophically, according to Breunig (2008), this form of education is one of the earliest forms of learning known in the Western world. Furthermore, examples of experience-based learning via ‘pedagogies’ passed through story telling, oral traditions and apprenticeship models have existed for thousands of years in ‘first nations’ and indigenous cultures and in pre-industrial approaches to learning.

Within the broad field and understanding of experiential education it is likely that most readers will be familiar with cyclical type models of experiential learning/experiential education from Joplin (1981/2008) and Kolb (1984), amongst others. In attempting to provide a definition, Joplin’s early work (1981) suggested that although all learning is experiential, not all learning is intentionally planned. There is similarity here to the work of John Dewey on experience and education. Dewey’s assumptions were that people learn experientially and that some experiences are educative whereas others are not. Importantly, for Dewey, is the understanding that all experiences need to be understood as being continuous. That is, that past experiences are always connected to future experiences. This was Dewey’s principle of continuity in education. The second principle that guided his thinking on experiential learning was that of interaction. This included everything from the physical setting of the classroom and school to the learning materials and subject matter that students engaged with. For Dewey the principle of interaction made educators acutely aware of the contextual factors of the situation in which the learning experience occurred. So for socio-ecological educators, the importance of the teacher understanding the lived experiences, spaces and places of the classrooms is inherently important for how one comes to experience (Dewey 1938/1998).

Joplin writes that the provision of an experience and the facilitation of that experience through reflection that is intentionally planned by the educator delineates experiential learning from experiential education. Moreover, Joplin posits that if the processes occur *within* the individual then this is experiential learning, it is when such learning becomes part of a broader public discussion that experiential *education* results. Experiential learning considers that knowledge is an emergent, fluid and dynamically interactive process, where knowledge develops as a result of practice or experience and, via reflection, becomes embedded as a kind of personal ‘theory’. Joplin developed a five-stage model, which is ‘organised around a central, hurricane-like cycle, which is illustrated as challenging action’ (2008, p. 17). Wattchow (2008) writes that this model reworks Dewey’s scientific method as it ‘involves a process of leading individuals and groups through challenging activities in a series of pre-emptive and predictable stages’ (2008, p. 65). The stages are as follows:

1. The focus stage: Learners are presented with material to be learned and challenged.
2. The action stage: Learners are placed into the learning environment, where the problem is at hand. This may cause stress for learners, as they might be unfamiliar with the task at hand. This stage requires students to be individually responsible and take forms of action.

3. The support/feedback stage: Support and encouragement assist learners in persisting with the challenging task. Joplin expects that ‘adequate feedback will ensure that the student has the necessary information to be able to move ahead’ (p. 18).
4. The debrief stage: During this stage the learning objective is recognised and educators support learners’ understanding of their experiences.

The other model of historical importance to development of an understanding of experiential learning and experiential education comes from Kolb (1984). Kolb’s experiential learning cycle consists of four components: (a) active student involvement in a meaningful and challenging experience (concrete experience); (b) reflection on the experience individually and in a group (reflective observation); (c) development of new knowledge about the world (abstract conceptualisation); and (d) application of this knowledge to a new situation (active experimentation).

It is important to remember that experience and reflection are integrally linked in the cyclical processes advocated by Kolb, Joplin and others. While some would argue that it is via the process of reflection that experiences become meaningful (Arnold 1979; Bain 1995), this is an overly simplistic summary of a complex phenomenon. Within much educational discourse – be that within physical and health education, or outdoor and environmental education – the reflection process often occurs superficially at the end of learning programs, camps or trips where debriefs or facilitation approaches are employed, or at the end of class where questions are posed by educators, like ‘What did you learn today?’, ‘What did you find memorable’, ‘What would you do differently?’ Unfortunately, this does little to examine the deeper significance of the processes of reflection and their role in an individual’s learning or understanding of their lived, embodied and educative experiences.

In examining the processes of reflection, Pagano and Roselle (2009) acknowledge the importance of reflection but suggest there are concerns with the process: (a) there is less than optimal clarity of the purpose and systematisation of reflection; (b) reflection exercises often rely heavily on students’ own, uncontextualised accounts of events that do not directly discern the learning that takes place; and (c) reflection is seen as educational outcome, not as a process that can lead to an outcome. Some have argued that a deeper understanding of reflection is as important as how the experience is first encountered. Educators need to both craft rich experiences and foster a deep examination of how the experiences are reflected upon. Beyond critiques of reflection there also exists commentary on issues surrounding the experiential learning cycles.

The processes of experiential learning/education are not without their critics. Briefly, there appears to be a fourfold concern with experiential learning/education cycles: (a) that it is an overly cognitive, internal psychological process commensurate with rationalist, mechanistic and deterministic worldviews (Loynes 2002; Fenwick 2001; Kemmis 1985); (b) that it reifies mind over body, in line with Cartesian dualistic tendencies (Brown 2008; Kemmis 1985; Fenwick 2003); (c) that the processes of learning are treated independently from the social, cultural, historical, political and ecological *contexts* in which the learning occurs; and (d) that it privileges those educators and learners who seek to articulate their experiences through spoken language – often seen as common experiential education pedagogical practice (Wattchow 2008).

There are others, such as Roberts (2008), who argue that there is little or no theoretical or philosophical interrogation of the term experiential. This lack of critique has led, according to Roberts, to a homogenous definition of experiential learning that is problematic for those working in fields where practice is of utmost importance. He proposes three variations of experiential education that have potential to bridge this theoretical–philosophical gap. He describes these as experience as interaction, embodied experience and experience as praxis. He goes on to argue that each of the three may be under threat from a fourth notion, called neo-experiential education, which combines neo-liberal logics of market, efficiency and control.

This brief introduction to experiential pedagogies, experiential learning and education draws attention to issues for those working in the field (or classroom, lab or gym) where experience and reflection are seen as the crucial medium of learning. Imperative in our vision for education is that socio-ecological educators clearly understand the constraints of such 'cycles' and are prepared to work in an environment that actively critiques experiential pedagogies from Dewey, through Kolb and Joplin, and into the future in an attempt to develop even more sophisticated learning cycles that are responsive to the particular needs of social groups and their learning contexts. In other words, the temptation to use experiential cycles as a kind of formula needs to be revisited. Our concern is that if this does not occur, there is a risk of engaging with the concepts of experiential learning and education superficially, therefore reinforcing and privileging a 'way of knowing' that is more rationalist and functionalist than it is deeply experiential. Paying lip service to experiential pedagogies occurs at the expense of more holistic, embodied and ecological 'ways of knowing', concepts that are at the heart of becoming a socio-ecological educator.

Agency and Participation

We consider that a central aspect of our socio-ecological vision for education is the development of learning contexts that enable the promotion of agency and active participation amongst learners. Ultimately, education should take place in a way that allows individuals and communities to facilitate positive change over their lives, environments and communities or, as Emirbayer and Mische (1998, p. 971) suggest, use education to provide actors with the capacity 'to critically shape their own responsiveness to problematic situations'. The connections between education and agency can be traced back to the Enlightenment (Biesta and Tedder 2006) from which agency has been understood as 'an educational aim and educational ideal and as the desired outcome of educational processes' (Biesta and Tedder 2006,

p. 5). Education, we suggest, provides the setting in which individuals develop their capacity to make critical, independent judgments, which in turn translate into self-directed action.

Before examining the relationship between agency, education and social ecology, we need to outline how we understand the contested concept of agency. In simplistic terms agency is understood as individual capacity to act independently and make free choices (Barker 2005). Agency is a central notion in various streams of social theory, including sociology, economics and political science (Biesta and Tedder 2006). Sociological theory is largely characterised 'according to the relative emphasis placed on agency or structure' (Biesta and Tedder 2006). Structure refers to physical, cultural or social patterns that influence, limit and enhance the opportunities available to individuals and communities (Roberts 2009). The structure–agency debate gained considerable momentum within sociological analyses in the 1970s and 1980s, with several notable theorists (e.g. Bourdieu 1977; Elias 1978; Giddens 1984) seeking to overcome the limitations created by adopting a dualistic understanding of structure/agency. These perspectives instead view structure and agency as inextricably linked: structure is created through human agency and this in turn shapes how individuals interact within particular structures. According to Giddens, structures are 'both the medium and the outcome of practices which constitute social systems' (1984, p. 27). Within these perspectives individuals are neither entirely responsible for their own interactions within society or the helpless victims of circumstances beyond their control; the 'truth likely lies somewhere between the two' (Ravenhill 2008, p. 33).

This brief overview illustrates the complexity of understanding agency before we attempt to frame it within a socio-ecological context. The theoretical underpinning of agency we feel we align most closely to, and that reflects the empirical data discussed within our case study chapters, is the notion of a reciprocal relationship between structure and agency as advocated in the work of Bourdieu and Giddens. Within this, individuals both create social structure and are influenced by it.

Social transformation or the performance of agency is challenging but, because individuals are ultimately responsible for creating social structure, there is always potential for both children and adults to reshape and challenge dominant and repressive social forces. However, to do so requires an awareness that current structures are inadequate, or the development of critical consciousness (Freire 1972) and the ability to access particular physical, social and cultural resources needed for transformation. The educator is responsible for increasing learners' critical awareness, but also has responsibility to assist them with the acquisition of resources necessary to act on this new knowledge. In the following sections we will consider how this understanding of agency fits into our proposed socio-ecological approaches.

A recognition and understanding of the concept of agency has traditionally been missing from ecological analysis. McLaughlin (2001, p. 12) criticises both sociological and ecological perspectives for systematically failing to capture the 'dialectic between structure, agency and environment'. He suggests that ecological analyses have traditionally viewed actors as passive, viewing physical and social environments as ‘natural’ and in doing so have failed to adequately address questions of ‘power and conflict’ and how these shape individuals’ interactions with their surroundings and subsequent behaviour. Sociological perspectives, by comparison, while recognising how actors negotiate and contest cultural conventions, fail to adequately address the dynamics of social structure through a lack of consideration of the broader environment (McLaughlin 2001).

More recently, various authors have explored the potential connections between agency and social ecology. McLaughlin (2001) discusses a ‘ecology of social action’, while Maton (2000) outlines the ‘social ecology of social transformation’. Costall (2000) suggests a ‘ecology of agency’, which describes agency not in terms of individual capacity but as an outcome of transactions that occur between the individual or actor within particular contexts. Agency is achieved through the individual acting ‘by means of an environment, rather than simply *in* an environment’ (2000 p. 18). This position enables understanding of how agency is achieved through particular contexts but not others. As Biesta and Tedder (2006, p. 18) suggest, utilising this framework explains agency as resulting from:

> the transactions of individuals within particular situations, within particular ecologies … agency is not something people can have. It is, as we suggest something that people can achieve, and they can only achieve it in transaction with a particular situation. This allows for the empirical possibility that in some cases the achievement of agency requires more effort from the individual than in other cases, something that is connected to the availability of resources.

This understanding is valuable for reconciling the disparity between social ecology and the various sociological conceptualisations of agency. Individual and community capacity to act and transform is dependent on the resources they have available within their social, physical and cultural environments and how much the broader macro-level or policy context encourages or limits their interactions in each of these settings. This understanding has certain implications for the socio-ecological educator. Fostering agency and empowerment within individual learning contexts will not automatically result in learners developing agency in other contexts of their lives. A more holistic framework needs to be adopted, that not only encourages agency within the learning environment but provides participants with the opportunity to critique and examine how the various layers of the socio-ecological framework constrain and enable agency more broadly. Maton (2000, p. 29) suggests that attempts to facilitate agency amongst marginalised young people often have limited effect because of the failure to acknowledge and respond to the ‘powerful, countervailing nature of the local social environments in which daily life and social problems are embedded’. He provides an example of a school-based intervention that enhances the competencies of inner-city youth, which may not alone be enough to

> reverse, negative trajectories sustained in the neighbourhood, family and peer group environments. That is, the ongoing, cumulative impact of multiple, negative environments affecting many inner city youth may prove stronger than positive gains in individual capacity of these youth resulting from a given social program. (2000, p. 29)

The challenge therefore is to provide individuals with experiences of agency but recognise that this alone is insufficient to develop capacity to make change. We must also recognise how the various layers of the socio-ecological framework may support empowerment – or create disempowerment – and subsequently equip individuals with the necessary tools to gain agentive capacity within wider contexts/environments that currently disempower them. To achieve this Maton (2000) postulates that education needs to be ongoing, to relate specifically to the setting and community environments in which the individual is located, and to engage not only with individuals in the immediate learning context, but also with key actors across each socio-ecological layer, be these other teachers, parents, peers or policy makers.

Participation is an essential part of 'agency in action'. Participation refers to more than simply allowing learners to take part in activities, or consulting them on what and how they would like to learn. While consultation is an important first step in encouraging participation, active participation only occurs when learners have specific involvement in key decision-making processes (Thomas 2007).

One of the most substantive bodies of literature to emerge in this area has focused on the active participation of children in all aspects of social life. Driven largely by the UN Convention on the Rights of the Child (1989), there has been increasing importance placed on facilitating decision making amongst young people. Despite this focus, various authors have argued that while consultation with children has improved (Thomas 2007), a 'culture of non-participation ... is still endemic' (Matthews 2003, pp. 254–255). Various typologies have been developed to assist with understanding children's participation. Hart's (1992) ladder with various 'rungs' from manipulation to the child-initiated, shared decisions with adults as the top layers, has come to dominate understanding of children's participation, particularly amongst practitioners. Various amendments have been subsequently made to the ladder (Hart 1997; Thomas 2000; Franklin 1997; Treseder 1997).

Hart (2008) clearly acknowledges 'the need for alternate models' (e.g. Schier 2001; Treseder 1997) that 'explore the relationship between different aspects of children's participation and have relevance in different cultural contexts ... recognising the problems of applying Western notions and democratic models of participation to other cultural and political contexts' (Barratt Hacking et al. 2012, p. 10). Franklin in particular altered the top section to make the top rung 'children in charge', followed by 'children lead adults help' to 'joint decision'. Thomas (2007) suggests that there is a far more explicit focus on how power is shared by adults and handed over. This is particularly important in understanding active participation, as to gain agency and participate, individuals have to have access to power, while others have to be prepared to share and relinquish the power they have. At the most basic level this involves the relinquishing of power by educators and engagement with a more dialogical teaching approach with learners (Freire 1972). Wicker (1987) suggests a range of characteristics that are essential for activities or projects aimed at facilitating participation. These provide a useful framework for understanding participation in an educative context.

Conditions of convergence:

- The project builds on existing community organisations and structures that support learner participation
- As much as possible project activities make participation seem natural
- The project (or curriculum or educational focus) is based on children's own issues and interests.

Conditions of entry:

- Participants can chose freely whether they are involved
- The project is accessible in scheduling and location
- Involvement does not require skills that are not within the learners' current capacity.

Conditions for social support:

- Participants are respected human beings with essential worth and dignity
- There is mutual respect amongst participants
- Participants support and encourage each other.

Conditions for competence:

- Participants have real responsibility and influence
- They understand and have a part in defining the goals of the activity
- Participants play a role in decision making and accomplishing goals, with access to information they need to make informed decisions
- They are helped to construct and express views
- The project results in tangible outcomes.

Conditions for reflection:

- There is transparency at all stages of decision making
- Participants understand the reasons for outcomes
- There is opportunity for critical reflection
- There are opportunities for evaluation at both group and individual levels
- Participants deliberately negotiate differences in power.
  (Adapted from Chawla and Heft 2002)

While Wicker has provided this framework as guidance for individual projects, we would suggest that teaching in ways that provide these participatory conditions should be an ongoing enterprise. Developing agency and participation should be embedded within our overall practice, not a one-off or term-long project we seek to facilitate. It is only through this that individuals can access agency and undertake sustainable and meaningful participation in all layers of their lives.

Chapter Summary

The purpose of this chapter has been to provide readers with a historical and theoretical overview of the key foundational concepts we are utilising to develop our socio-ecological approach for education. We have outlined the development of socio-ecological thinking and, importantly, sought to clarify how our socio-ecological approach for education (which is outlined more extensively in Chap. 3) diverges from existing socio-ecological frameworks that have their origins more in the disciplines of psychology and public health. Our proposed socio-ecological approach is built around four central concepts, as we have illustrated: lived experience, place, experiential pedagogies, and agency and participation. Our theoretical underpinnings for lived experience are drawn heavily from phenomenological theories. We have used these to illustrate the importance of guarding against pre-defining learners' lived experiences as educators, but instead finding ways to encourage students to engage with activities that allow them to develop deeply meaningful and divergent experiences. Our understanding of place extensively utilises the work of Gruenewald and Wattchow and Brown (2011) to emphasise the complexities involved in interpreting and understanding the notion of place before considering its value in the educative process.

We drew these two themes together in our analysis on experiential pedagogies and discuss the contributions made by Dewey, Joplin and Kolb, and how they have influenced our thinking. We again indicate a point of difference in our socio-ecological interpretations and the established theories within this area. We have suggested that a socio-ecological approach should encourage greater critique of existing 'cycles' of experiential pedagogy and move away from their formulaic application in some educative contexts.

Finally, the chapter has outlined the potential value of broadening traditional sociological understandings of agency and participation to incorporate socio-ecological thinking, particularly recognising the important role the environment can play in empowering or disempowering individuals.

Together these four foundational concepts underpin our socio-ecological approach to education. Chapter 3 provides an illustration of how these theoretical concepts can be understood within everyday education.

References

Abram, D. 1996. *The spell of the sensuous: Perception and language in a more-than-human world*. New York: Vintage Books.

Archer, M. 2000. *Being human: The problem of agency*. Cambridge: Cambridge University Press.

Arnold, P.J. 1979. *Meaning in movement, sport and physical education*. London: Heinemann.

Bain, L.L. 1995. Mindfulness and subjective knowledge. *Quest* 47: 238–253.

Barker, C. 2005. *Cultural studies: Theory and practice*. London: Sage.

Barratt Hacking, E., A. Cutter-Mackenzie, and R. Barrratt. 2012. Children as researchers: The potential of environmental education research involving children. eds. R. Stevenson, A. Wals, M. Brody

Biesta, G., and M. Tedder. 2006. *How is agency possible? Towards an ecological understanding of agency-as-achievement.* Learning lives project, working paper 5. Exeter: Exeter University.

Bourdieu, P. 1977. *Outline of a theory of practice*. London: Cambridge University Press.

Boyes, M. 2000. The place of outdoor education in the health and physical education curriculum. *Journal of Physical Education New Zealand* 33(2): 75–88.

Breunig, M. 2008. *Critical pedagogy as praxis*. Saarbrucken: VDM Publishing.

Bronfenbrenner, U. 1979. *The ecology of human development*. Cambridge, MA: Harvard University Press.

Brown, T.D. 2008. Movement and meaning-making in physical education. *ACHPER Healthy Lifestyles Journal* 55(2/3): 1–5.

Brown, T.D., and P.G. Payne. 2009. Conceptualizing the phenomenology of movement in physical education: Implications for pedagogical inquiry and development. *Quest* 61(4): 418–441.

Casey, E. 1996. How to get from space to place in a fairly short stretch of time. In *Senses of place*, ed. K. Basso and S. Feld, 13–52. Sante Fe: School of American Research Press.

Chawla, L., and H. Heft. 2002. Children's competencies and the ecology of communities: A functional approach to evaluation of participation. *Journal of Environmental Psychology* 22: 201–216.

Connolly, M. 1995. Phenomenology, physical education, and special populations. *Human Studies* 18: 25–40.

Costall, A. 2000. James Gibson and the ecology of agency. *Communication & Cognition* 33(1): 23–32.

Cutter-Mackenzie, A., and R. Smith. 2003. Ecological literacy: The 'missing' paradigm in environmental education (Part one). *Environmental Education Research* 9(4): 497–524.

Denzin, N., and Y. Lincoln. 2000. *Handbook of qualitative research*. Thousand Oaks: Sage.

Dewey, J. 1938/1998. *Experience and education*. West Lafayette: Kappa Delta Pi.

Eckersley, R. 1992. *Environmentalism and political theory, towards an ecocentric approach*. New York: State University of New York Press.

Elias, N. 1978. *What is sociology?* London: Hutchinson.

Emirbayer, M., and A. Mische. 1998. What is agency? *The American Journal of Sociology* 103(4): 962–1023.

Fenwick, T. 2001. *Experiential learning: A theoretical critique from five perspectives*. Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education. College of Education, Ohio State University.

Fenwick, T. 2003. Reclaiming and re-embodying experiential learning through complexity science. *Studies in the Education of Adults* 35(2): 123–141.

Franklin, B. 1997. The ladder of participation in matters concerning children. In *Children in focus: A manual for participatory research with children*, ed. J. Boyden and J. Ennew. Stockholm: Grafisk Press.

Freire, P. 1972. *Pedagogy of the oppressed*. Harmondsworth: Penguin.

Giddens, A. 1984. *The constitution of society*. Cambridge: Polity Press.

Greenwood, D.A., and M. McKenzie. 2009. Context, experience, and the socioecological: Inquiries into practice. *Canadian Journal of Environmental Education* 14(1): 5–15.

Gruenewald, D.A. 2003a. Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal* 40(3): 619–654.

Gruenewald, D. 2003b. The best of both worlds: A critical pedagogy of place. *Educational Researcher* 32(4): 3–12.

Hart, R. 1992. *Children's participation: From tokenism to citizenship*. Florence: UNICEF.

Hart, R. 1997. *Children's participation: The theory and practice of involving young citizens in community development and environmental care*. London: Earthscan.

Hart, R. 2008. Stepping back from the ladder: Reflections on a model of participatory work for children. In *Participation and learning – perspectives on education and the environment, health and sustainability*, ed. A. Reid, B.B. Jensen, J. Nikel, and V. Simovska. Dordrecht: Spirnger.

Joplin, L. 1981/2008. On defining experiential education. In *The theory of experiential education*, ed. K. Warren, M. Sakofs, and J. Hunt, 15–22. Dubuque: Kendall Hunt.

Kemmis, S. 1985. Action research and the politics of reflection. In *Reflection: Turning experience into learning*, ed. D. Boyd, D. Keogh, and D. Walber, 139–164. London: Kogan Page.

Kerry, D.S., and K.M. Armour. 2000. Sport sciences and the promise of phenomenology: Philosophy, method, and insight. *Quest* 52: 1–17.

Kirk, D. 1993. *The body, schooling and culture*. Geelong: Deakin University Press.

Kolb, D. 1984. *Experiential learning*. Englewood Cliffs: Prentice Hall.

Krasny, M., L. Lundholm, and R. Plummer. 2010. Resilience in social–ecological systems: The roles of learning and education. *Environmental Education Research* 16(5–6): 463–474.

Kyburz-Graber, R., L. Hirsch, G. Hirsch, and K. Werner. 1997. A socio-ecological approach to interdisciplinary environmental education in senior high schools. *Environmental Education Research* 3(1): 17–28.

Lefebvre, H. 1976. Reflections on the politics of space. *Antipode* 8: 30–37.

Lewin, K. 1936. *Principles of topological psychology*. New York: McGraw-Hill.

Lincoln, Y. 1990. Toward a categorical imperative for qualitative research. In *Qualitative inquiry in education: The continuing debate*, ed. E. Eisner and A. Peshkin, 277–295. New York: Teacher College Press.

Loynes, C. 2002. The generative paradigm. *Journal of Adventure Education and Outdoor Learning* 2(2): 113–125.

Maton, K. 2000. Making a difference: The social ecology of social transformation. *American Journal of Community Psychology* 28(1): 25–57.

Matthews, H. 2003. Children and regeneration: Setting an agenda for community participation and integration. *Children and Society* 17(4): 264–276.

McLaughlin, P. 2001. Toward an ecology of social action: Merging the ecological and constructivist traditions. *Research in Human Ecology* 8(2): 12–28.

Moos, R.H. 1980. Socio-ecological perspectives on health. In *Health psychology: A handbook*, ed. G.C. Stone, F. Cohen, and N.E. Adler. San Francisco: Jossey-Bass.

Moustakas, C. 1994. *Phenomenological research methods*. Thousand Oaks: Sage.

O'Connor, J., L. Alfrey, and P. Payne. 2011. Beyond games and sports: A socio-ecological approach to physical education. *Sport, Education and Society*. doi:10.1080/13573322.2011.608940.

O'Riordan, T. 1990. On the greening of major projects. *The Geographical Journal* 156(2): 141–8.

Orr, D. 1992. *Ecological literacy: Education, and the transition to a postmodern world*. Albany: State University of New York Press.

Pagano, M., and L. Roselle. 2009. Beyond reflection through an academic lens: Refraction and international experiential education. *Frontiers: The Interdisciplinary Journal of Study Abroad* 18: 217–229.

Patton, M.Q. 2002. *Qualitative research and evaluation methods*, 3rd ed. Thousand Oaks: Sage.

Pepper, D. 1984. *Roots of modern environmentalism*. London: Croom-Helm.

Ravenhill, M. 2008. *The culture of homelessness*. Aldershot: Ashgate.

Reid, A., B. Jensen, J. Nikel, and A. Simovska (eds.). 2008. *Participation and learning. Perspectives on education and the environment, health and sustainability*. Dordrecht: Springer.

Roberts, J. 2008. From experience to neo-experiential education: Variations on a theme. *Journal of Experiential Education* 31(1): 19–35.

Roberts, K. 2009. *Key concept in sociology*. Basingstoke: Palgrave, Macmillan.

Ryan, M., and T. Rossi. 2008. The transdisciplinary potential of multiliteracies: Bodily performance and meaning-making in health and physical education. In *Multiliteracies and diversity in education – New pedagogies for expanding landscapes*, ed. A. Healey, 30–57. Melbourne: Oxford University Press.

Schier, H. 2001. Pathways to participation: Openings opportunities and obligations. *Children and Society* 15(2): 107–117.

Spiegelberg, H. 1982. *The phenomenological movement: A historical introduction* (Third Revised and Enlarged Edition). The Hague: Martinus Nijhoff.

Tacey, D. 1995. *Edge of the sacred: Transformation in Australia*. North Blackburn: Harper Collins.

Tacey, D. 2000. *Re-enchantment: The new Australian spirituality*. Sydney: Harper Collins.

Thomas, N. (2000). *Children, family and the state: Decision-making and child participation*. London: Macmillan/Bristol/Policy Press.

Thomas, N. 2007. Towards a theory of children's participation. *International Journal of Children's Rights* 15: 199–218.

Thomashow, M. 1996. *Ecological identity: Becoming a reflective environmentalist*. Cambridge, MA: The MIT Press.

Thorburn, M. 2008. Articulating a Merleau-Pontian phenomenology of physical education: The quest for student engagement and authentic assessment in high-stakes examination awards. *European Physical Education Review* 14: 263–280.

Treseder, P. 1997. *Empowering children and young people*. London: Children's Rights Office and Save the Children.

United Nations. 1989. Convention on the rights of the child. http://www.unicef.org.au/Discover/What-We-Do/Convention-on-the-Rights-of-the-Child.aspx. Retrieved 12 Mar 2012.

van Manen, M. 1997. *Researching lived experience: Human science for an action sensitive pedagogy*. London: Althouse Press.

Wattchow, B. (2007). The experience of river places in outdoor education: A phenomenological study. Unpublished doctoral dissertation, Monash University, Australia.

Wattchow, B. 2008. Speech, silence and the experience of place. In *The theory of experiential education*, 4th ed, ed. K. Warren. Dubuque: Kendall Hunt.

Wattchow, B., and J.P. O'Connor. 2003. re(Forming) the 'Physical' in a curriculum/pedagogy for health and well-being: A socio-ecological perspective. Paper presented at the NZARE/AARE, Auckland.

Wattchow, B., and M. Brown. 2011. *Pedagogy of place: Outdoor education for a changing world*. Melbourne: Monash University.

Wicker, A.W. 1987. Behavior settings reconsidered. In *Handbook of environmental psychology*, vol. 1, ed. D. Stokols and I. Altman, 613–653. New York: Wiley.

Chapter 3
Becoming a Socio-ecological Educator

Justen O'Connor, Ruth Jeanes, Laura Alfrey, and Brian Wattchow

Abstract Acknowledging the multi-layered nature of a socio-ecological frame, this chapter highlights explicitly how to develop socio-ecological understandings and practices in educational contexts. We begin by providing a series of vignettes based on practice. These vignettes serve to disturb assumptions that researchers and practitioners bring to physical, health, environmental or outdoor education and, in doing so, open a reflective door for research on practice. The foundational concepts introduced in Chap. 2: (a) lived experience, (b) place, (c) experiential pedagogies and (d) agency and participation, are discussed in relation to these vignettes to continue to develop them more fully, particularly how they might work in concert rather than as separate entities. We have argued that a socio-ecological approach provides a mechanism through which educators and researchers can acknowledge the relationships between the personal, social and environmental layers of social ecologies and these are explored further in the following vignettes.

Keywords Socio-ecological education • Teaching praxis • Contestation • Reconceptualising education

Vignette 1: Out of Bounds *The bell rings and the students enter the gym, the nets are set up, staggered at different heights to accommodate a range of abilities. The intention of today's Year nine physical education (PE) class is to use a games sense approach to help students develop the tactic of using depth in volleyball. The usual suspects move towards the equipment, eager to get into a game. Others are chatting about the upcoming weekend. For the third week in a row the teacher, Tom, notices a group of four girls congregating together who aren't in sports uniform, and a boy*

J. O'Connor (✉) • R. Jeanes • L. Alfrey • B. Wattchow
Faculty of Education, Monash University, McMahon's Road, Frankston,
VIC 3199, Australia
e-mail: Justen.oconnor@monash.edu; Ruth.jeanes@monash.edu; Laura.alfrey@monash.edu;
Wattchow@monash.edu

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_3, © Springer Science+Business Media Dordrecht 2014

standing off to the side. Tom gets the first modified game going, and all appears to be well. He tries to work out why these five students don't appear to be interested in PE; after all, he loved it when he was at school.

A lot of time was spent planning the lesson; it starts with a game, gives different entry points and doesn't involve lots of standing around. Some peer teaching provides the opportunity for Tom to talk to the five about their lack of engagement. He penetrates the superficial excuses and cuts to the chase. One of the girls opens up and states: 'Sir, PE basically sucks; we will never play volleyball in our lives; the boys make us feel like idiots; my parents never played ball games with me growing up; and you expect me to hit one over the net'. Another chips in, 'Sir, why are you making us learn something we will never do for the rest of our lives; there isn't even a volleyball court in our suburb'. Tom tries to mount an argument as to why learning volleyball is an important physical activity, good for your health and all that, but appears to struggle. Another states, 'My mum just writes a sick note for me because she thinks it's stupid that we have to learn sport. She said if you want to play sport you can do it on the weekend'. Tom has heard this all before but reflects, 'They probably don't see the relevance of maths or learning a musical instrument either'.

Tom genuinely wants the students to like physical activity and physical education like he does. He wants to understand, but struggles to unpack the disconnect between the aims and content of the lesson and the individuals' attitudes towards it.

Vignette 2: Healthy Living *It is the final class of a Year seven health unit aimed at exploring the importance of exercise as part of a healthy lifestyle. The teacher, Andrea, discusses the implications of a sedentary lifestyle and outlines a range of conditions that are impacted by activity, including heart disease and obesity. She mentions that there is an obesity crisis throughout the Western world.*

Andrea talks about the importance of good nutrition and exercise, but has difficulty articulating exactly what good nutrition 'looks like'. It seems the curriculum writers assumed this would be self-evident. Her preparatory searches on the Internet threw up more questions than answers.

The students listen carefully as she outlines lifestyle behaviours, individual attitudes, beliefs and motivations in relation to exercise and healthy living. Andrea refers to the newly revised healthy eating chart, formerly a pyramid, aware that most in the class would find it difficult to align their behaviour with its content. One of the students puts up his hand and says, 'My mum's sister is overweight. My mum says that she is overweight because she has something wrong with her hormones. She eats really good food and she tried exercising but that didn't work'. Andrea quickly responds, 'Some people have a medical reason for being overweight'.

The statements continue to flow, with another student commenting, 'My dad eats heaps of junk food and he isn't at all fat; he loves Coke.' Another asks, 'I thought that carbohydrates are full of energy, if we are supposed to be eating less energy to control fat, why is it one of the biggest sections on the healthy eating guide you showed us?' Yet another question arrives, 'If one in four of us are supposed to be overweight or obese, how come in our class there isn't anyone who is fat? Does that mean somewhere there is a whole class of fatties?' Laughter erupts.

Andrea becomes acutely aware that the text books and real life do not always align and that nutrition and obesity are more complex than she first thought.

Vignette 3: Invading Lives? *Invasion games are often the preferred content through which PE is taught. In most classes the core principles of a sport are taught so, for example, soccer delivery would focus on small-sided games, illustrating the basic concepts of defending and attacking. Paul, the teacher in this example has set up weekly team competitions, dividing the students into small groups, recording who scores the most goals and the best defenders, with the intent of having a winning team by the end of the term. The students seem to be loving it and some of them are getting really competitive. In the games Paul sometimes has to remind them not to be too physical in their tackling. Some of the boys love getting stuck in, trying to steal the ball from each other.*

The only issue Paul has is with two new students, Oscar and Nyachi, a brother and sister, who seem visibly reluctant to take part. They hang to the sides of the games and will rarely touch the ball or show any willingness to help their team mates. These students are newly arrived in Australia, refugees from the Ivory Coast. Paul is aware that they may be finding it hard to fit in, but wishes they'd be more willing to get involved – after all, soccer is a huge growth sport in Africa. Paul has observed both students playing casually in the playground and PE lessons and knows that they are skilled and coordinated participants. Their lack of involvement seems to have little to do with their ability.

In the last class Paul asks the students to write down what they think of the lessons – just some simple comments. Most students hand back one or two lines, 'It was great', 'I loved learning how to score goals' and other similar statements. Oscar hands quite a long dialogue back to Paul, who takes it back to the staff room to have a look through.

Oscar starts off by saying, 'Playing soccer here has been very different for me' and then goes on to expand on this, 'You have been teaching us about winning, beating one another, scoring more than someone else. Where I am from we had a soccer pitch; it was a hard dirty surface and the children used to play in bare feet when we were allowed to. We came together to talk and enjoy ourselves. Often it was too dangerous to play because of the conflict and the soldiers. There was much fighting. I'm not sure about your games where we are always trying to beat each other. It is not important to me, showing I am better than someone else'.

Paul is surprised by Oscar's response and instantly starts to feel annoyed that he doesn't see the value in what has been taught. However, something makes Paul stop for a moment and think, 'Why does he feel like this?'

Vignette 4: Home and Away *It's 10 a.m. on a fresh Monday morning and Jess, an outdoor educator of 3 years, is waiting for her group to arrive at the coastal outdoor centre. She loves it at the centre: the old buildings, the walk to the bay through the shadowy tunnel of tea tree and coastal banksia and the sudden brightness and openness of the beach and the sea. She is looking through the list of participants and checking for special requirements that may need to be met. The group she is working with are 10–11 years old and come from Winter Heights Primary School,* *a school from the city about an hour's drive away. The school has said that they want the kids to have fun, to learn to work together and to learn about the coast. Jess is planning to take the group surfing in the morning and rock pooling later in the day when the tide is out. 'Foam' surfboards and full wetsuits are provided by the centre and the surf break has a small spilling wave over a sandy bottom, so is far from intimidating. The students arrive and Jess gets her allocated group for the day. They sit in a circle on the grass and Jess talks about the day, hoping to tune into some of their motivations and any apprehensions about the activities.*

"Who has been to the beach before, anyone been surfing?" Nearly everyone nods to the first question and a couple of hands go up in relation to the second.

"Can't wait to get in the water," says one girl.

"How's the swell?" asks another.

"Is the water cold?"

There are a few blank looks from a couple of students Jess thinks might be a little timid, so she assures everyone that they will set their own challenges and the morning is really about them having a fun and rewarding introduction to surfing.

The morning surf goes great. After the initial shock of the cold water, everyone gets into it. Jess is careful to position herself and the students in shallow water where they can pick up the waves easily. Some are complete beginners, but a few seem comfortable n the surf. She shows them how to 'read the waves', talks about 'sets' and 'take off zones' and how the wave wraps around the point of the reef. It is easy to ride the small waves in while lying on the boards, and almost everyone in the group get either a 'knees up' or 'stand up ride' after some more drills and instruction on the beach. She goes through her full bag of tricks – pairing students, praising every effort, providing feedback and there is lots of encouragement from students to each other. Despite the cold everyone is buzzing after the surf and she lets them head for the change rooms rather than debriefing on the beach.

After some lunch they head back to the beach.

"Wow, where's the surf gone?" says one of the students, as Jess leads them in a walk to the now exposed reef. Jess talks to the group about the ecology of the reef and sets them into small groups to look in the rock pools for different types of flora and fauna. Each group has laminated copies with good identifying pictures of 'Life in the rock pools.' The cool, southerly breeze cuts through her jumper and already only about half of the kids are into it. Some are just chatting, some are squirming trying to sit on the uncomfortable rocks or find a low spot out of the wind. A few are just looking out to the horizon and some seem genuinely tired after the morning's surf. After about 10 min some start complaining about the cold and how boring rock pooling is compared to surfing.

Jess reflects, "Surfing always seems so cool and everyone enjoys it, but not many get into the reef activity?" "The reef is the place where I most love to be, and without the reef, the surfing just doesn't happen." Jess thinks, "These kids were so responsive this morning, how can I get them back?"

These vignettes are designed to provoke. They are designed to challenge readers to consider how educators might act in these teachable moments; how they might respond to students and their learning needs. Some vignettes highlight routine events that educators experience on a daily basis. Others might only be encountered a few times in a whole career. It is not hard, however, to imagine a host of similar conundrums that frequently confront educators. The vignettes point to the way educators, who are operating within formalised, structured and institutionalised approaches to curriculum delivery, are asked to consider the broader connections of their students to their lived experience in a socio-ecological context (Wattchow and O'Connor 2003).

As researchers, we acknowledge that this is challenging work, given that the formalised curriculum is often developed from an 'outsider's' perspective. That is, a perspective that is unresponsive and insensitive to the localised social ecologies within which young people live. The socio-ecological educator or researcher has to negotiate this territory and attempt to generate opportunities for meaning making from the perspective of an empathetic insider (Relph 1976). In other words, someone who is responsive to place, open to the lived experience of students, comfortable with open-ended pedagogies and willing to help develop a sense of agency.

As we have already seen in Chap. 2, socio-ecological theories and models have been around for some time in public health and psychology. Our intention is not to try to supplant or update those models but rather to add a layer of interpretation that specifically responds to the question: "How should educators respond to these emergent theories in social ecology, and develop a socio-ecological approach in educational research and practice?" We acknowledge that this may represent a departure from more traditional or scientific considerations of physical, health, outdoor or environmental education. We feel, however, that this represents an important process to work through. We are not suggesting that the profession should abandon the rigour that the scientific perspective brings to exploring practice. Rather, the intent is that through researching practice across multiple layers of influence, we can sensitise teachers to the lived experience of their students, closing the mismatch between the learner's lifeworld (a term introduced by Hursserl in 1936), that of the teacher and the curriculum that the teacher is responsible for delivering. Throughout the remainder of this chapter, we refer back to these vignettes in an attempt to ground our understandings and make sense of them in practice. The discussion will respond to the vignettes and be centred on the four foundational concepts outlined in Chap. 2: (a) lived experience, (b) place-responsiveness, (c) experiential pedagogies; and (d) agency and participation.

A crucial message at this point in the book is how we see these four foundational concepts working together. Even though we must discuss them separately they rely upon each other to develop a cohesive approach to research and educational practice. In brief, lived experience attunes the researcher and educator to the subjective life of the learner (and potentially the teacher). This is not to say that the objective conditions of learning are unimportant, but how learners' experience their learning, what sense they make of it and ultimately how they feel about their learning is of even greater importance. Place-responsiveness attunes us to the ongoing relationship that learners have with their local community and environment. We might ask; "How is the learner's experience connected to their world, what is their sense of place, and how can these connections be strengthened?"

But it is not enough to only reflect upon a deeper understanding of the learner's lifeworld and their connection to place. Researchers and educators must also constantly work on developing sound pedagogical practices that continue to improve the educational experience of learners. We believe that experiential pedagogies can provide a rich and meaningful educational experience for learners. This third foundation asks that researchers and educators not only reflect upon learners' experience and their connection to place, but how to best respond to this in terms of pedagogic practice. The final foundation draws the first three together with a strong sense of purpose and vision. Ultimately, the socio-ecological educator wants learners who believe in the significance of their participation and develop a powerful sense of agency, and we believe that achieving this goal requires both the consideration of the multiple factors already highlighted in existing socio-ecological models (see Chap. 2) and a cohesive view of the foundational concepts we discuss below.

The Lived Experience

As noted in Chap. 2, the 'lived experience' is a highly personal and subjective concept rooted in the everyday lives of human beings. It draws on the unique nature of people's experiences, shaped by their real-world environments rather than depending on abstract generalisations and textbook theories to make sense of the world. In essence, a sensitivity to lived experience requires us to consider the subjective lifeworld of individuals; that is, the subjective, interpreted sense they have of their daily lives. Each of us constructs a different version of reality, even when we may have very similar experiences. Revealing the qualities of individuals' and groups' lived experiences is no easy task. Much of how we live our lives on a daily basis occurs at the level of habit and is based on assumptions that we rarely think to examine. It is the act of illuminating or revealing the 'invisibility' of the everyday through reflection that generates insights into lived experience. It is challenging and rewarding precisely because it helps us understand and explain human ideologies, values and behaviours.

Socio-ecological researchers and educators are called to re-orient themselves to the unique lived human experiences of those they work with. This requires careful listening and observation lest, in the words of Jardine (1998, p. 7), we render those being educated into 'strange and silent objects which require of us only management, manipulation, and objective information and (ac)countability'. For educators, connecting with those they educate means they are genuinely willing to hear their stories, their views and their feelings. They are willing to respond to their different ideas and acknowledge how they make meaning from their experience through language and expression, often in uniquely personal ways. When researchers or educators favour apparently pristine, objective and abstract truths over the messiness of the everyday, they ignore the possibility for a disconnect between what is being taught, the learners and the contexts within which they practice.

In Vignette 2 the healthy eating pyramid is presented as a truth that contrasts with the students' own understandings of their observed world and the world they participate with. The danger here is that students' own experiences are overwritten by concepts associated with the science of obesity, rendering the learner as both passive and objectified. As Gard (2008) points out, the 'science of obesity' itself remains confused and uncertain and yet in the absence of robust critique and questioning like that posed by the students in Vignette 2, it can go unchallenged in the classroom. In contrast to generating informed decision makers, Gard (2008, p. 497) argues that:

> It is the self-directed learner that the healthy lifestyles agenda seeks to eliminate. Instead, the student most likely to do well in this context would seem to be one who can rote learn a set of rules and repeat them on demand. What is important here is not a student who can sift through different knowledge claims and arrive at a reasoned choice or decision, but rather a student who can perform a predetermined set of behaviors.

The educator in Vignette 3 may view their students as not interested in volleyball and could easily dismiss them as lacking some personal attribute linked to motivation, skill or self concept. Oscar in Vignette 3 might be regarded as odd. And yet these students present valid observations as they struggle with the mismatch they perceive between their own lives and the activity (volleyball playing or competitive sporting life) imagined by their educator. Yet the educator who can respond in legitimate ways to these observations is responsive to the student lived experience and the moment. There are many possible ways that the educator might react to this situation, some are immediate (the teachable moment) and others are long term (adaptations to curriculum and pedagogy). All rely upon the educator's interest, willingness and ability to empathise with the learners' lifeworlds. These lifeworlds are never static, they are constantly emerging and changing. Educators have a key responsibility in creating favourable educational conditions for the ongoing development of learners.

Place Responsiveness

Understanding the concept of place is fundamental to the socio-ecological researcher or educator. It is integral to the way our own subjective lifeworlds are shaped and our capacity to limit the marginalisation of others. For some, place is fundamentally a human phenomenon, best understood as an emerging, unfolding interaction between people and their physical location, where they live and work (Relph 1976). It is the dynamic interaction of individuals, their culture and nature and is in a constant state of change. Hence place is both an interpreted and embodied, reciprocal relationship between the individual, their communities and their locations.

Place-responsive education asks learners to consider how they, and others, might experience a particular location, context or situation. It asks important questions about: What has happened here? What is happening here? And what should happen here in relation to things that matter (Gruenewald and Smith 2008)? Within education, Gruenewald (2003a, b) argues that contemporary school reform takes little notice of place, blinded by a focus on state-mandated standards for teachers and students that produce a limited range of statistically quantifiable learning outcomes. Despite considerations of place existing in pockets of the mainstream curriculum (mainly in the humanities and within areas like environmental science; see Smith 2002; Gruenewald and Smith 2008), civics education (Smith 2002) and outdoor education (Wattchow and Brown 2011), it remains largely silent within the discourses of mainstream health and physical education.

In Vignette 4, Home and Away, the group leader Jess clearly has some elements of a strong sense of place for the location she is teaching. Places like 'the beach' can carry a lot of cultural baggage with them. Learners may, as with the vignette, find times when their expectations seem to match the learning program and other times when they do not. The educator often works between experiences that are either familiar or unfamiliar to learners. The place-responsive educator is constantly searching for points of disconnection and trying to repair them as well as strengthening learners' sense of connection with places that are meaningful to them.

To better understand how place-responsive education is enacted, Wattchow and Brown (2011) utilise Wendell Berry's (1987) simple questions about nature and ask them in relation to place. These questions help educators and learners alike orientate themselves to their location and learning context: What is here? What will this place permit me to do? What will this place help us to do? Fitting in with natural cycles like tides, weather and seasons contains important lessons about places. But place is always more than this, it has personal and cultural elements as well. Remembering that any question about place is also a question about an individual's lifeworld, their community and their location. In a Health Education class, therefore, we might ask: How is my health (in all of its dimensions) influenced by my place? And how does the way I live contribute to the health of this place? These questions are important. Conversely the physical educator might ask, how is the way I move (in all of its dimensions) a result of this place? And how does my way of moving contribute to the vibrancy or energy of this place?

The editors' own stories in Chap. 1 highlight how important place is in shaping an individual's lifelong health and movement experiences. The second question is answered for the authors when we consider their contribution to the movement of others. We therefore view place-responsive education, with its inquiry into local concerns and capacity for problem solving, as an approach to researching learning that explores how teachers and students function as collaborative teams to impact the wellbeing of the social and ecological places they inhabit (see Gruenewald 2003a, b).

Classrooms, the gymnasium, school grounds, home and the surrounding community, these provide the 'everyday' place of a learner's lifeworld. Building a positive sense of connection to them is vital. Learning to be attentive to this place can also carry over into other places that are visited, especially if they are visited regularly. Some places carry significance in broader culture and meaningful encounters with these natural and culturally important locations can bring them into the compass of a learner's world. But one-off encounters like the day at the beach, are unlikely to achieve these kind of important educational experiences.

Place-responsive education acknowledges first the context in which the students live, before it embarks on presenting curriculum derived from far-off standardised global curricula or textbooks. Even if standardised curricula continue to be espoused, the place-responsive educator will strive to interpret and enact them in a way that acknowledges the particulars of their context or situation. A key concept for researchers to consider here is that the delivery of curricula is an act of careful negotiation between people and their places (Wattchow and Brown 2011). Why is it, then, that a unit of volleyball is taught to students when their access to this highly structured, organised and competitive sport outside of class time remains unchallenged? How does this knowledge translate to the lived experience of those students we are asking to learn this sport? Will students ever get the chance to go surfing again? Can they begin to see that different types of physical activity are often deeply connected to both natural and cultural systems in particular places?

In Vignette 1, Tom quite rightly begins to question the value of the lesson objectives when they are superimposed on the lives of the non-participants. When challenged to justify this lesson by the students, there is an understandable discomfort in trying to explain how this lesson of volleyball is indeed useful, significant or meaningful for the students who have withdrawn themselves from participation. What is the educational relevance of this unit of work for these students? Is this activity going to have a lasting impact on their health? Is their participation likely to make a contribution or be connected to the local community in some way? Are these students going to take up this sport as a result of this class? Many other support structures and environmental affordances would need to exist and, from a place-responsive perspective, these are only likely to exist if the activity is already part of the rich fabric of the community. Is getting depth on a volleyball serve something that can be transferred into their future lives as they imagine them? The assumption that movement is inherently meaningful in the absence of context is contested by the testimony of the student notes excusing them from participating. There are many possible justifications for this lesson, but for these particular students, none is easy to support.

The idea that competitive, team-based sports being taught in an educational context is a fundamental good is an assumption that has been challenged (O'Connor et al. 2012; Penney and Evans 1997; Tinning 1997; Penney and Chandler 2000; Penney and Jess 2004; Penney and Hunter 2006; Rossi 2006). Yet the playing of games and sports remains a historically rooted cultural practice within physical education. Performativity, reflected in the heavy emphasis on a limited number of performance-based activities, constitutes a reduction in the potential of students to connect more broadly to different contexts of play, movement and physical activity within different learning environments (curricula) and the connected social ecologies of the 'physically educated' (O'Connor et al. 2012). Many within the physical education profession have suggested possibilities for physical education to move beyond the transmission of culturally relevant sports towards developing an understanding of lifelong physical activity.

For many educators, their pedagogies are a part of who they are and where they come from. For example, over time and through experience they may have developed a significant attachment to the timber floor of their local gymnasium: its texture, its smell, the sound of a basketball bounding across its surface, the springy feel of it beneath their feet. It was probably the site of many achievements and disappointments while they were growing up. This attachment is further reinforced through cultural identity, parental support and embodied experience of movement. It could be the same for the outdoor educator who spent time as a child learning to surf at the local beach, or the environmental educator who snorkeled amongst the reef outcrops.

In Vignette 4, Jess faced a number of possible decisions that could have influenced how the experience of the day impacted positively or negatively upon learners and their sense of place? She could have abandoned the reef lesson and used the afternoon to explore local surfing culture and how young people can get access to the local surf club. But the ecological lessons that could be learned out on the reef are important as well. Perhaps they are important enough to warrant a return visit from the school. Perhaps a more experiential and engaging pedagogy could have been employed so that the students from Winter Primary School did not feel a disconnect when they ventured on to the reef. And, perhaps there was a missed opportunity to 'frame' the day in such a way that students experienced the beach, surf, reef and nearby bush more as a totality of personal, natural and cultural elements instead of compartmentalizing it.

Educators own connections with place can provided a vital resource, but they can also blind against other possible choices. As educators in these fields they draw on their own experiences and may knowingly or unknowingly attempt to propagate them, even become passionate advocates for them. It is understandable then, that educators may feel vindicated by those who can't wait to grab the sports equipment or scramble on the reef despite the cold wind, for there is a shared affiliation. These participants add wind to the sails and encourage the educator to forge on despite the obvious disconnect of a few. Without empathy for how different socio-cultural, historical or indeed environmental affordances might impact the individual, we remain blinded to the idea that this may not be meaningful for all.

An uncomfortable dilemma is revealed, as is the case for Tom in the volleyball class, when he realises the mismatch between his own lived experience and that of the learner. For Tom the gym is a familiar and comfortable context; it is a reinforcing place. Yet for some students the gym represents a site of exclusion, of discomfort, of not fitting in, of displacement. An easy way for the educator to deal with these students is to disassociate; to dismiss them as lazy, slack or unmotivated; to further alienate them with behavioural attribute labels until they occupy only a small part of the educator's attentional space. Previously researchers and educators may have espoused more engaging ways of teaching the same content. However, thinking socio-ecologically compels researchers and educators to refocus their view and begin to see the things that are not only nearest to them, but that influence from afar. Perhaps the real lesson from this volleyball class is the new found understanding by Tom of a mismatch between his lived experience and that of the disengaged students.

In a health education context, as per Vignette 2, students can immediately see the mismatch between the centralised and standardised curriculum that perpetuates an obesity discourse without critique or question, and their own lived experience of an obesity crisis that isn't apparent to them in their place. They begin to question the logic behind generic healthy eating messages and their experiences of food within their own complex social, economic and environmental contexts. The mixed messages are indeed a reflection of complex phenomena being overly simplified by a uniform and centralised message. Gard (2008), like the teacher and students in the vignette, notes the complexities underpinning what is assumed to be self-evident knowledge about what 'healthy' or 'balanced' eating habits are. Content made more complex because such definitions are not widely agreed on and continue to remain heavily contested (Gard 2008).

Place-responsive educators might first investigate those questions about environment, food, activity and lifestyle that are most relevant to learners before ascribing to a fixed, one-size-fits-all message (e.g. the food pyramid) that is born out of a centralised public health discourse. Place-responsive pedagogies would have us first start with an exploration of our own neighbourhoods, our own social groupings and our own selves (e.g. local health, local food, lived experience). What opportunities do we have available to explore our own place and to learn in, through and of movement and health? How has our situation been colonised over time and by different cultures, practices and ideologies? Do ideas and ideals coming from outside our situation need adapting to our local context or even rejection? How might we decolonise inappropriate ideas and habitual practices from our situation when we reveal them to be inappropriate? And, if we can successfully decolonise what is inappropriate, what would a successful re-inhabitation (Gruenewald 2003a) look like? When we research or think about educational practice, it is important that we play a role in shifting thinking away from a process that centralises the complexities of divergent individual social ecologies.

Experiential Pedagogies

As highlighted in Chap. 2, rich experience is central to the learning process. Dewey (1938) warns, however, that 'the belief that all genuine education comes through experience does not mean that all experiences are genuinely or equally educative' (p. 25). It is not enough, he suggests, to provide a context for experiences to occur in (e.g. surfing at the beach or a game of volleyball). Those experiences must be educative and of high quality. High quality, for Dewey, considered the principles of continuity and integration, the relationship between experience and reflection, and how learning contributed to the greater goals of social interaction and democracy. The socio-ecological educator now brings another layer of environmental and ecological consideration to the quality of learning experiences as a result of 'new' knowledge about our interdependency with local, regional and global ecosystems. This awareness has emerged in the second half of the twentieth century, after Dewey had completed much of his work. Now it is important to consider the personal, social and ecological parameters of educational experiences. While experiential pedagogies continue to have important links with goals and practices of social education they must now respond to the imperative of changing environmental conditions. Thomashow (1996) argued that a person's 'ecological identity' should be a natural extension of their social identity. The two things really should be indivisible.

> Whether this process occurs at the level of the psyche (breaking down the barriers between the ego boundary and the ecosystem) or the polis (creating neighbourhoods in which people can develop a civic culture) or the ecosystem (understanding the impact on one's actions on the commons), a citizen is obliged to balance individualism and the community, private property and the ecological commons. (Thomashow 1996, p. 101)

Socio-ecological learning experiences must 'pass the test' of opening a pathway to meaningful future learning. The process of reflection is the key difference between experiential learning and experiential pedagogies (Schon 1983), and it is regarded as one way of consolidating the educative nature of experiences. The concept of experiential pedagogies, or experiential education is usually represented as a cyclical process where, as stated in Chap. 2, learners circulate between focusing on the task, action, support/feedback and reflection.

It has been argued that experiential pedagogies are overly cognitive and that they usually prioritise the mind over the body (Bell 1993; Wattchow and Brown 2011). From a socio-ecological approach, however, the common dualism between mind and body is somewhat dispelled. Attention is drawn to people's lived experiences and the extent to which they are influenced by, and influence, the socio-ecological context within which they occur. A socio-ecological approach suggests that the aim is not to privilege the cognitive, the kinesthetic, or the ecological but rather, to recognise the symbiotic relationship between the layers of our social ecologies.

Another limitation associated with early forms of experiential pedagogies is the separation of learning from the contexts in which it occurs. Within a socio-ecological approach, the learning context is multi-layered and paramount. In locating experiential pedagogies within a socio-ecological frame, it is necessary to acknowledge, explore and understand context. This compensates to some extent for the tendency, in experiential programming, to view the site of learning as little more than a venue, rather than as a place full of potential significance (Wattchow and Brown 2011).

Experiential teaching practices have, in the past, also tended to privilege the spoken word over other forms of communication or representation of experience. As socio-ecological educators, we argue that the concept of multiple intelligences (Gardner 1983) should inform our pedagogies. That is to say, that the ability to articulate learning (through either speech or writing) is only one way that learners can communicate what they are learning. It is all too easy to assume that language serves as a kind of neutral conduit where learners can neatly articulate their reflections, when clearly language is a far more complex phenomenon. Visual representation, creative expression and kinesthetic intelligences (to use Gardner's phrase) deserve equal encouragement and celebration.

By engaging with experiential pedagogies, students and educators alike have the opportunity to 'frame and reframe' a particular problem, issue or opportunity of interest (Schon 1983). They are encouraged to identify a 'problem … define it, to describe it and account for its features' and then view and discuss the 'problem' from a range of perspectives (Loughran 2006, p. 96).

Referring to the vignettes above, we can see that each offers varying degrees of opportunity for experiential pedagogies to be utilised. Drawing on the work of Joplin (1981), the discussion will now turn to selected vignettes and the extent to which a particular issue could be approached from an experiential perspective.

Within the 'Invading lives?' (Vignette 3) presented earlier, the use of invasion games in that particular context could be seen as a problem, depending on your perspective. Invasion games utilise experiential pedagogies in that they set a problem, require cooperation and involve reflection. That said, they remain located within the narrow context of the task-focused game itself. If we apply socio-ecological principles to this context, we broaden the focus from a purely practical orientation to consider social, environmental and even chronological principles. From the perspective of Oscar and Nyachi within the vignette, the invasion of space is problematic, and the adversarial and competitive elements of participating in the games is potentially upsetting. The teacher, in contrast, may have always used invasion games as part of his or her PE curriculum, and thinks it's a good way to develop the students' tactical skills as well as promote team work and build character. Some students in the class may feel that invasion games are their favourite aspect of PE because they get to run around, compete against their friends, improve their skills and enjoy a degree of mastery of their situation. Others, however, may not enjoy the adversarial nature of competition, feel unskilled in comparison to their peers and see little relevance in playing games like soccer and netball.

So, what could be done differently? If the teacher in Vignette 3 were to put experiential pedagogies – which are to some extent already present – within a socio-ecological frame, this situation could have been viewed as a 'teachable moment' (Woods and Jeffrey 1996) Through problematizing the context of 'invading space', the focus would be shifted from the tactical nature of the game itself, to a broader socio-ecological discussion within which students' could express connections to their own lived experiences. Validating different interpretations then reinforces that different lifeworld perspectives exist and may even open up possibilities for Oscar and Nyachi's 'version' of soccer be included. Similarly, in Vignette 4, a well-facilitated reflection session at the end of the surfing experience could have teased out meaningful learning (perhaps an expressive poem on 'feeling' and water) as well as set the scene for the afternoon on the reef, avoiding the disconnect between the two learning activities.

As suggested above, experiential education is concerned with both learning a *process* and acquiring a *product* (usually specific subject knowledge). One benefit of focusing simultaneously on both process and product, as opposed to just the latter, is that the learning is arguably more sustainable and therefore more likely to enhance future learning experiences. This is largely because the processes students engage with as part of experiential education can be applied in multiple contexts and in response to multiple issues. Indeed, Knapp (1992) explicitly states that in order for learning to be classed as 'experiential', the knowledge acquired in the first instance needs to be applied to different situations. If we look at the vignettes much depends upon the learners' engagement or disengagement with what might, or might not, be meaningful to them. This is compounded even further when we consider socio-ecological complexities such as socio-economic status and life experiences of the learners. If the pedagogies are planned effectively, however, the experience has the capacity to be meaningful for those involved.

Education should be concerned with providing an environment conducive to experiential pedagogies generally, and critical reflection in particular. A process enhanced by the educator 'practising what they preach'. Loughran (2006) draws on the work of Barnes (1992) to suggest that teachers who have the ability to 'frame and reframe', and thus take the view of multiple perspectives, will be better positioned to make informed choices about their pedagogical practices. Indeed, we know that teaching is innately challenging and there is not one way it could or should be done. The perspective a teacher chooses to favour will be largely determined by the socio-ecological context in which they work, including, for example, students, colleagues, local communities, national/state curricula as well as the environment and resources available.

Much of this section has discussed the positive educational outcomes of the use of experiential pedagogies. It is important to adopt a 'frame and reframe' approach so as to make more informed choices about our pedagogical practices. In reframing experiential education it is important to examine the process in terms of educational outcomes. Chapter 2 presented some limitations of experiential pedagogies and what follows is an insight into how locating them within a socio-ecological approach can help educators overcome some of these limitations.

As educators we are responsible for providing a context within which high quality, meaningful and educative experiences can occur. Within a socio-ecological approach those educative experiences must also provide opportunities to acknowledge and explore the multiple levels of our social ecologies (personal, social and environmental), while also affording attention to the four guiding principles, of which experiential pedagogies is one.

Agency and Participation

While the earlier vignettes were deliberately provocative, the core message that young people have limited influence over the content and context of learning resonates in educational research (Brooker and Macdonald 1999; Mitra 2008). Thomas (2007, p. 214) outlines how 'in most schools relationships are hierarchical and more or less authoritarian, and children often experience themselves as having little say or control'. Research examining educational policy and teacher practice also argues that educators often have limited opportunity to exert agency over educational settings (Sloan 2006). Teachers frequently work to nationally predefined standards, with content and expectations externally imposed on them. However, while being pragmatic about the circumstances, a socio-ecological approach emphasises the centrality of student-led delivery to enhance educational experience.

Inside many classrooms the teacher's value system, or philosophy, often provides the central narrative, framed within a more broadly imposed curriculum structure (Alfrey et al. 2012; Mandel and Qazilbash 2005; Yonezawa et al. 2009). During physical education for example, teachers are required to deliver an established curriculum, but do this through drawing on their own histories, preferences, experience and values (Tinning 2004). The choice of volleyball and soccer in the vignettes is likely to have been mediated by the teacher's perceived expertise in particular areas, what they have delivered previously and what they feel comfortable and secure delivering. Rarely is the notion of student choice or preference considered as priority. As Vignettes 1 and 3 indicate, students' own experiences are frequently overlooked and teachers may feel uncomfortable when young people question the relevance of the learning context that the teacher has provided.

Each of the vignettes provides a snapshot of young people exerting agency and, in each case, it has potential to unsettle the teacher, who may perceive this as a challenge to their authority and expertise. Within Vignettes 1 and 3 young people critically examine the value of soccer and volleyball to their own lives, in doing so questioning the established hierarchy of teacher as expert and young people as passive consumers in the education process (Thomas 2007). These young people are, to varying degrees, refusing to simply experience the educational setting as it is currently constructed. Instead, they actively disengage from the educational context, using this as a silent act of resistance that illustrates their disapproval of the lesson content. The same may be said of Vignette 4 where the student's participation and demonstrating of agency shift dramatically between the morning and afternoon sessions. In Vignette 2, young people are more openly confrontational, critically questioning teacher knowledge and expressing their own interpretations and understanding.

All of these vignettes provide examples of how, even when disempowered within educational contexts, young people will still attempt to exert their influence in various ways (Sinclair 2004). Socio-ecological approaches see the teacher's role as explicitly harnessing young people's capacity to influence and shape their learning environment. Educators should produce curricula that young people have had a central role in developing and that are therefore more productive, culturally and socially relevant than the imposed structure and content that most teachers currently work within (West 2004).

Chapter 2 provided a theoretical overview of the concepts of agency and participation, but how do these link to the multiple layers inherent in a socio-ecological approach? Agency is defined as a young person's ability to make purposeful choices, and participation as facilitating a context in which this can occur (Alsop et al. 2006). Viewing agency and participation socio-ecologically, we suggest young people's agency is affected by individual factors (confidence to express opinions, take actions), social aspects (position in society, access to social capital), and 'opportunity structures' (Narayan 2005), which refers to the broader institutional contexts and the formal and informal rules that mediate whether acts of agency create substantial change (Slot 2008). Each of these layers needs to be addressed within an education context to provide young people with the opportunity to exert agency over how and what they learn.

Understanding agency through a broad lens is essential. Creating full participation is not simply about bringing young people into existing systems (Young 2000), but also 'modifying those systems in order to accommodate new groups with different perspectives and different ways of expressing themselves' (Thomas 2007, p. 211). A socio-ecological approach to education at an individual level should equip young people with the skills, and provide learning contexts to question, challenge and contest their current educational experiences and develop more meaningful alternatives (Fielding 2001).

Social ecology also emphasises the need to remain mindful of the broader social and cultural context in which young people's agency is constrained or facilitated. For example, the two young people from the Ivory Coast in Vignette 3 are likely to have experienced systematic exclusion in all aspects of their lives. Even though educators may provide a setting where they can participate and influence decision-making, this does not automatically remove or resolve their history of marginalisation (Sinclair 2004). The outer policy layer of socio-ecological frameworks is essential in the fostering of agency. If young people's participation does not become an embedded part of institutional policy it is unlikely to be maintained in the longer term (Cook-Sather 2002). It is only through this process that significant repositioning of existing power structures can occur, removing traditional top-down conceptualisations of power and the teacher as knowledgeable expert. Instead, power becomes shared and reciprocal within the classroom context, breaking down the notion of the teacher as expert and instead recognising and harnessing the valuable knowledge that young people themselves bring to the classroom context (Freire 1970). The case-study chapters in this book demonstrate an extensive breadth of research examining this type of participatory curriculum.

Socio-Ecological Praxis

Chapter 2 provided us with a theoretical introduction to some broad themes and concepts associated with the socio-ecological educator. The vignettes in this chapter allow us to consider the theoretical framework in the context of practice. In the final part of this chapter we consider the emergent themes guiding socio-ecological praxis, the synthesising of theory with practice. Core principles emerging from this examination of theory in relation to practice include the reciprocal relationships between layers comprising individuals, their communities and environments; collaboration between actors in the learning context; the reconceptualisation of power within the educational context; the need to consider how meaningful the problems we pose are; and the context in which we pose them. While all of these areas have been considered singularly within educational research, they have not been examined holistically, a gap which educational researchers need to address. We would argue that it is only through such research that successful challenging of the traditional foundations of education can occur. These principles form the focus for elaboration in the following section.

Multi-Directional Relationships

There is a tendency for humans to want to reduce things down to discrete variables with simplistic relationships. We are familiar with linear diagrams, uni-directional arrows and hierarchical structures. As Sir Ken Robinson (2008) noted in his talk on changing educational paradigms, the educational system itself continues to operate along factory-like production lines with discrete knowledge bases, acting on the assumption that students are best grouped according to their year of birth. The reality of course is that natural systems operate in complex and dynamic ways. As we saw in the exploration of the four principles above, many dynamic interactions exist within multiple layers of influence that impact on the lifeworlds of those we are educating. Our discussions of place highlight the individual as someone who is nested within their community and location and who, in turn, impacts on their place and community. Of course, these relationships continue to unfold from past, in present and into future.

Experientially exploring problems requires a response to define, describe and account for these from multiple perspectives across a range of features. The process is cyclical when focus on a problem or challenge leads to action, which when reflected upon yields a ‘theory’, which must be ‘tested’ with a new problem and so on. Within the discussion of agency and participation we noted the complex relationships that exist within the educational context between the learner, the teacher and the curriculum. Even when the balance of power is not in their favour, the dynamic nature of these relationships allows the learner to exert influence in different ways. As researchers we might start with the challenge of how to reconceive our individual physical bodies as personal ecologies. In doing so, we acknowledge a relationship with a multitude of other complex social and natural ecologies, many of which are beyond our individual control. We immediately find that we are inextricably linked to our communities and places. This basic shift in perception challenges the idea that students are autonomous beings and that behaviour is determined by the individual. It compels us to consider the nature of connections between personal, social and natural ecologies that are rarely examined and yet constantly experienced (Wattchow and O’Connor 2003).

Reconceptualising Power

The shifting balance of power within an educative context is a key concern to emerge from all of the vignettes and our subsequent thematic analysis. We outline the need to move away from traditional teacher-centred, top-down notions to a more Foucauldian perspective that recognises power as everywhere and accessible to all if the context allows (Foucault 1975). Examining education using a socio-ecological framework illustrates the need to challenge and even disband hierarchies within learning environments. Such an approach recognises learners as experts of their own lives, bringing valuable knowledge to the educative experience. A socio-ecological approach suggests that redefining power relationships within education requires an understanding of where people have come from and where they are (being place responsive), what experiences they bring with them (lived experience) and a curriculum that is meaningful, relevant and useful for them (agency and participation). Central to this process is developing pedagogical approaches that best suit the learners we are working with (drawing on concepts from experiential pedagogies).

Creating Meaning

As outlined in the previous paragraph, to reconceptualise power relations it is necessary to provide educational experiences that are meaningful and therefore stimulate learning and development amongst students. Again it is evident that this theme is evoked within our vignettes and our core foci. Place-responsive education asks that teachers listen to the lived experiences of their students and consider how they make meaning from these experiences as they relate to the individual's lifeworld, their community, their location and the curriculum. This requires the ability to teach in the teachable moment rather than in abstract, unproblematic, centralised or sanitised ways that all erode the meaningfulness of the activity. Arendt (1978, p. 87) explains that to make meaning requires that we venture beyond given factual experience: 'All thought arises out of experience, but no experience has meaning or even coherence without imagining and thinking. Seen from the perspective of thinking, life in its sheer thereness is meaningless.' Knowing that something *is* does not necessarily lead us to understand *why* it is. To know why something is requires deep reflection on meaning and astute observation of behaviour and context. In other words, the experience itself isn't enough; we need to engage in an ongoing human project of experience, reflection and meaning-making.

Experiential pedagogies suggest that students cannot develop meaning without experience and recognise that they may develop multiple meanings for any given experience that we facilitate. The diverse meaning students may attribute to an experience is worthy of consideration. As researchers, we explore how learners come to understand these meanings, help deconstruct them and better understand the varying experiences of the same context. We need to be reflexive to these multiple perspectives, with consideration for who created them and what meaning they have attached to them. Participation and subsequently agency can only occur when we do this. Participation involves engaging our students in making meaning, drawing on individual experiences and considering what we can learn and develop from them. If we are not providing a meaningful educative experience our students are left on the fringe – passive recipients of the information we are providing. For students to actively participate in educative contexts, we need to allow them to express what is meaningful to them and build our practice upon this.

A Framework for Socio-Ecological Educators

We have been hesitant about providing yet another attempt at modeling the complexity of the social-ecological approach. Most of the representations discussed in Chap. 2 have limitations. However, we think it is worthwhile at this point to introduce a framework for the socio-ecological educator. It is another way of reminding the reader that (a) we are drawing on earlier models that have proved beneficial in health policy and psychology, and (b) that the four foundational concepts we have introduced need be considered as a cohesive whole. It is intentionally simple, a set of flag posts, to mark the way through complex terrain (Fig. 3.1).

Our socio-ecological approach as depicted in the figure encourages educators to question the extent to which they provide students with the opportunities to explore their social ecologies, while also encouraging a focus on the four foundational concepts underpinning a socio-ecological education. The focus here is to view the lived experience and place as crucial foci for the Socio-Ecological Educator that attunes them to the experience of the learner; experiential pedagogies becomes the preferred teaching method; and agency and participation the ultimate aim.

In one sense, socio-ecological models have been used to answer the question, 'How can we change the behaviour of individuals?' In terms of research, it is argued here that social ecology has in the past been applied and understood from a relatively positivist perspective, with the intention of changing human behaviour, usually related to health. Our preference is to use socio-ecological models to ask, 'How do we develop people's understanding of their experience within the context

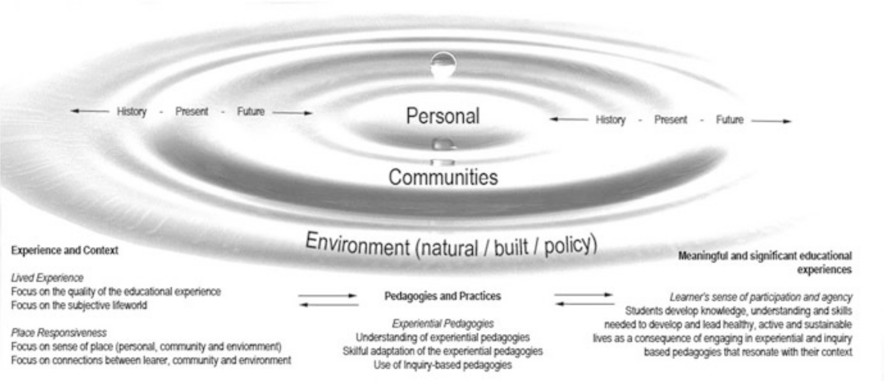
History - Present - Future
Personal
History - Present - Future
Communities
Environment (natural / built / policy)
Experience and Context
Lived Experience
Focus on the quality of the educational experience
Focus on the subjective lifeworld
Place Responsiveness
Focus on sense of place (personal, community and enviomment)
Focus on connections between learer, community and environment
Pedagogies and Practices
Experiential Pedagogies
Understanding of experiential pedagogies
Skilful adaptation of the experiential pedagogies
Use of Inquiry-based pedagogies
Meaningful and significant educational experiences
Learner's sense of participation and agency
Students develop knowledge, understanding and skills needed to develop and lead healthy, active and sustainable lives as a consequence of engaging in experiential and inquiry based pedagogies that resonate with their context

Fig. 3.1 A framework for the socio-ecological educator

of their social ecologies through education?' The aim for us is not necessarily to use a socio-ecological perspective to change behaviour, but rather to better illuminate and understand it.

Educators drawing on this approach are compelled to think not only of an individual's outcome on a specific behaviour, but how this behaviour may or may not have been shaped by genetics; growth and development; perceptions; attitudes, beliefs and motivations. Furthermore we note that a person's behaviour is also influenced by those within their connected communities: their siblings, parents, peers, coaches, teachers, grandparents or any significant other. The multiple communities to which people belong have their own cultural practices or norms built over time and constantly act to reinforce or inhibit behaviour. Most distally, an individual's environment (built or natural) and the policies that determine how this environment is utilised, exerts influence on behaviour. The framework encompasses concepts of lived experience, place, agency and participation when considering behaviour and acknowledges that these are influenced historically and change through time. The framework lends itself to pedagogies of experience, as it is overlaid on the lifeworlds of the individuals involved.

Our hope is that in applying this approach we provide a mechanism for educational researchers and practitioners alike to contextualise learners' experiences and their educational outcomes and begin to unpack understandings around why particular educational encounters exist, how they are changing, and the complex interactions that would need to occur in order to change (improve) them. In doing so we challenge the idea that students – and indeed educators – are entirely responsible for learning. We acknowledge that behaviour is never determined solely by the individual. Learning is always a combination of learners and their teachers or guides, their community (which may stretch from the local, through the regional to the national and global), and is ever dependent upon the well-being of natural ecosystems. This compels us to consider the nature of connections between personal, social and natural ecologies and in doing so open up opportunities for developing new understandings and ways of being.

Conclusion

This chapter discusses the foundational concepts of lived experience, place, experiential pedagogies and agency and participation through a series of vignettes. We feel that these concepts, when they are considered as a cohesive whole, can play an important role when engaging with research and practice that explores how we learn through a socio-ecological approach. The vignettes were used to open up thinking on practice and to disturb some of the everyday assumptions held within physical, environmental and outdoor education. Finally, the framework was introduced in order to locate those things that have an influence on learners' knowledge and behaviour.

In the case-study chapters that follow, we add to this framework with many examples drawn from research. Our hope is that these will encourage readers to consider the complexity of relationships, places, identity, experience, power and meaning-making. Collectively the authors of the chapters provide examples of how socio-ecological approaches can be applied, or reflected upon, in very different contexts and settings. The aim is not to report a 'perfect' or clinical form of socio-ecological praxis. Such a thing does not exist in the real, messy world. Rather we hope that readers will draw something from each of the case studies and will consider informing their own developing socio-ecological view of researching and practicing education, teaching and learning.

References

Alfrey, L., L. Webb, and L. Cale. 2012. Physical education teachers' continuing professional development in health-related exercise: A figurational analysis. *European Physical Education Review* 18(3): 361–379.

Alsop, R., M. Bertelsen, and J. Holland. 2006. *Empowerment in practice: From analysis to implementation*. Washington, DC: World Bank.

Arendt, H. 1978. *The life of the mind*. San Diego: Harcourt Brace.

Barnes, D. 1992. The significance of teachers' frames for teaching. In *Teachers and teaching – From classroom to reflection*, ed. T. Russell and H. Munby, 9–32. London: Falmer Press.

Bell, M. 1993. What constitutes experience? Rethinking theoretical assumptions. *Journal of Experiential Education* 16(1): 19–24.

Berry, W. 1987. *Home economics*. San Francisco: North Point Press.

Brooker, R., and D. Macdonald. 1999. Did we hear you? Issues of student voice in a curriculum innovation. *Journal of Curriculum Studies* 31(1): 83–97.

Cook-Sather, A. 2002. Authorising students' perspectives: Towards trust, dialogue and change in education. *Educational Researcher* 31(4): 4–14.

Dewey, J. 1938. *Experience and education*. New York: Collier Books.

Fielding, M. 2001. Students as radical agents of change. *Journal of Educational Change* 2(2): 123–141.

Foucault, M. 1975. *Discipline and punish: The birth of the prison*. New York: Random House.

Freire, P. 1970. *Pedagogy of the oppressed*. Boulder: Paradigm.

Gard, M. 2008. Producing little decision makers. *Quest* 60: 488–502.

Gardner, H. 1983. *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.

Gruenewald, D. 2003a. Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal* 40(3): 619–654.

Gruenewald, D. 2003b. The best of both worlds: A critical pedagogy of place. *Educational Researcher* 32(4): 3–12.

Gruenewald, D., and G. Smith. 2008. *Place-based education in the global age*. New York: Lawrence Erlbaum Associates.

Jardine, D. 1998. *To dwell with a boundless heart: Essays in curriculum theory, hermeneutics, and the ecological imagination*. New York: Peter Lang Publishers.

Joplin, L. 1981. On defining experiential education. *Journal of Experiential Education* 4(1): 17–20.

Knapp, C. 1992. *Lasting lessons: A teacher's guide to reflecting on experience*. Charleston: ERIC Clearinghouse on Rural Education and Small Schools.

Loughran, J. 2006. *Developing a pedagogy of teacher education: Understanding teaching and learning about teaching*. London: Routledge.

Mandel, L.A., and J. Qazilbash. 2005. Youth voices as change agents: Moving beyond the medical model in school-based health center practice. *Journal of School Health* 75: 239–242.

Mitra, D. 2008. Balancing power in communities of practice: An examination of increasing student voice through school based youth adult partnerships. *Journal of Educational Change* 9: 221–242.

Narayan, D. 2005. *Measuring empowerment: Cross disciplinary perspectives*. Washington, DC: The World Bank.

O'Connor, J., L. Alfrey, and P. Payne. 2012. Beyond games and sports: A socio-ecological approach to physical education. *Sport Education and Society* 17(3): 365–380.

Penney, D., and T. Chandler. 2000. Physical education: What future(s)? *Sport Education and Society* 5(1): 71–87.

Penney, D., and J. Evans. 1997. Naming the game: Discourse and domination in physical education and sport in England and Wales. *European Physical Education Review* 3(1): 21–32.

Penney, D., and M. Jess. 2004. Physical education and physically active lives: A lifelong approach to curriculum development. *Sport, Education and Society* 9(2): 269–287.

Penney, D., and Lisa Hunter. 2006. (Dis)abling the (health and) physical in education: Ability, curriculum and pedagogy. *Sport, Education and Society* 11(3): 205–209.

Relph, E. 1976. *Place and placelessness*. London: Pion Limited.

Robinson, K. 2008. RSAnimate: Changing education paradigms. Presented at RSA, 8 John Adam Street, London WC2N 6EZ.

Rossi, A.J. 2006. An educational rationale for movement in education. In *Teaching Health and Physical Education in Australian Schools*, ed. R. Tinning, L. McCuaig, and Lisa Hunter, 9–16. French Forest: Pearson Education Australia.

Schon, D. 1983. *The reflective practitioner: How professionals think in action*. USA: Basic Books.

Sinclair, R. 2004. Participation in practice: Making it meaningful, effective and sustainable. *Children and Society* 18(2): 106–118.

Sloan, K. 2006. Teacher identity and agency in school worlds: Beyond the all good/all bad discourse on accountability explicit curriculum policies. *Curriculum Enquiry* 36(2): 119–152.

Slot, S. 2008. *What's the buzz about? The meaning of empowerment and participation*. Unpublished Masters thesis completed at University of Twente, The Netherlands.

Smith, G. 2002. Place-based education: Learning where we are. *Phi Delta Kappan* 83: 584–594.

Thomas, N. 2007. Towards a theory of children's participation. *International Journal of Children's Rights* 15: 199–218.

Thomashow, M. 1996. *Ecological identity: Becoming a reflective environmentalist*. Cambridge, MA: The MIT Press.

Tinning, R. 1997. Reinventing physical education and health in schools: Lessons from trainspotting and Deepak Chopra. *Journal of Physical Education New Zealand* 30(4): 17–19.

Tinning, R. 2004. Rethinking the preparation of HPE teachers: Ruminations on knowledge, identity and ways of thinking. *Asia-Pacific Journal of Teacher Education* 32(3): 241–253.

Wattchow, B., and M. Brown. 2011. *A pedagogy of place: Outdoor education for a changing world*. Victoria: Monash University Publishing.

Wattchow, B., and J.P. O'Connor. 2003. *re(Forming) the 'Physical' in a curriculum / pedagogy for health and well-being: a socio-ecological perspective*. Paper presented at the NZARE/AARE, Auckland New Zealand.

West, A. 2004. Children and participation: Meaning, motives and purpose. In *Having their say: Young people and participation: European experiences*, ed. D. Crimmens and A. West. Lyme Regis: Russell House.

Woods, P., and B. Jeffrey. 1996. *Teachable moments: The art of creative teaching in primary schools*. Buckingham: Open University Press.

Yonezawa, S., M. Jones, and F. Joselowsky. 2009. Youth engagement in high schools: Developing a multidimensional, critical approach to improving engagement for all students. *Journal of Educational Change* 10: 191–209.

Young, I.M. 2000. *Inclusion and democracy*. New York: Oxford University Press.

Part II

Chapter 4
Through Curriculum Renewal: An Aotearoa-New Zealand Case Study

Brian Wattchow and Mike Boyes

Abstract The first of the case study chapters provides a compelling example of how a socio-ecologically inspired vision for education and policy initiatives can develop and ultimately change the very foundations of approaches to teaching and learning. All school teachers and teachers in training will be familiar with curriculum documents that present the aims, objectives and structure of school curricula. These documents are usually organised around key learning areas such as English, Science, Mathematics, Health and Physical Education and so on. Curriculum documents establish the boundaries of content and levels of attainment required by students as they progress through the various levels of schooling from a preparatory year, through primary and secondary schools. They reflect the philosophies of the government of the day and are in a more or less constant state of review and renewal. Committees are established and representation called for from key stakeholders such as politicians, academics with expertise in varying disciplines, members of the community and from teachers themselves. Interestingly, we have never heard of students being represented as the ultimate key stakeholder in the curriculum development process at its most fundamental level. The stakeholders argue, discuss and debate what should or shouldn't be taught in a state or nation's schools. Inevitably, curriculum documents shape, and are shaped by, a nation of people. But not all people are equally in a position to shape curriculum in this way. Curriculum documents are artifacts of history, political conventions, historical and contemporary views of knowledge and pedagogy. They are also aspirational statements about the purpose and function of schooling in the ongoing

---

B. Wattchow (✉)
Faculty of Education, Monash University, McMahon's Road, Frankston, VIC 3199, Australia
e-mail: brian.wattchow@monash.edu

M. Boyes
School of Physical Education, University of Otago, North Dunedin, New Zealand
e-mail: mike.boyes@otago.ac.nz

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_4, © Springer Science+Business Media Dordrecht 2014

work of societal change. This chapter outlines a remarkable process whereby socio-ecological principles were used, and came to have a major presence, in the development of the New Zealand Health and Physical Education curriculum.

Keywords Curriculum development • Socio-ecological curriculum • New Zealand • Health and physical education

Introduction

Along with the bricks and mortar of school buildings, educational policy and curriculum documents might be thought of as foundational to the schooling process. They are the cornerstone of what is taught in schools. Generations of teachers and students come and go – each one's lived experience of their years in a school being a mix of their own efforts, the learning context they find themselves in and the curriculum. However, it is all too easy to take for granted the cultural significance and consequences of curriculum documentation. Like the cornerstone that underpins the building, it is easy to miss. In this chapter we want to call in to question the hidden work that curriculum reform does and how it can produce documentation, and ultimately impact on teaching practice, that has far reaching consequences. We will discuss the reform process that underwrote significant change in Health and Physical Education curricula in New Zealand. We think it provides a compelling example of how this can promote socio-ecological and democratic ideals and practices.

This is important, as it is often argued that the processes of curriculum development and the documents that they produce are hegemonic in character; that is, that they reflect the dominant ideas and ideals of those in positions of power and privilege. They can be seen as instruments tuned to maintain the status quo, or worse, to increase the divide between the haves and the have-nots. Each cycle of curriculum reform can thus be seen as a test of political belief and will and to reflect the prevailing social conditions within a society.

Socio-critical theorists in physical education have considered how curricula, teaching and learning in the subject can privilege some while marginalising others. Their efforts are aimed at exposing the hidden curriculum, those invisible influences that shape learning experiences, and the promotion of social justice. This has been summarised by Nutt and Clarke (2002), who draw on significant writings spanning the last three decades of Giroux, Bain, Kirk and Fernandez-Balboa, to name a few. The social critics of education want to interrogate, challenge and change the 'everyday' encounters with, and the transmission of, social inequity in all its forms. They want to expose and challenge the cultural mechanisms that make this process persistent. Exposing the hidden curriculum of physical education has resulted, to some extent, in a more accessible educational practice, less bound by perceived restrictions of motor ability, gender, age, ethnicity and so on. Yet practice is often slow to change. If the cornerstone of the curriculum is still in place, change can be ephemeral.

Kirk (1992, p. 37) defined the hidden curriculum as 'the learning of knowledge, attitudes, norms, beliefs, values and assumptions … communicated unintentionally, unconsciously and unavoidably.' The formal teaching, organisation and content of the politically sanctioned curriculum of the day are the medium through which the hidden curriculum works. Dodds (1985) narrowed the concept by identifying the hidden curriculum as one of four aspects of the functional curriculum:

(a) Explicit curriculum – those publicly stated and shared items that teachers want students to acquire. As we have pointed out above, this is often now stipulated in curriculum documents developed by the representatives of those in positions of political power.
(b) Covert curriculum – a teacher's unspoken, non-public agendas (still consciously and intentionally communicated). But covert curriculum might also be encoded in curriculum documentation.
(c) Null curriculum – the ideas, concepts and values left out (that could be included). Again, this applies equally to the work of teachers and to the curricula structures they work with.
(d) Hidden curriculum – reflexive aspects of what teachers say and do (e.g. non-verbal communication and/or unconscious messages related to speech, action and organisation).

Kirk (1992) emphasised the interweaving of all four aspects of the functional curriculum to produce purposeful teaching and learning. Kirk goes further in linking curriculum to a pedagogical discourse by describing a discourse as 'the ways in which people communicate their understanding of their own and others' activities and events in the world' (p. 42). Furthermore, he describes an ideology as 'an arbitrary linking and fixing of formerly separate discourses in ways that seem natural and necessary and that have effects on social relations and power' (p. 43). An ideology, a kind of invisible and unquestioned logic about what should be taught in a learning area like physical education, therefore appears inevitable and incontestable and actually frames our perceptions and thinking about the world. It is through these kinds of mechanisms that students tacitly learn and internalise norms and values representing the private interests of the dominant groups in society (Apple 1985; Fernandez-Balboa 1993).

Having outlined the kind of entrenched societal forces that can resist change and sustain the hidden curriculum of a field, the contemporary curricula statements that underpin teaching and learning in Health and Physical Education in New Zealand must be seen as all the more remarkable. The excerpt below is from the New Zealand Ministry of Education's official website.

Four underlying and interdependent concepts are at the heart of this learning area:

- **Hauora** – a Māori philosophy of well-being that includes the dimensions Taha wairua [spiritual well-being], taha hinengaro [mental and emotional well-being], taha tinana [physical well-being], and taha whānau [social well-being], each one influencing and supporting the others.

- **Attitudes and values** – a positive, responsible attitude on the part of students to their own well-being; respect, care, and concern for other people and the environment; and a sense of social justice.
- **The socio-ecological perspective** – a way of viewing and understanding the interrelationships that exist between the individual, others, and society.
- **Health promotion** – a process that helps to develop and maintain supportive physical and emotional environments and that involves students in personal and collective action.[1]

The learning activities in Health and Physical Education arise from the integration of the four concepts above, the following four strands and their achievement objectives, and seven key areas of learning. The four strands are:

- **Personal health and physical development**, in which students develop the knowledge, understandings, skills, and attitudes that they need in order to maintain and enhance their personal well-being and physical development.
- **Movement concepts and motor skills**, in which students develop motor skills, knowledge and understandings about movement, and positive attitudes towards physical activity.
- **Relationships with other people**, in which students develop understandings, skills and attitudes that enhance their interactions and relationships with others.
- **Healthy communities and environments**, in which students contribute to healthy communities and environments by taking responsible and critical action. (http://nzcurriculum.tki.org.nz/Curriculum-documents/The-New-Zealand-Curriculum/Learning-areas/Health-and-physical-education. Accessed 8 September 2011)

The remarkable nature of this curriculum occurs on multiple levels. Health and Physical Education have been integrated in many different countries. Richard Tinning (2000, p. 20) has argued that 'in the always limited time available for physical education (even if integrated with health education), preference should be given to pursuing those educational objectives that are developed through participation in physical activity – objectives that focus on knowledge, skills and attitudes considered useful in preparation for a healthy lifestyle'. Tinning argues: 'Education *for* a healthy lifestyle is a reasonable compass-bearing for our professional mission as physical educators'. Health and Physical Education has become more overtly a vehicle of the 'new public health' agenda, itself an amalgam of positivist and socially critical approaches and, seen in this light, may be perceived as an answer to those indicators of public ill health that appear on the increase (e.g. drug abuse, teen pregnancies, youth suicides, youth depression, obesity), while at the same time addressing indicators that appear on the decrease (e.g. fitness, skill, participation). More remarkable, we feel, is the commitment to a socio-ecological perspective that endorses teasing out the interrelationships that exist between individuals, others and broader society, a point that has been emphasised as fundamental in this book.

---

[1] In health and physical education, the use of the word hauora is based on Mason Durie's Te Whare Tapa Whā model (1982). Hauora and well-being, though not synonyms, share much common ground.

Yet even more remarkable is the commitment to, and infusion of, indigenous knowledge, values and practices into the nation's curriculum. Collectively, this approach has the potential to be deeply transformative for both individuals and for society. This is a real-world example of what Gruenewald (2003) referred to as the kind of decolonisation of beliefs and ideas that is needed before re-inhabitation of a more socially and ecologically just world is possible. To understand the setting or context in which this reform was developed requires a short diversion into New Zealand history.

New Zealand: South Pacific Island or British Colony?

The landmass Aotearoa-New Zealand rides the edge of two giant continental plates – the Indo-Australian Plate and the Pacific Plate. Pressure and movement along these plate boundaries provides New Zealand with its distinctive topography of alpine mountains in the south and volcanoes, hot springs and bubbling thermal mud pools in the north. The first New Zealand settlers were Moriori and Māori, arriving in their waka (canoe) fleets during the great era of Polynesian ocean voyaging, some time in the thirteenth century AD (King 2003). Legend has it that Kupe, a great Polynesian navigator, discovered the islands and named them Aotearoa ('the land of the long white cloud'). Māori society in Aotearoa is made up of many iwi (tribes). The iwis share collective history, language and belief systems. The late eminent historian Michael King (2003) suggested that there was no uniform Māori name for the collective islands until after European colonisation. Even so, both 'New Zealand' (for the British) and 'Aotearoa' (for Māori) have stuck, and henceforth we follow the post-colonial convention of pairing them to recognise the foundation of the nation's bi-culturalism (with a few exceptions when we are referring specifically to one or the other). Both Māori and Pakeha (the Māori word for all non-Māori) make up the peoples of Aotearoa-New Zealand.

The possibility of a great land in the south, a *Terra Australis Incognita [the unknown south land]*, fired the imagination of European cartographers and explorers between the fifteenth and eighteenth centuries. Eventually the presence of a Great South Land (Australia) would be confirmed by Abel Tasman and James Cook's explorations in 1769–1770. Cook mapped most of the coastline of New Zealand and the east coast of Australia on this voyage and European colonisation soon followed. Abel Tasman charted a section of New Zealand's west coast in 1642, but thought the land he saw from the pitching deck of his boat was connected to South America, itself only partially charted at the time. Whaling and sealing stations were set up throughout the South Pacific, and in New Zealand, as early as 1791.

Māori communities provided considerable resistance to European settlement and the New Zealand Wars raged between 1845 and 1872, despite the signing in the North Island in 1840 of the Treaty of Waitangi. It is important to understand for the rest of this chapter that the Treaty of Waitangi not only provided the formal declaration of New Zealand as a British colony and accorded Māori the rights of British subjects, but also recognised for Māori 'full, exclusive and undisturbed possession of their Lands and Estates, Forests, Fisheries and other properties' (Treaty of Waitangi, Article 2). The date of the original signing ceremony has been celebrated annually as a national holiday since 1974 – Waitangi Day. Even so, negotiation and reconciliation between Pakeha and Māori is ongoing.

A Sporty or Healthy Aotearoa-New Zealand?

Sport and physical activity have long been a defining characteristic of New Zealand identity. Much of this results from the nation's origins as a British colony with foundational attempts to create a better Britain. British settlers introduced Shakespeare's birds, trees and flowers and game animals such as deer, rabbits, ducks and trout. This was the raw material for the hunting, shooting and fishing fraternities. Life for the early Pākehā settlers involved manual outdoor work in a rugged physical environment where a risky workplace, isolation and remote rural communities were daily realities. In addition, the sports and pastimes of the home country, like rugby, cricket, netball, rowing, tennis, aquatics and athletics were established, became popular and were taught in the schools. The All Blacks rugby team is the highest profile sporting team in the country and represents a unique combination of British and Māori values, with each match commencing with the team performing a Māori dance, the haka.

Education was highly valued by the early settlers, who quickly established schools with the conservative traditionalism of the home country. Following international trends, curricula later became more humanistic, with child and experience-centred pedagogy. In terms of physical education the curriculum for many years mimicked British models, rather than developing something unique and distinctive to its local context, particularly in terms of its emerging biculturalism. In more recent times this has changed to a hybrid with uniquely Aotearoa-New Zealand perspectives (with the echo of Britain growing ever fainter). How then did the unique Health and Physical Education curriculum of Aotearoa-New Zealand come into being? How did the curriculum reform bring together both innovative approaches that might be thought of as Western concepts (such as a socio-ecological perspective and a focus on community health and wellbeing) and an indigenous focus on hauora? And what does this mean for teachers and students in practice?

In an attempt to provide answers to these questions we (the authors of this chapter) audio-taped a conversation, with Brian primarily taking the role of interviewer and provocateur and Mike as the interviewee. Brian has worked in outdoor and physical education in Australia for many years and has travelled extensively throughout Aotearoa-New Zealand. Mike, on the other hand, has a long history of working in physical education in Aotearoa-New Zealand, as a teacher, academic and participant in the curriculum reform process. The excerpts that follow were based on four broad questions used in the interview (which, perhaps ironically, was recorded in Denmark, where both of the authors were attending a conference). The framing questions were as follows: What motivated the curriculum reform? What resistance was encountered? What processes were used to increase the likelihood of its success? How have the curriculum reforms been received in practice? Post interview, and after the initial transcripts had been checked, additional writing and editing work was done to check accuracy, provide detail and to improve the readability of the excerpts.

What Motivated the Curriculum Reform?

BW (Brian Wattchow): Mike, we want to talk about the reforms to the New Zealand Health and Physical Education curriculum and, in particular, how it came to incorporate a socio-ecological perspective. But first it would be helpful to paint a bit of a picture of the political climate in which the reforms took place. What do you recollect about those times?

MB (Mike Boyes): I think the political foundations of the reforms began years ago. There was a steady trend for Western societies to withdraw from state control and overt welfare provision, towards embracing neoliberal thinking and global capitalism. In New Zealand the Lange Labour government of 1984 totally embraced neoliberalism and the importance of the free market. This was led by Minister of Finance Roger Douglas and known as ‘Rogernomics’. He idealised the unbridled marketplace and an unregulated economy and thought that government infrastructure could be arranged this way. His ideas were well motivated to reduce inflation, bring down national debt and increase economic growth, but had unfortunate side effects. Subsequently centralised and local government was reduced drastically and outsourced to competing private providers where possible. The governments that followed watered back some of the extremes of raw economics but still embraced neoliberal economic policies.

Changes to New Zealand’s education system commenced about the same time. The centralised Department of Education with the mandate of education as a public good was disbanded in favour of a streamlined Ministry of Education that served the minister. Schools were organised as competitors in the marketplace. They were set up as self-managing with community-based Boards of Trustees. They were seen as separate cost centres responsible to the Ministry of Education through accountability for funding. So while education was seen as a market, the government operated a monopoly, requiring highly specified outputs developed for each key learning area contained within a national curriculum. I think there was quite a move towards vocational training, which trickled down from being quite specific at tertiary level to more general at primary-school level.

I think teaching changed as well. The expectation of a post-modern teacher was more about imparting industry-specified skills to a selected client group driven by individualism and self-interest and costing the state as little as possible. There is no doubt in my mind that the curriculum documents were intended to establish a direct relationship between the neoliberal philosophies of the government, educational objectives and curriculum content. The key drivers were the politicians, although they recognised that if teachers and others were not taken on board there would be slippage between curriculum and practice. For instance, when teachers resisted and carried out business as usual, they were accused of provider capture and attempts were made to marginalise their influence.

I think the problem for state control is that in post-modern society the relationship between policy and practice is contested and in a constant state of flux. Hence the importance of collaborative relationships between politicians, professional associations, academics and parents, but with a heavy government hand. Things changed too with the election of new governments. In 1993 the Bolger government took the extreme Rogernomic right-wing economic policies and shifted them to the left, focused on Tony Blair's Third Way, a knowledge economy and the importance of human capital. It opened the door to the recognition of broader socio-ecological factors in education. It was about this time that the NZ Curriculum Review began.

I think the other strong motivation to change actually came from within the physical education profession itself. During prior years, dominant paradigms embraced the scientific and biophysical bases like anatomy, exercise physiology, exercise prescription and the like, with a focus on physical fitness and sports skills. The thinking was being challenged by some influential folk like academics and teacher educators Ian Culpan, Bruce Ross and Bevan Grant, who embraced a socio-critical approach with recognition that the body operated in a social context. I think they saw that bio-science was important but only part of the picture.

In the new curriculum, Health and Physical Education were lumped together and having to look at Physical Education from the perspective of health, as compared to sporting performance, meant that we had to reappraise physical education from a broader perspective. So the dominant paradigm was challenged by the socio-critical approach, which acknowledged that health operated within a social context and hence the interrelatedness of the physical, social, mental and emotional nature of wellbeing.

BW: Mike, you have provided an interesting political background of those times. It sounds like a very conservative environment, but also a time when some were challenging the philosophies behind those political beliefs. How did this translate into the kind of change that is embodied in the alternative philosophy of the PE curriculum reforms? How was that change initiated?

MB: Health and physical wellbeing was identified as one of seven key learning areas within the New Zealand curriculum framework. The area was to encapsulate health education, physical education and aspects of home economics, and at times these initially appeared to be uneasy bedfellows. The name physical education even disappeared from the title. In 1995 the Ministry of Education hand-picked an expert advisory group of Health and Physical Education professionals and other stakeholders. They were asked to establish a framework for the development of the curriculum that was to integrate the three areas, be based on sound research and best practice, reflect the principles of the curriculum framework and acknowledge the values, learning styles and needs of students.

Two principal writers – Ian Culpan from PE and Gillian Tasker from Health, both academics in Colleges of Education – were contracted to develop the curriculum. They gathered a team of about 15 writers through the country, each of whom had an advisory group. So the spread was fairly wide and they were able to make good contact with the grassroots. The regional writers met regularly with the principal writers, who constructed the document. So this was quite a good bottom-up process that probably had something to do with the subsequent derailment of the neoliberal agenda. The writers reported back to the advisory group at regular intervals and there was another group set up by the Ministry to obtain independent advice, some of which I know about.

BW: What were the most significant changes in the new curriculum compared to the previous version?

MB: Some of the changes came through the neoliberal agenda and a focus away from content towards outcomes, and I guess I've talked about those. With our area itself, the key change was to shift physical education from a technocratic scientific base towards a more socio-critical pedagogy that was clearly at odds with the government's market ethos of education. In effect the body was viewed less as a commodity of production that needed to be kept in peak condition, and more as the body in society that was aware of the power structures and social and economic forces that underpin the wellbeing of individuals and society. This didn't mean that the scientific bases were excluded, because they were strongly still part of the question. But there were growing numbers of people with different beliefs and paradigms that could challenge the dominant bio-physical ideologies. It meant that students were encouraged to engage in critical thinking about the movement culture of society and take informed action on key issues.

The other obvious change was the merging of the three areas of physical education, health education and the nutritional aspects of home economics. Originally it almost felt as if physical education was fighting for its life, as the new area was called health and physical wellbeing. To some of us this almost seemed like health and more health. To our relief, after intense lobbying we were able to get the words physical education back in, instead of physical wellbeing. But on reflection, this combination of health and PE was one of the driving forces for the embrace of socio-ecological principles. We had to think wider about how physical education could be infused with health. It was apparent very early on that a focus on sport was not going to sit particularly well with a health approach. The whole notion of wellbeing linked far more to a socio-cultural focus on physical activity in a more general sense than a focus on elite sports performance.

BW: When I first encountered the new curriculum documentation in the early 2000s several things struck me as being highly distinctive. I thought the recognition of Māori concepts was very significant. And the inclusion of a strong socio-ecological perspective struck me as highly innovative. I hadn't seen that in formal education policy anywhere before, let alone in a curriculum document for Health and Physical Education. How did socio-ecological principles come to play such a significant role?

MB: Most socio-ecological models include a number of layers, such as the individual, social and physical environments, community and state. Bronfenbrenner highlighted the complexity and multidimensionality of environments and how relationships between people and their environments were dynamic. He also talked about influence from top-down, bottom-up and interactive effects between the layers. These ideas can be seen in the curriculum in a number of ways.

The socio-critical intent was infused throughout with the underlying concepts of Hauora (overall wellbeing), attitudes and values, health promotion and the socio-ecological perspective coming through strongly. In practice these concepts were developed through the four strands of personal health and physical development; movement concepts and motor skills; relationships with other people; and healthy communities and environments. Strands 1 and 2 focus more on the individual and Strands 3 and 4 involve recognition of social and natural environments and communities. The key areas of learning were mental health, sexuality education, food and nutrition, body care and physical safety, physical activity, sports studies and outdoor education.

There was a requirement that schools address all of the strands and not just construct a local curriculum based on strand two. In order to do justice to all of the strands a teacher had to engage in the interrelatedness of physical, social, mental and emotional aspects of wellbeing. While skill learning was still valued, there was also an expectation that the learning area would critique sport, play, exercise and physical activity within individuals and society, although it was the latter aspects that would prove to be the most challenging for teachers to implement. Ian Culpan and others have written a number of articles that develop and refine the implementation of a critical pedagogy.[2]

In addition you can see a socio-ecological process of top-down and bottom-up development and implementation of the curriculum. State management is clearly top down and the grassroots involvement of the physical and health educators was more bottom up. The principal writers had a clear vision of what they wanted and where they wanted to go. But they were certainly listening carefully to whether their approach was going to work and if it was to be embraced and what should be in the document to reflect those things. That was an ongoing process and I think that led to successful implementation in the end.

If you take time with a truly consultative process of bottom up and top down then I think you can get reform through pretty quickly. With a top-down approach it hits resistance, takes twice the time, three times the time. So I think the approach here was excellent … in some ways that process was a reflection of the socio-ecological model in itself. These guys were walking the talk. They believed in the socio-ecological approach and they were also demonstrating it. They were involving individuals, communities, social groups and listening to what people wanted to do.

---

[2] See Gillespie and Culpan (2000) and Culpan and Bruce (2007).

BW: Mike, you also mentioned the Māori principle of hauora. As I said before, I was very struck by the presence and status of Māori principles in the curriculum. How did that come about? How did the curriculum reform process embrace Māori ideas and values?

MB: This was an interesting area, as Māori were short-changed in some ways and recognised in others. There is a long history of documented Māori games and pastimes dating from Elsdon Best's work in the early 1900s. Philip Smithells, who was an early NZ icon of physical education, collected a lot of material and published a series of articles in the *Education Gazette* in the 1940s. Te Reo Kori [aspects of Māori movement] became a significant component of the prior-1987 physical education syllabus. Some solid teaching resources were produced and teacher development courses ran on a frequent basis. Groups of practitioners throughout the country and the curriculum writers clearly saw Te Reo Kori as a key learning area and this was endorsed by a large meeting of health and physical educators who blessed the final draft of the curriculum before it was forwarded to the Ministry of Education. Sadly the politicians of the day asked that its prominence be reduced and to remove it from the list of learning areas. This was scandalous given the Treaty of Waitangi and the history of Te Reo Kori.

Puzzlingly the politicians agreed that Hauora (a state of complete physical, mental, social and spiritual wellbeing) could be retained as a guiding principle. In the latest curriculum Hauora has been watered back, with the dimensions identified but not elaborated on, but importantly it is still there. There is also a Māori-language version of the 2007 curriculum called Te Matautanga o Aotearoa. There are subtle changes to the strands: Strand 1 Waiora – personal health and development; Strand 2 Koiri – movement concepts and motor skills; Strand 3 – Tangata – people and relationships; and Strand 4 Taiao – health and the natural environment. The original Te Reo Kori resources are still alive and well in practice and are important tools in most Physical Education teachers' repertoires.

BW: Were Māori writers involved in this curriculum process? Were they the driving force behind these ideas being included?

MB: There were certainly Māori writers involved and totally supportive of this approach, but interestingly it went through a bit of a debate amongst Māoridom. Some believed that Māori cultural knowledge was a taonga, which is a treasure, and to be guarded and possibly managed only by Māori. Others believed that it should be integrated into wider society – aspects of it – without losing its value as a treasure. So there was a bit of debate in Māoridom about who could use Māori knowledge and protocol and who shouldn't. That is a debate that still exists. But generally speaking there was considerable Māori input to inform the development of Hauora.

What Resistance Was Encountered?

BW: Mike, most reform processes in society face considerable resistance from the status quo. I forget who said it, but there is an understanding that most reforms go through a process of initial ridicule and rejection from those in positions of power and authority before finally becoming accepted by the community. Was resistance to the curriculum reform process encountered and how was it dealt with?

MB: There was always an inherent tension in the way the curriculum was developed, with the strong government agenda linked to a market economy on one hand, counterbalanced with the critical analysis of physical education teachers, schools and stakeholders on the other. The teaching profession was determined to be central to the development of the curriculum and had the upper hand in the writing process, as the curriculum writers were from the profession. They were able to infuse the document with socio-ecological philosophies in addition to the framework of hauora. But this was by no means a peaceful process within the profession itself. The key debates were between the advocates of the biophysical approach, who valued fitness and skill development, and those determined to elevate the importance of critical socio-cultural perspectives. The latter made ground, but devotees of the former are still alive and well today.

For instance, the Sport and Recreation Commission was very keen to see that sport was totally what Physical Education was all about. So they saw the socio-ecological approach as a watering down and a weakening of the sport lobby. They predicted dire consequences down the line; that New Zealand's prowess as a sporting nation would be lost. Once they realised the dominance was lost we saw the beginnings of things like the Kiwi Sport program, where the Commission funded external people and clubs to come into the schools with a sports coaching program. Sadly in some schools these became the focus of the Physical Education program. In other schools they were run in partnership, or more commonly the Physical Education teachers picked them up as useful resources that they would integrate into their teaching.

Once the draft document was released a formal consultation phase began, where a wide range of groups and stakeholders could provide feedback to the Ministry of Education. From memory there was strong support from the field. I think the strongest critic was the Education Forum, which was a right-wing group linked to the New Zealand Business Roundtable. They claimed there was a hidden agenda to change New Zealand society and they were probably right. They were dead against educating for change and supportive of education for cultural replication. They were also keen to get rid of Strand C: Relationships with Other People, and to restrict the focus of the document.

For whatever reason, their arguments did not carry into practice. Perhaps the public's resistance to Rogernomics was influential. There was also resistance and discussion within Māoridom about the appropriateness of Hauora. Some of the concerns were about tokenism and others were whether Hauora was the most appropriate concept. Clearly Te Reo Kori embraced physical education and Hauora was seen to embrace health. There was concern that Hauora was to be employed outside of its Māori context and not linked to a Māori world view. The Ministry of Education, probably influenced by the minister of the day, ensured Te Reo Kori did not hit the light of day. In the 2007 revision, Hauora is watered back even more, as the neoliberal state strikes back.

What Processes Were Used to Increase the Likelihood of Its Success?

BW: Mike, you have told us about how this remarkable curriculum reform was initiated by some quite radical ideas about Health and Physical Education and how the writing of the curriculum was informed by stakeholders from across New Zealand. It really does seem to reflect the kind of bi-cultural foundations of Aotearoa-New Zealand society. Also, you have talked about the kind of resistance encountered. Given this resistance, what strategies and processes were used to increase the likelihood of success?

MB: There was actually a reasonably robust process used in the implementation. There was lots of consultation and the writing process itself created a sense of ownership in the regions. The release of the document was delayed because of the pace and workload created by the release of some of the other curriculum documents and the Health and Physical Education document was held back until the social studies curriculum had been implemented. While it was frustrating at the time, Health and Physical Education hit the schools when they were more able to deal with it.

The draft was released and trialled extensively. There was a lot of resource development and facilitator training that went on. Feedback was collated before shaping and gazetting of the final document. It has been shown time and again that teacher professional development is crucial to the roll-out of a curriculum. I believe you have to win the hearts and minds of the workforce and share ownership, otherwise you get business as usual.

How Have the Curriculum Reforms Been Received in Practice?

BW: Finally, Mike, can you describe how the reforms to the curriculum documentation have been received and how they have changed how Health and Physical Education has been taught in Aotearoa-New Zealand schools.

MB: I think the reforms were received with enthusiasm, especially by those who understood the critical and socio-ecological approaches. These were tricky concepts to get to grips with, especially the socio-ecological model and how you actually implemented it. I'm not sure it has ever been well understood and implemented. Hauora was problematic in everyday practice too, and many continued to use the Te Reo Kori resources for day-to-day teaching. The critical pedagogy also needed ongoing teacher education. Probably those best served were the new graduates from the Health and Physical Education teacher education programs, where they had the benefits of immersion in the concepts and graduated with a range of strategies to implement them. Teachers in service didn't have the same opportunities.

After 4 or 5 years of the new syllabus, teachers were beginning to come to grips with it. Certainly I saw some great things taking place in workshops at the Physical Education New Zealand (PENZ) annual conferences. Then the government decided to implement a new curriculum, so the extensive 1999 curriculum was replaced with two pages on Health and Physical Education in the 2007 curriculum. Hauora was watered back further by the removal of mention of the four components, and this created quite a backlash. Allan Ovens, the current president of PENZ, believes the qualifications framework set by the New Zealand Qualifications Authority works against a socio-critical perspective. He argues persuasively that physical education shapes and is shaped by the assessment structures.[3] Hence teachers' subjectivities are shaped in ways that fit the neoliberal agenda.

I think the 1997 document was a forward-thinking document, ahead of its time. While it is no longer the official syllabus, it is still a persuasive philosophy. Because the 2007 syllabus could be regarded as flimsy on detail and understanding of children, the 1997 syllabus and the resources developed to support it are still powerful influences on practice. No doubt, however, the influence of the politicians in our present centre-right government will continue to have an opposing effect.

BW: The processes of curriculum reform inevitably involves managing change amongst professionals and in communities such as schools. What skills do you think teachers and administrators need to be able to manage the politics and processes of change in a curriculum, or policy, initiative like this one?

MB: There is no doubt in my mind that the 1997 Health and Physical Education syllabus with its socio-ecological approach and the embrace of a critical pedagogy was a very effective philosophy to enable people to understand and cope with change. Issues of social justice, like Freire's work, were prevalent in educational writing. These socio-ecological perspectives embrace the interdependence of individuals and their social and natural environments. They can expose the hidden, covert and null curricula and encourage the development of an understanding of the influences of power and the questioning of whose knowledge rather than what knowledge? I think there are also strong links to be made to strands in the social studies curriculum, such as how people can participate as critical, active, informed and responsible citizens. The Education for Sustainability Guidelines also adopt a critical socio-ecological approach.

---

[3] See Ovens (2010).

BW: It sounds like the socio-ecological model in the new curriculum has provided a tremendous resource and range of possibilities for teachers. It seems to have been motivated by what needed to change in practice and developed an effective strategy to achieve that, rather than impose a kind of conceptual model and then try to enforce that with teachers. It seems to have been able to keep sound elements from previous versions of the curriculum, while developing a more significant vision for the present and the future. Is that a fair summary?

MB: I think the socio-ecological approach allows you to set completely different objectives, provided you still have your base of human movement. You can set social, community or health objectives that before you would not have been able to do. In fact the end point that had once been the biophysical body expands to become a much wider range of outcomes. You could go a number of ways. I think physical activity and health are still strongly underpinned in practice, otherwise it becomes like Peking duck without the duck!

Conclusions

A socio-ecological perspective works across many layers and levels. But it also works through time, from the past, in the present and into the future. Being able to influence and change policy is a vital component of working for positive change on the broader scale and across a longer timeframe. Initiatives that have only a few supporters can be very hard to sustain if they are not accepted by larger social networks both within the community and even within government. As can be seen in this case study, the most fundamental ideas that support curricula can become contested by the advocates of a newer socio-critical and socio-ecological approach. In this case the advocates of change came up against the dominant and entrenched supporters of a biophysical or bio-medical model for sport and physical education. According to Sparkes (1991, p. 103), such ‘paradigm wars’ were a feature of physical education discourse of the 1980s.

> At a most fundamental level different paradigms provide a particular set of lenses for seeing the world and making sense of it in different ways. They act to shape how we think and act because for the most part we are not even aware that we are wearing any particular sets of lenses. (Sparkes, cited in Macdonald 2002, p. 168)

Particular views, beliefs and practices relating to a paradigmatic structuring of knowledge become institutionalised, as they had in the older curriculum versions of Physical Education for the development of fitness and sport skills. Sparkes (1991, p. 107) has argued that it becomes possible for the nature of paradigmatic influence to be continually reproduced as newcomers, like trainee or early-career teachers, are initiated into specific sets of assumptions, both overtly and covertly. He argues these lead to a ‘blind allegiance to a specific worldview and its concomitant methodologies’. Even so, one of the truly compelling and inspirational outcomes of the process of curriculum reform we have documented here is that the best of the old has been able to be carried forward and blended with a newer vision for Health and Physical Education. Reform does not necessarily require total replacement. What can be seen in this example is reconciliation between the old and the new. An understanding of the biophysical elements of human movement continues to be important, but the reformed curricula provide a far richer context for that knowledge to contribute to a more significant set of educational objectives.

This case study provides an example of how an agenda for educational and social reform can work. The strategies employed by the reformers may not be the 'perfect fit' for every situation, but we feel that many of the elements presented here will be of value to others considering, or involved in, the processes of educational reform and renewal. The top-down/bottom-up approach is an effective social mechanism for gaining the best perspectives of curriculum specialists, the attention of policy makers, and for recognising the contributions of practitioner expertise and the reality of local conditions. Rather than a divide, these different stakeholders represent points along a continuum, with all parties working for the benefit of learners, educators, schools, communities and ultimately the nation. The timeframe for meaningful and lasting change is often longer than anticipated.

Curriculum development is always an ongoing work in progress. It is iterative. Change may be sweeping or it may be incremental and occur over generations of curriculum reform. Effective advocacy amongst key stakeholders and winning the 'hearts and minds' of all is crucial. Providing ongoing support and resources as change influences the daily lives of practitioners is a requirement if the reform agenda is to be accepted and make a real-world difference. It is the socio-ecological perspective – with a focus on the four foundational concepts of lived experience, place, experiential pedagogies, agency and participation – and in this Aotearoa-New Zealand example it is also the infusion of Māori knowledge and values that has created such a distinctive version of Health and Physical Education. Finally, it is a curriculum that requires acceptance and ownership on the part of teachers and learners who have been granted the cultural licence to reconnect with their communities. This will be the final validation of this important policy initiative.

References

Apple, M. 1985. *Education and power*. Boston: Ark Paperbacks.

Culpan, I., and J. Bruce. 2007. New Zealand physical education and critical pedagogy: Refocusing the curriculum. *International Journal of Sport and Health Science* 5: 1–11.

Dodds, P. 1985. Are hunters of the functional curriculum seeking quarks or snarks? *Journal of Teaching in Physical Education* 4: 91–99.

Durie, M. 1982. Te Whare Tapa Whā model. http://www2.careers.govt.nz/educators-practitioners/career-practice/career-theory-models/te-whare-tapa-wha/

Fernandez-Balboa, J. 1993. Sociocultural characteristics of the hidden curriculum in physical education. *Quest* 45: 230–254.

Gillespie, L., and I. Culpan. 2000. Critical thinking: Ensuring the 'education' aspect is evident in physical education. *Journal of Physical Education New Zealand* 33(3): 84–96.

Gruenewald, D. 2003. The best of both worlds: A critical pedagogy of place. *Educational Researcher* 32(4): 3–12.

King, M. 2003. *The history of New Zealand*. Auckland: Penguin.

Kirk, D. 1992. Physical education, discourse, and ideology: Bringing the hidden curriculum into view. *Quest* 44: 35–56.

Macdonald, D. 2002. Critical pedagogy: What might it look like and why does it matter? In *The sociology of sport and physical education*, ed. A. Laker, 167–189. London: Routledge.

Nutt, G., and G. Clarke. 2002. The hidden curriculum and the changing nature of teachers' work. In *The sociology of sport and physical education*, ed. A. Laker, 148–166. London: Routledge.

Ovens, A. 2010. The New Zealand curriculum: Emergent insights and complex renderings. *Asia-Pacific Journal of Health, Sport and Physical Education* 1(1): 27–32.

Sparkes, A. 1991. Toward understating, dialogue, and polyvocality in the research community: Extending the boundaries of the paradigm debate. *Journal of Teaching in Physical Education* 10: 103–133.

Tinning, R. 2000. Seeking a realistic contribution: Considering physical education within Health and Physical Education in New Zealand and Australia. *Journal of Physical Education New Zealand* 33(3): 8–21.

Chapter 5
Through Coaching: Examining a Socio-ecological Approach to Sports Coaching

Ruth Jeanes, Jonathan Magee, and Justen O'Connor

> *He's so much more than a coach to me; he's my friend, my ally, my mentor and a teacher. He does so much more than just teach me about sport.* (Male participant)

Abstract The purpose of this chapter is to critically examine contemporary sports coaching, and to consider how social ecology might provide a valuable framework for critiquing current expectations placed on coaches, and how a socio-ecological approach may improve coaching practice. There are significant and diverse demands now being placed on the 'grassroots' community coach that are under-researched and under-theorised within the academic community and rarely considered by coach educators and policy makers. This chapter firstly uses a socio-ecological framework to deconstruct some of the assumptions which underpin 'sport for social good' projects. Secondly, a socio-ecological approach is presented as a possible alternative way to underpin sports coaching that is seeking to lead to certain wider social outcomes. The chapter concludes by suggesting that the holistic vision encouraged by a socio-ecological framework can offer a great deal for conceptualising of effective sports coaching.

Keywords Socio-ecological coaching • Community coaching • Social justice

With the extensive alignment of sport and wider social policy agendas in recent years, increasing pressure has been placed on sports coaches working at a

---

R. Jeanes (✉) • J. O'Connor
Faculty of Education, Monash University, McMahon's Road, Frankston, VIC 3199, Australia
e-mail: ruth.jeanes@monash.edu; justen.oconnor@monash.edu

J. Magee
Senior Lecturer, School of Sport Tourism and the Outdoors, University of Central Lancashire, Preston, UK
e-mail: jmagee@uclan.ac.uk

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_5, © Springer Science+Business Media Dordrecht 2014

community level to operate in an increasingly professional sports coaching context (Crabbe 2008; Taylor and Garratt 2010). Coaches are not only expected to provide quality sports activities for young people, but also to develop young people socially, morally and ethically and address supposed ‘deficits’ created by their engagement with wider society (Taylor and Garratt 2010). While it has been recognised that positive relationships between coaches and young people are central to achieving any positive social outcomes (Astbury et al. 2005), very little research has examined how productive relationships are fostered and what these look like in a sports coaching context (Jeanes 2010).

The chapter presents a socio-ecological framework for coaching and then discusses empirical data within the context of this. The authors collected the data during research and evaluation work with a variety of youth sports projects that aimed to achieve wider social outcomes. These ranged from reducing anti-social behaviour, drug taking and alcohol intake, through to supporting homeless people and assisting out-of-work participants to gain employment. This data has been analysed to look at sports coaching within the context of providing stimulating sporting activity, but also using sport to achieve a complex range of social impacts.

Introduction: Sports Coaching in the UK

Sports coaching within the United Kingdom has only emerged as a significant discipline during the last two decades, both professionally and academically. At a policy level, governing bodies of sport have increasingly focused on attempting to standardise coaching and establish ‘coaching pathways’ as a framework for individuals wishing to coach at all levels (Sports Coach UK 2008). Early descriptions of pathways have frequently assumed that new coaches initially work at entry level with young people but, as their experience improves and they gain more qualifications, they gradually move on to working with adults and up to elite level (Lyle 2002). This model of coaching has also placed emphasis on coaches developing technical and tactical knowledge within their chosen sport as they progress through the various levels of the pathway (Cassidy et al. 2009). Entry-level coach education therefore generally focuses on introducing the basic skills and tactics required to play that sport, with these being further developed as coaches progress their level of coaching award.

The United Kingdom Coaching Framework, launched in 2008, was the first formal recognition that multiple pathways exist in coaching. For example, many individuals wish to remain at grassroots level but become proficient ‘community coaches’, working solely with young people. Others may choose to focus on particular groups, such as disabled participants (Sports Coach UK 2008). The repositioning of coaching as a diverse activity through which individuals may have to achieve multiple outcomes (beyond simply developing sports ability) has challenged how we understand sports coaching and what effective coaching is (Kidman and Hanrahan 2011). Despite this, however, coach education and therefore ultimately coaching practice continues to emphasise and prioritise technical understanding above all else, with coaches primarily being taught how to develop the basic sports capabilities of their participants (Cassidy et al. 2009).

Academic analysis of sports coaching has also historically tended to examine aspects of delivery in isolation (Jones 2006). Psychological perspectives have underpinned many early studies, examining how coaches can use theories of motivation, stress and anxiety management to improve athlete performance (Lyle 2002). Such literature has largely ignored the social interactions and dynamics that exist within the coaching process, instead positioning coaches as autocratic leaders imparting information to passive athletes (Penney 2006). In the last decade Cassidy et al. (2009) and several other scholars (Armour and Jones 2000; Jones and Standage 2006; Kidman 2001) have been central in critiquing this narrow understanding and advocating sports coaching as a multi-disciplinary, multi-faceted endeavour requiring expertise across tactical, technical, psychological, sociological and physiological dimensions. This more holistic view of sports coaching sits neatly within a socio-ecological approach which, as discussed in the initial chapters, essentially calls for educators to widen their perspectives and understand the relationships between the individual, socio-cultural, physical and policy environments.

More-recent conceptualisations of coaching highlight that we are seeking to not only develop our athletes' sporting ability, but also their moral and ethical principles; helping to shape individuals who will contribute positively to society (Cassidy et al. 2009). Taylor and Garratt (2010, p. 124) describe this as a new 'professional identity' for coaches, which:

> can be seen to encapsulate both an 'official identity' (an embodiment of the new professional orthodoxy through the implementation of a UK-wide system of certification), and a moral identity, in which core moral purposes are combined with objectives towards widening participation, coupled with ambitions to promote social inclusion and develop social capital.

Analysis of mainstream sports coaching has begun to utilise this broader perspective. However, this has not yet extended to looking at coaches who are expected to work with young people and achieve multiple outcomes, of which enhanced sports ability is often the lowest priority.

Delivering Sport to Meet Social Policy Objectives: An Overview of the 'New' Coaching Policy Context

The alignment of sport and social policy is not a new phenomenon in the UK. In the early 1980s, for example, various sports policies were developed to address wider social tensions that were mounting in inner-city areas. Projects such as 'Action Sport' were devised to:

> Put young, credible sports leaders on the streets to use existing purpose built and borrowed facilities to engage youth, especially disaffected, unaffiliated youth in inner cities, particularly boys from black and ethnic minorities. (Collins 2010, p. 15)

With the election of Tony Blair's Labour government in 1997, social exclusion became a more key political focus, resulting in the formation of the 'Social Exclusion Unit' in 1997. This unit was responsible for reporting to government on how to 'develop integrated and sustainable approaches to the problems of the worst housing estates, including crime, drugs, unemployment, community breakdown, and bad schools etc.' (Social Exclusion Unit 1997, p. 2). The 1999 Policy Action Team Report identified sport as a critical mechanism to assist with tackling social exclusion, resulting in the government making available substantial amounts of funding for initiatives that used sport to promote the wider policy agenda of fostering social inclusion (Collins with Kay 2003). Government agendas increasingly prioritised the delivery of social policy objectives, using sport in a way that had not been seen previously. Not only did sports agencies have to promote 'inclusion within sport' by ensuring minority groups were able to participate in a range of activities, but they were now under pressure to use sport to achieve much broader community-level changes that would have previously been far beyond their remit (Green 2006).

In this chapter we present data derived from interactions with a variety of sports projects developed from this broader social inclusion agenda over the last 5 years. We have worked as researchers and evaluators, examining approximately 20 projects, all intending to use sport to achieve particular wider social aims, mostly in relation to young people. Most of these projects were located in inner-city neighbourhoods suffering from multiple levels of deprivation. We also provide data from our own perspectives as coach practitioners who have worked as deliverers within the types of initiatives we discuss. We therefore develop the analysis using our own experiences, 'in the field' research observations, and interviews with participants, coaches, sports development staff and practitioners from a range of delivery partner agencies. These included youth unemployment agencies, community support officers from the local police force and professional staff from various health services.

The projects examined in this chapter are examples of how wider policy agendas have been translated into practice. Most of the projects were working with excluded individuals who were labeled 'disengaged', 'disadvantaged' or 'problem' young people, having either dropped out of or been excluded from school and who were identified by local justice agencies as either at risk of offending or in fact were young offenders. Most of the project participants were aged between 14 and 20, had few formal qualifications, experienced turbulent home lives and generally lacked support structures in their lives.

Projects took a variety of formats, depending on their particular wider social aims and objectives. For those seeking to reduce anti-social behaviour or gang crime in local neighbourhoods, the emphasis was frequently on using sports as a diversionary tool. Sports activities would be provided in 'problem' spots in the local estate on several nights of the week and at key risk times over the weekend, such as Friday nights between 10 pm and midnight. Most of the activities focused on team sports such as football (soccer) or basketball. Although the main role of sport in this context was to act as a diversion from anti-social and criminal behaviour, a key pressure on coaching staff was to get and then keep young people involved with sessions on a regular basis. However, coaches were also expected to use the interactions they had with participants on the sports field to create ‘meaningful engagement’, whereby they would mentor and support young people and guide them on how to re-engage with mainstream society. Within these types of projects a range of support agencies would be responsible for identifying potential participants and encouraging them to engage with the project, including those connected to juvenile justice systems, community support police officers, youth and social workers.

Other projects contained a more overt educational element, particularly those seeking to use sport to assist young people ‘not in education, employment or training’ (NEET) with finding employment. As would be anticipated, such initiatives were located in areas with high levels of unemployment. One particular project that we visited had experienced high levels of unemployment since the collapse of the local mining industry in the early 1980s. It was reasonably common for young people on this particular program to be part of families where they had never known their father or their grandfather to be in employment. During these programs participants, recruited through local unemployment support agencies, were invited to take part in a variety of sports sessions as well as in educational workshops aimed at enhancing their employment skills. These ranged from IT skill development to writing a CV and applying for jobs. Project staff would also offer young people the opportunity to undertake formal qualifications, such as sports coaching awards, as part of their time on the project.

In this context sport was used as a ‘hook’ to engage with young people and maintain their interest in the broader educational workshops (Coalter 2007; Collins with Kay 2003). However, project managers also expected coaches to use sport to build young people’s confidence levels, enhance their sense of agency and belief that they could take control of their lives and develop particular skills such as teamwork, cooperation and leadership that could be transferred to a workplace setting. Taylor and Garratt (2010, p. 124) suggest that to develop coaches capable of effective delivery in non-traditional sports contexts requires a redefinition of existing modes of practice, but also ‘an identified need to develop new alliances with other professional groups’.

This section has therefore outlined both the complexity of the contexts coaches are now working within and the outcomes social policy is demanding they achieve. The chapter will move on to demonstrate how a socio-ecological approach can provide a conceptual underpinning to enhance thinking of ‘what coaching is’ in these more diverse contexts.

Critiquing the Sport and Social Policy Agenda Using a Socio-Ecological Framework

As discussed in Chap. 2, socio-ecological frames compel us to examine the interrelatedness of personal, social and environmental influence. Analysing sport and social policy using a socio-ecological lens exposes gaps in the core assumptions that underpin the shift in coaching policy and practice described above. The wider social problems that coaches are now expected to address are usually the product of a complex range of factors. These emerge from the environments in which the individual currently lives or has grown up and the type of social support and guidance they have received, as well as individual factors such as resilience and capacity to deal with difficult events.

Coaches who are asked by policy makers to address broader social issues do so largely through interventions that target individuals or small groups. Such approaches can prove to have positive impacts, but these impacts are often negated by broader and more powerful drivers of behaviour that exist within the individuals' social ecology. Recruitment to programs is difficult at best and maintenance of positive change beyond the programs is often poor. It is therefore unreasonable to expect that programs with modest, short-term effects and reaching small numbers of people will address broad social problems. Consideration of socio-ecological drivers of behaviour has gained traction within the health fields and is beginning to impact health policy, but only after considerable time and money has been spent attempting to impact individual attributes and, ultimately, behaviour. The health field has at least acknowledged that sending trained sports coaches into areas with high concentrations of diabetics or obese individuals is not likely to generate cost-effective change, despite the obvious overlap between sport and physical activity. Why then do social policy makers feel that sending coaches into areas of poverty will make a substantial difference when sport and poverty are less interrelated again?

Take, for example, the coach who has been tasked with using sport to assist homeless people. Pressure is placed on such coaches to provide activities in a way that raises individuals' self-confidence and self-esteem, helps create social capital, improves physical and mental health and ultimately equips participants with the capacity to begin to exit from homelessness. However, authors such as Ravenhill (2008), in her detailed ethnographic study of the lives of homeless people, demonstrate through a life-mapping approach how a combination of factors emerging during early childhood impacts risk of becoming homeless. Although not always the case, many homeless people will have suffered trauma and difficulty in childhood, will have lacked social support and mentoring at key times in their lives, will likely have displayed problem behaviour that has resulted in removal from education structures, and will be suffering from mental illness (Ravenhill 2008). These are systemic and comprehensive issues. Examined in this light, the thought that a sports coach will be able to address these deeply rooted, multi-faceted factors to encourage significant change for their participants is somewhat ludicrous. Using a socio-ecological framework it is very easy to dismiss the foundations of such idealistic beliefs and the subsequent policy that has emerged from them.

However, our own position that we will discuss via research in this chapter is that the coach as a potentially 'significant other' within the lives of participants can, via the use of a socio-ecological approach, play a role in reshaping elements of participants social ecology – but only in combination with broader changes to the complex and dynamic factors hindering this at a micro, meso and macro layer. To again draw on an example: the coach asked to use sport to enhance unemployed participants' chance of gaining a job may, operating at an interpersonal layer of influence, engage with individuals very effectively and motivate them and support the development of their personal skills. However, ultimately change resides with much broader environmental factors, such as current position of the labour market and what work is available (Spaaij 2009). We would suggest, therefore, that the coach can be an important aspect of a much wider dynamic system that the individual resides within. Thus a socio-ecological framework has been used to suggest ways in which the coach can connect with participants and make a positive contribution to their lives, while acknowledging that this should only be one element of a much broader intervention aiming to create change.

A Socio-Ecological Approach for Coaching on the Margins

Coaches who are being asked to engage in community development contexts must consider a broad array of factors that ultimately influence and shape behaviour. Even when the goals are simply to enhance sporting capacity alone, coaches are being asked to consider constraints or ecological approaches to developing their athletes (Davids et al. 2008). To be successful, the coach needs to be aware of the multiple influences that contribute to sporting success and pay particular attention to how the athlete is developing these within varied environmental and social contexts. These contexts continually interact with the individual's characteristics, attitudes and attributes to produce the behaviour we see on the sporting field. When the role of the coach is expanded towards achieving greater social outcomes, understandings of how broader environmental, social and individual layers might interact becomes increasingly more complex.

As discussed in Chap. 3 a point of difference with socio-critical approaches is that our socio-ecological approach place a significant weight on the interaction of individuals' personal attributes and their socio-historical context, with the physical, natural and policy environments in which they find themselves. The physical characteristics of structures or products that inherently either increase or reduce opportunities for positive behaviour are given emphasis, as are the laws, policies and regulations that seek to require or prohibit behaviours.

The following aims to delineate some of the socio-ecological considerations that impact coaches acting in the spaces we outline. It is not an exhaustive account.

Personal Layer

This layer comprises the human aggregate of the biological and situational variables. It comprises the genetic heritage, psychological dispositions (Stokols 1992) and individual characteristics that shape an individual: their learning history (Hovell et al. 2009); their behavioural norms, rules and expectations (Glass and McAtee 2006). The coach, as a social actor within the individual's world, gains modest insight into motives, attitudes, beliefs and dispositions. In the sporting context, many coaches are quick to assess – both formally and informally – an individual's technical attributes, tactical skills, mental strengths and genetically endowed but socially constructed physiological capacities. Fewer coaches might be familiar with understanding a participant's self-esteem, suspiciousness, moral capital or academic skill. It is important to note that many of these characteristics are shaped by mediators who sit beyond the immediate autonomous control of the individual, influenced over time by their own predispositions, their social and their environmental contexts.

Socio-Cultural Layer

This layer comprises a range of immediate socio-cultural factors that interact directly with the individual to influence behaviour. The social context of family, friends, school sites, organisations and cultures affects an individual's social normative beliefs, values, knowledge, expectations and evaluations and conversely impacts the broader physical environment. The socio-economic status of individuals or groups, social support networks, social isolation or conflict, cultural and religious beliefs and practices, political stability, cultural or media messages and economic change all influence how the individual negotiates their lifeworld. Coaches themselves can become an influential component of this layer, but their capacity to influence should not be viewed in isolation.

Coaches may be working either with or against significant others (family, peers, authority) and may be ineffectual or enhanced by this relationship. For various reasons many coaches fail to engage sufficiently in understanding the socio-cultural context of their participants, unless it is explicitly related to the sporting context or becomes so as a consequence of an individual's actions being outside the accepted norm. As coaches are asked to take on broader responsibilities, beyond a performative focus, these factors become essential in understanding and providing for sporting participants. Socio-critical or socio-cultural perspectives and approaches associated with coaching are well explored (see Cassidy et al. 2009) and make up an integral part of a socio-ecological approach to coaching.

Physical, Natural and Policy Environmental Layer

The physical environment refers to the characteristics of structures or products that inherently either reduce or increase opportunities for behaviours and outcomes. It comprises human-made environmental capital and particularly influences an individual's access and connection to people and programs. The environment may also have impacts on other layers of influence, including culture or even individual attributes and genes. The environment plays out its influence in many ways, in both the immediate and longer term. Brazilian footballers are known for the deft touch on the ball, a product of playing in tight spaces afforded by their built environment. Some communities have cultural and historical connections to sports because of a strong environmental connection (e.g. winter sports). As outlined in Chap. 2 our interpretation of a socio-ecological approach attempts to extend somewhat rigid understandings of environmental influence to incorporate concepts of place, where individuals attribute meaning to their environment.

Coaches and participants continually interact with the built environment, be it a sports field, an indoor court or a park space. Access to these places is becoming continually regulated, such that those who are most in need are least likely to have access to places in which sport is done. Streets, parks and open spaces used previously as sporting landscapes are increasingly being diminished due to commercialisation, risk regulation, increased reliance on motor-vehicle access, and increasing urbanisation. The physical sporting environments are also increasingly being supplanted by digital sporting fields in the form of electronic games.

The natural environment comprises the natural capital that exists as a result of natural phenomena: those geographical and meteorological characteristics that influence behaviour. At a simplistic level we know weather impacts motivation to be active. Chapters 2 and 3 encourage the reader to consider the cathartic properties of the natural world, as well as recognising that the health of an individual is intertwined with the health of their natural and physical environments. We also acknowledge that the natural world can be intimate with the performer, as is the case with surfers and ocean, cyclists and the air through which they move, or sailors who deal with both. In a sports coaching context, the natural environment often shapes the types of activities that are adopted, and the physical environments that have been created to accommodate them. The influence of sunlight, weather and geography is beyond the immediate control of the coach and participant, but still has a significant influence on those who interact with it through movement.

The policy environment includes the local, state, national and even international level of laws, policies and regulations that impact behaviour. Dress codes, funding models, legal requirements, guidelines and a host of other macro-level policy factors shape how individuals negotiate their sporting experiences. These interact with the individual’s socio-cultural worlds, beliefs, attitudes and attributes to afford or constrain behaviour. The policy environment is generally informed by an evidence base.

Performative coaches ask participants to practise in their own time; they ask them to attend training and that sport becomes a priority, often without fully appreciating how students are enabled or restricted by their environment. Coaches whose brief is to enhance the social condition of participants need particularly to take into consideration the affordances and constraints that the physical, natural or policy layers of influence offer.

Combined, these factors influence an individual’s behaviour. If coaches are to act as cultural mediators who have at least some positive impact on individuals, then we feel an understanding of context is paramount. Recognising and positioning the individual as central to and yet influenced by multiple layers, allows coaches to develop as effective ‘cultural intermediaries’ (Crabbe 2008). Cultural intermediaries ‘are regarded as opening up possibilities, providing guidance and demystifying mainstream society rather than asserting some kind of repressive or overtly directive authority’ (Crabbe 2009, p. 190). Through detailed, multi-layered knowledge of the people they are working with, coaches potentially become a key socio-cultural influence themselves, helping young people navigate negative influences affecting their lives.

Methodology

As indicated, the empirical research discussed in this chapter has emerged from an examination of numerous sport and development projects delivered within the UK. Data sources include field and observational notes, reflective journals we kept in relation to our own coaching practice, and interviews undertaken with coaches, young participants (most of whom were male) and various support staff. All interviews were transcribed verbatim, but for the purpose of this chapter we returned to the data and reanalysed it, specifically seeking information relating to coaches and coaching approaches. The data identified was then organised in sub-themes. The authors undertook this process independently and then used constant comparison technique to increase the reliability of the data examined (Ezzy 2002). We also compared data collected using different methods. Therefore, while field notes and interviews were initially examined independently, during the second layer, comparison of key themes across data sources took place.

Findings

Establishing a Relationship and ‘Getting to Know You’

To influence behaviour, coaches must first understand the people they are working with. A socio-ecological approach requires that this should occur at various levels. At the individual level coaches require awareness of individual motivations, why participants are attending, what engages or inspires them, but then also recognising how socio-cultural factors, family, peers or education influence individual attitudes. Coaches are generally skilled at quickly gathering information on participants’ physiological and movement capabilities, but know less about their participants as ‘people’ and, in particular, may lack knowledge of how to develop this broader understanding of who their participants are, within the confines of a sports coaching session.

All of the young people interviewed were in agreement that the ‘best’ coaches they worked with were the ones who attempted from the outset to get to know them as people, find out about their backgrounds and gain an understanding of the particular challenges they were facing. An important aspect, however, was coaches doing this indirectly – delivering sessions in a way that allowed conversations between themselves and the coach to occur naturally. One of our field note entries discussed this:

> You can see some coaches are used to working with quite bolshy participants in a traditional sport setting. They will get all these kids round them and start asking them stuff in front of each other before they've even had a chance to know who each other is. You can see the kids visibly shrink and their head goes down and they start avoiding eye contact. Today's session with Carl was good, he got them all off on activities then started talking to each participant individually, he seemed to mostly be chatting about the football at the weekend, who they supported and stuff, but it got them talking to him without being too confrontational.

Initial communication and finding a mutual topic of interest was essential in forming an early rapport with young people. For many of the young men, football provided the ideal topic of interest and they were happy to engage with coaches about their favourite team, matches played, new players and so forth. Participants described effective coaches as being able to use this platform to gain the trust and respect of their participants, as well as gaining some credibility from their football knowledge and interest:

> Yeah like John really knows his stuff, all we did to start with was talk football and it was clear he knew what he was on about ... I was really suspicious at first, people generally don't bother much with me, but when we were talking about football I was like he's alright. (Male participant)

Once a relationship had been established and some level of trust developed, participants valued coaches who took time to find out more about them. It was also important to participants that this information was remembered by coaches: 'Yeah, like I told Carl my sister was having a baby in a few weeks and he asked me about it again, saying had she had a boy or a girl?'

For many of the participants, having an adult 'authority' figure who was non-judgmental and genuinely interested in knowing about them and understanding their lives was an unusual experience. Of central importance, therefore, was structuring the coaching environment to allow this casual interaction to occur, and then gradually building on this without being overwhelmingly inquisitive about participants' lives. The participants talked a lot about respect and the importance of coaches being non-judgmental of their situations, but also not patronising or pitying either. Several staff reinforced this during interviews, with one Project Development Officer noting:

> Most of these young people are not used to getting respect from adults in authority. They are put into two camps, either victims who are tragic cases or wasters who are sucking up valuable resources. It's so important for the coaching staff to talk to them as capable competent individuals, as well as being a respect thing it helps them believe that they are decent people with something to offer.

Understanding the individual, including not only personality and motivations, but how these are shaped and influenced by participants' wider social and physical environments, was therefore critical for establishing a platform through which further outcomes could be sought.

Coaching and Place

A further key theme emerging from the interviews was the importance of activities taking place in participants' local environments. To do this, coaches need to be cognisant of both broader socio-cultural issues influencing the lives of participants and how the physical environment shaped involvement. Analysis of the latter aspect in particular is conspicuously lacking in current coaching literature.

Many of the challenges young people faced resulted from a complex range of social issues relating to poverty, limited life choices within their community, parental and family beliefs and an ineffective local support structure capable of providing young people with alternatives. Participants felt it was important for activities to be delivered in their community so that coaches could fully understand 'where they were from', and also so they could begin to address their problems in the context in which they were occurring. Several of the interviewees were particularly critical of outdoor education initiatives that took them away for a short period of time; they felt such programs had limited relevance to their everyday lives.

> There was a while when we kept getting signed up for these adventure type weeks where we'd go to Wales and camp and stuff. It was meant to make us better people and it was alright, but at the end of the week I'd be back home to [housing estate], my Dad's still off his face, I've still got no money and nothing's changed. It didn't really make any difference.

The sports sessions, in contrast, offered a regular, ongoing and accessible support structure within young people's own communities. Participants and coaches continually talked about the need for coaches to understand how difficult it could be to avoid problem behaviour in the everyday lives of the young people. For example, in field notes of visits to one project aimed at addressing youth crime and reducing substance abuse, the authors recorded that:

> A car was parked next to where the football session was taking place the whole time, other cars would come out and guys would get out and talk and exchange different items. When I asked about it I was told quite casually, 'Oh that's the local dealer'. It was all taking place quite openly. No wonder kids are finding it hard to kick habits when it's so readily available and usage is an essential part of a credible 'street identity'.

The extract demonstrates the realities of life in many of the participants' local housing estates. It was critical that coaches understood that ceasing substance use, for example, was not simply down to their own individual will power. Instead, our socio-ecological approach advocates that sports coaches needed to experience the realities of participants' communities, both the physical and social context, to be able to develop an empathy with young people and understand the constraints they were facing to making changes in their lives. Several staff talked about 'resisting the temptation' to run projects at well-equipped, custom-built facilities that were outside participants' communities. Doing so would not allow coaches to develop detailed knowledge of where the participants were from, to initiate steps to assist young people with improving their situation.

A further valuable aspect of providing sessions, support and education in young people's local communities was that it allowed coaches the opportunity to connect with the participants' significant others, both friends and family. As indicated, many young people had volatile family backgrounds and limited encouragement from peers to move beyond basic survival strategies that were at times extremely destructive. Some of the young people participating in sport and employment training projects talked about how they received limited encouragement from their families to attend and even less support to seek paid employment. One male participant said:

> Dad's like, 'Why would you want to do this every day? It's a complete waste of time'.... He's like, 'Me and ya Granda have managed alright'. They think I'm getting ideas about myself because I want to get a job.

Although family attitudes were often longstanding and extremely entrenched, participants discussed how several coaches had attempted to engage with their families to try to alter their attitudes toward their children working, or at least not actively discourage them. Again, the local proximity of the session was valuable, as families had the opportunity to see the coach around and it was relatively easy for them to 'drop in' after a session. Even though most participants felt that coaches had limited influence on changing attitudes within their families, they did discuss the greater impact they had on peers.

While both influences would be located within the socio-cultural layer of the socio-ecological framework, they clearly impact on young people in different ways. Many of the young people attended sessions with friends, and these were often groups that they were involved in criminal behaviour with. Having a broader understanding of the local community allowed coaches to identify particular groups and work with them collectively to attempt to persuade them to change their behaviour. Again, the ability of the coach to build this into a session was recognised as important:

> There's me, Andy, Simon, Josh, we've all grown up here. Luke [coach] realised quite quickly that we were tight and he got us doing loads of things in the sessions together, where we had to teach each other things and it just changed how we saw each other a bit . . . we've always got in trouble together. Luke started talking to us all the more we got to know him, he was like, 'Look lads, you can be a lot more than this but you've got to help each other if anything is gonna change'. (Male participant)

The ability of coaches to connect with significant others was vital for reshaping young people's views about themselves and making inroads into changing some of the structures around them that were contributing to their current problematic situations.

Coaches as a Cultural Intermediary

Reflecting relationship building theory (Crabbe 2008), the data pointed towards the importance of coaches connecting young people with other aspects of their community, or acting as 'cultural intermediaries'. Within this role coaches essentially become mediators between the various layers of the socio-ecological framework, connecting participants to different socio-cultural influences, allowing access to alternative physical environments and ensuring various policies designed to support them (such as access to free further education) were utilised. For the participants of sport and unemployment projects this would often involve coaches linking young people to opportunities to gain qualifications, further training or even employment.

This process again required recognition of the numerous barriers that prevented young people from even finding out basic information about particular pathways that may be open to them, and the need for coaches to work as mediators between individuals and various agencies. At some of the projects, coaches had organised for staff from local colleges to attend and even participate in sports sessions, as well as taking groups of young people to visit various educational institutions. For some of the young people, even stepping inside the building of a local college was a significant hurdle that the coaches with this wider vision of their role were able to help them overcome.

Coaches also assisted them with filling in applications, searching for job opportunities and acting as referees and key bridging agents between the young people and potential employers. As one sports coach explained:

> Getting on a college course is quite a complicated process. You have to know who is the right person to talk to, find out whether you have the right qualifications already to get on the course you want to do. Most of the ones I work with are scared to go and ask because they don't have GCSEs or anything and they think they will just get turned away. I think it's important they can have someone to go with them who they can trust. I don't mind doing that or helping them fill in the forms and stuff. That again can really put some of them off. You just have to take them step by step sometimes.

Participants on young offender projects discussed how their coaches were also valuable intermediaries between themselves and local police. As would be anticipated, young people were particularly suspicious of justice agencies and police officers. The participants valued coaches who attempted to liaise between the two groups. Several discussed coaches who encouraged community support officers and police officers to take part in sports activities and events to 'get to know' the young people better. They would also speak to police and act as character references when they felt young people were being wrongly accused of criminal activity.

Coaching Basics and Disadvantaged Young People

The majority of the chapter has discussed the importance of coaches understanding the broader setting within which they are working, to effectively deliver social outcome based sports programs. However, focusing on the immediate environment in which sport sessions took place was also fundamentally important. Coaching practices associated with mainstream delivery were key to relationship building. At a most basic level, if young people were not enjoying the sports sessions they were unlikely to keep coming and the opportunity to establish the deeper relationships described above was lost. Within the socio-ecological framework, this practice is specifically located within the environmental layer, encouraging reflection on the immediate physical and social environment that coaches construct. A small number of participants talked about ineffective coaches who had discouraged their participation due to their autocratic, overly competitive coaching style. As this male participant explained:

> I've had a couple of coaches who it seems like a bit of a power trip; they have no idea the sort of things going on in our lives and they just seem to want to shout at you all the time. This one, he seemed to have it in his head we needed discipline and he ran his sessions like army boot camp ... We all stopped going pretty quickly and they changed him for someone else.

Coaches that had good relationships with their participants tended to utilise more humanistic, decentralised approaches focused on empowering young people (Crabbe 2009; Lyle 2002). As advocated in the agency and participation section in Chap. 2, the coaches focused on understanding what participants wanted to gain from sessions and ensuring they tailored activity accordingly. Most participants had limited aspiration to achieve competitive success in their sport, but still wanted to improve and develop their skills. The coaches were presented with various challenges to ensure that they provided stimulating sessions that were engaging for all, as participants had varying levels of ability. Although not labelled as such, the 'game sense' approach whereby participants are continually engaged in activities that have relevance to the games they are seeking to learn about, was notably used in sessions that participants enjoyed. Young people talked about good sessions as being ones where 'We're doing lots of different things, like we'll do 2v3 and then he'll switch us round; we're always on the go'. As discussed, the ability to tailor activities to meet diverse needs of participants was critical in the repertoire of an effective coach. One of the authors reflected on this issue when first developing sessions to work with homeless people. This extract from the reflective journal illustrates the need for a rethink of what targets and goals are in this context.

> I stood at my first session and looked at this bedraggled group in front of me wearing shoes and jeans and smoking and mentally tore up my session plan. It just wasn't going to work with these guys. After a few weeks of getting to know them I had to start thinking about 'Okay, what is going to challenge them?'. For Luke the main thing I wanted him to do for a start off was take part in a full hour session without going off for a cigarette of his own accord; that was challenging enough to start with. Then for some of the less experienced players it was things like trying to get them to look up whilst the ball is at their feet. For some that have really taken time to get going I've had to get creative and introduce rules, like other players can't come closer than 2 metres for the first 15 seconds so the player can make a successful pass. After a while, it's getting them to set their own targets so they can work to the level that suits them. With my usual group I'd be trying to always push them, really test their ability, but get that wrong here and their confidence goes and you never see them again. (Author's reflective journal)

The quote exemplifies various ways that coaches adjusted the environment to support player development. While important in any setting, for participants such as these who have achieved limited success in their lives, it was important to ensure they could see noticeable achievement and progression each week – to retain interest but also assist with the wider project aims of enhancing participants' self-esteem and self-confidence. Setting goals each week that gradually tested and extended the capabilities of each player was critical, even if the goals appeared relatively minor.

As indicated in Chaps. 2 and 3, socio-ecological educators seek to promote agency and participation amongst those they are educating. While academics again advocate this in mainstream coaching literature (Jones and Standage 2006), we would argue this is particularly important when attempting to use sport to empower vulnerable participants. Young people mentioned various ways in which effective coaches would seek to include them actively in the sessions, such as directing the content from week to week and taking on leadership roles. We witnessed several coaches transferring responsibility of leading sessions over to the participants, who would then have to cooperate and plan activity together. Young people discussed these experiences as enhancing their leadership skills, increasing their own confidence and allowing them to develop valuable negotiation skills to work effectively with their peers. Several had enjoyed these experiences to the extent that they had wanted to undertake formal coaching qualifications, with several successfully completing such awards. Participants felt the opportunity to shape and organise their sports sessions had been critical for keeping them engaged and motivated.

> It's just nice not always being told what to do. Each week we'd sit down at the end and say OK, where do you want to take this next week and we'd have to agree, then two of us would have to volunteer to take it. Keith would help with planning and stuff but it was down to us to decide what to do … It just kept you really interested each week. You wanted to help out whoever was leading or, if it was you, you wanted to make sure you did a really good job so the lads weren't bored. It was good that we sort of owned it; things developed how we wanted them to.

The approach discussed reflects the 'hands off' approach to coaching as advocated by Handford et al. (1997), which changes the coach's role to one of facilitator, constructing the environment in a way that presents problems for participants to solve themselves. Within mainstream coaching this has been used more to encourage the development of technical and tactical knowledge, but within this context is also valuable for fostering the development of social and life skills. As young people who struggled to control key elements of their lives, having the opportunity to run and organise the activities was a new and enjoyable experience, but also an important one in facilitating an empowerment process where young people felt capable of making changes in their lives. At projects where we were able to attend sessions frequently, and in the ones that we coached, it was noticeable how much participants developed in confidence as they started to take control of and deliver sessions.

Conclusions

As the chapter has illustrated, the practice of sports coaching is diversifying immensely, with coaches being placed under increasing pressure to deliver in ways that move beyond the effective transmission of sports specific knowledge. We would argue academically analysis has failed to keep pace with the theoretical and conceptual challenges these changes present. The chapter has discussed how a socio-ecological approach may be a valuable alternative to conceptualise how coaches could develop practice that more effectively meets the needs of needs of diverse young people. With more coaches at community level having to engage with a challenging social policy agenda (Taylor and Garratt 2010) there is an increasing need for researchers to adopt a wider understanding and apply a broader vision to coaching than has traditionally been the case. The four foundational pillars discussed in Chaps. 2 and 3 have particular relevance in the coaching contexts we have outlined. At a basic level, a socio-ecological perspective provides an ideal framework to guide understanding of coaching, taking into account the ‘bigger picture’ to conceptualise coaching within the demanding settings discussed. As the data presented in the chapter suggests, developing trusting relationships with young people is central to achieving any broader outcomes using sport and understanding the individuals they are working with is key to this. However, to do this fully it is essential to acknowledge the various socio-ecological layers and have detailed knowledge of how participants interact within each other. In doing so coaches need to connect with the lived experiences of participants and be able to understand how these are located within broader influences and also the places where young people spend their time. As we’ve illustrated, participant’s local environment played a particular role in shaping their attitudes and behaviours and coaches need to be fully aware of how they, participants and place interact. Coaches need to consider participants’ broader family circumstances, their experiences within education, who are their influential peers and how are they exerting influence over them as well understanding of the physical and social environments where they lead their daily lives. We would argue that it is only with this knowledge that empathetic and respectful relationships can be built that provides a platform for the future.

We have used examples from coaches working in contexts where they are attempting to deliver particularly complex social outcomes as we feel the relevance of a socio-ecological approach is particularly pertinent here. However, the key foundations of this approach, the need to work with participants at an individual level but then understand how their broader socio-cultural and physical environments shapes and influences them, provides a relevant theoretical underpinning for conceptualising a diverse range of coaching practices from those that occur ‘on the margins’ to more mainstream talent development.

Whilst we have suggested that a socio-ecological framework is valuable for understanding how coaching within the current policy climate can be conceptualised more holistically, we would also advocate its value in challenging at a more fundamental level the basic principles such policy is based upon. As discussed, examining the expectations placed on coaches using socio-ecological theory highlights some of the key flaws with assuming that the coach, and sport as a social context that participants engage with for a limited time in their daily lives, will be able to address complex problems associated with key factors at a micro, meso and macro level. We propose that if policies continue to place pressure on sports coaches to undertake the role of social mediators, policy makers need to do much more to consider where the coach fits within the complex and dynamic frameworks that shape individual behaviour. As we have shown, coaches may have limited impact on convincing third generation unemployed young people that employment is a valuable and desirable option. Ultimately, and as we have discussed elsewhere (Magee and Jeanes 2011) policy needs to position the work of coaches within a multi-layered intervention approach that is simultaneously seeking to alter the much broader factors impinging on the ability of individuals to lead fulfilling lives.

References

Armour, K., and R. Jones. 2000. The practical heart within: The value of the sociology of sport. In *The sociology of sport: Theory and practice*, ed. R. Jones and K. Armour, 1–10. London: Addison-Wesley Longman.

Astbury, R., B. Knight, and G. Nichols. 2005. The contribution of sport related interventions to the long-term development of disaffected young people: An evaluation of the Fairbridge Program. *Journal of Park and Recreation Administration* 23: 82–98.

Cassidy, T., R. Jones, and P. Potrac. 2009. *Understanding sports coaching: The social, cultural and pedagogical foundations of coaching practice*. Abingdon, Oxon: Routledge.

Coalter, F. 2007. *A wider role for sport*. Abingdon, Oxon: Routledge.

Collins, M. 2010. Introduction. In *Examining sports development*, ed. M. Collins, 3–11. Abingdon, Oxon: Routledge.

Collins, M., and T. Kay. 2003. *Sport and social inclusion*. Abingdon, Oxon: Routledge.

Crabbe, T. 2008. Avoiding the numbers game: Social theory, policy and sport's role in the art of relationship building. In *Sport and social capital*, ed. M. Nicholson and R. Hoye, 21–37. Oxford: Elsevier Butterworth-Heinemann.

Crabbe, T. 2009. Getting to know you: Using sport to engage and build relationships with socially marginalised young people. In *Sport and international development*, ed. R. Levermore and A. Beacom, 176–197. Hampshire: Palgrave Macmillan.

Davids, K., C. Buttons, and S. Bennet. 2008. *Dynamics of skill acquisition: A constraints-led approach*. Champaign: Human Kinetics.

Ezzy, D. 2002. *Qualitative analysis: Practice and innovation*. Crows Nest: Allen & Unwin.

Glass, T., and M. McAtee. 2006. Behaviour science at a crossroad in public health: Extending horizons, envisioning the future. *Social Science & Medicine* 62(7): 1650–1671.

Green, M. 2006. From *sport for all* to not about *sport* at all? Interrogating sport policy interventions in the UK. *European Sport Management Quarterly* 6: 217–238.

Handford, C., K. Davids, S. Bennett, and C. Button. 1997. Skill acquisition in sport: Some applications of an evolving practice ecology. *Journal of Sports Sciences* 15(6): 621–640.

Hovell, M., D. Wahlgren, and M. Adams. 2009. The logical and empirical basis for the behavioural ecological model. In *Emerging theories in health promotion practice and research*, ed. R. DiClemente, R. Crosby, and M. Kegler, 416–449. San Francisco: Jossey-Bass.

Jeanes, R. 2010. The role of leadership in sports programmes aimed at addressing social exclusion. Paper presented at the Leisure Studies Association Annual Conference, Leeds, July.

Jones, R. 2006. How can educational concepts inform sports coaching? In *The sports coach as educator: Re-conceptualising sports coaching*, ed. R. Jones, 3–13. Abingdon, Oxon: Routledge.

Jones, R., and M. Standage. 2006. First amongst equals: Shared leadership in the coaching context. In *The sports coach as educator: Re-conceptualising sports coaching*, ed. R. Jones, 65–76. Abingdon, Oxon: Routledge.

Kidman, L. 2001. *Developing decision makers: An empowerment approach to coaching*. Christchurch: Innovative Press.

Kidman, L., and C. Hanrahan. 2011. *The coaching process: A practical guide to becoming an effective sports coach*. Abingdon, Oxon: Routledge.

Lyle, J. 2002. *Sports coaching concepts: A framework for coaches' behaviour*. Abingdon, Oxon: Routledge.

Magee, J., and R. Jeanes. 2011. Football's coming home: A critical evaluation of the homeless world cup as an intervention to combat social exclusion. *International Review for the Sociology of Sport*. doi:10.1177/1012690211428391.

Penney, D. 2006. Coaching as teaching: New acknowledgements in practice. In *The sports coach as educator: Re-conceptualising sports coaching*, ed. R. Jones, 25–36. Abingdon, Oxon: Routledge.

Ravenhill, M. 2008. *The culture of homelessness*. Aldershot: Ashgate.

Social Exclusion Unit. 1997. *Social Exclusion Unit: Purpose, work priorities and working methods*. London: The Stationery Office.

Spaaij, R. 2009. Sport as a vehicle for social mobility and regulation of disadvantaged urban youth: Lessons from Rotterdam. *International Review for the Sociology of Sport* 44: 247–264.

Sports Coach UK. 2008. www.sportscoachuk.org/. Accessed 13 Jan 2012.

Stokols, D. 1992. Establishing and maintaining healthy environments: Toward a social ecology of health promotion. *The American Psychologist* 47(1): 6–22.

Taylor, B., and D. Garratt. 2010. The professionalisation of sports coaching: Relations of power, resistance and compliance. *Sport, Education and Society* 15: 121–139.

Chapter 6
Through Community: Connecting Classrooms to Community

Laura Alfrey and Justen O'Connor

> *Never doubt that a small group of thoughtful, committed citizens can change the world: indeed, it's the only thing that ever has.*
> – Margaret Mead (anthropologist)

Abstract This chapter will focus on the challenge of connecting students' classroom experiences to their communities and their day-to-day physically active lives. Throughout the chapter we build upon the concept that a school curriculum that is situated (place-based) and responsive to student and community needs, can result in a range of benefits for learners and their communities. Benefits can extend to deeper levels of student learning, the establishment of productive community partnerships and the creation of change makers who have capacity to influence future experiences of movement without prescribing exactly what that change should look like. The use of situated and 'authentic' learning in schools has long been supported. What is less clear for educators, however, is what a place-based and interdisciplinary curriculum would look like in practice, with Health and Physical Education as the driver. The aim of this chapter is to shift the focus and draw attention to the everyday expressions of movement that are low in organisation but high in meaning and available to all. To do this we draw on research that was carried out in four Australian schools within the state of Victoria, to explain how a socio-ecological place-based curriculum – 'Connect our Community' – might be used to promote active, strong and connected communities.

Keywords Placed based curriculum • Connecting communities • Agency and participation • Physical activity

---

L. Alfrey (✉) • J. O'Connor
Faculty of Education, Monash University, McMahon's Road,
Frankston, VIC 3199, Australia
e-mail: laura.alfrey@monash.edu; justen.oconnor@monash.edu

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_6, © Springer Science+Business Media Dordrecht 2014

Introduction: Understanding Community

'Community' is a fluid term that is often used but less frequently understood. It is a complex term open to different interpretations from a range of perspectives. From a sociological perspective, for example, community encompasses the social relationships within organisations, neighbourhoods or towns. A political understanding of community emphasises citizenship, civil society and collective identity, while a philosophical approach focuses 'more on the idea of community as an ideology or utopia' (Delanty 2003, p. 2). People can belong to multiple communities defined by communication (Delanty 2003), but within the context of this chapter we limit community to people connected by geographical context and social contact as a consequence of the interface between home and school. For the purpose of this chapter, and in consideration of a socio-ecological approach, community is used as a social term that refers to:

> . . . systems of dynamic, interactive relationships between people and their physical, geographic, personal and social networks. Communities are ecological in that the relationships within the community not only connect people to the community, but give back to the community what it needs to sustain itself. (McMurray 2007, p. 13)

We add, or at least make more explicit within this definition, the acknowledgment that natural ecologies can also play a role in this context. Socio-ecological frames compel us to encourage educative experiences that allow learners to connect themselves to other people and places across space and time, both in social and natural ecologies. How people behave and learn is not only a consequence of personal motivation, but also of the multiple and overlapping relationships and connections that each person has with people and places over time.

Connection

As stated in an earlier chapter, the terms space and place are often used interchangeably. Depending on your perspective, however, there are important differences. In discussing space and place, Wattchow and Brown (2011) state that, from a traditional Western perspective, a geographical space can only become a place if a person feels that he or she has a meaningful connection to it (Schama 1995; Watson 1990). In contrast, they highlight that many indigenous cultures are of the view that places have their own inherent meaning or spirit, irrespective of human existence and perceived connection (Read 2003; Tacey 2000). It is important for educators to reflect on their values and assumptions in relation to this matter, and acknowledge the extent to which their perspective – and connection to place – will influence their teachings.

According to Zeldin and Topitzes (2002), a sense of connectedness is rooted in an individual's perception of their setting or community. Community connection or connectedness can be identified through a range of characteristics, including a sense of collective efficacy, social control, spirit, trust, norms and ongoing engagement with the community (Bowles and Gintis 1998; McMillan 1996; Newbrough 1996; Zeldin and Topitzes 2002). Community connection has a range of benefits (e.g. it can reduce incidences of violence and promote physical activity), but this does not always occur organically.

Traditionally the physical education discourse has largely ignored the important connections that movement facilitates between people and place. Walking to the shops, skating to the park, playing in a tree or jogging along a beach all help anchor us to place and connect us to community. Because physical activity often involves intimate contact with the immediate environment, it binds us to place. With increasing automation of our lives opening up a host of new connections in some areas (i.e. digital social networks), however, there is an increasing disconnect in others (i.e. motorized travel, screen play) that fosters a form of placelessness. A socio-ecological, place-based school curriculum that looks beyond the school gates and into communities is one way that community connection can be fostered. An important distinction is made here from other approaches that aim to increase walking or cycling to school as a mechanism to cope with an obesity crisis (Burrows and Wright 2007). The aim of this approach was not to regulate bodies, but to open up opportunities for children to critically explore their capacity to move through their environment.

A Socio-ecological Approach to Connecting Schools and Communities

The socio-ecological approach acknowledges that behaviour can be shaped over time and space by multiple levels of personal, social, cultural, policy and environmental influence (Bronfenbrenner 1979; Stokols et al. 1996). A socio-ecological frame, with its multilayered conceptualisation of community, can be used to explore what Penney and Jess (2004) refer to as an ‘all encompassing’ approach to movement and physical activity both in and beyond the classroom. Social ecology provides a theoretical frame from which the multiple influences on movement and physical activity – across different living domains and communities – can be understood (Sallis et al. 2006). A Health and Physical Education curriculum that acknowledges and capitalises on this complexity can become a driver for change both within and beyond the immediate school community (O’Connor et al. 2011). As a consequence, school and its curriculum can reach outwards into the extended communities to impact home, community sport and local environments such as parks and pedestrian routes. This ‘spill over’ of curriculum into other active living domains reinforces the multi-layered and multi-dimensional nature of a socio-ecological approach. It also removes the focus of independent mobility as an individualized concern, and shifts it to a community level issue subject to different enactments and interpretations that relate to the social and physical characteristics of a student’s environment.

The socio-ecological approach that we present intended to: (a) be multi-level; (b) be place-based and relevant to learners; (c) prioritise student voice; (d) allow students to engage with process knowledge as well as content knowledge; (e) be interdisciplinary; and (f) be a context for meaningful movement experiences. At the heart of the curriculum was the student-identified desire to independently travel around their community, particularly to get to and from school and preferably by scooter or bike. By critically exploring their environments, students understood more about what influenced their capacity for independent travel, and the relationships between physical activity, health and community connection. They were encouraged to develop their own strategies that impact issues that they identified through this exploration. There is evidence to suggest that children who walk or cycle to school are more likely to have improved cardiovascular fitness and higher daily levels of physical activity than children who do not actively commute to school (Davison et al. 2008). This health focus, whilst evident in project descriptions, came second to other issues such as freedom, connection, aesthetics and exploration.

Theory to Practice: Four Schools and a Socio-ecological Curriculum

The Connect our Community curriculum is now discussed in interrelated sections: context, approach, data collection, issues, interventions and summary.

Context

Within Australia, there is evidence from the past three decades that most journeys by children between the school and home have become increasingly dependent on the motor vehicle (Harten and Olds 2004; Thomson 2009). For students from four schools in a targeted community in south-east Victoria it emerged that car dependency was an issue that they would like to tackle. Explaining why she would like to walk to school, one student stated:

> Because on the way to school I can be able to meet up with my friends and get time to walk around rather than just being in the car all the time and just speeding, like not speeding like, but just going past everything really fast rather than being able to stop and have a look at something. When you're in the car, you can't just like stop.

Students spoke of being able to kick a pinecone along a street without being told not to, visit their friends, spend time in an unregulated setting, look at the trees and scoot on their scooters (because it was fun) as reasons why they would like to spend more time walking or cycling to school.

Approach

It has been acknowledged that in order to address the issues of car dependency, interventions need to adopt multi-faceted, community-based approaches that address the environmental, policy, ethos, interpersonal and intrapersonal factors that determine behaviour (Thomson 2009; Sallis et al. 2006; Krizek and Forsyth 2009). Changes to the built and cultural environments, together with interventions aimed at the individual (parent and child) appear to offer the greatest chance for change (Sallis et al. 2006; Krizek and Forsyth 2009; Merom et al. 2006). The Connect our Community curriculum allowed children to explore of the socio-ecological factors that limit active transport and independent mobility within the targeted community. In particular it focused on issues associated with car dependency through adopting a socio-ecological approach. To do this, students and teachers were encouraged to exit the school grounds and explore the spaces between home and school. Students drew maps, identified landmarks, noted features in the landscape, identified barriers to movement that existed in the environment and also discussed issues related to decision making, risk and perceived ownership of the space (particularly related to graffiti) (King et al. 2002). During interviews students were able to describe examples of how this space was supportive or restrictive of movement including lived experiences of bullying, harassment or perceived fear. These issues were not discussed in class but we feel should have formed part of the exploration.

Data Collection

On a broader project scale, data was gathered across multiple levels of social ecology over a period of three years and consisted of the following:

- Survey data (pre and post intervention)
- Interview data (pre and post intervention)
- GIS (Geographical Information Systems) mapping data
- Objective traffic counts (pre and post intervention)
- Route audit data.

Within the curriculum-focused element of the project, student artifacts, teacher reflections, student interviews and teacher interviews formed the basis for data collection. Interviews were recorded, data transcribed and triangulation of emergent themes conducted.

Issues

As suggested in an earlier chapter, student voice is central to a socio-ecological curriculum as we see it. At the outset the students were asked what they felt about their community, and how these feelings influenced their active transport between school and home. This exercise identified a range of barriers to children walking and cycling to school. The data suggested that:

- Parents were the main decision makers and they had fears around traffic and strangers
- There was a range of connectivity issues, major barriers (i.e. busy roads) and concerns about children being alone when walking to school.
- Students were aware of how incivilities within their environment (graffiti, damaged infrastructure) impacted their own feelings of safety when moving through it.

These barriers have been echoed throughout many countries in the Western world, where a wide range of personal, family, societal, economic and environmental factors have negatively impacted young people's freedom to move through their local environments (Malone 2007). If learning about physical activity was to be meaningful, it was important for teachers to connect students' school experiences to the ones they had within the context of the broader community (Penney and Jess 2004; Bouillion and Gomez 2001). The information presented by the students represented an opportunity to extend the classroom beyond the school gates and into the students' communities intersecting education, physical activity, health and community connection. The students (and their parents) had identified a range of difficulties in connecting with their built and natural surroundings, which in turn impacted in different ways opportunities for physical, social and psychological development (Burdette and Whitaker 2005). Indeed, Malone (2007) points to a range of consequences for the gradual decline in children's unsupervised outdoor play that include a loss of environmental competence, social competence and resilience. Again the link between environment, health and physical activity is made and the issues identified by the students and their parents become central to the focus for the wider community and classroom activities.

Interventions

The interventions that made up the Connect our Community project included: (a) changes to the built environment; (b) the Connect our Community curriculum; and (c) school travel plans. The process for getting changes to the built environment (more footpaths, school crossings and changes to speed zones) are not the primary focus for discussion here, however it is important to note that whilst the school community could not hope to have the resources to directly enact significant change in this area, their collective voice was heard by those who could. By offering to be part of the solution, significant change to the built environment to support walking to and from school occurred through the actions of local government. The discussion and analysis within this chapter focuses on the school curriculum component of the Connect our Community project.

Characteristics of Curriculum

For the purpose of articulating the socio-ecological curriculum we have identified six overlapping and interdependent characteristics. These are explored and evaluated in a practical sense within the following.

Multi-level Organisation

Given the multi-level nature of our social ecologies it is imperative that a curriculum utilising this paradigm reflects this. The Connect our Community curriculum was organised in a way that meant the initial focus was on the individual but, as the term progressed, the students were invited to explore social and environmental factors that may have been influencing their opportunities for active transport and independent mobility. Students connect to community through movement as a consequence of the intimate interaction with the geographical space and its features or, more socially, with friends or others in the context of these public spaces. Teachers expressed concerns that their students weren't connected in many ways and saw this project as an opportunity to address this issue:

> they're [students] disconnected from society; they're disconnected from their families; they feel disconnected from the school, so the connectedness really is paramount in a low socioeconomic area. We decided as a whole school every year to do a … it [Connecting our Community] seemed to fit quite nicely with our specialist program, as well as our community and 'Who am I', our self-respect program. So to us [Connecting our Community] was getting them safe, getting them healthy, getting them to school and also you know just being a part of the community, so it just seemed to fit very nicely with this. (Jan, teacher, School 2)

The initial focus on the individual may be a logical way of moving through the layers, but it was also used as a way of 'hooking' the students in and providing them with opportunities to generate meaning and expression through a variety of media (e.g. drawings, narratives, movement).

By encouraging the students and teachers to look beyond the walls of the classroom and the school gate, and be 'place-based', it encourages the students to reconsider what their community means to them and how they have access to it. As one of the teachers suggested:

> If it means that we have to get them out there to explore where they normally wouldn't, or to sit down and look at something which they normally wouldn't and to try and understand [things] that way, then I think that's all positive steps.

While teachers from some of the schools were already encouraging their students to engage with issues around community through civics and citizenship, this was mainly done within the classroom. The Connect our Community curriculum encouraged an experience of the community and the interesting places within it (e.g. the war memorial and the mangrove walk) through movement. Experiencing community and questioning the personal, inter-personal and environmental factors that reflect our multi-level social ecologies means that students have experiences that better equip them to contribute meaningfully to society, to feel more connected to their communities and as a consequence, are (physically) educated in ways that encourage an appreciation for the everyday. This is in contrast to the learning of a tactic in a sport never played outside of the classroom, or a fitness test that is never applied and remains abstract to the lived experience.

Place-Based Curriculum

If a curriculum is to be socio-ecological then it will inevitably be place-based and situated. With this can come relevant and meaningful learning that targets a transformation of school and community culture through the development of students as change makers within their community context. Burrows and Wright (2007) caution us against a narrow conception of the 'change maker' approach in which students are facilitated to come up with the 'right' answer rather than a genuine attempt to celebrate "...a plurality of context-specific meanings about health and physical education" (p. 11). The 'tagging' of footpaths by students with spray-painted footprints, or the designing of places they could meet up with their friends, or simply getting to know more about the Weedy Sea Dragon as a consequence of a visit to the local harbor were all non-scripted outcomes of the project that didn't originate from a distant source, but rather were localized and relevant. The footprints in particular happened as a response to, and in competition with, less civil forms of graffiti that were expressed by the students as being intimidating or offensive. These, although contentious, were a way students could mark out a space for themselves on the paths they wanted to use to get to school.

In applying the Connect our Community curriculum, everything taught was located in this community context. Some of the teachers felt that increased association and communication between the four schools had firstly identified and secondly reduced incidences of bullying between students from different schools, usually travelling to and from school:

> It [bullying] seems to be less and less because they have had something to do with the other schools and they are working on the same project. I think there's a calming of all that because they're now starting to feel a part of one unit ... they can respect how hard it was for each school to do all the artwork. (Teacher, Primary School A)

The artwork to which one teacher referred was an 'output' of the curriculum. At this juncture it is important to distinguish an output (a tangible product) from a learning outcome (determined at the outset and aligned with curriculum, pedagogies and assessment). In Connect our Community the tangible outcome was meeting points (four) surrounded by mosaics depicting local information; Students drafted designs for meeting points (see Fig. 6.1) to be located strategically throughout the community that students could use to meet up with friends before walking a comfortable distance to school together.

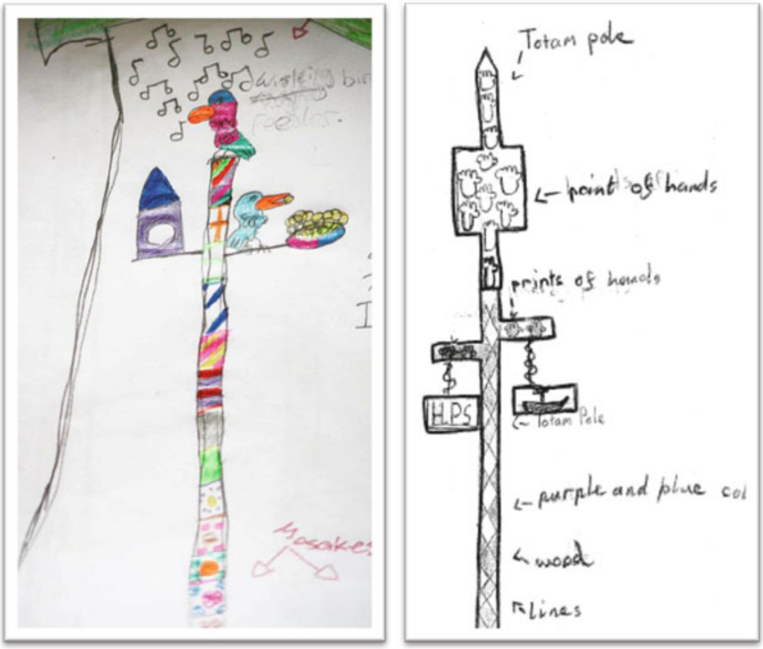

Fig. 6.1 Meeting place ideas from a Primary School student

Importantly, this process of representing work done while at school, but within the community, fulfils one of the curriculum aims associated with students and parents gaining control over their place. Blurring the boundaries of what it meant to be ‘at school’ by firstly doing and secondly representing schoolwork in the community were important steps in easing negative perceptions of their community, developing a connection to place through ownership and enhancing the amenity for physical activity. As one teacher articulated:

> Oh the major strength of the project was the kids being able to see something out of it. It was not just doing something [short-term], and it was not just part of schoolwork. I think that, to be able to in ten, twenty years time say, ‘That [the meeting place/output] was me’ is so important to them. It’s also important to their friends because then they’ll say, ‘Don’t muck with that, I/Johnny/Sarah did that.’

For the students the meeting points (see Fig. 6.2) were one way of gaining ownership and addressing fears associated with independent mobility within the community. According to the parents and teachers, the approach was that if the parents could drop their child off at a meeting point (800m from school) then they could walk the remaining distance in a group and therefore be at ‘less risk’. As the above quote suggests, not only was this tangible outcome meaningful for the students, but it was suggested that may also serve to reduce incidences of vandalism (anti-social behaviour).

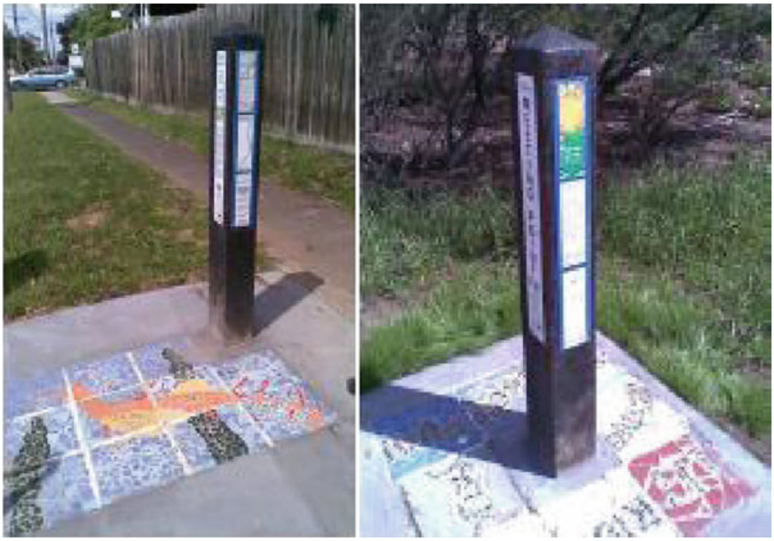

Fig. 6.2 Meeting places

Student Agency and Participation

Central to the Connect our Community curriculum was the idea that the students would share in the decision making process. According to one of the teachers, this project was successful and unique because:

> They [young people] are usually seen as insignificant; they're just dragged along. The project gave them leadership: they actually see that they made a difference and they're making a contribution; they're really up there in the community; there was an importance associated with them. (Teacher, Primary School B)

As alluded above, the intention was that the outputs of the Connect our Community curriculum were determined, designed and developed by the students themselves. The reality in the classroom was a compromise with many of the activities still resting with the teacher as the central actor. The extent to which students were able to co-create was important in terms of perceived ownership. As one teacher said:

> I think to a degree it [Connect our Community] gives them [students] a bit of ownership to it. It gives them a bit of initiative if they have to go and research it themselves or if they have to check out their street and their town it gets them away from a table and away from a chair and for some of them that's a challenging learning experience, let alone the actual topic and content of what they're learning. So I think there's a definite element of a positive learning experience there.

Experience tells us that it is sometimes hard for teachers to relinquish their power in a classroom situation but, as the quote suggests, teachers were aware of the benefits of such an approach. More support was needed for teachers to ensure the students were indeed co-researchers into their own barriers and co-creators of the strategies related to addressing them.

Interdisciplinary Learning

Connect our Community linked multiple areas of the school curriculum. For example, maths was used to calculate the number of steps each student walked to school; an exploration of the local mangroves provided an ideal context for science and environmental education; developing a map of local leisure facilities achieved learning outcomes associated with civics and citizenship. In the words of a participating teacher:

> We've taken them out of the school, like I said, to explore the community ... one of the main excursions we did was we started from the front gate of the school and we went right down to Kmart and we had them with trundle wheels and measuring how many metres it was from one to the other and broke that down for a bit of a maths activity as to how many footsteps it takes for a metre, how many footsteps did you do and how to measure that ... it was good to link that into the curriculum.

Linking to technology, another teacher suggested:

> It's very easy to integrate technologies into it (Connect our Community). We've got video cameras and all that technology here that we don't use. I'd just say, 'Take your camera; go for a walk down the street; take me five videos of interesting places; tell me why they're interesting; come back and we'll talk about it as a class' and they show them on the board and everyone can look at it. It gives them ownership.

Aside from opportunities for transdiciplinary learning that Connect our Community offered, it also had additional benefits. Being able to follow a theme that started before school, carried on during school (including in class and things like assemblies) and continued after school on the way home again blurred the boundaries between what was school and what was community. Students not only saw their own work on their paths as they walked home, but could see that more broadly the community responded to their desire to actively travel by providing better infrastructure and safer paths to do so. This extended the idea of an integrated school curriculum to one of an integrated community curriculum. By partly addressing a problem identified as significant to young people it began to develop the idea that big problems are complex, but if you work on them in many ways through different channels then change is possible. The extent to which students understood this concept was not explored.

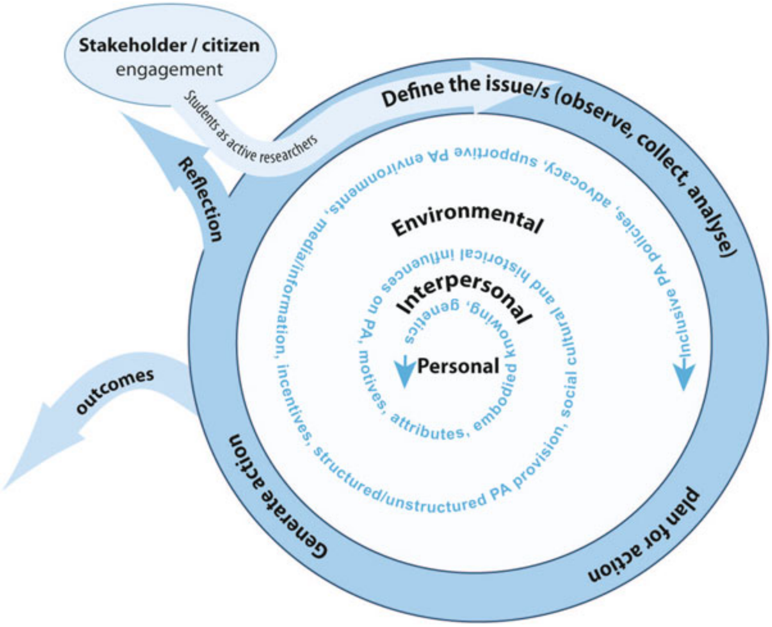
Stakeholder / citizen engagement
Students as active researchers
Define the issue/s (observe, collect, analyse)
plan for action
Generate action
Reflection
outcomes
Environmental
Interpersonal
Personal
supportive PA environments, advocacy, policies, inclusive PA policies
media/information, incentives, structured/unstructured PA provision, social cultural and historical influences on PA, motives, attributes, embodied knowing, genetics

Fig. 6.3 Connect our Community action research process

A Focus on Product and Process

A socio-ecological frame has the potential to influence both immediate and future physical activity patterns because students are not only learning content knowledge, but also process knowledge. Having been physically educated within a socio-ecological frame, students can continue to consider critical action informed by experience with regard to physical activity. The adapted 'action research process' (see Fig. 6.3), an example of inquiry-based learning, is the overarching process that was utilised within the Connect our Community curriculum (O'Connor et al. 2012). The students engaged in a process that involved gathering information (look, ask and listen) about barriers to active transport and independent movement in their community, developing ideas about how these barriers could be overcome (create), analysing the potential of each idea and if it can be achieved (evaluate), communicating ideas to community stakeholders (share) and then putting into practice (implement).

Students quickly learnt that their exciting but elaborate ideas generated in the 'Create' phase of designing meeting places (see Fig. 6.1) were not practical or achievable in the 'Evaluate' stage. In pitching their ideas to local government, they realized a compromise was needed based upon practical realities of complexity, cost and safety. The end result was a negotiated compromise between expression of ideas and the practical realities of working outside of the school context. The action research process that the students engaged with provided opportunities to develop content knowledge together with knowledge of the process and its potential application to numerous other contexts. For this reason, the knowledge should be transferable and sustainable.

Movement Experiences

Movement experiences (e.g. physical activity, exercise, sport) are central to our conceptualisation of a socio-ecological education. Underpinned to a large extent by theories of experiential pedagogies (Dewey 1938; Joplin 1981), the Connect our Community curriculum provides opportunities to engage in meaningful, physical experiences that relate to the everyday movement often overlooked in physical education classes and to reflect on them for educational purposes. Meaningful movement experiences can be valuable for a number of reasons, not least the promotion of pro-environmental behaviours, community connection and health. As one teacher stated in reference to enhancing opportunities for students walking to and from school which provided a strong contrast to the dominant health discourse associated with obesity, ill health and the regulation of bodies:

> Well they arrive a little bit more energised. There's that chance to connect with their peers, establish some more social relationships outside of their normal class, get to know the neighbourhood a little bit better rather than living in their own four walls of their block of land and then getting into their car and commuting to school and really not knowing who lives down the end of the court or the street.

Teachers also expressed positive sentiments about getting the students out of the classroom to explore their paths to and from school. They found out things about their community that they had not known before and some of these triggered impromptu discussion which were later followed up as exemplified by the teacher.

> Yeah it was a case of we walked around the mangroves and there was some paper and stuff and I said "Look what's the purpose of the mangroves?" Nobody knew so we discussed the filtering systems, and you know: "Are we destroying these plants that are actually protecting our environment? We came back and looked at this.

In exploring barriers to movement through movement, opportunities to connect to other elements of the student's social ecologies emerged. Discussions concerning the health of individuals and natural systems, aesthetics, wayfinding, history and spatiality were all outcomes of these movement experiences. One grade of students upon exploring their local marina discovered the Weedy Sea Dragon and this featured in their mosaic meeting place. As a result of exploring walking paths to and from school, the students were able to explore their communities and extend learning across traditional curricula borders.

Summary

The primary aim of the Connect our Community curriculum was to encourage children and parents to pursue more active forms of transport, something that had been identified as an important physical activity for the students and one that was not ability dependent. The schools having re-established this as an important topic, adopted a multi-layered approach to exploring it. The curriculum was not prescriptive and because of this yielded many unexpected opportunities for students to make connections to their community. According to the teachers who were interviewed, participating in the project has encouraged more young people to actively travel to and from school without the need for a focused, 'one way is the right way' approach. For example, they said:

> It's been more successful than what we had hoped for ... So we're sort of thinking if this is the success that we've had from it (in winter), wait till the end of next term and, with the nice weather ... We have noticed probably the population of children who did walk or ride to school ... has doubled and they're very enthusiastic. They'll come up in the morning, 'I did this and did this' and one thing we just noticed the other day, it hasn't dropped off too much in this weather, which has been great. (Teacher, Primary School C)

Despite the complexity of the project, the crowded curriculum and many competing demands, overall the teachers felt the project to be a worthy investment in time. By blurring the boundaries between home and school, students were involved in reclaiming their streets as active play or travel spaces. They put their stamp on their turf and also realised that their voices could lead to change. The following outlines the thoughts of two different teachers, the first in relation to empowering the students and the second to empowering the parents who contributed to the initial discussions and identified issues:

> Well they [students] actually did take a big step in the community; they were leaders in changing the face of the community too, so there's a pride there.
>
> I think now its heightened the parents' alertness to what more can be done because they've actually seen something happen ... they think that a lot of that's happened because of what they've said and that's great if they have that full belief. So now they're really pushing for reduction of the speed limit out here and they're actually writing letters to the council about improving the situation out here.

The success of the project was not measured in the numbers of young people walking to school, but rather in the capacity of the school to begin to tackle and address a community issue that related to health and wellbeing of the students. It was a problem that was part of the student lived experience and not a distant, placeless curriculum. Success was measured by engagement in the learning and the meaningfulness of it. For students to understand that they can be part of making change is a powerful learning experience that can be transformative, transferrable and sustainable. They didn't get everything they wanted, with many compromises made and they didn't have the level of ownership that was anticipated or hoped for, but the students were able to put their stamp on their community in a way that at best enhanced their own opportunities for physical activity and at worst helped someone else to.

Conclusions

Parents are becoming increasingly fearful of allowing their children to move independently in and around their local community. We know that limited independent mobility can have a range of negative consequences for the multiple dimensions of health, and community connection more broadly. This chapter has illustrated how a socio-ecological school curriculum can help students better connect with their community, and in turn reap the benefits associated with that (e.g. environmental competence, feelings of self-worth). We discussed the four foundational concepts that were presented in Chap. 2, and outlined the ways in which they had been enacted in this case study. Scootering to school is not a traditional activity done in a gymnasium; it does not require too many fundamental motor skills or any tactical understandings. It does, however, have meaning to the students we worked with, and perhaps has greater potential to impact health and wellbeing across the lifespan. Having influenced change to enhance their physically active lives in primary school, there is scope to do the same in their future lives. By encouraging teachers to think beyond the school grounds, students were able to experience their place in ways that they had not previously, and make change to enhance the physically active lives of themselves and others.

References

Bouillion, L.M., and L.M. Gomez. 2001. Connecting school and community with science learning: Real world problems and school–community partnerships as contextual scaffolds. *Journal of Research in Science Teaching* 38(8): 878–898.

Bowles, S., and H. Gintis. 1998. The moral economy of communities: Structured populations and the evolution of pro-social norms. *Evolution and Human Behavior* 19: 3–25.

Bronfenbrenner, U. 1979. *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.

Burdette, H.L., and R.C. Whitaker. 2005. Resurrecting free play in young children: Looking beyond fitness and fatness to attention, affiliation, and affect. *Archives of Pediatrics and Adolescent Medicine* 159: 46–50.

Burrows, L., and J. Wright. 2007. Prescribing practices: shaping healthy children in schools. *International Journal of Children's Rights* 15: 1–16.

Davison, K.K., J.L. Werder, and C.T. Lawson. 2008. Children's active commuting to school: Current knowledge and future directions. *Preventing Chronic Disease* 5(3). Retrieved from http://www.ncbi.nlm.nih.gov/

Delanty, G. 2003. *Community*. London: Routledge.

Dewey, J. 1938. *Experience and education*. New York: Collier Books.

Harten, N., and T. Olds. 2004. Patterns of active transport in 11–12 year old Australian children. *Australian and New Zealand Journal of Public Health* 28: 273–276.

Joplin, L. 1981. On defining experiential education. *Journal of Experiential Education* 4(1): 17–20.

King, A.C., D. Stokols, E. Talen, G.S. Brassington, and R. Killingsworth. 2002. Theoretical approaches to the promotion of physical activity: Forging a transdisciplinary paradigm. *American Journal of Preventive Medicine* 23: 15–25.

Krizek, K.J., and A. Forsyth. 2009. *Walking and cycling international literature review: Final report*, 102. Melbourne: Victorian Department of Transport.

Malone, K. 2007. The bubble-wrap generation: Children growing up in walled gardens. *Environmental Education Research* 13(4): 513–527.

McMillan, D. 1996. Sense of community. *Journal of Community Psychology* 24: 315–326.

McMurray, A. 2007. *Community health and wellness: A socio-ecological approach*. Marrickville: Elsevier.

Merom, D., C. Tudor-Locke, A. Bauman, and C. Rissel. 2006. Active commuting to school among NSW primary school children: Implications for public health. *Health and Place* 12: 678–687.

Newbrough, J. 1996. Sense of community (special issue). *Journal of Community Psychology* 24(4): 311–325.

O'Connor, J., L. Alfrey, and P. Payne. 2011. Beyond games and sports: A socio-ecological approach to physical education. *Sport, Education and Society [P]* E: 1–16. Routledge.

Penney, D., and M. Jess. 2004. Physical education and physically active lives: A lifelong approach to curriculum development. *Sport Education and Society* 9(2): 269–288.

Read, P. 2003. *Haunted earth*. Sydney: University of New South Wales Press.

Sallis, J.F., R.B. Cervero, W. Ascher, K.A. Henderson, M.K. Kraft, and J. Kerr. 2006. An ecological approach to creating active living communities. *Annual Review of Public Health* 27: 297–322.

Schama, S. 1995. *Landscape and memory*. London: Fontana.

Stokols, D., J. Allen, and R. Bellingham. 1996. The social ecology of health promotion: Implications for research and practice. *American Journal of Health Promotion* 10(4): 247–251.

Tacey, D. 2000. *Re-enchantment: The New Australian spirituality*. Sydney: Harper Collins.

Thomson, L. 2009. *How times have changed: Active transport literature review*, 39. VicHealth: Melbourne.

Watson, I. 1990. *Fighting over the forests*. Sydney: Allen Unwin.

Wattchow, B., and M. Brown. 2011. *A pedagogy of place: Outdoor education for a changing world*. Clayton: Monash University.

Zeldin, S., and D. Topitzes. 2002. Neighborhood experiences, community connection, and positive beliefs about adolescents among urban adults and youth. *Journal of Community Psychology* 30(6): 647–669.

Chapter 7
Through Belonging: An Early Childhood Perspective from a New Zealand Preschool

Jane Bone

> *The future of our world demands that we all commit ourselves to thoughtful learning about the inter-relatedness of the biology, geography, history, geology, ecology, energy use, and social relationships of the places where we live, and that we grow up feeling responsible and confident to participate actively in community life.*
>
> (Herbert 2008, p. 64)

Abstract This chapter discusses a research project, *Our Place*, which occurred in Aotearoa/New Zealand and was influenced by an approach to education and research developed by the preschools of Reggio Emilia, in Italy. The idea for the project was first discussed on a study tour to the famous Italian preschools. In an effort to increase engagement with the local community in New Zealand, teachers and children participated in the project. Children began to construct a map of their local environment and small groups began to go 'outside the gates' with a teacher. Families supported the project and appreciated the activities of the preschool in the community. Children began to explore nearby landmarks, including their local river. The early childhood curriculum in New Zealand suggests that children get to know the land, their mountains and rivers, as part of fostering their sense of belonging. In this chapter this is described as a 'turangawaewae story'. The way a sense of belonging was encouraged by taking a socio-ecological perspective is described through the voices of all participants in the project.

Keywords Place based curriculum • Agency and participation • Community engagement • Reggio Emilia • Aotearoa/New Zealand

---

J. Bone (✉)
Faculty of Education, Monash University, Frankston, Australia
e-mail: jane.bone@monash.edu

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_7, © Springer Science+Business Media Dordrecht 2014

Introduction to the ‘Our Place’ Project

Belonging in early childhood education suggests a sense of security in the context of the wider world and recognises the interconnectedness of children and their families to community and place. This understanding of belonging is foregrounded in the early childhood curriculum framework for Aotearoa/New Zealand (Ministry of Education 1996) and more recently is part of the vision for children featured in The Early Years Learning Framework for Australia (DEEWR 2009). Belonging is highlighted in these curriculum documents as it is proposed that ‘knowing where and with whom you belong – is integral to human existence’ (DEEWR 2009, p. 7). An emphasis on place and relationships supports the socio-ecological approach to the education of young children taken here in relation to the *Our Place* project. This inquiry encouraged a sense of belonging between the preschool and the community and took children ‘outside the gates’ of the preschool (Malaguzzi 1998; Gallen 2005). This action resists the growing regulation of the lives of young children and recognises that ‘the boundaries of children’s lives are growing ever tighter’ (Louv 2005, p. 123). This project confirmed that educational institutions can support parents who dislike the notion of constructing a ‘bubble-wrapped’ generation (Malone 2007) and who believe that children have the right to less restricted environments (Duhn 2012).

In early childhood education the partnership between preschool, families and community is a priority. In New Zealand partnership is the basis of Te Tiriti o Waitangi/The Treaty of Waitangi, the founding document of New Zealand. The treaty sits in the wider environment and filters through to all relationships as ‘partnership’ and this notion underpinned the construction of a bicultural early childhood curriculum framework, *Te Whāriki* (Ministry of Education 1996). *Te Whariki* is a bicultural document that recognises indigenous theories of the world. These theories describe attachment to place as a basis for connection with others (Martin 2005; Miller 2010; Pere 1995). Partnership aligns the personal with the political and is a way of affirming an ideal of how we might live together and where we belong. In this context the concept of ‘turangaewaewae’ is relevant and this word can be translated from te reo Māori (the Māori language) into English to mean ‘to have a place to stand’ (Barlow 1991; Pere 1995). This concept was explored as part of the *Our Place* project.

A socio-ecological approach is embedded in the New Zealand curriculum for early childhood education, where Bronfenbrenner’s Ecological Systems Theory (1979) is an important theoretical perspective. This has been reinvented here in terms of thinking about socio-ecological approaches to education that might actively contribute to environmental and sustainable issues through wider community relationships. It is an approach that fits well when considering early childhood education in New Zealand, where indigenous partners have always emphasised connection to the land, care of the environment and identify as ‘tangata whenua’ or people of the land (Pere 1995).

It was evident to the New Zealand teachers who went on the study tour of Italy’s preschools that children in the town of Reggio Emilia are encouraged to engage creatively with their community and use the city as a resource. This is given expression by Branzi et al. (2006, p. 63) who describes a project called 'Town *in*waiting'. This project involved:

> Promoting the rights of children
> to live from the very beginning
> the cultural, political, and institutional locations
> in the city, to sustain the strong liaison
> between the destiny of children and adults
> Is what has characterised the dialogue,
> the mutual listening,
> the cultural and political interlacements
> between the city of Reggio Emilia and its schools.

In a very different context, in a small town in rural New Zealand the *Our Place* project explored participation on a number of levels by 'going outside the gate' of the preschool and contributing to the life of the town and privileging community connections. This was not conceptualised as a one-way process and people from the community were welcomed into the preschool. The project recognised that children are active participants in their world (Davis 2010) and included the voices of teachers, children and researcher in the dialogue and documentation undertaken as a feature of the research. A narrative emerges that highlights the connections made possible through a socio-ecological approach.

Influences from Elsewhere

The approach to early childhood pedagogy from the preschools of Reggio Emilia is, according to Bruner (2006, p. 17), 'world-famous', 'innovative', and wholly respectful of the right of children to participate, to question and to be autonomous. Rinaldi (2006, p. 10) refers to children, teachers and parents who participate in research projects as 'protagonists'. This word implies active involvement and children as protagonists in the Reggio Emilia context are conceptualised as 'actors in their shared history, participants in society and culture, with the right (and obligation) to speak from their own perspective, and to act with others on the basis of their own particular experience' (Edwards 1998, p. 180). The right of children to participate in research that concerns them is part of an ethical approach to research with young children in early childhood educational settings (Bone 2005; Cullen et al. 2011).

Taking an approach from Italy was inspiring and it is worth pointing out that the geographical distance between New Zealand and Italy probably increased the attractiveness of new ideas. Nimmo (1998, p. 297) sums up the attitude toward community and belonging in Reggio Emilia as '*Io chi siamo*' – 'I am who we are'. He says that this 'refers to the possibility of reaching beyond the individual through mutual exchange with others'. These ideas resonated with unique (bi)cultural perspectives in the context of Aotearoa/New Zealand (land of the long white cloud) and these fresh sources of inspiration brought new energy to the field of early childhood education. It might be important, in terms of appreciation of one's own place in the world, to leave and return, and to look again with new eyes. Even so, it might happen that what might be a good idea elsewhere does not have the same excitement on the return home. In this case, excitement about the role of the preschool in the community that was so obvious in Italy was retained and the teachers who were part of the Study Group returned 'full of the future', as Rinaldi (2006, p. 60) says in a comment about Loris Malaguzzi, the educator behind the Reggio approach.

It may also be the case that when ideas travel they are sometimes taken up lightly and transferred to new locations with little attention given to contextual matters. Again, this was not the case here. In fact, the particularity of the way that the approach to education from Reggio Emilia emerged from a specific context was key to the thinking behind this project. Inspiration was drawn from perspectives like that of Spaggiari (1998, p. 110), who acknowledged that the education of young children:

> can be limited neither just to the home nor just to the school. It occurs in many places and no one place can claim to be all-encompassing or exclusive. Each environment must be aware of the partial and incomplete role it plays and must therefore seek to collaborate and be integrated with the others.

Spaggiari's comment has at its heart socio-ecological principles (Bronfenbrenner 1979; Ryerson Espino and Tricket 2008). In this case these are interpreted in the following ways: that we are all connected, that education is not confined to one place, that all relationships create an ecological space for education (and vice versa), and that a sense of place is important. These elements are discussed here with links to the notion of belonging, but first it was important to share a sense of what *Our Place* meant.

At the preschool the educators discussed the idea of *Our Place.* A fruitful metaphor, an unusual word, or a phrase that frees the imagination and the creative spirit, is the key to beginning a successful inquiry. The term *Our Place* implied immediately that everyone can contribute, everyone is going to know something about the place they call their own. Smith (2001) notes that much (Western) research is about distance and this was an issue for the preschool and so a focus was on how to get 'closer', to 'close the gap' between the preschool and the community and to 'be open'. In a research journal I noted that, '*the notion of Our Place began to take on a life of its own. However, it has meanings that connect to place very deeply and the whole idea of Our Place affirms uniqueness, a sense of home, a space of belonging'*.

The Project Approach to Methodology

In early childhood the project approach is often seen as a form of action research and is a pragmatic methodological approach to research in early childhood contexts (Davis 2010; Katz and Chard 2008; Roberts-Holmes 2011). The protagonists in this particular research were the children, teachers and families who were connected to the preschool, along with the wider community. My role as researcher was to record what happened and contribute to all phases of the project: planning, asking questions, providing feedback and reflecting with the group. The project approach is the way research is carried out in the preschools of Reggio Emilia and has influenced research conducted in early childhood contexts (Roberts-Holmes 2011).

The project approach uses documentation as a central activity. Documentation, according to Rinaldi (2006, p. 57), means 'to create documents, written notes, observation charts, diaries and other narrative forms . . . '. The project approach to research is inclusive and recognises that the data generated through documentation are 'partial findings, subjective interpretations which, in turn, must be re-interpreted and discussed with others, in particular among colleagues' (Rinaldi 2006, p. 57). Discussion and reinterpretation is what took place between myself, as researcher, and the educators involved, and this was conceptualised as an ongoing dialogue.

The idea of provoking further learning and activity is also important to the project approach. Provocations are the questions that arise and that move the project along. A provocation is a way of encouraging dialogue and participation. The voices in the following narrative account are those of co-participants in the research. My voice was recorded in various ways, as were the voices of the teachers, of Elaine (the Director of the preschool), the children, their families and members of the community. Pseudonyms are used throughout for staff and children. The research focused on narrative as a mode of representation and in an email Elaine reported that in the staff meeting the teachers 'enjoyed the focus on narrative and felt that this was an opportunity for us to share all aspects of the process'.

The *Our Place* project focused on what was special in the community and on the culture shared as part of that community. A decision was made to involve children as citizens in specific and special ways. The children participated in decision making and the intention was that they could take charge of what happened in the project. They could choose whether or not to be part of the groups who would go into the community; they could take part in creating stories or not. We wished to work in ways that encouraged children to be 'active and informed' (Davis 2010, p. 25). One of the first things we noted was that an artefact could be used to provide a way into the project. What follows is a description of the role of the map, as this was of great interest to the children.

The Map

> *Elaine* – On Monday morning the map was hanging on the wall in the central part of the classroom and it immediately attracted the attention of the children. They decided that it was a map of Marysville 'because we can see the roads, and the river and the railway line'. They asked, 'Where are we on the map?' This was another beginning.

The map had the potential to support new learning and was another starting point for the research. In my response to Elaine I wondered how the map would act as a provocation to the children. She told me that it became the focus of intense activity, as eager photographers (children with the teachers) provided a picture of the entrance path to the preschool. It was printed, laminated, labelled and glued to the map: it became a point of reference. Then, provided with clip boards, pencils, digital cameras and the original small map copied from the phone book ('So we don't get lost'), the first of many small groups of children set off with a teacher to explore.

During this project the idea that teachers drive the learning of young children was challenged and the teachers noted that children became skilled at creating fresh provocations. One of the children was looking at the map and noticed that 'There are no people'. The children were not satisfied and identified what was missing. The educators in the preschools then encouraged the children to take photographs of each other to put around the edge of their map.

Teachers noted that the candid way in which children looked into the camera when it was held by one of their friends of their own age made the images quite different from when they were captured by adults. These images were added to the map. The children then invited their parents and families to come and have their photos taken (usually by the children). These photos were also added to the map. Uncles and aunts, cousins, neighbours and friends who the teachers had not met before came into the preschool. One visitor being brought into the school by a child said, 'I've been asked to bring him to school today – I'm not sure why; I think I'm being set up for something'. The map gradually became 'peopled'.

Community Connections

Something that provoked exchange between the preschool and the wider community was the observation that many of the walks had involved the children in the colonial history of the town. This colonial history was often most visible as the children explored sawmills, the railway, old houses and the museum. What became less obvious were signs of the early partnership between the indigenous (Māori) people and Pākehā (those who came later and who are not indigenous). Much of the land that became this town was gifted to settlers by a Māori chief who wanted the land to be used for the common good. The town represents the (sometimes contested) partnership between Māori and Pākehā and the project brought children into contact with these visible and invisible histories that construct the community today.

An elder from the local iwi (tribe) who had connections with the preschool was invited to present her personal understanding of turangawaewae. She explained to us that relationships are central to understanding what this means. Apparently whānau (usually translated as family) means people and places, and refers to identity and relationships fundamental to belonging. She also mentioned kaitiakitanga, or guardianship. This concept emphasises the way that many indigenous people see their relationship to the land – as that of guardians, not as owners. Of course everything changes over time and in this instance turangawaewae was presented through ‘layers’ of history.

From a socio-ecological perspective the relationship between time and change in the environment is relevant and as the project progressed the children began to understand the past through stories about their community. The following narrative is a turangawaewae story. It is about exploring a place to stand and about becoming familiar with a local landmark. The right of children to know where they stand in relation to their local mountain and river is a cultural imperative in Aotearoa/New Zealand. In their role as socio-ecological educators, teachers supported these explorations and this information began to contribute to new learning for the teachers and was shared with families. People in the preschool and in the community soon realised that their stories were valued. These were all signs of the strengthening partnership between the preschool and the community.

Turangawaewae Story: The River

The children leave the preschool and in walking groups begin to go down to the local river. According to Sherie, a teacher, this river is ‘a major landmark as it runs through our whole community’. Reading her documentation reminded me that our elder used a beautiful picture of the river to open her presentation.

> *Sherie* – The objective of the walk was to see what colour the river was, what grows around the river and take note of other aspects of the river which we could include on our map of Our Place. Keri [one of the children] shares a lot of details about her life, her parents and friends.

Something many of the teachers noticed was that the children were more forthcoming about their lives when out walking. Katz and Chard (2008) noted that children often converse freely when in groups of three or four. The children often shared something about their church, their family life or their beliefs that the teachers did not know before. They were also very observant and another teacher felt that she saw everything with fresh eyes after being out with the children. She also noticed that their imaginative world was inhabited by people she could not see: by fairies, monsters and animals that were not present in her world. She felt that the children constantly noticed the natural world and made links to their imagination in an effortless way that she could only envy. All the teachers felt that their personal, social and environmental relationships changed as a result of seeing the world differently and with new eyes. Sherie reflected that there was ‘So much to see that I had seen before but hadn’t noticed, hadn’t wondered about. “Look Sherie look”, said Jordan. So I looked and looked and looked and wondered along with them’.

In her reflections and documentation Sherie noted that the children knew a lot about the natural world already; they answered their own questions and engaged in rich conversations. She told us:

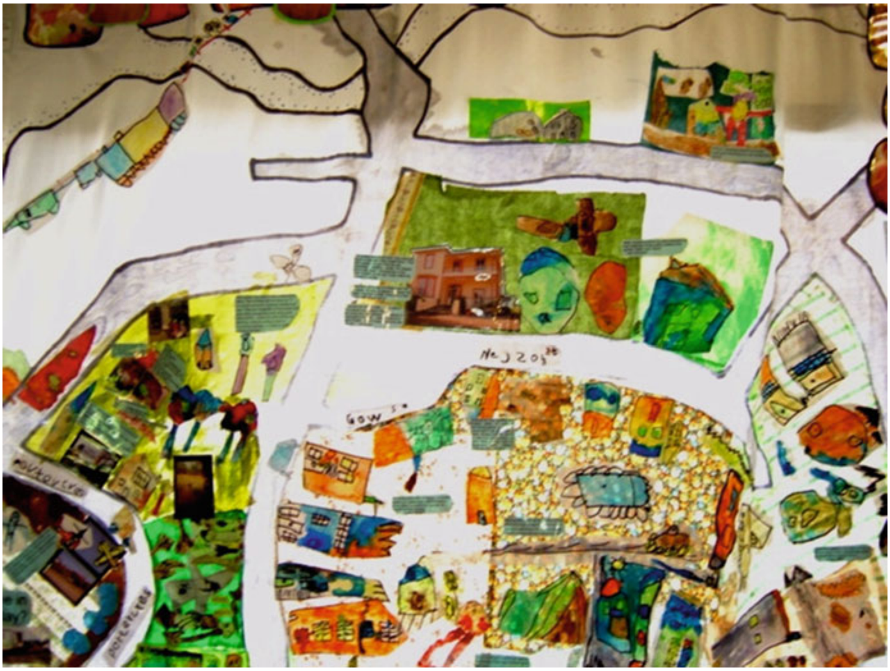

Fig. 7.1 The map partially completed

> Down at the river the children ask questions and answer them. Keri suggests there are cracks because the mud is dry and Alex agrees but adds ‘when the tide comes in the mud will get wet and the cracks will disappear’. ‘And then the sun will dry it out and the cracks will come back’, says Keri. Allen adds that the cracks look like a ‘map’.

As Nabhan and Trimble (2008) suggest, it is by interactions with the natural world that children learn who they are and where they belong. In this context the children were discovering their place to stand. This cannot always happen within the preschool and these pedagogical moments outside the gates were times that children and teachers appreciated. The children also told their families about their discoveries and shared their excitement. Their learning was documented on the walls of the preschool and, of course, new learning was also made visible on the ever-changing map (Fig. 7.1).

Outside the Gate

The whole notion of going ‘outside’ the preschool is very challenging. Early childhood settings are constrained by rules and regulations and by health and safety requirements. Preschools are fenced and most have security gates and codes.

Sometimes people who come and go are filmed on surveillance cameras. It is very rare to see groups of young children and their teachers walking around in the community. Vigilance is maintained as children get older and schools become ‘containers’ for children. Given these constraints it was a courageous act for the teachers to take responsibility for new pedagogical encounters in the community. When documenting the decision making that facilitated the walks Elaine explained:

> Teachers knew from past experience that the most provocative discussions would occur when one teacher is able to engage with small groups of children, three or four at most. Facilitating this raised some issues. We had to review our policy on ‘excursions’. Parents and whanau/family were included in decisions about the adult-child ratio.
>
> Permission to take children on excursions that did not require transport (walks) had already been given by parents when they enrolled their child. Staff ratios were sufficient to allow regulatory ratios to be maintained within the centre when one teacher was on a walk with a small group and we assembled a list of parents we could call on if we required assistance to take a larger group out.
>
> We also discussed how children who were left behind might feel. We need not have worried. They cheerfully waved to their friends as they left and greeted them enthusiastically when they returned.

Julia’s Story

The following account is from Julia, one of the teachers at the preschool. She became very keen on taking the children out and here she reflects on how this impacted on herself as an educator.

> *Julia* – Going for the walks changed me and triggered different emotions. I began to perceive changes in the way the children ‘were’ and my image of them changed. I was looking and listening in a deeper way. They seemed to be growing into a sense of power and ownership of the investigation. They were owning the walks and taking control.
>
> When I first started taking them for a walk I felt myself walking a little in front of them. The more walks we made together the more I felt myself standing back. And now I feel myself walking behind them. There has been a shift in power. (Journal)

From a socio-ecological perspective certain personal and social changes are described by Julia as she documents the effect of exploring the environment on walks with the children. She mentions a shift in power. However, it is interesting to note that other changes in the pedagogical relationship were proposed by Ellie, one of the children who went walking with Julia. The children were quick to pick up that a change of venue might signal a change in the relationship and they speculated about the blurring of roles that could happen as the boundary between preschool and outside world was crossed. Ellie discussed this with Julia as follows:

> *Ellie* – We could pretend that you’re our Mummy and we are your children.
>
> *Julia* – I have children at home and you have your own parents who you call Mummy and Daddy.
>
> *Ellie* – Then I think that from now on I’ll just call you my teacher friend.

Reflecting on this later, Julia notes:

> We have to trust the children; we don't have to be in control and powerful. As teachers and children we can be different in different settings. This investigation has given us opportunities to be who we are. I have given up the power and I am more a learner than a teacher. They are teaching me. There is a tangible feeling of trust and friendship and how that trust and friendship provides a safe place for all to explore together. My relationship with these children has evolved over the course of this investigation. (Journal)

Staying Open

In an email to Elaine and the teachers at the preschool I said that it made my spirit soar to see what was being done *with* the children. So much seems to be done *to* or *for* children. The recognition of children as people with the right to be participants in an investigation and to be part of the community addressed the issue of social justice that is an important part of project work. I also noted that the relationships were being documented and that there were changes as a result of this inquiry. A teacher said, 'Yes, it was all changing, our idea of who children are in the community, their role'.

In terms of socio-ecological education the effect on one child was noted by his family:

> *Elaine* – One parent told us about their child taking the whole family 'to see something, something you haven't seen before'. The 'something' was the local, largely disused railway station which, seen through the eyes of a knowledgeable four year old became so much more interesting. He was full of stories about when the trains met the boats from the far North to take passengers to Auckland in the past. In the course of relating this story the parents and older siblings came to see the powerful child that was talking to them and his mum said, 'It made his year'. (Email)

Together, because of everyone's involvement, we made the discovery that the preschool was a community within a community, defined by Rogoff, Turkanis and Bartlett (2001, p. 10) as 'relationships among people based on common endeavours'. A teacher reflected after one of the walks:

> I believe our small groups of travellers have opened up our minds to experiences that have extended us to see the possibilities within our community. Again, it reinforces to me that our community is all about **people** and the relationships and links between these people in a community that enable us to reach our potentials firstly within our own community and then in all the communities of the world. I feel like we have opened up the gates to the outside world and we can never be closed in again.

Increased participation meant that boundaries became fluid and more involvement between preschool and community increased the likelihood of support and positive engagement in the future. As well as a narrative of what happened, it is hoped that this project will encourage early educational settings to adopt a less 'fenced in' attitude. In terms of future engagement the process of 'organic participation' (Malone and Hartung 2010, p. 24) was a feature of this research. At the end of the project there were stronger relationships and a fresh appreciation for the role of the preschool, a preschool that now belongs securely in the community.

Conclusion

Going outside the gate and leaving the boundaries of the preschool was important to this project and inspiration emerged from all kinds of journeys. This included leaving a familiar environment and encountering new ways of doing and seeing. This happened on the original study tour and again when going in and out of the preschool and encountering people and places, the known and unknown.

The map acted as a provocation when the children suggested that it did not have meaning without people. This moment of discovery was a socio-ecological encounter between children, educators and their place. The movement of children outside the gates encouraged the community to enter the preschool and this spirit of reciprocity was an unexpected bonus of the project. The children learned more and more about the history of their place and the environment where they lived.

In terms of socio-ecological approaches the linkages and connections became obvious and these included becoming familiar with changes over time. There was a new sense of agency and participation with the local community; families felt more involved and began to work with the early childhood curriculum; teachers affirmed themselves as researchers; children fully participated in all aspects of the project. Again, this chapter provides an example of how the foundational concepts of lived experience, place, experiential pedagogies and agency and participation, have been enacted.

While this country town was a world away from the town of Reggio Emilia, certain aspects of the Italian approach were used to inspire the *Our Place* project. Through participation, documentation and dialogue, and by provoking new learning and accepting new challenges, the gates were opened and, as was noted above, in the words of one teacher, ‘We can never be closed in again’. This exploration of belonging has been framed within the spirit of a socio-ecological approach to early childhood education and described opportunities for personal, social and environmental interactions ‘outside the gates’.

References

Barlow, C. 1991. *Tikanga whakaaro: Key concepts in Maori culture*. Auckland: Oxford University Press.

Bone, J. 2005. An ethical journey: Rights, relationships and reflexivity. *Australian Journal of Early Childhood* 30(1): 1–5.

Branzi, A. et al. 2006. Town *in*waiting: Creatively inhabiting the places. Paper presented at *Crossing boundaries: Ideas and experiences in dialogue for a new culture of education of children and adults*, International Conference, Reggio Emilia.

Bronfenbrenner, U. 1979. *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.

Bruner, J. 2006. Working for children so that they can enjoy their rights. Address at *Crossing boundaries: Ideas and experiences in dialogue for a new culture of education of children and adults,* International Conference, Reggio Emilia.

Cullen, J., H. Hedges, and J. Bone. 2011. Planning, undertaking and disseminating research in early childhood settings: An ethical framework. In *Work-based research in the early years*, ed. S. Callan and M. Reed, 121–135. London: Sage.

Davis, J.M. 2010. Introduction. In *Young children and the environment: Early education for sustainability*, ed. J.M. Davis, 1–21. Cambridge, MA: Cambridge University Press.

DEEWR (Department of Education, Employment and Workplace Relations). 2009. *Belonging, being and becoming: The early years learning framework*. Canberra: Australian Government DEEWR.

Duhn, I. 2012. Making 'place' for ecological sustainability in early childhood education. *Environmental Education Research* 18(1): 19–29.

Edwards, C. 1998. Partner, nurturer, and guide: The role of the teacher. In *The hundred languages of children*, ed. C. Edwards, L. Gandini, and G. Forman, 179–198. Westport: Ablex.

Gallen, S. 2005. A sense of place: Dangerous babies and frightened adults. *Educating Young Children* 12(1): 15–18.

Herbert, T. 2008. Eco-intelligent education for a sustainable future life. In *The contribution of early childhood education to a sustainable society*, ed. I. Pramling Samuelsson and K. Yoshie, 63–67. Paris: UNESCO.

Katz, L.G., and S.C. Chard. 2008. *Engaging children's minds: The project approach*. Stamford: Ablex.

Louv, R. 2005. *Last child in the woods: Saving our children from nature deficit disorder*. Chapel Hill: Algonquin Books.

Malaguzzi, L. 1998. History, ideas, and basic philosophy: An interview with Lella Gandini. In *The hundred languages of children*, ed. C. Edwards, L. Gandini, and G. Forman, 49–97. Westport: Ablex.

Malone, K. 2007. The bubble-wrap generation: Children growing up in walled gardens. *Environmental Education Research* 13(4): 513–527.

Malone, K., and C. Hartung 2010. Challenges of participatory practice with children. In *A handbook of children and young people's participation: Perspectives from theory and practice*, ed. B. Percy-Smith, and N. Thomas, 24–39. Ebooks Corporation. London: Routledge.

Martin, K. 2005. Childhood, lifehood and relatedness: Aboriginal ways of being, knowing and doing. In *Introductory indigenous studies in education: The importance of knowing*, ed. J. Phillips and J. Lampert, 27–40. Frenchs Forest: Pearson.

Miller, M.G. 2010. Repositioning an ethic of sustainability in early childhood education, with reconciiation as central. In *Young children and the environment: Early education for sustainability*, ed. J.M. Davis, 185–212. Melbourne: Cambridge University Press.

Ministry of Education. 1996. *Te Whāriki: He whāriki mātauranga mo ngā mokopuna o Aotearoa. Early childhood curriculum*. Wellington: Learning Media.

Nabhan, G.P., and S. Trimble. 2008. *The geography of childhood*. Boston: Beacon.

Nimmo, J. 1998. The child in community: Constraints from the early childhood lore. In *The hundred languages of children*, ed. C. Edwards, L. Gandini, and G. Forman, 295–313. Westport: Ablex.

Pere, R. 1995. *Te wheke: A celebration of infinite wisdom*. Gisborne: Ao Ako Global Learning.

Rinaldi, C. 2006. *In dialogue with Reggio Emilia: Listening, researching and learning*. London: Routledge.

Roberts-Holmes, G. 2011. *Doing your early years research project: A step by step guide*. London: Paul Chapman.

Rogoff, B., C.G. Turkanis, and L. Bartlett. 2001. *Learning together: Children and adults in a school community*. Oxford: Open University Press.

Ryerson Espino, S.L., and E.J. Tricket. 2008. The spirit of ecological inquiry and intervention research reports: A heuristic elaboration. *American Journal of Community Psychology* 42: 60–78.

Smith, L.T. 2001. *Decolonizing methodologies: Research and indigenous peoples*. London: Zed.

Spaggiari, S. 1998. An interview with Lella Gandini. In *The hundred languages of children*, ed. C. Edwards, L. Gandini, and G. Forman, 99–113. Westport: Ablex.

Chapter 8
Through Adventure Education: Using a Socio-ecological Model in Adventure Education to Address Environmental Problems

Wynn Shooter and Nate Furman

> *At some point in time, humanity's ever increasing resource consumption will meet the very real limits of a planet with finite natural resources.*
>
> – Richard Heinberg

Abstract This chapter considers the relationship between adventure education and the socio-ecological model. A first look at the socio-ecological model might leave one wondering how adventure education fits within it. Given that the model is historically about promoting health behaviours by focusing on the interactions of people with both their physical environments and socio-cultural settings in their everyday lives, adventure education may seem at odds with socio-ecological thinking. After all, the nature of multi-day adventure education programs is to take participants out of their everyday environments, or what might be called their everyday social ecology. This chapter however, highlights the connections by suggesting there are three primary reasons why adventure education programs fit well within the socio-ecological model. First, both adventure education and socio-ecological models regard positive behaviour change as a desired outcome. Second, adventure education and socio-ecological models both offer insights to address environmental problems. Third, both models highlight our social and environmental interrelatedness. Adventure education provides a unique opportunity to step away from the complexities and distractions of day-to-day life and learn directly about

---

W. Shooter (✉)
Utah Education Policy Center, University of Utah, Salt Lake City, UT, USA
e-mail: wynn.shooter@utah.edu

N. Furman
Green Mountain College, Poultney, VT, USA
e-mail: furman@greenmtn.edu

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_8, © Springer Science+Business Media Dordrecht 2014

both human and ecological interrelationships. Adventure education can be an effective way to teach systems thinking and the socio-ecological model provides a useful framework to do so.

Keywords Adventure education • Socio-ecological model • Human and ecological interrelationships

Introduction

A first look at the socio-ecological model might leave one wondering how adventure education fits within it. Given that the model is historically about promoting health behaviours by focusing on the interactions of people with both their physical environments and socio-cultural settings in their everyday lives (Sallis et al. 2006; Sallis and Owen 2002), adventure education may seem at odds with socio-ecological thinking. After all, the nature of multi-day adventure education programs is to take participants out of their everyday environments, or what might be called their everyday social ecology. However, there are three primary reasons why adventure education programs fit well within the socio-ecological model. First, both adventure education and socio-ecological models regard positive behaviour change as a desired outcome. Second, adventure education and socio-ecological models both offer insights to address environmental problems. Third, both models highlight our social and environmental interrelatedness.

Our task is to further clarify the relationship of these two models of behaviour change. In this case, we are concerned with the contribution of adventure education to addressing environmental problems and we will rely on pro-environmental behaviours (PEB) as an example. We will focus on how developing pro-environmental attitudes and behaviours through participation in programmatic adventure education can be transferred to everyday situations by using the socio-ecological model as a framework to guide facilitation of learning experiences.

An application of the socio-ecological model to address global environmental problems would operate at several levels. It begins within an individual and then expand in scope to consider various aspects of an individual’s life, such as her or his socio-cultural and physical worlds. The model then examines common social behaviours, physical settings, and policies to promote pro-environmental behaviours. In short, the socio-ecological model considers the personal, social and environmental factors believed to influence global environmental issues. In this chapter we consider the role that adventure education would play in such a campaign and we respond to the questions, ‘How does adventure education fit into a socio-ecological model, and how can adventure education use the socio-ecological model to promote positive shifts in the pro-environmental attitudes and behaviours of participants?’

Socio-ecological models utilise integrated approaches to promote positive behaviour change. Sallis et al. (2006) suggested that the first step to promoting behaviour change is to conceptualise and identify the factors believed to promote the behaviour at each level of influence, and then to target the variables within the model believed to yield the greatest influence. We will heed this advice by recognising that adventure education functions primarily at the intrapersonal level of the socio-ecological model. Further, in the integration of a socio-ecological perspective with adventure education, we consider adventure programs to be microcosms in which learning occurs through an 'individual-context exchange embedded within a multilevel (psychological, biological, cultural, historical, and social) system' (Sibthorp and Morgan 2011, p. 5). This exemplifies our central thesis that adventure education provides an opportunity to *live* a version of the socio-ecological model in a unique way. The fork in the road where these two models (adventure education and socio-ecological) diverge is in the separation of adventure education from typical, daily life in a much larger system. Adventure education offers opportunities for participants to experience the essence of the socio-ecological model in a way that might not otherwise be possible.

This is important if we are to address environmental problems in a modern world we do not often experience directly, nor understand clearly, our interconnectedness and interrelatedness to both one another and to our natural environment. This has facilitated widespread environmental degradation, as our species continues to live as if there are unlimited natural resources. Considering that most of us are now several generations removed and increasingly disconnected from living in agriculture-based communities it is often difficult to understand the environmental impacts of things like food production, transportation choice, and personal energy use. We have lost a critical connection to our dependence on, and interconnectedness with, the natural environment as a place that nourishes and sustains us on a daily basis.

In this modern, technological age we live largely apart from natural laws, which are based on interrelated, interconnected systems (Dustin et al. 2010). Our modes of production and consumption in Western culture no longer function in response to natural systems or ecological principles. Instead, our modern infrastructures and economies are built around, and reliant upon, the availability of cheap energy in the form of fossil fuels. This is a problem compounded by a growing population, its steadily increasing energy consumption and the resultant problems of pollution and global climate change. Given these problems, the fact that fossil fuels will not last forever and discoveries of significant new oil reserves ended in the early twentieth century, we face a new era that may well see the human species eventually return to living in response to natural systems and ecological principles (Heinberg and Lerch 2010).

There has been a recent proliferation of literature addressing our disconnection from nature and the subsequent environmental problems that have developed as a result. Authors like Richard Louv, David Sobel, Richard Heinberg, David Orr and others are actively promoting the need for youth and adults to reconnect with the natural world as part of the solution to our growing environmental health problems. The socio-ecological model is about illuminating that interconnectedness, and programmatic adventure education can be about teaching interconnectedness through direct experience in a particular type of social and environmental community. Adventure education provides a needed opportunity to step away from the complexities and distractions of day-to-day life and learn directly about both human and ecological interrelationships. Adventure education can be an effective way to teach systems thinking and the socio-ecological model provides a useful framework to do so.

Adventure Education as a Model of Behavioural Change

Adventure education models are ultimately about behaviour change, but not always directly. Adventure education models focus on learning as a generalised outcome (Martin et al. 2006; Priest and Gass 2005). Learning outcomes might be intrapersonal, such as learning about one's self (developmental outcomes) or could be skills based, such as outdoor living skills or communication skills. Where the socio-ecological model focuses on more direct paths to behaviour change, often through direct manipulations of an everyday environmental setting or through policy changes, adventure education does not. Instead, quality adventure education programs aim to influence the behaviour of participants as a more distal outcome, mediated through transformational learning experiences that can effect changes in personal perspective and shifts in values and attitudes. Transformational learning experiences involve substantial shifts at the intrapersonal level (Mezirow 2003). This is a major educational claim and there is much still to be understood about the process and outcomes of adventure education (Shooter 2010), but there is growing evidence for the type of outcomes of adventure programs identified above (Hattie et al. 1997; Koesler and Propst 1998; Paisley et al. 2008).

Ultimately, such an argument narrows adventure education to the intrapersonal level of the socio-ecological model, at least in terms of educational and developmental outcomes. In fact, we suggest that this is the central area in which adventure education exists within the socio-ecological model. This, we argue, is the only aspect of the model that adventure education can influence directly. Adventure education cannot *directly* influence solutions to our environmental problems by adding bike lanes, lobbying politicians, or mandating water-conservation programs. However, adventure education can influence individuals who return to their daily lives to have such positive influences. It is a stretch, at best, to suggest that adventure education can yield direct influence on broad social settings (because group sizes are typically only 8–12 participants), or that it will make direct changes to the structure of physical settings (adventure education occurs in relatively isolated natural areas), or that it will improve the socio-cultural climate in a way that will influence the pro-environmental behaviours of the citizenry (the small group does not interact with the public due to its isolation). However, what adventure education can do is teach socio-ecological approaches through which students can learn experientially and apply in everyday life.

Experiential education is a foundational philosophy on which many adventure education programs are developed and implemented (Goldenberg 2001; Stremba and Bisson 2009). Adventure education practitioners use intrapersonal, social and environmental settings as central features from which to create opportunities for students to have unique experiences and to reflect on those experiences in meaningful ways (Beard and Wilson 2006; Hattie et al. 1997). To implement this philosophy effectively, adventure educators take an approach to learning that is most often described as facilitative (Brown 2004; Thomas 2008). Rather than directing, controlling, or telling students how and what exactly they should be learning, adventure educators set the stage so that students can have the freedom to discover the most relevant lessons through their own learning experiences. In this way, students have ownership of their learning and the lessons learned are thought to be particularly meaningful and enduring because they are derived directly from and through the individual's own experience and reflection (Estes 2004; Stremba and Bisson 2009; Thomas 2008).

Through adventure education, participants have the opportunity to experience the results of living in an interconnected community as they interact with both the social and natural settings at a greater intensity than they do in everyday life. They experience direct consequences of their behaviours toward others and the natural environment. Living in a group of 10 or so people and travelling together in the back country requires that each individual consider how his or her actions impact others and the landscape (O'Connell and Cuthbertson 2009). For example, on a river trip everyone might be assigned duties to get the boats loaded and on the water each morning. If one group member fails to come through on her or his responsibilities, then the entire group feels the results as the day wears on and the evening sees the group arriving late to camp. Individual participants experience their interconnectedness within the social world of the group. It is the role of the outdoor leader to promote reflection and to facilitate open discussions, and thus learning, which might arise from situations that result from the real consequences of individual behaviours (Schumann et al. 2009). Likewise, studying and practising Leave No Trace (LNT) principles can provide opportunities for individuals to gain awareness of their own impact on the landscape. If framed properly from the foundation of systems thinking, events like keeping a clean camping area and carrying one's trash around for a week can lead to valuable discussions regarding how we manage our lives back home (Cachelin et al. 2011).

Can these individualised experiences of adventure education result in solutions to social and environmental problems? We believe that they can if they are properly understood, internalised, and transferred into the everyday lives of participants. If adventure education has anything to offer the global environmental crisis, it is the ability to influence the values and attitudes of participants. The question then becomes how can this outcome be maximised? The following brief discussion is offered in response to the assumption that attitude change is a key contribution of adventure education, and to provide adventure education practitioners with a theoretical starting point for understanding attitude change as it is related to the promotion of pro-environment behaviours. The intention is to provide a specific example of how a socio-ecological approach can be used in adventure education.

Addressing Environmental Problems

Contemporary approaches to explaining and promoting pro-environmental behaviours (PEB) recognise that education alone fails to change behaviour (Cachelin et al. 2009; Kollmuss and Agyeman 2002). Awareness of environmental problems and even becoming aware of the pressing need to change behaviour is not enough to successfully predict behavioural change (Bamberg and Möser 2007; Wall et al. 2008). Therefore, explanations have grown to include several approaches to explaining PEB change.

Researchers have recognised that factors both external and internal to the individual can influence behaviour (Clark et al. 2003; Wall et al. 2008). Kollmuss and Agyeman (2002) clarified that PEB is too complex to explain with a single model and, after carefully exploring a number of factors believed to predict PEB, they made a clear distinction between internal and external factors. One popular example of the external approach is community-based social marketing. Advocates of this approach suggest that removing barriers to the preferred behaviour and enhancing the benefits of that behaviour will influence the behaviour change positively (McKenzie-Mohr 2000). Therefore, if you want people to make decisions that are consistent with PEB, make it engaging and rewarding for them. Examples might include access to recycling or to alternative transportation. It is difficult to argue with the effectiveness of this approach, but actualisation is clearly external to the individual and occurs at a community and policy level. In traditional applications of the socio-ecological model, the community-based social marketing approach might well be included in the implementation of campaigns to influence pro-environmental behaviours. However, the context with which we are concerned is adventure education and, as illustrated above, it plays little *direct* role in influencing policies that would support structural changes required for an external influence approach to PEB.

Adventure education is uniquely positioned to address internal aspects of behaviour change. Generally speaking, such approaches depend on the conclusion that values, beliefs and attitudes play an influential role in predicting behaviour (Ajzen 1996). Bamberg and Moser (2007) identified two theoretical streams that provide promising explanations for internally motivated PEB. The foundation of this notion is that some individuals are motivated by *self-interest* and some by a *concern for others* (pro-socially motivated). The self-interest approach encapsulates rational choice models, namely the Theory of Planned Behavior (TPB) and the altruistic approach in a Norm Activation Model (NAM) (Bamberg and Möser 2007; Wall et al. 2008). Several authors have now suggested combining these theories to explain internal aspects of PEB (Bamberg and Möser 2007; Turaga et al. 2010; Wall et al. 2008).

Taken together, these two approaches provide a fairly comprehensive explanation for internal influence toward PEB, and a good understanding of the two theories will likely support practitioner efforts to promote internal changes that ultimately lead to PEB. In fact, many of the internal factors identified by these theories are also the outcomes that adventure education programmers hope participants realise (e.g.

knowledge, attitudes, locus of control, feelings of responsibility) (Hattie et al. 1997). Addressing these variables may be the field's most direct contribution to promoting PEB, albeit through focusing on internal, personal factors rather than the external, structural changes to policies and practices within the broader social and physical environments of daily life.

Therefore, we suggest that the role of adventure education in solving environmental problems lies within its ability to address the internal values, beliefs and attitudes of participants. It hinges on the ability of participants to internalise the lessons they learn through adventure education and for those lessons to transfer into the participants' everyday lives. The socio-ecological model can be used to emphasise these points because it provides a framework for systems thinking and exemplifies the interconnected relationships that function together and influence environmental health and sustainability. This argument builds on the assertion of Wattchow and O'Connor (2003, p. 7), who highlighted the importance of teaching such interconnectedness by arguing that related health and physical education programs 'must extend beyond the social, to include a mutual relationship with the environment'. What becomes critically important is the ability of participants to meaningfully transfer what they have learned in the isolated, short-term experience of adventure education, back to their everyday lives.

Learning Transfer

Learning transfer is frequently presented as the primary goal of adventure programs (Gass 1999) and programs often promote the idea that the learning attained on course is transferable to life at home. Learning transfer is unquestionably a critical issue in adventure education, as it describes how learning achieved in one context can be applied in a different context – in the case of adventure education, from a field setting to a home setting. The extent to which transfer occurs as a result of adventure programming is unclear (Brown 2010; Furman and Sibthorp 2012) and scholars are unable to reliably describe how potential transfer can be maximised for students (Detterman 1993).

This problem, that transfer is critical and yet remains difficult to influence, has been labelled 'the transfer dilemma'. Several researchers, mostly using qualitative self-report studies with small sample sizes, have determined that environmental behaviours or attitudes increase following adventure education programs (Boland and Heintzman 2010; Mazze 2006). Others have suggested that adventure education programs may fail to develop these outcomes in the long term (Hanna 1995).

Research studies have examined the development of adventure education programs on the learning transfer of pro-environmental behaviours and attitudes. Boland and Heintzman (2010) suggested that participants enrolled in a 14-day university-based adventure education program engaged in pro-environmental behaviours at 6 months post-course. Mazze (2006) found evidence that participants on an month-long adventure education program course had increased their connection to the outdoors several months after their course. Hammitt et al. (1996) reported that a sample of the alumni of a month-long adventure education program self-reported greater environmentally responsible behaviour several months post-program. Sibthorp et al. (2008) determined that students enrolled in a month-long adventure education program reported increased environmental awareness as a transferable outcome from their course. Despite these findings, other authors (e.g. Gillet et al. 1991; Hanna 1995) have found that increased pro-environmental attitudes and behaviours do not necessarily transfer following adventure education programs.

Given these studies, it appears that transfer of PEB, like other outcomes, *can* develop through outdoor education programming, but not in every instance. Increasingly, some authors question the premise that transfer can be effectively programmed for, due to the myriad personal and contextual factors that influence how and when a student may transfer learning (Detterman 1993; Brown 2010; Furman and Sibthorp 2012). These personal and contextual factors bear a strong similarity to environmental factors identified by Moos and Ingra (1980), which influence the socio-ecological model of health behaviour. Moos and Ingra suggested that four factors – physical, organisational, human aggregate and social climate – contribute to the socio-ecological model of health behaviour.

Based on research studies such as those discussed above, we contend that adventure education programs *can* effectively facilitate transfer and increase PEB (as a distal outcome) for some participants, but that they are not likely to do so for all participants on all programs. The power of an immersive outdoor adventure education program is potent for many, but fails to reach all participants. The challenge is to understand the key features of effective programming and leadership that will support learning transfer. The socio-ecological model may explain why transfer occurs – and does not occur – in adventure education.

Discussion

We ask you now to consider the few opportunities that people have to interact as directly with systems thinking as they do when they participate in a high quality, intentionally designed adventure education program. Participants interact with natural systems and live in response to environmental situations, such as weather and terrain features, that are beyond their control. They experience the results of their actions in direct consequences, both good and bad, that affect themselves and other group members. The challenge for outdoor leaders is to assist participants in making connections between such potential learning experiences and their lives back home. We propose that teaching the socio-ecological model can support this goal because, at its core, the socio-ecological model is a systems approach to understanding the world. It illuminates the interdependent and multi-influential, multi-layered aspects of life that affect our decision making and that ultimately drive our behaviours. Adventure education provides opportunities to experience such phenomena first hand. In this chapter we have used PEB as one example of that.

In our post-industrialised Western culture we have enjoyed unimaginable advances in many areas of life, but our ability to live in response to natural, ecological systems has been compromised (Oelschlaeger 1991). Over the course of recent generations we humans have operated as if we are not connected to our natural environment when, like all other species on the planet, we are part of nature and are deeply interconnected to ecological systems.

Adventure education can use socio-ecological thinking to help participants understand their interconnectedness to others and to the natural world. In this way the adventure education process is both microcosm and metaphor for socio-ecological thinking. Consider the following example:

> *A group of youth aged 17–20, who live in urban and suburban settings, assembled for a two-week journey exploring the Kimberley region in the north-west of Western Australia. A major portion of this remote trip included an exploration of the Drysdale River. During the first 48 hours of the trip, the outdoor leaders gave safety briefings, taught participants how to travel and live according to the unique requirements of the particular environmental setting, and taught Leave No Trace (LNT) principles and practices.*
>
> *As the trip wore on, participants found themselves in situations that they had never imagined. Managing the threat of crocodiles was a daily practice that required attentive group-level commitment; they carried everything they needed for the entire trip; they cooked their meals together; they drew water from natural sources; they interacted with local people who live in this isolated region; and they cooked some meals on fires. By the trip's end, they had discovered a new simplicity and had lived in a way that they did not know was possible.*
>
> *This group has been impacted by the weeks they spent together in the bush. They experienced first hand how their actions affected others; they experienced how they had to adapt their own behaviours in response to what the environment offered them at any given time. This was a new way of living for them and it stood in sharp contrast to their daily lives. Many of these students had heard about environmental problems but on this trip they began to develop their own views about things like the accelerating resources boom in Western Australia. They heard stories from local people, visited sacred sites and witnessed the encroaching development of mining companies. During the final days of the trip the discussions of going back 'home' developed, as they always do.*

We encourage adventure education practitioners to consider using the socio-ecological model to aid the transfer of the type of lessons that can be learned from experiences like the one described above. Once participants have been exposed to new ways of living in community and in response to the natural environment, they may be primed to receive a message that they may not have understood otherwise. They might be able to see their place in a systems-oriented model. If given the opportunity, they might realise how their actions can affect other aspects of the model, such as how consuming less energy can have a positive influence on the natural environment, and how they can contribute to positive socio-cultural changes in their own communities.

The link between attitudes and behaviour is tenuous and the type of change required to influence behaviour will probably need to occur at a deep psychological level (Koger and Winter 2010), similar to what Mezirow (2003) has referred to as *transformational learning experiences*. While such experiences are a critical starting point, we believe that integrating direct teaching about the socio-ecological model can aid students in transferring what they have learned through experience back to their daily lives. Adventure educators are essentially asking that programmatic experiences be so profound that they empower participants to overcome myriad challenges back at home. Perhaps that goal can be supported by providing opportunities for students to consider the multiple levels of influence that operate in opposition to the lessons they have learned in the field. Let us now consider how the socio-ecological model might be applied to an adventure education curriculum to support the transfer of pro-environmental behaviour.

Although adventure education's greatest contribution may be that of influencing person attributes such as values, beliefs, attitudes and identity development – as opposed to direct behavioural change – the socio-ecological model reminds us that focusing only on one aspect of change is incomplete. While keeping in mind that the socio-ecological model is about behavioural change across multiple levels of influence, we offer suggestions below that address each of the four levels of the model. We consider how we might implement the socio-ecological model at the organisational and programmatic levels of the adventure education context to promote pro-environmental behaviour and to achieve positive internal changes amongst participants.

1. *Intrapersonal influence*: This is a key area for adventure educators. Program administrators might revisit questions about what specifically their program does to promote intrapersonal growth among participants. How do they plan to encourage participants to maintain that growth trajectory in their daily lives? What program features and program sites are being utilised to enact the program's mission and philosophy? Are program features coalescing to provide the best outcomes at the intrapersonal level? What personal level attributes does the program target? Through a socio-ecological lens, the question also becomes, through what means are personal changes encouraged and what is done to promote learning transfer?
2. *The interaction of the individual within social settings*: Outside of the adventure education setting, interpersonal influences on behaviour include families, friends and co-workers (Sallis et al. 1998), but within the outdoor education context the small social group of 8–12 participants makes up the direct interpersonal influence. Building good group norms and helping participants realise the role of interpersonal influence so that they can be a part of the solution when they are back in their day-to-day lives will likely support transfer and can be used to promote socio-ecological thinking.
3. *The interaction of the individual within a physical environment*: Granted, we are now clearly considering external variables, but equally as clear is the fact that participants are interacting with an environment very different from that of their everyday lives. The ways that we teach students to move through, live within, and relate to the natural environment can serve as an important metaphor. Students have a unique opportunity in this area to learn about how human relationships with the external environment have consequences. Although we teach LNT curriculum, we never actually leave no trace, and developing an understanding

of how to appropriately minimise our impact on the landscape inevitably points us toward careful consideration of how that lesson can transfer to life in an urban or suburban world.

4. *Socio-cultural macro-level variables*: This fourth variable addresses the influence of external guidelines, well-established norms and policies on behaviour change. Examining an organisation's policies and procedures to determine whether they support outcomes such as PEB may result in the need to make structural changes that the organisation can control. What does the organisation do to promote alternative transportation to and from program sites? Do pre-course materials inform participants how to purchase course materials and resources in the most environmentally conscious way? Overall, is the message consistent and is the organisation modelling the type of behaviour that it would like to see in its participants?

Behavioural scientists have focused a great deal of attention on the individual as a key factor influencing behavioural change. Glass and McAtee (2006) noted a failure to consider the social influences that lead to the development of more holistic models of behaviour change. Similarly, adventure education has been criticised for a dominant focus on growth and development at the individual level, while disregarding opportunities to focus on issues of sustainability and the complex interrelationships of humans, cultural traditions and the natural environment (O'Connell et al. 2005; Wattchow and Brown 2011). Adventure education emerged from a philosophy that promoted ideals of personal growth through challenge and risk, which has favoured a focus on related developmental growth at the individual level rather than onthe individual's roles and relationships within a complex social and natural setting (Wattchow and Brown 2011). However, by helping individuals make sense of the lessons they are learning through a socio-ecological perspective, the problem of individualism might be resolved.

Although adventure education may have little direct influence over variables that are external to individual participants, it can have substantial influence over internal variables, even to the extent that participants understand their own roles as actors within the social and natural ecology of a community. Further, providing opportunities for students to understand how behaviour is influenced at multiple levels, they may learn how to be well-informed citizens who can work directly to promote the cause of sustainability through PEB. This is consistent with experiential education philosophy, which is 'rooted in the educational ideal of social change' (Breunig 2008, p. 78), but depends on effective internalisation and transference of lessons learned.

Conclusion

In 1972 the book *Limits to Growth* was released (Meadows et al. 1972). Since then, that influential work has been recognised as a foundation for the awareness that our entire growth and development lifestyle and economy is unsustainable and that it is driving environmental destruction to critical levels. At some point growth and development will no longer be the model to which we look to define success. Instead, we will respond to the natural systems that have defined the boundaries of our existence for thousands of years before we accessed our energy from oil. We will honour sustainability over growth. Until that time, it is the work of environmental educators, university lecturers and professors, classroom teachers, adventure educators, politicians, and every individual who owns this knowledge, to continue preparing for the future of sustainability and the end of the growth and development economy. We believe that teaching systems thinking, such as the socio-ecological model in the adventure education context, will contribute to solving environmental problems and preparing for a sustainable future.

In this chapter we have explored the relationship of adventure education and the socio-ecological model and have concluded that adventure education offers a unique opportunity to experience systems thinking, as defined by the socio-ecological model. Small groups of adventure education leaders and participants can effectively establish their own socio-political structures as they develop and implement their own group norms. This can serve as a direct tool for teaching the socio-ecological model and allowing participants to experience a very small, interdependent system.

As we have suggested in this chapter, the foundational concepts discussed in Chap. 2 are applicable to the integration of the socio-ecological model in adventure education. In particular: understanding place is fundamental to the socio-ecological educator; educators and researchers are influenced by their own experience of place; rich experience is central to the learning process; and it is necessary to provide educational experiences that are meaningful. We conclude by reiterating these points and suggesting that everyone who serves as a practitioner of adventure education should understand the socio-ecological model and how it can be used to support learning transfer. Every adventure education practitioner should have a framework for systems thinking. Such a framework should be guiding her or his practice and should be rooted in an understanding of ecological principles and interconnected relationships. From such frameworks we can understand the role of adventure education in solving environmental problems.

References

Ajzen, I. 1996. The social psychology of decision making. In *Social psychology handbook of basic principles*, ed. E.T. Higgins and A.W. Kruglanski, 297–320. New York: Guilford.

Bamberg, S., and G. Möser. 2007. Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behavior. *Journal of Environmental Psychology* 27: 14–25.

Beard, C., and J.P. Wilson. 2006. *Experiential learning: A best practice handbook*. Philadelphia: Thompson-Shore.

Boland, H., and P. Heintzman. 2010. The perceived impact of a university outdoor education program on students' environmental behaviors. Paper presented to the Northeastern recreation research symposium, pp. 31–35.

Brown, M. 2004. Let's go round the circle: How verbal facilitation can function as a means of direct instruction. *Journal of Experiential Education* 27(2): 161–175.

Brown, M. 2010. Transfer: Outdoor adventure education's Achilles heel? Changing participation as a viable option. *Australian Journal of Outdoor Education* 14(1): 13–22.

Breunig, M. 2008. The historical roots of experiential education theory and practice. In *Theory and practice of experiential education*, 5th ed, ed. K. Warren, T.A. Loeffler, and D. Mitten, 77–92. Boulder: Association for Experiential Education.

Cachelin, A., K. Paisley, and A. Blanchard. 2009. Using significant life experience research to inform program evaluation: A case study of The Nature Conservancy's Wings & Water Wetlands Education Program. *Journal of Environmental Education* 40(2): 2–14.

Cachelin, A., Rose, J., Dustin, D., and Shooter, W. 2011. Sustainability in outdoor education: Rethinking root metaphors. *Journal of Sustainability Education, 2*. http://www.jsedimensions.org/wordpress/.

Clark, C., M.J. Kotchen, and M.R. Moore. 2003. Internal and external influences on pro-environmental behavior: Participation in a green electricity program. *Journal of Environmental Psychology* 23: 237–246.

Detterman, D. 1993. The case for the prosecution: Transfer as an epiphenomenon. In *Transfer on trial*, ed. D. Detterman and R. Sternberg, 1–24. Norwood: Ablex.

Dustin, D., K. Bricker, and K. Schwab. 2010. People and nature: Toward an ecological model of health promotions. *Leisure Sciences* 32: 3–14.

Estes, C. 2004. Promoting student-centered learning in experiential education. *Journal of Experiential Education* 27(2): 141–160.

Furman, N., and J. Sibthorp. 2012. Adventure programs and learning transfer: An uneasy alliance. In *Controversial issues in adventure programming*, ed. B. Martin and M. Wagstaff, 39–45. Champaign: Human Kinetics.

Gass, M.A. 1999. Transfer of learning in adventure education. In *Adventure education*, ed. J.C. Miles and S. Priest, 199–208. State College: Venture Publishing.

Gillet, D.P., G.P. Thomas, R.L. Smok, and T.F. McLaughlin. 1991. The effects of wilderness camping and hiking on the self-concept and the environmental attitudes and knowledge of twelfth graders. *Journal of Environmental Education* 22(3): 33–43.

Glass, T.A., and M.J. McAtee. 2006. Behavioral science at the crossroads in public health: Extending horizons, envisioning the future. *Social Science Medicine* 62: 1650–1671.

Goldenberg, M. 2001. Outdoor and risk educational practices. In *Defining best practices in boating, fishing, and stewardship education*. (RC No. 023 496).

Hammitt, J.P., Freimund, W., Watson, A., Brod, R., and Monz, C. 1996. Responsible environmental behavior: Metaphoric transference of minimum-impact ideology: National Outdoor Leadership School (NOLS). Unpublished report. Retrieved from http://www.nols.edu/resources/research/pdfs/porterhammittpaper.pdf

Hanna, G. 1995. Wilderness-related environmental outcomes of adventure and ecology education programming. *Journal of Environmental Education* 27: 21–32.

Hattie, J., H.W. Marsh, J.T. Neill, and G.E. Richards. 1997. Adventure education and outward bound: Out of class experiences that make a lasting difference. *Review of Educational Research* 67(1): 3–87.

Heinberg, R., and D. Lerch. 2010. *The post carbon reader: Managing the 21st century's sustainability crises*. Healdsburg: Watershed Media.

Koesler, R.A., and D.B. Propst. 1998. Bandura goes outdoors: Role of self-efficacy in the outdoor leadership development process. *Leisure Sciences* 20: 319–344.

Koger, S.M., and D.D. Winter. 2010. *The psychology of environmental problems*, 3rd ed. New York: Taylor Francis.

Kollmuss, A., and J. Agyeman. 2002. Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research* 8(3): 239–260.

Martin, B., C. Cashel, M. Wagstaff, and M. Breunig. 2006. *Outdoor leadership. Theory and practice*. Champaign: Human Kinetics.

Mazze, S. 2006. Beyond wilderness: Outdoor education and the transfer of environmental ethics (unpublished Master's thesis). Eugene: University of Oregon.

McKenzie-Mohr, D. 2000. Fostering sustainable behavior through community-based social marketing. *The American Psychologist, 55*(5): 531–537. Retrieved from http://www.rug.nl/psy/onderwijs/firststep/content/papers/2.3.pdf

Meadows, D.H., D.L. Meadows, J. Randers, and W.W. Behrens III. 1972. *The limits to growth*. New York: Universe Books.

Mezirow, J. 2003. Transformative learning as discourse. *Journal of Transformative Education* 1(1): 58–63.

Moos, R., and A. Ingra. 1980. Determinants of the social environments of sheltered care settings. *Journal of Health and Social Behavior* 21: 88–98.

O'Connell, T., and B. Cuthbertson. 2009. *Group dynamics in recreation and leisure: Creating conscious groups through and experiential approach*. Champaign: Human Kinetics.

O'Connell, T., T.G. Potter, L.P. Curthoys, J.E. Dyment, and B. Cuthbertson. 2005. A call for sustainability education in post-secondary outdoor recreation programs. *International Journal of Sustainability in Higher Education* 6(1): 81–94.

Oelschlaeger, M. 1991. *The idea of wilderness*. Binghamton: Vail-Ballou.

Paisley, K., N. Furman, J. Sibthorp, and J. Gookin. 2008. Student learning in outdoor education: A case study from the National Outdoor Leadership School. *Journal of Experiential Education* 30(3): 201–222.

Priest, S., and M.A. Gass. 2005. *Effective leadership in adventure programming*, 2nd ed. Champaign: Human Kinetics.

Sallis, J.F., A. Bauman, and M. Pratt. 1998. Environmental and policy interventions to promote physical activity. *American Journal of Preventive Medicine* 15(4): 379–397.

Sallis, J.F., R. Cervero, W.W. Ascher, K. Henderson, M.K. Kraft, and J. Kerr. 2006. An ecological approach to creating active living communities. *Annual Review of Public Health* 27: 297–322.

Sallis, J.F., and N. Owen. 2002. Ecological models of health behavior. In *Health behavior and health education: Theory and practice*, 3rd ed, ed. K. Glanz, B.K. Rimer, and F.M. Lewis. San Francisco: Jossey-Bass.

Schumann, S.A., K. Paisley, J. Sibthorp, and J. Gookin. 2009. Instructor influences on student learning at NOLS. *Journal of Outdoor Recreation, Education, and Leadership* 1(1): 15–37.

Shooter, W. 2010. A closer look at the 'inner workings' of adventure education: Building evidence-based practices. *Journal of Experiential Education* 32(3): 290–294.

Sibthorp, J., and C. Morgan. 2011. Adventure-based programming: Exemplary youth development practice. *New Directions for Youth Development, Summer* 130: 105–120.

Sibthorp, J., K. Paisley, N. Furman, and J. Gookin. 2008. Long-term impacts attributed to participation in adventure education: Preliminary findings from NOLS. *Research in Outdoor Education* 9: 86–102.

Stremba, B., and C.A. Bisson. 2009. *Teaching adventure education theory: Best practices*. Champaign: Human Kinetics.

Thomas, G. 2008. Preparing facilitators for experiential education: The role of intentionality and intuition. *Journal of Adventure Education and Outdoor Learning* 8(1): 3–20.

Turaga, R.M.R., R.B. Howarth, and M.E. Borsuk. 2010. Pro-environmental behavior: Rational choice meets moral motivation. *Annals of the New York Academy of Sciences* 1185: 211–224.

Wall, R., P. Devine-Wright, and G.A. Mill. 2008. Interactions between perceived behavioral control and personal-normative motives: Qualitative and quantitative evidence from a study of commuting-mode choice. *Journal of Mixed Methods Research* 2(1): 63–86.

Wattchow, B., and M. Brown. 2011. *A pedagogy of place: Outdoor education for a changing world*. Melbourne: Monash University.

Wattchow, B., and J. O'Connor. 2003. Re(Forming) the 'physical' in a curriculum/pedagogy for health: A socio-ecological perspective. Refereed paper, NZ-AARE conference proceedings.

Chapter 9
Through School: Ecologising Schooling: A Tale of Two Educators

Amy Cutter-Mackenzie and Carol Fulton

Abstract Drawing on two auto-ethnographic narratives, this chapter ponders and considers the environmental education dimension of the socio-ecological educator's role. Carol's contribution provides examples of a socio-ecological approach that she has witnessed at a small, independent Canadian school. She begins with a brief summary of her own history and a short explanation of some of the multiple identities that have influenced her being, knowing and becoming as a socio-ecological educator. Amy's contribution draws on her research and practice as a socio-ecological educator in a school-community context. The community that Amy teaches in is her classroom and in this chapter she draws on one specific example in teaching pre-service teachers to be, know and become socio-ecological educators. She begins with a brief summary of her own history and the various identities that influenced her development as a socio-ecological educator. The chapter is foregrounded by acknowledging that it is situated within our own theories and experiences as researchers, educators, environmentalists, parents and indeed as human beings/citizens. While we share our stories here, we do so as a pathway or guise for readers to ask their own questions about what environmental education is and in particular its' positioning within the dynamic role of the socio-ecological educator.

Keywords Auto-ethnographic narrative • Connecting communities • Environmental education

---

A. Cutter-Mackenzie (✉)
School of Education, Southern Cross University, Gold Coast, QLD, Australia
e-mail: acutterm@scu.edu.au

C. Fulton
Faculty of Education, University of Regina, Regina, Canada
e-mail: Carol.Fulton@uregina.ca

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_9, © Springer Science+Business Media Dordrecht 2014

Where I'm From

I am from convict blood, Jewish blood, Irish blood, English blood that mined the Others' land
from farming land
with soil running through my fingers

I'm from sunburnt land
from the hot dry dust
from *A Working Class Man and Flame Tree*, the songs of the Australian battler

I am from summers camping, exploring, swimming,
from sleeping under the stars
and stories of '*life was simpler when I was your age'*

I am from the 'keep your options open' generation – nomadic and reactive

I'm from *Guinevere and the fire*
from *Make like a river and flow* and
'the time has come to say fair's fair to pay our rent and to pay our share',

Memories of childhood imprinted on a changing motherly body,
Love to teach, love to experience, love to inspire, love to imagine, love to connect
I am listening
I am listening
I am listening

By Amy Cutter-Mackenzie (inspired by George Ella Lyon (1999))

Where I'm From

I am from pioneer blood that farmed the Others' land
from fields of wheat, wild meat
and vegetables grown with grey water.

I'm from sunburns and frostbite
from *kick the can* in the dark, the song of the Meadow Lark
and camping by a Northern Lake

I am from summers at the farm,
from mosquito bites, the Northern Lights
and stories of 'when I was your age'

I am from 'turn off the tap'
'turn off the lights', 'don't get in fights'
And 'do you think money grows on trees?'

I'm from *Who Has Seen the Wind*
from *Four Strong Winds* and
Pave Paradise, *Put up a Parking Lot*

Memories of childhood imprinted on an aging body,
long to teach, long to reach
long to connect.
Will they listen?

By Carol Fulton (inspired by George Ella Lyon (1999))

Overview

George Ella Lyon's iconic poem, *Where I'm From*, has inspired numerous teachers to help students explore their identities through their own poems evoking remembrances of time, place and experience. We, too, found the exercise of creating our individual versions of her poem quite enlightening, illustrating to us some of the sources of our interests in socio-ecological approaches to education.

Drawing on two auto-ethnographic narratives, this chapter ponders and considers the environmental education dimension of the socio-ecological educator's role. Carol's contribution provides examples of a socio-ecological approach that she has witnessed at a small, independent Canadian school. She begins with a brief summary of her own history and a short explanation of some of the multiple identities that have influenced her being, knowing and becoming as a socio-ecological educator.

Amy's contribution draws on her research and practice as a socio-ecological educator in a school-community context. The community that Amy teaches in is her classroom and in this chapter she draws on one specific example in teaching pre-service teachers to be, know and become socio-ecological educators. She begins with a brief summary of her own history and the various identities that influenced her development as a socio-ecological educator.

We foreground the chapter by acknowledging that it is situated within our own theories and experiences as researchers, educators, environmentalists, parents and indeed as human beings/citizens. This is consistent with Hart's (2003, p. 69) position, whereby he argues that 'only very recently have educational researchers started to genuinely value and respect teacher knowledge as educational theory . . . The problem remains, however, because many teachers don't know about this transformation in thinking about teachers and teaching'. While we share our stories here, we do so as a pathway or guise for readers to ask their own questions about what environmental education is and in particular its' positioning within the dynamic role of the socio-ecological educator.

Author-Inspired Narrative

This chapter is presented as an author-inspired narrative case study of two schools involved in socio-ecological education where we had some involvement. We chose to present the cases as narratives because narrative is one of the oldest and primary ways that we humans make sense of our world (Bakhtin 1981; Barthes 1966/1974; Bruner 1986; Ricoeur 1981). Furthermore, narrative allows us to situate ourselves within the school contexts and show how our histories and identities have become intertwined with our roles as socio-ecological educators.

Clandinin and Conelly (2000) describe a metaphorical three-dimensional narrative space with temporality, sociality and place as its dimensions, which move fluidly back and forth. The temporality dimension allows the researcher to understand the experience in a deeper, more meaningful way with knowledge of the past, present and future. The social dimension includes hopes, feelings and moral dispositions while also recognising external conditions. In other words, narrative inquiry must address both personal and social issues. The place dimension 'attends to the specific concrete physical and topographical boundaries of inquiry landscapes' (Clandinin and Connelly 2000, p. 51) and recognises the significant contributions they make to the meaning of experience. Our opening poems, along with our narratives of our histories and experiences with the schools, are intended to provide examples of the three-dimensional narrative space. We believe that as we tell and retell our stories, 'we come to a deeper awareness of how we shape and are shaped by these moments and our multiple understandings of them, [and] we realize the transformative possibilities they provoke' (Murray Orr and Olson 2001, p. 2). In other words, we are transformed and renewed through our narratives and hope that others will be as well.

Carol's Narrative

I am a *Baby Boomer*, a child of the 1960s, and a member of the largest human demographic that is quickly aging. The baby boom following World War II was a response to post-war optimism. Thus, this generation 'stands as a symbol of that optimism', with the 'family' becoming the focal point of many Western societies (Mackay 1997, p. 59). In Mackay's view (1997, p. 134), the greatest source of tension for the Baby Boomers:

> is that they are stressed by the present, while still wanting to resist the future. As the generation raised on the high-octane fuel of one of Australia's [and I would add North America's] most optimistic periods, they still aspire to live in the moment with as much intensity as possible.

Furthermore, the Baby-Boomers are said to be 'hooked on materialism' and 'consumerism'. Mackay (1997) claims that Baby Boomers 'want it now' and will deal with the consequences later. Baby Boomers have been labelled the consumer generation. In effect, it could be argued that it is my age group more than any other that has been complicit in bringing about the unprecedented technological, ecological, political, social, medical and economic changes we have witnessed over the last 60 years. Although some of the changes have been beneficial, much of what I see fills me with *GAS – guilt, anger and shame*. I witness environmental destruction brought on by climate change; an exploding world population and the decline of natural resources to support it; the extinction of plant and animal species; bursts in economic bubbles that threaten our pension plans and dreams of early retirement; the expansion of military budgets to fight wars disguised as 'protecting our freedom' rather than protecting our lifestyle; and the list goes on. Cognisant with Bennett (2011), I wonder, 'How do we continue to bear witness without losing heart, without falling into immobilising despair?'

I am a *believer. My* eco philosophy allows me to believe we don't have to be immobilised by despair. David Suzuki, a celebrated Canadian environmentalist, has described our planet as a car heading full speed into a brick wall without any brakes, while the ecologists are locked in the trunk. But like Suzuki, I believe it is not too late to slow the car down and turn it in a different direction. Through education I believe my generation and those following will be able to recognise how materialism, consumerism, wanting it now and living in the moment have contributed to the dire ecological, economic, social and political circumstances the world is now facing.

I also believe that if we were to see ourselves as part of nested, interconnected systems (Bateson 1972; Capra 1996) where changes in one system can affect changes in other systems, we would feel a greater sense of agency and would therefore make changes in our personal lives and spheres of influence. We would no longer have a sense of despair because we would see that our actions can be like the pebble in the pond, or as chaos theorists suggest, like the metaphorical 'butterfly effect', where a butterfly flapping its wings in one part of the world could be linked with a serious weather event, like a tornado, in a distant land. The world has witnessed countless examples of individual and collective actions by ordinary people that have changed the course of history. Why can't we change the course of history?

I am an *educator.* I have taught at every grade level and in adult education until finally becoming a teacher educator. Over the years I have jumped on nearly every new 'band wagon' that promises quick fixes and 'best practices' for motivating students or ensuring they meet required standards. I have bought into 'the myth of the autonomous individual who is being prepared to succeed in college and in the work place' (Bowers 2010, p. 11). Yet, I have often felt that much of what I taught was superficial and meaningless. Only recently has my angst led me to critically examine my roles and responsibilities, which for me now include becoming a socio-ecological educator. As Chap. 2 suggests, socio-ecological education is multi-layered and acknowledges the relationships between the personal, interpersonal and environmental considerations within a place-based educational context. Similarly, as Hart (2010, p. 157) explains, it is 'interdisciplinary, outdoors-oriented, community-oriented, problem/inquiry-oriented and action-oriented, and often in service of local environment-related social issues that may be critically-oriented to local politics'.

I am a *researcher.* Like Nelson (2010, p. 3), I have begun to ask, 'What are the roles and responsibilities of schools in addressing the ecological crises? More specifically, what are the roles and responsibilities of schools and colleges of education in advancing scholarship as well as preparing teachers in the context of rapidly increasing local and global environmental degradation?' What are *my* roles and responsibilities as a socio-ecological educator? My activities as a researcher, educator and citizen are inseparable.

In keeping with my beliefs, I try to help my student teachers understand socio-ecological education by having them engage in outdoor and community-based projects, and engage with research literature and other media sources to critically examine and act on issues of social and ecological injustice. More recently, a handful of parents, a colleague and I established an independent school that honours the natural ways in which children learn, that promotes connections to the community and environment, and sees learning as holistic, interdependent and independent of requirements for standardised test scores as evidence of that learning. I do this because I want to see if it is possible to educate children differently from what we typically see in schools. I do this because ...

I am a *grandmother* of two beautiful children whose futures I fear for unless education changes. My grandson is now a student in our school and I hope my granddaughter will join him when she is old enough.

Prairie Sky School

The Beginnings

> 'Do you think he will survive in a public school? How will a teacher ever be able to get him to sit still in a desk and do pencil and paper work?'
>
> My daughter-in-law's question echoed my own thoughts as we watched my four-year-old grandson race around the backyard, full of energy, jumping in puddles and bringing lady bugs to show us while spinning fantastic tales of his latest imaginary adventures.
>
> 'Hopefully he won't have to sit in desks and do pencil and paper work for most of the day,' I replied, trying to give her some hope, but I had my doubts. I had been in enough classrooms observing my student teachers to see how children's imaginations and spirits are often crushed as teachers give students 'seat work' and 'bell work' designed to get children ready for standardised assessments, and to keep them quiet.
>
> 'A colleague and I are thinking about starting an alternative school where children learn more experientially,' I confided. 'We've been talking about it for a long time and feel we have to do it soon.'
>
> 'Really?' my daughter-in-law asked. 'That's funny because a friend of mine and a couple of moms are thinking the same thing. You should get together. I'll give her your number and have her call you.'
>
> The next day the friend called me and I was pleasantly surprised and pleased to find that she was one of my former students, who stood out in my mind for her intelligence, passion and enthusiasm. She was now a teacher but was not happy with what she saw in public schools, now that she was married and had two children of her own. A few days later my colleague/friend and I were sitting in this young mom's living room with two other young moms, drinking green tea and making plans for creating an alternative school.
>
> Within a few months we had done a needs assessment to see if we would have any pupils; we had located a venue; we had hired a teacher who would work for little pay because she believed in the cause; a number of books, furniture, educational toys and games had been donated and we had acquired a small loan of $5,000 to help with start-up costs. We had also put up a web site and we had created a vision statement. It read:
>
> *Prairie Sky School's vision is that children's sense of wonder and curiosity in the world be celebrated and encouraged in everyday learning, and that students develop a sense of confidence and purpose in life to prepare them to creatively and responsibly step into the world.*

> *Our mission is to offer new alternatives in progressive, research-based, inquiry-driven education. We provide students with a caring, unique, project-based learning environment that fosters empathy, connectedness, environmental conscientiousness, thirst for knowledge, and emotional as well as intellectual intelligence.*

A year after that initial meeting we opened our doors to 16 full-time and part-time students.

Prairie Sky School is a multi-age/grade independent school located in a relatively small city in the Canadian prairies. The children range in age from five to 11 years of age. The school is housed in the basement of a church, the facilities of which support the type of programming we had envisioned for the school. The school has a large, carpeted open area with small tables and chairs, sofas and bookshelves; it has a kitchen where children are taught to cook and help prepare lunches and snacks; it has an art room with supplies that are shared with the children who attend Sunday school; a meeting room that looks like the inside of an Arabian tent, with fabric drapes on the walls and ceiling, a floor covered with a carpet and lots of pillows, and a mural that looks as if we can peer out at the desert from inside the tent. There is a computer room with about 10 fairly old but still working computers; a small library room with numerous books, comfortable sofas and chairs; and a large room upstairs that doubles as a gymnasium and a reception hall for weddings and funerals. The grounds around the building are used for play and gardening.

The school espouses an ‘eco mandate’:

> Prairie Sky School is an independent school in Regina founded on the belief that children have an innate sense of wonder in the world that can be fostered through nature-based learning. Respect for nature is a strong and deep current that runs throughout the various child-inspired pedagogies that we embrace. We use the term ‘Eco’ inclusively to refer to the natural and ecological world as well as to human nature and the nature of a child. We are committed to making the world better for our children, and to teaching them how to make it better for the future.
> (http://www.youtube.com/watch?v=vBtAqxLxzFc&feature=email)

One of the goals of the school is inclusivity – children of all abilities, socio-economic statuses and cultures are welcomed; however, the lack of financial resources makes it impossible to provide special education teachers for children with physical, cognitive or emotional challenges; or free tuition to children living in poverty; or language instruction for children whose first language is not English. The Board is continually seeking sources of funding to make this goal a reality.

The staff includes the Director of Education, two teachers, both of whom prefer to work half-time because of family responsibilities or other commitments; one teacher assistant; and parent volunteers. A Board of Directors, consisting of the original founding members, a school treasurer, a parent representative and a student representative, meets monthly to address any issues that arise, to advise the teachers of what the Board would like to see, to create policy and to plan fund-raising events. Community mentors such as artists, musicians, yoga instructors, naturalists, organic farmers, small business owners and others often provide mini-workshops for the children free of charge, as part of their commitment to socio-ecological education.

The school curriculum could best be described as *eclectic*. In the morning the children are taught by a Waldorf-trained teacher, who infuses the aesthetic into the curriculum. In the afternoon the children work on projects, sometimes as a group, sometimes as individuals. Although the teachers pay attention to the province's curriculum for the various grade levels and often encourage or stimulate interest around a certain topic related to the curriculum, they often build on the children's interests and look for the 'teachable moment', somewhat similar to the Reggio Emilia approach used by many preschools (Abramson et al. 1995). Projects are born out of those moments as in the case of Snow Town (see below).

At times curriculum-related projects arise out of what is happening in the media. Some of the children had heard their parents talking about climate change and the Copenhagen Summit, so the teacher built a unit around the topic, which had connections to social studies, science and English language arts.

Curriculum often emerges from the need to raise funds for the school. For example, at a class meeting one of the children suggested they sell greeting cards to raise money. The discussion turned to making and selling their own greeting cards, so a local artist was invited to help the children create their artwork, and one of the children's fathers, a photographer, photographed the paintings, which were then made into greeting cards and were so popular at school events, craft fairs and local businesses that they had to be reprinted several times. At times the children prepare for special events at the school, related to seasonal holidays, where they perform, followed by a bake sale. The public is invited to attend and offer a donation. These events often raise enough money to pay the rent for the month, or buy supplies for the school.

Wherever possible, the staff and assistants try to ensure the children are making meaningful connections to society and the environment, and understand how their actions affect everyone and everything else (see Fig. 9.1). Spending time at Prairie Sky School fills me with hope that student teachers will see the joys and benefits of socio-ecological education and resist the forces pushing them to adhere to prescribed curriculum standards.

A Day at Prairie Sky School

As the children nestled into the soft pillows on the floor the teacher greeted each child and asked various students to record the date, the weather, and put up the jobs for the day – feeding the rats, watering the plants, lunch and snack preparation, and clean-up. Two children had brought artefacts from home that they showed to their peers and explained their significance. The teacher then read *A Snowy Day* by Ezra Jack Keats, after which she asked the children what they appreciated most about the winter: 'I like building our Snow Town outside,' 'I like making snow people,' 'I like catching snowflakes on my tongue,' 'I like that Christmas is coming and I'll get lots of presents.' Most children responded positively about winter, except some, who said, 'I don't like winter because it's cold.'

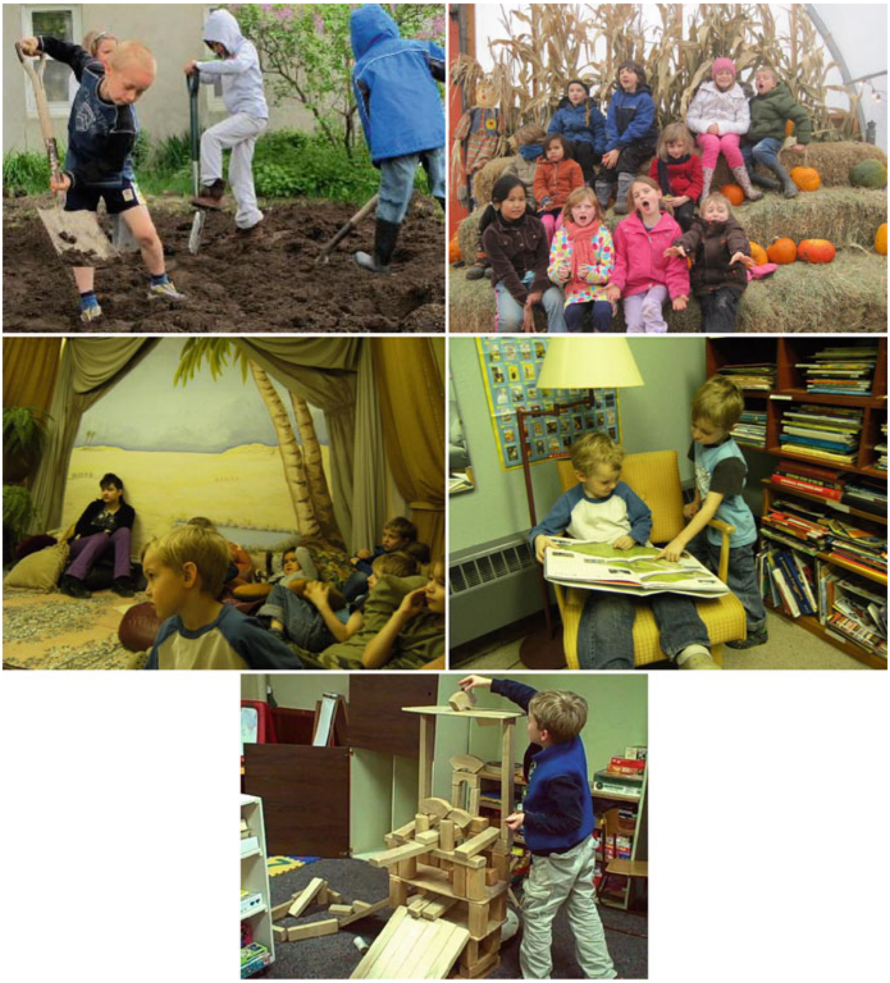

Fig. 9.1 Children learning at the Prairie Sky School

‘A lot of people don’t like cold,’ agreed the teacher. ‘What could they do so they would like it better?’ This led to a discussion of how to enjoy winter by doing fun, outdoor activities and dressing warmly. The discussion quickly turned to those who didn’t have warm clothes and what the class might do to help people who didn’t have them. Soon it was decided to have a class box with extra mittens, hats, scarves and boots for people who had lost or forgotten theirs, and to start another box for winter clothing that could be donated to one of the shelters or community centres. The student representative was assigned the task of reporting this decision to the Board.

Next the teacher asked the children to fill out their agenda booklets for the day, reminding the class they would all be going on an outing after lunch to look for animal and bird tracks with Mr Hanson from the Natural History Museum, and to review the book of animal tracks beforehand. At 11.30 in the writing centre she would help the people working on the letter to the Prime Minister urging him to sign on to the Copenhagen Accord when he attended the United Nations Summit on Climate Change in December; and at 2.30 they would practise the musical, *Stone Soup,* which the children would be performing for their families and the public as part of the Winter Solstice celebration.

A 10-year-old boy then asked if he could make an announcement. 'The candidates for the position of Mayor of Snow Town will be giving their campaign speeches at 3 o'clock and we'd like everyone to plan to listen. Thank you', he said with a little bow. Everyone clapped.

Children were soon listing in their agenda books the activities they were choosing to do that day. The younger children put clothespins that had pictures of activities on them beside their names. Everyone had to choose at least one language arts activity and one mathematics activity, which were set up at centres. Other choices included work at the art centre to complete their paintings that a local artist had helped them begin in a workshop; work on the table-top landscape of the region they were building out of papier maché; play at the games centre; work on their stories in the computer room; or spend time in the library or the music centre.

Most children had included outside play in Snow Town, which they had created on the grounds of the church/school. Some 'buildings', which were made out of snow and adorned with twigs and rocks, were given signs such as hospital, school, city hall and fire station. Other snow structures represented the children's homes and an elaborate system of roads covered the grounds, connecting the various structures. Because of the children's interest in the recent public elections, their afternoon teacher had been working with them on the roles and responsibilities of governments and citizens. They had taken a trip to city hall and had written a letter to their city councillor, inviting him to come and talk with them and their parents about his job. He had replied saying he would be happy to come and a date had been set. The children then had decided to create Snow Town on the lawn and everyone in the school had a role and responsibility.

Around 11am two parent volunteers arrived to guide the lunch preparation. The four children who were on lunch duty that day skipped to the kitchen to join them and were soon busy washing, peeling and chopping fruits and vegetables and mixing batter for the feast of vegetarian chilli, spelt-flour biscuits, raw veggies and a fruit salad. The children washed off the tables and set them and then copied the recipes for vegetarian chilli and spelt-flour biscuits into their recipe booklets while they waited for the food to cook.

The rest of the day went as planned except for one heated disagreement between two boys, which was brought up with the entire class near the end of the day at the class meeting. The teacher and students discussed how to settle disputes calmly and fairly, after each boy had had a chance to explain his side of the story. Before departing, the boys shook hands, apologised to each other and the children were soon putting on their winter clothes and telling the parents who had come to get them about their day at Prairie Sky School.

Amy's Story

According to some commentators (for example Mackay 1997) I am an *X-er*, also known as Gen X or the Options Generation (born between 1961 and 1981). The generation that immediately follows me is Generation Y, also known as the Millennial Generation (or Millennials), Generation Next, Net Generation and Echo Boomers (born between the mid-1970s and the early 2000s, although there is debate about this, with no clear start and end dates). Given I was born in 1977, I could be considered someone who falls between the cracks into that transitional generation period – a bit of X and a bit of Y. Let me start with the Options Generation.

Mackay (1997, p. 138) proposes that this generation was born into one of the 'most dramatic periods of social, cultural, economic and technological development in Australia's history: the age of discontinuity, the age of redefinition, the age of uncertainty'. The life experiences of the Options Generation are described as 'radically different' from those of preceding generations. The Options Generation keep their options open by making it up as they go along because there are few blueprints for making sense of their own existence (Mackay 1997, p. 140). It is not surprising then that the central theme for the Options Generation is individuality. Flores and Gray (2001) distinguish two emerging forms of working life: the wired and the entrepreneurial. Both require forms of individuality and networking that confirm the individuality of post-Boomer generations. Indeed, the 'wired' life is the playing out of the post-networking society for those with informational technology (IT) resources and skills.

This is the generation who have lived in a multicultural society, who accept that Australia may become a republic, who are aware of AIDS, who live in a pervasive drug culture, who are accustomed to family breakdown and who face a discouraging labour market. Mackay (1997, p. 139) argues that the Options Generation members maintain optimistic environmental beliefs: they 'have always known that the global environment is a precious resource which earlier generations have abused, and which must now be protected if the species is to survive'.

Several other authors have drawn conclusions similar to those of Mackay. Caudron (1997, p. 22) suggests that the Options Generation 'want to know why they must learn something before taking time to learn how'. Brown (1998, p. 2) further notes that the Options Generation desire meaningful school work and 'tend to be independent problem solvers and self-starters'. In short, they are summarised as 'individualistic, flexible, open-minded, realists, insecure, uncertain, non-conformist, alienated, materialistic, radically diverse, pessimistic, risk takers, spiritual seekers, overly-organised, technologically cultured, incredibly stressed and discontented' (see Codrington and Grant-Marshall 2005; Mackay 1997).

Twenge (2007) defines Generation Y along with later Xers (the transitionals, some would say) to be Generation Me. She based such conclusions on personality surveys showing rapid increases in narcissism among this generation compared to the Boomers (when they were 20-somethings). While such generalisations can be precarious, they can also be useful as a tool for critically reflecting on one's own story, philosophies and teachings.

I am a *naturalist. My* eco philosophy stems back to my childhood in Central Queensland, what many affectionately call the Australian Outback. My father was a coal miner and as in many families my brothers went on to be coal miners. Despite growing up in a place where environmental destruction (open-cut coal mining) was the means to financial survival, as a child the experience was somewhat different. I spent my days exploring the bush, building cubbies (forts), fishing for yabbies and enjoying a freedom I completely took for granted. My eco philosophy is one of valuing the environment for its own sake – regardless of an impending environmental crisis (or not). My eco philosophy is cognisant with Gaia philosophy, some could say – an ecocentric disposition where human beings and the environment are equal (O'Riordan 1981). Not dissimilar to Carol, I believe in a hopeful future built on education that will transcend dire ecological, economic, social and political circumstances the world is now facing.

I am an *educator*. I taught various grades at various primary schools in Queensland. I taught in environmental education centres abroad. From the beginning of my teaching career I have been passionate about teaching and environmental education and have combined these two passions now for some 15 years.

I am a *researcher*. I have researched and sought explanations for: What are the roles, responsibilities, possibilities and alternatives of schools and teachers in teaching/learning environmental education? And more specifically, what are *my* roles, responsibilities, possibilities and alternatives as a socio-ecological educator?

In keeping with my beliefs, I try to help my student teachers understand socio-ecological education by having them engage in school-based learning in environmental education. For over eight years I have worked with numerous schools, student teachers, other teacher educators and children in teaching teachers environmental education. I do this because I believe that learning must be experiential and in context. And in terms of student teachers this context is schools. Learning environmental education (as a student teacher) in four walls in a name-less place-less university building is counter to this belief.

School-Based Learning in Environmental Education

The Beginnings

I began teaching teachers while undertaking my PhD. Frequently student teachers would ask, 'Why in four years of teacher education do we only do 80 days of placement [teaching]? I came to university to learn to be a teacher and surely schools should be central to this.' Research also supports this anecdotal evidence, with many students often feeling grossly underprepared as graduate teachers (Russell and Loughran 2007). To address this, since 2005 I have conducted a significant proportion of my teaching not at the university campus, but in a school and community environment where student teachers engage in experientially based workshops focused on environmental education and sustainability. As part of this approach, student teachers work with a small group of children for 13 weeks; they apply their teaching and learning, essentially putting theory into practice. This approach is supported by the Australian Government (House of Representatives Standing Committee on Education and Vocational Training 2007, np) who encourage teacher education faculties and schools to form such partnerships, so that 'more academic staff [gain] such experience to maintain the currency of their practical knowledge and to build up greater collegiality between schools and universities'.

In order to showcase this experiential approach to teaching and learning environmental education, I will draw on one unit (Experiential Environmental Education) as an example of my practice. I will attempt to capture the richness, which I believe influences, inspires and motivates student teachers to be thoughtful, reflective and active socio-ecological educators. Such examples I feel are not only useful to student teachers in exploring and navigating their own teacher identities (which naturally includes environmental education and sustainability), but for teacher educators and researchers in considering or reconsidering the pedagogy of teacher education (and indeed teacher environmental education).

Experiential Environmental Education

> I think everyone at first was a bit confused as to what this unit was going to be about, but as a group we all worked together to promote the idea of environmental education. I thought it was really great how everyone brought their personal experiences into the discussions to further show the environmental experiences we have had in our lives and how they impact the way we see the world now. I think it is really important to be able to talk about these issues because as we have said many times before, one person alone can't change the world – it needs to be a team effort. It has definitely been a challenging unit! We were challenged intellectually to think outside the square. There was no set formula to use or any real 'right' answer – we had to work things out for ourselves. This was a great idea though, and a useful skill for tackling issues that we might come across in the future. Thanks for such an awesome unit Amy! (first year student 2009)

Experiential Environmental Education is a first-year (first-semester) core unit in the Bachelor of Sport and Outdoor Recreation and Bachelor of Primary/Secondary Education (double degree). It begins with a personal focus, gradually shifting to a broader social and ecological focus. Many students who undertake this course have come from high school where (in my experience) they have fairly set ideas about what university education is: a transmission approach where they are to listen and then regurgitate information in order to earn their degree. My first class turns this notion on its head and students are challenged through various

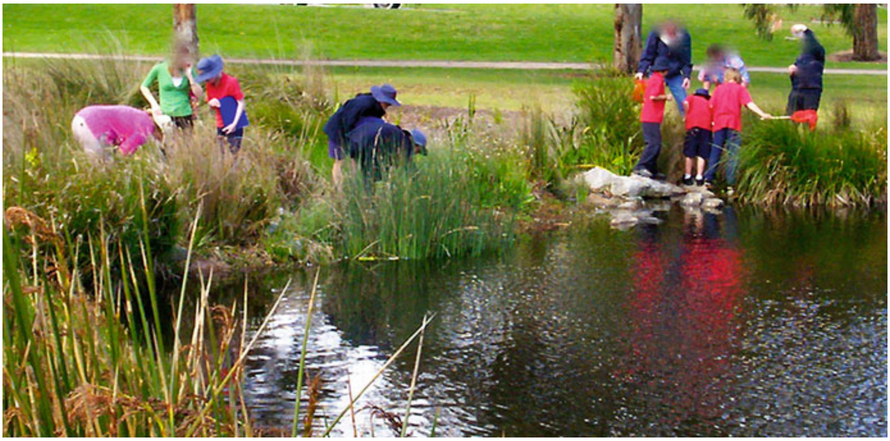

Fig. 9.2 Amy and her students working with local Primary School children at community Park (behind the school) investigating macro-invertebrates as a determinant of water quality and understanding the greater water catchment

experiences to reconsider their environmental views and ways of thinking. By Week 2, students experience their first in-school session with the intent of understanding children's 'voices' and perceptions of environment and sustainability. An entry point to such understanding is via children's literature, as this medium enables student teachers to listen and talk with children about their views concerning the environment and issues of sustainability in an approachable way (Cutter-Mackenzie et al. 2010).

In Week 3 I turn the students' attention to the 'home or family as a site of ecological learning'. I do so by hosting the session at the sustainable house that I built from 2005 to 2008. I lead them through my home and we consider aloud the built environment and the values and behaviours it can promote. We then compare it to a school setting and consider the transfer of learning between the home and school (and vice versa). Drawing on work such as Richard Louv's popularised *Last Child in the Woods* (2005), I lead the students through my quarter-acre block of land, which is a series of garden 'rooms' entirely vegetated with indigenous plant and tree species. We explore and critique the concept of nature-deficit disorder and how children increasingly have few experiences in nature. I then relate this to a school environment, considering school grounds as sites of ecological learning. Putting my life effectively on display is not always an easy process, but it is essential, particularly given my personal focus that naturally must include me (or any teacher for that matter).

Weeks 4–13 are spent entirely in a local primary school, where I engage my students in the immediate school environment and surrounding community as a process of learning environmental education within a broader socio-ecological framework. Each week they work with the same group of children, putting such theories into practice (see Fig. 9.2).

It is not until Week 6 that I actually present policy documentation concerning environmental education and sustainability and what this means for teachers. When I first began teaching teachers I thought this was where any course on environmental education should start. I was wrong, and have since learnt that any approach to environmental education must be grounded in people's lives and the places they live (and learn). The premise of this approach is quite simple, as Sobel (1996, p. 10) eloquently writes, 'people need to love the places they live before being asked to heal them'. This is not to say that significant issues such as climate change, depletion of water sources and biodiversity loss are not dealt with seriously. They are, but in a local context. A significant focus during this phase of the unit is to design, plan, build and evaluate environmental learning projects where student teachers and primary school children engage in meaningful learning experiences and projects. In the past such projects have included building living 'fruit tree' cubbies, mini-beast trails, sensory trails, frog ponds, garden/play rooms, story circles, bird habitat gardens, sculpture gardens and sustainability management initiatives (energy and water in particular).

An integral aspect of such teaching is 'assessment as learning', as is the case whether one is teaching teachers, adolescents or children. An 'assessment as learning' approach requires students to deeply consider prior teaching and learning experiences in order to inform their future goals and practices. To demonstrate this I will draw on two examples.

Eco-biography: It is well established that teachers' approaches to teaching are significantly influenced by their prior experience as a student, coupled with their perceptions of what teaching and learning are (Russell and Loughran 2007). As an avenue for addressing students' views of teaching and learning with respect to environmental education, as their first assessment they are required to write an *eco-biography*. This is designed to encourage them to consider their feelings about, and past experiences in, the environment, and to think about how these influence them as a teacher. What follows is an excerpt from one student's assignment, which demonstrates a high level of critical reflection about his experience, juxtaposed with academic literature:

> I am reflecting on a memory that took place in July 2005 on a trip with friends to Tasmania … After driving for almost an hour from Launceston out to a waterfall, the mountainside dirt track we were travelling along opened up to a large area that had been logged. The shock of seeing such destruction so close to a natural tourist attraction was lost in the midst of the rest of the trip. This sight simply became a blip on what was otherwise a fantastic trip … should have stimulated my own thoughts and values to do something towards making a difference. But it did not. Maybe a lack of meaningful environmental experiences during my primary and secondary schooling may have contributed to my own 'problematic separation of I and world' (Payne 1997, p. 134) towards these environmental problems I was faced with. What should be very emotive exposure to problems faced by the environment simply failed to 'make self-evident one's own responsibility and accountability for environmental problems and issues' (Payne 1997, p. 134) '… By critically analysing my own personal memories, I have had to think critically about the possible causes as to why I experience the environment in a particular way. In starting to understand my own conceptions of nature and the environment and the role I could play in firstly contributing

> positively to environmental issues and … This continuing process will shape my approach to environmental education now and will continue to change and shape my approach to environmental education in years to come. (Experiential Environmental Education Pre-service Teacher Education student 2009)

Eco-journal: Students are also required to maintain an eco-journal. This assignment is designed to provoke them to critically reflect on their learning throughout the unit. It is also designed to enable them to develop, implement and critically evaluate environmental education experiences (curricula) and resources. Part of the assessment is a community fair organised by the students. The fair is hosted at the school/s where the school-community-based learning program has taken place. Student teachers showcase innovative learning curricula and resources that students develop as part of their unit assessment.

In order to synthesise this chapter we now enter into a shared discussion considering our individual stories and pedagogies.

Shared Discussion: Unpacking the Narratives

We have described two very different approaches or pedagogies to what we see as ‘environmental education’, but what do we mean by the term? There have been numerous efforts to define it (Heimlich and Daudi 1997). However, Gruenewald (2004, p. 72) argues that the result of the numerous ‘carefully crafted, albeit vague, definitions’ of environmental education means that any practices loosely connected with goals of developing skilled, knowledgeable citizens who can work toward finding a balance between a quality of life and quality of the environment, can be considered environmental education. He believes the term has become co-opted and that ‘there is currently too much complacency toward problematizing the homogenizing standard practices of general education and too much caution around taking the political stands that will be needed to reform it’. Too many schools are attempting to legitimise environmental education by ensuring that students can meet prescribed standards, as required in other disciplines. He believes this works against the transformative potential of environmental education. Gruenewald suggests using, as a guide, the Earth Charter Initiative, which its Advisory Committee suggested should be based on action research, experiential learning, transdisciplinarity and collaboration.

We prefer the term *socio-ecological education*, as it more accurately reflects how society and the environment are interconnected. As outlined in Chap. 2, environmental problems are closely related to social problems such as racism, sexism, ageism, anthropocentrism, which society must resolve if we are to address ecological issues (Bookchin 1993). The mission statement of the Earth Charter Initiative sees socio-ecological education as:

> the transition to sustainable ways of living and a global society founded on a shared ethical framework that includes respect and care for the community of life, ecological integrity, universal human rights, respect for diversity, economic justice, democracy, and a culture of peace. (Earth Charter Initiative 2009)

In both contexts we described that socio-ecological education is an integral part of a holistic education that includes the social, emotional, political and natural environments, which is consistent with Sobel's notion of place-based education:

> [P]laced-based education is the process of using the local community and environment as a starting point to teach concepts in language arts, mathematics, social studies, science, and other subjects across the curriculum. Emphasizing hands-on, real-world learning experiences this approach to education increases academic achievement, helps students develop stronger ties to their community, enhances students' appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens. Community vitality and environment quality are improved through the active engagement of local citizens, community organizations, and environmental resources in the life of the school. (Sobel 2004, p. 7)

Adding to Sobel's work and other works on place we argue that the narrative of the individual within community/place is central to place-based education. Our two narratives above acutely demonstrate how individuals (teachers in this case) can foster connectedness to community and place through education initiatives and how these are negotiated practices taking account of the varied socio-ecological layers of place and community.

Concluding Thoughts

Although the authors of this chapter are from different generations, work as researchers and educators in very different contexts, and have had different life experiences and goals, we both recognise the urgent need for significant emphasis on environmental or socio-ecological education. We strive to promote it within our research, writing, teacher education programs and the schools we work with. The case study provides an illustration of how the four foundational pillars outlined in Chap. 2 can be developed in practice. The chapter has demonstrated how central a person's narrative (or lived experience) is to their pedagogy (regardless of the subject matter). In terms of environmental education, our implicit goals, though, are akin and embedded in educators' and children's lives in knowing (or re-knowing), being (or re-being) and becoming (or re-becoming) in local places, environments and contexts (albeit sustainably). This is where we feel environmental education begins and through this process we seek to empower those who engage in education to begin to make changes that can address the significant issues societies are facing. As we noted earlier, our intent in sharing our narratives is to encourage readers to reflect on their own personal and professional contexts, and to reflect on their own questions about environmental education and its positioning within the dynamic role of the socio-ecological educator. As can be seen in this chapter, socio-ecological approaches continue to emerge and even flourish in how research is conducted, in pre-service teacher education, in innovative schooling philosophies and practices. It is indeed an unfolding and ever-expanding story.

References

Abramson, S., R. Robinson, and K. Ankenman. 1995. Project work with diverse students: Adapting curriculum based on the Reggio Emilia approach. *Childhood Education* 71(4): 197–203.

Bakhtin, M.M. 1981. *The dialogic imagination: Four essays.* Trans. M. Holquist. Austin: University of Texas Press.

Barthes, R. 1974. *Introduction to the structural analysis of the narrative.* Trans. R. Miller. New York: Hill and Wang (Original work published 1966).

Bateson, G. 1972. *Steps to an ecology of mind*. New York: Ballantine Books.

Bennett, L. 2011. *How to avoid eco-despair. Center for Ecoliteracy*. http://www.ecoliteracy.org/blog/how-avoid-eco-despair. Accessed 17 Feb 2011.

Bookchin, M. 1993. What is social ecology? In *Environmental philosophy: From animal rights to radical ecology,* ed. M.E. Zimmerman, J.B. Callicot, G. Sessions, K.J. Warren, and J. Clark. Englewood Cliffs: Prentice Hall. http://dwardmac.pitzer.edu/Anarchist_Archives/bookchin/socecol.html. Accessed 15 Aug 2011.

Bowers, C.A. 2010. Educational reforms that foster ecological intelligence. *Teacher Education Quarterly* 37(4): 9–31.

Brown, B. 1998. Learning strategies for generation X. *Eric Digest* (184).

Bruner, J. 1986. *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.

Capra, F. 1996. *The web of life: A new scientific understanding of living systems*. New York: Anchor Books.

Caudron, S. 1997. Can Generation Xers be trained? *Training and Development* 51(3): 20–24.

Clandinin, D.J., and M.F. Connelly. 2000. *Narrative inquiry*. San Francisco: Jossey-Bass.

Codrington, G., and S. Grant-Marshall. 2005. *Mind the Gap! Own your past, know your generation and choose your future*. New York: Penguin Books.

Cutter-Mackenzie, A., P. Payne, and A. Reid. 2010. Experiencing environment and place through children's literature. *Environmental Education Research Special Issue* 16(3 & 4): 253–264.

Earth Charter Initiative. 2009. *Values and principles to foster a sustainable future*. http://www.earthcharterinaction.org/content/. Accessed 20 May 2012.

Flores, F., and J. Gray. 2001. *Entrepreneurship and the wired life*. London: DEMOS.

Gruenewald, D. 2004. A Foucaultian analysis of environmental education. Toward the socioecological challenge of the Earth Charter. *Curriculum Inquiry* 34(1): 71–104.

Hart, P. 2003. *Teachers' thinking in environmental education: Consciousness and responsibility*. New York: Peter Lang.

Hart, P. 2010. No longer a 'little added frill': The transformative potential of environmental education for educational change. *Teacher Education Quarterly* 37(4): 155–77.

Heimlich, J., and S. Daudi. 1997. Environmental education: Can it be defined? *EETAP Resource Library, 14.*http://eelink.net/eetap/info14.pdf. Accessed 22 May 2012.

House of Representatives Standing Committee on Education and Vocational Training. 2007. *Top of the class: Report on the inquiry into teacher education*. Canberra: Commonwealth of Australia.

Louv, R. 2005. *Last child in the woods: Saving our children from nature deficit disorder*. Chapel Hill: Algonquin Books.

Lyon, G.E. 1999. *Where I'm from. Where poems come from*. Absey and Co. http://www.georgeellalyon.com/where.html. Accessed 17 Feb 2011.

Mackay, H. 1997. *Generations: Baby boomers, their parents & their children*. Sydney: Macmillan.

Murray Orr, A., and M. Olson. 2001. Transforming narrative encounters. *Canadian Journal of Education* 30(3): 819–838.

Nelson, T. 2010. Introduction: Education and the environment. *Teacher Education Quarterly* 37(4): 3–7.

O'Riordan, T. 1981. *Environmentalism*. London: Pion Limited.

Payne, P. 1997. Embodiment and environmental education. *Environmental Education Research* 3(2): 133–153.

Ricoeur, P. 1981. *Hermeneutics and the human sciences: Essays on language, action and interpretation*. Trans. J.B. Thompson. Cambridge, MA: Cambridge University Press.

Russell, T., and J. Loughran. 2007. *Enacting a pedagogy of teacher education: Values, relationships and practices*. London: Routledge.

Sobel, D. 1996. *Beyond ecophobia: Reclaiming the heart in nature education*. Great Barrington: Orion Society and Myrin Institute.

Sobel, D. 2004. *Place-based education: Connecting classrooms and communities*. Barrington: Orion Society.

Twenge, J. 2007. *Generation Me: Why today's young Americans are more confident, assertive, entitled – and more miserable than ever before*. New York: Free Press.

Chapter 10
Through Outdoor Education: A Sense of Place on Scotland's River Spey

Brian Wattchow and Peter Higgins

Abstract Outdoor education is often thought of as a series of adventurous activities or journeys through wild countryside, where the purpose is to build character, work on group development or to develop leadership capacity in young people. However, in recent years these dominant approaches have been challenged and it has been suggested that they tend to treat the outdoor environment as little more than a venue for human action – as an arena or a testing ground. There has been a notable shift towards considering the development of sustainable environmental relationships as a program focus and learning outcome in outdoor education. But there are few descriptions of what this actually means in practice. In this chapter we build on the theoretical discussions established in Chaps. 2 and 3 and describe an outdoor education program that is much more attuned to socio-ecological principles and where developing a sense of place is considered a pedagogical imperative. The story that follows details an educational encounter between staff, students, tourists, locals and the River Spey in Scotland.

Keywords Sense of place • Pedagogy of place • Outdoor education

Introduction

'Heroes' such as Kurt Hahn, the founder of Outward Bound, and Sir Edmund Hillary, the first person recorded as summiting on Everest (along with Sherpa Tensing Norgay), continue to dominate the cultural landscape of 'the outdoors'.

B. Wattchow (✉)
Faculty of Education, Monash University, McMahon's Road, Frankston, VIC 3199, Australia
e-mail: brian.wattchow@monash.edu

P. Higgins
School of Education, Edinburgh University, Edinburgh, UK
e-mail: pete.higgins@ed.ac.uk

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_10, © Springer Science+Business Media Dordrecht 2014

For many adventurers the landscape, rivers and seas present challenges and may even, at times, be regarded as adversaries. In the popular perception of Scotland the countryside may also still seem to be roamed by romanticised kilt-clad characters like Sir Walter Scott's Rob Roy, and the poems of Robbie Burns may still be heard echoing around every crag and glen. Outdoor educators can carry a lot of cultural baggage with them on their travels and it is all too easy to 'see' a landscape as simultaneously heroic and romantic (Wattchow and Brown 2011).

Older, entrenched attitudes to adventure and the purposes of outdoor education may be problematic if outdoor activities are conducted as though the natural and cultural communities in which the programs are delivered are seen as having little to offer other than being a site or venue (Brookes 1993; Nicol and Higgins 1998; Haluza-Delay 2001; Higgins and Lugg 2006; Wattchow 2005; Wattchow and Brown 2011). Alternatively, outdoor education can be practised not as though it is free from cultural and environmental context, but rather as if it is fully aware of its dependence on its natural and cultural situation.

As outlined in Chap. 2, one of the underlying foundations of our interpretation of a socio-ecological approach to education is the importance of social and environmental conditions, and that learning cannot be separated from its contexts. In this chapter we intend to re-emphasise the interdisciplinary nature of knowledge, and the need to bridge the artificial boundaries between the sciences and the humanities. Finally, we suggest that educators cannot ignore the embodied nature of learning – that all learning is inherently experiential in character. Put another way, a holistic and socio-ecological approach to learning considers the learner's cognitive, emotional and embodied encounter with a particular educational setting that is considered to be rich in meaning. As David Gruenewald (2003, p. 8) writes:

> In place of actual experience with the phenomenal world, educators are handed, and largely accept, the mandates of a standardized, 'placeless' curriculum and settle for the abstractions and simulations of classroom learning. Though it is true that much significant and beneficial learning can happen here, what is most striking about the classroom as a learning technology is how much it limits, devalues, and distorts local geographical experience.

Guiding students in the outdoors provides a unique pedagogical advantage. Local geographies surround, immerse and embrace the guide and learners for days at a time. For outdoor educators the outdoors itself *is* the learning context. Yet 'the outdoors', like 'wilderness' or 'nature', is a monolithic term that does not really get us much closer to understanding the localised learning context in detail. Instead, it is better to try to comprehend how locations are encountered in 'the outdoors' as distinctive places, each with a particular set of social, cultural and ecological conditions.

If the outdoor educator or guide wants to move towards a more socio-ecologically inspired pedagogy they must change the way they *practice* their teaching and leadership. This will not be easy. To start with, it means examining sometimes cherished perceptions of outdoor practice, like the heroic adventurer and the romantic traveler, and then offering alternatives. Traditional conceptualisations of outdoor leaders as adventurous role models and managers of risk cast a long shadow. We suggest, in this chapter, a good way to illuminate what will be needed in the future is to begin to understand how learners encounter particular places in mind, body and spirit, and to tell those stories. They might be less grand than the stories of Hillary; they might be less focused on 'character development' than in the spirit of Hahn; and they might be somewhat less romantic than the prose and poetry of Scott and Burns, but they will be rich in detail and nuance about how educators and guides introduce their students to the value and significance of local places. In this chapter we want to demonstrate, through the case study of an outdoor education program that uses canoe travel on a descent of Scotland's River Spey, what a place-responsive journey through the countryside is like.

However, before heading to the river it is important that we provide a little background. Like a river gathering its waters from many tributaries in its headwaters, we present three short starting points. The first, 'Insider/outsider', describes what we mean by place. Second, 'The meaning of water' provides a brief introduction to the cultural significance of water, and rivers in particular. Finally, 'The River Spey' provides an introduction to the people and place of the River Spey involved in this case study. Only after these three stories come together will we be ready to launch our canoes onto the Spey's dark and fast-flowing waters and be carried downstream.

Insider/Outsider

According to Hay (2002, p. 161), the most significant contribution to Western environmental thought from the German philosopher Martin Heidegger remains 'his insistence upon the need to live authentically, to *be* at home, and to take responsibility for the defence of that home in all its aspects – human, natural, and the intangible particulars that constitute a place's essence'. In Heideggerian terms, 'to dwell authentically is to dwell in place' (Hay 2002, p. 160). This characteristic reciprocity between person and place demands that people care for and maintain their place *as* a home. One is able to conserve home because it is known fully from the inside. This is not to say that humans cannot build, cultivate and change places over time. Change itself is an integral part of social and ecological systems. Rather it is a question of understanding the history of changes in a place and asking what change is appropriate. Heidegger's notion of caring was 'primarily a matter of letting things be manifest in terms of their most appropriate possibilities' (Zimmerman 1996, p. 69). Humans, for Heidegger, become 'shepherds' (Zimmerman 1996) working in 'fields of care', and *dwelling* is 'the essence of human existence and the basic character of Being' (Relph 1976, p. 39).

In his highly influential book, *Place and placelessness*, much of which was clearly inspired by many of Heidegger's ideas, Edward Relph (1976) sought to understand not just the identity of a place, 'but also the identity that a person or group has with that place, in particular whether they experience it as an insider or as an outsider' (p. 45). To be inside is to be safe and secure in the world, to have a centre of meaning and existence. To be outside is to be adrift, to be constantly homeless – an alien.

> To have roots in a place is to have a secure point from which to look out on the world, a firm grasp of one's own position in the order of things, and a significant spiritual and psychological attachment to somewhere in particular … the places to which we are most attached are literally fields of care, settings in which we have had a multiplicity of experiences and which call forth an entire complex of affections and responses. (Relph 1976, p. 38)

Cultural geographers, like Relph, have long been interested in place as a way of thinking about issues of land, settlement and identity. How we (humans) change a place, they argue, and how it changes us are fundamental to the human experience. Over time the reciprocal relationship developed between people and places has far-reaching personal, social and ecological consequences. The title of Relph's book seems to suggest two polar opposites. Either we live in harmony with *our* place as an insider, or we live in denial of it as an outsider. But Relph's argument is more nuanced than this. Instead of these two extremes he suggests a continuum along which people experience varying degrees of attachment or detachment from places. On one extreme the existential outsider is someone for whom place has no inherent meaning or significance. They feel no responsibility to preserve any aspect of the past. From this position it becomes possible to ignore or even annihilate local distinctiveness. To witness the impact of a placeless worldview, we might go to almost any modern suburban development in the West, with its removal of indigenous plants and habitats, its bland but ubiquitous architecture, chain stores and shopping malls. It represents the near complete erasure of the particularities of place. The possibility of a sense of continuity between past and present is lost.

On the other hand, Relph describes two compelling levels of attachment to a place. The first is the existential insider – who equates with Heidegger's inhabitant – who dwells and cares for place through his or her very being. For these indigenes their place is full of significance, which is experienced without the need for conscious reflective effort. It is 'knowing implicitly that *this* place is where you belong' (Relph 1976, p. 55). They simply wear the place around them like a comfortable old jacket. The next level of attachment is what Relph calls 'empathetic insidedness'. According to Relph, empathetic insidedness can be achieved through 'training ourselves to see and understand places in themselves':

> [which] demands a willingness to be open to significances of a place, to feel it, to know and respect its symbols – much as a person might experience a holy place as sacred without necessarily believing in that particular region. This involves not merely looking at a place, but seeing into and appreciating the essential elements of its identity … To be inside a place empathetically is to understand that place as rich in meaning, and hence to identify with it … (Relph 1976, pp. 54–55)

These two ways of *being inside* a place may serve as useful guides for outdoor educators. First, rather than ignore the particularities of the places they work in, educators and guides can strive to empathise with them, to learn deeply about their unique character and identity. Educators may then be well positioned to cultivate a similar response from their students. Secondly, educators may actively seek out contact with locals who are deeply familiar with a place's history, politics, economics, ecology and so on. Together, Relph's concepts of these two 'insiders' provide a perspective that serves as a useful guide for place-responsive outdoor education practice.

The Meaning of Water

Human culture and river water go back a long, long way. The landscape historian Simon Schama (1995) has plumbed the depths of river mythology and the far-reaching connections between river water, cultural beliefs and how humans live. He argues that these have trickled down through history to permeate almost every aspect of our daily lives. When we turn on a tap, let the first spurt of water run clear, fill a glass, hold that glass up to the light from the window to check the water's clarity and then feel the cool liquid flow across our tongues, we are unwittingly engaging in a cultural act steeped in symbolic meaning. The same can be said for all of our transactions with water; from cleaning and washing, to watering and recreating. Through our assumptions about water we are instantly connected with the past that humanity shares with it – irrigation channels along the Nile in ancient Egypt, sacred wells in the countryside, Roman canals cut through the British landscape, the draining of fells, the industrial storage and movement of water, and so on. It is no coincidence that we talk of 'well' being. Through millennia river waters have met the physical and psychological needs of human communities, while water's absence looms large in our perceptions of place, whether in the world's deserts or even, as for Coleridge's 'ancient mariner', adrift on an ocean that is undrinkable. Insights into the human indebtedness to the four elements: Earth, Wind, Fire and Water, have been with us since Classical times.

This watery enculturation, whether they think it or not, comes to bear on how outdoor educators plan for students' river travels and their encounters with these outdoor places. For example, Veronica Strang (2004), in her cultural history of the Stour River in Dorset, titled *The meaning of water*, suggests that:

> The water flowing down the Stour is both natural and cultural, responsive to a changing spatial, temporal, physical and ideational landscape. Its material qualities – its composition, its transmutability, reflectivity, fluidity and transparency – are inherent, but also responsive to context. Similarly, people's biological, sensory and perceptual experiences of these qualities are universally human, and yet simultaneously a product of a particular individual and cultural moment in time and space. Their physical, emotional and imaginative interactions with water render it mesmeric, sacred, comforting, stimulating, beautiful and fearful. (Strang 2004, p. 245)

Strang's insights are crucial for outdoor educators and river guides. A river is a place that is experienced as something that is fundamental to our biology, but is also a place filled with sensual and cultural qualities. This resonates strongly with the concept of 'the Valley Section' of the Scots polymath Sir Patrick Geddes (Geddes 1905). As a biologist and social scientist, Geddes was fascinated by human interaction with the natural and urban environment. Taking his inspiration from the

River Tay in Scotland, Geddes related the course of a river from the mountains to the sea to the occupations that were best adapted to the stage of development of the river – the miner, woodman, hunter, shepherd, peasant, gardener and fisher. Geddes also used his model educationally in lectures and exhibitions to develop the concept of social evolution towards the development of more complex trades, commerce, communities and cities, especially in the lowlands.

It is inevitable that complex and even contradictory meanings for a river will emerge and be experienced by learners as they engage with it on a canoe journey. Given the vast range of possible interpretations that students may make of their experiences, it seems to make sense to consider the interdisciplinary nature of learning as a way of beginning to illuminate a fuller understanding of the significance of encountering a particular river as a place. The perspectives of the geologist, the hydrologist, the ecologist, the landscape historian, the economist, the fisher, the artist, the canoeist, are just a few of the possibilities that might all be brought to the students' attention and into the realm of their experience.

Important pedagogical questions immediately emerge. Does it make sense to introduce some of these perspectives rather than others? Is there a preferred sequence? When and how should they be introduced? How does interdisciplinary learning about a river interact with the students' learning to be competent canoeists, or indeed their personal and social development with their peers? How will complex, ambiguous and contradictory meanings be dealt with? Finally, but importantly, is the 'whole' experienced as something greater than the sum of its parts? In the remainder of this chapter we want to explore these difficult pedagogical questions, and hope to provide some partial answers, with regard to a particular encounter between outdoor education staff, students and the River Spey in Scotland.

The River Spey Program: A Brief History

The students and staff sharing this experience of the river were from the University of Edinburgh and the course is a required part of the longstanding Postgraduate Diploma/Masters (MSc) degree programs in 'Outdoor Education' and 'Outdoor Environmental and Sustainability Education' (see Higgins and Lugg 2006 for a recent outline and background). While the degree programs have been running since 1972 and have a strongly integrated practical and academic foundation, the Spey Descent has been a feature since 2001 and was included because staff felt that a canoe journey offered greater educational potential than simply learning the skills of canoeing on day trips. The students are predominantly from the UK but about a third are from overseas. They were accompanied by two Edinburgh academic staff (who are also canoe coaches), a visiting academic and a local Spey freelance river guide. One of the academic staff members, Robbie Nicol, lives in the Spey catchment (and has canoed the river many times) and Dave Craig, the local freelance guide, has guided approximately 150 canoe descents of the Spey. Dave is also the Scottish Canoe Association's advisor to the public on the River Spey.

The starting point for the journey is the University's outdoor centre in Kingussie, a village on the banks of the upper Spey. The centre is an old Victorian mansion, built at the time that holidays mimicking Queen Victoria's retreats to her 'highland home' in Balmoral were popular amongst the wealthy. This is significant, as it gives a context to some of the geological (e.g. the reason why the river catchment is here), geographical (e.g. the pattern of settlement, railways, whisky distilleries, etc.), environmental (e.g. 'keynote' species – otter, salmon, pearl mussel, lamprey and the impact of human activities on these) and sociological (e.g. pattern of land ownership, fishing rights on the river, Scottish Outdoor Access Code, socio-economics) aspects discussed on the journey down the river. (The detail of this is complex and interdisciplinary but for some background information see Barr and Barr 2009; Riddington et al. 2004; Wightman 1996; Scottish Natural Heritage 2008.)

The two authors of this chapter were on the Spey Descent of 2009. Peter Higgins holds a Personal Chair in Outdoor and Environmental Education at Moray House School of Education at the University of Edinburgh and has taught on the Spey Descent program since its inception. As a longstanding member of staff, Peter had an 'insider's' knowledge of the program and, as an experienced Scottish canoe coach, knew the river well. He is also trained as a freshwater ecologist and salmon biologist and worked in this field in Scotland and elsewhere for some years. He had subsequently conducted research into both the ownership and management of Scottish 'sporting estates'[1] and the socio-economics of the catchment of the River Spey. By way of contrast, Brian Wattchow is a Senior Lecturer in Outdoor Education at Monash University, Australia, and was visiting Scotland. Brian had never experienced the Spey, but had researched undergraduate student river journeys in Australia and has written extensively about place-responsive pedagogy. He had also completed a 2,500-km descent of Australia's River Murray and published a volume of poetry based on that journey. Each of us brought quite different 'river sensibilities' to the Spey for this case study.

The story that follows is an attempt to reconstruct certain key experiences from the 2009 Spey Descent. The story deliberately presents different writing styles. Evocative recollections of the experience are counter-balanced by more prosaic passages. Both are needed to portray the 'lived' qualities of the participants. Researchers and writers in sport and physical education research (Gratton and Jones 2004; Sparkes 2008) have suggested that alternative forms of representation may provide access to participants' experiences that are difficult, if not impossible, to portray in more conventional research texts. Our attempt to 'recreate the experience' is adapted from writings done at the time and from long reflective discussions with the guides and students on the canoe journey: about the Spey, canoeing, river guiding and the purposes of outdoor education. Critical moments are selected and each passage of text strives to immerse the reader empathetically inside the experience.

---

[1] 'Sporting estates' are areas of privately owned land managed primarily to support hunting of deer, grouse, pheasants and salmon. Much of Scotland is held in these, generally large, areas of land constituting the most concentrated pattern of land ownership in the developed world, with almost 90 % in private ownership and over 50 % being owned by less than 400 individuals (see Wightman 1996).

Two voices emerged in the writing of the text. One of these belongs to a person who is being introduced to the Spey. They are on a journey, not just down river, but towards important insights about empathetic insidedness, with the river as a place. The other voice is that of the guide, who knows the Spey well, but must make crucial pedagogical decisions about introducing students to this unique place. Together, both participants and guides must give themselves to the experience of the journey if they are to learn some of the Spey's deeper secrets.

Headwaters

Rain is falling upon the old stone house in Kingussie. Higher up in the mountain crags it will be snow, falling upon and covering the heather. Up there water is seeping, beginning the long journey, trickling down through the peaty soils, staining tea brown on its way to Loch Insh. From the front room of the house there is nervous chatter. Stories and questions are bantered about as food and equipment are readied for the morning. This is the first trip in a year together studying, and living, outdoor education. What will this first journey with the Spey reveal? Will it mirror ideas we already hold for land and water, for education, canoeing and guiding? Or will we see beneath its shimmering surface to some of the deeper truths that flow below?

There is confusion and tension. You can hear it, feel it. Headwaters are circling, swirling, accelerating. Outside, in the dark, the river is gathering and the upturned canoes are waiting to be released from their tethers on the trailer. I sense that there is history here from the names of the surrounding peaks and valleys called out to us by the staff on the long drive in. 'Up there is Carn Leac, feeding water into Loch Spey. And we've got Carn Liath and Loch Crunachdan. It comes down through Crathie and Blargie and Laggan.' It is obvious that this river collects itself in old country. I read somewhere that the river was once marked on a Roman map by Ptolemy. It's been travelled and fished since before history. People have lived and worked and died along its banks since deep in time. It is funnelling down now, gathering. I'm nervous, tingling with anticipation. The river is waiting.

So here we are at last, Woodlands, the University's (our!) outdoor centre in the Cairngorms National Park. I feel a sense of relief and joy amongst the staff – to now have everyone and all the kit here, and the place clearly seems to feel like home to them. They have told us about the Spey, and their love for it too. I am looking forward to the five-day canoe-camping journey down 100 km of the River Spey from Loch Insh, north-east to the sea at Spey Bay. It rises in the Monadhliath Mountains behind the centre and we can see its disproportionately large glacial flood plain from the south-facing windows.

> I normally sleep well at Woodlands, but tonight I'm restless, as the river is 'up' and it is still raining. We need to be 'on our toes' tomorrow as there are some tricky bits soon after we leave the loch, and these are new students – we don't know them yet and some have never

> paddled a canoe. Strange to think we know this river better than we know our students! If it weaves its magic as we flow with it to the sea, hopefully they will learn the skills they need to paddle it, and also gain an insight into the whole interdisciplinary beauty of it all – the way a place, its environmental and cultural past and present are all linked, and can only be fully understood as a whole rather than the sum of its parts. We want the students to learn to really think about what they do when they work with their own students in the future, and to use the time they have with them to address some important issues.

Restless sleep at Woodlands the night before our long journey brings fitful thoughts and dreams of how I will fare. The morning 'faffing' – gear sorting and packing – is over and we are off. The reassuring calm of the loch is soon left behind and we are away under the bridge and on the fast-flowing river. I hope I am going to cope.

Launching onto the Surface of the Way

Just before we started our journey there had been a month's rain in a day and the river seems huge and swollen. They say the river is in 'spate'. It's up in the trees on the banks. I am tense and I'm sure my paddling partner feels my anxiety. Am I more anxious than she is? The river disappears around a bend just downstream of a bridge. We carry the canoes to the edge. They tip and shimmy, like an unbroken colt, as we climb aboard. Many of us are newcomers to this old place, this old trade route. 'The Spey Way', they call it. I'd better find a way to survive here – fast.

> So here we are again then – at last – on Loch Insh and after a bit of stroke-work we are past the osprey's nest, under the bridge and on the river. All of the preparations over the past weeks, writing to everyone with details of the trip, sorting and loading gear and the rest, are now over and I am happy to be back with the Spey. To start with it is tactics – getting the right mix in the groups, checking out their skills, who is going to need more coaching … then it is about positioning, trying to direct them into places and set challenges so they will realise that the river does the teaching (if they 'listen' to it and 'feel' it) rather than me … exposing them to just enough challenge and new information, downplaying the spate and the detail of the history of the place (for now) perhaps, though I find myself thinking of the skills of the old loggers who took trees to the sea this way, and the battles over politics and ownership …

I know I need to try things out and learn the paddling skills for myself – isn't that what they tell me 'experiential education' is all about? I want to hit the eddies at the top and throw the boat into the turn but it never happens – and we always have to claw our way back from the bottom of the eddy to join the group. So, I wonder if I will stop worrying about how other people see my paddling and gain real control of the boat. And all the while the staff are telling me this and that about the river – as if I didn't have enough to think about. Will I ever develop the paddling skills I need, let alone that interdisciplinary, critical awareness stuff?

We drift towards a local standing on the river's banks. The guides seem to easily strike up a conversation. 'Tis a big spate', the local says. 'Tas swept away the ghillie's boat.' Ghillie! It's the Scots word for someone who guides a fee-paying *client who wants to shoot a deer or catch a salmon on one of the sporting estates that line the river's banks. The estates and private fisheries that own and manage the banks of the Spey employ the ghillies, but the estate income also comes, primarily, from their clients. There is big money about. A rock star or a gentleman or woman of the upper classes might pay a thousand pounds or more to fish this river. This little exchange – a ghillie's boat has been swept away – seems to say a lot. Even a local river-man has been caught out by the rapidly rising waters overnight! Before we set off we dressed ourselves in bright paddling clothes and pulled on our buoyancy vests. We were suddenly red, blue and orange – incongruous against the dark greens and browns of vegetation along the banks and the silvery swirls in the fast-flowing water – and in sharp contrast the fishers and the ghillies who appear as though they might have just emerged like the caddis flies they fish with, from the river.*

Setting Out on the Way of the Spey

In these first few days we are learning to play with the Spey. We are quickly getting a feel for the basics – but still riding on the edge of comfort. The river still seems like a massive wash and churn of water. We're searching for the line: the line downstream, the eddy line to cross without tipping (hopefully) to get into one of the quiet pools for a rest. And there is another line we seem to be seeking here, like a line of text in a script we need to memorise by heart. But it's in a strange language, like old Gaelic. At first it doesn't come naturally to the tongue. 'Lean, cut, pry. Ferry'cross the current. Find the deep V.' We're smiling now, beginning to play with the easier sections of the river – shedding some of that fear. I can see that the staff are positioning us in a certain kind of way on the river. I can't quite see how, but they are preparing us for things – some obvious like becoming more comfortable in the canoe, others ...

Some of our questions are being answered on the run with the flood, others aren't. There is a sense that history is all around: up in the corries, in the old stones and deep in the river pools. But we can't see it. We aren't ready to hear it. We're too busy learning our lines. Round another river bend, down past Boat of Garten, we drift up to a closely mown grass bank with a quaint, freshly painted cottage, set just back from the river. On the bank is a ghillie in his distinctive tweed, whispering quietly into the ear of his client – 'Here, try this Gold Bodied Willie Gunn. It may do better than the Jack O'Lantern, Sir.' The salmon rod hovers like a giant quill as the ghillie ties the new fly to the leader. 'Now, roll it out to the edge of the pool, Sir. Aye, let it sit doon quietly, just by that ripple.' The quill scribes an arc and the line hovers briefly, like a long question mark in the air, before gently settling another inquiry upon the surface of the Spey. It seems that others are learning new languages here as well. We receive a stern glare from the ghillie and his client as we drift quietly away, downstream. 'Though the river is running swiftly there is time to float and enjoy the ride. The staff are relaxed with this river they all seem to love – telling *intimate stories under the pretext of showing us how it all fits together. Does that love come from the mix of the familiar and surprises – and the teachers' urge to share knowledge?*

> Well the students seem to be settling in to the river now – 'flow learning' perhaps! Aha – what would Csíkszentmihályi (1975) think of this. We need to pay attention, though, as this is an unusual river – its gradient increases as it goes towards the sea and so the rapids build up from the third day. The turbulence is unsettling and so are some of the 'strainers' (semi-submerged trees). So, we need to make sure they pay attention, and the rapids at 'Knockando' are just the thing to make us do so – a bit technical and quite a long stretch. Now we have got them through that we can have lunch on the bank in the sunshine.
>
> Now is the time to draw them in to the ecology of the river, and the protected species – the salmon, otter, pearl-mussel and lamprey – all with their beautiful, interrelated and in many ways strange life histories. From here on down river there will be more salmon anglers, fly fishing from the banks or standing in the river – so now is the time to consolidate the earlier discussions on land ownership. The 'rights' to fish a few kilometres of one bank of this river can change hands for millions of pounds. No wonder the 'sport' is expensive and exclusive, as it is for similar reasons for deer stalking and grouse shooting on these 'sporting estates'. The perception of exclusive rights and cash changing hands leads to conflicts over access, but when we discuss this it is important to be clear – whether we are fishing or canoeing, we are all here to enjoy and respect this beautiful river. There is a bit of recent history to be proud of and the students should know it. In 2003 the newly established Scottish Parliament enacted the Land Reform (Scotland) Act and this enshrined customary access traditions in law, ensuring that on land and water individuals and groups could gain access for recreational and educational purposes. This is amongst the most liberal access legislation in the world, and we staff are proud to have made our contribution to this process.
>
> On down the river now, and most of the anglers dressed in their tweeds and green waders simply seem content to see the back of us as we go past, but some are cheery and others dour. Few seem to realise the effort it takes to move the canoe around on the river to keep out of their way and take a line that suits them. This is challenging for the students and in some ways difficult to explain – why should we do so? Each fisher gets disturbed just once by the group, whereas we have to do this for every fisher we meet on the river. It affects our enjoyment of the river and worst of all it seems almost subservient – I don't like it.

The impact of the fishing estates is everywhere. The cut grass banks, neater than my grandfather's lawn, the flash fishing huts I'd happily live in, and the ghillies who are employed to help the fishermen choose a fly to tempt the fish, and to guide the angler's cast. What is the difference between our river 'guides' and the 'ghillies'? Both love the river and want their pupils to share their love of this place, and to learn the skills to be comfortable and at home here. I am grasping for this. Finding relationships – between my skills and the boat's movement, my knowledge and what the river reveals.

Learning the Way of the Spey

My paddling skills are coming on now, some staff shout the names of strokes they want me to do but I am finding the feel of the blade, the balance of the boat and above all the movement of the river are my teachers. Is it a 'zen' thing? Ghandi said

'The way is the goal' – is this it; is this what I am grasping for? Now I find time to dwell on this river, a thoroughfare for millennia, and its banks that reveal a history of human use – deforestation, farming and settlement, warfare and peace, privilege and poverty, railways, industrialisation, and the distilleries of the emblematic Spey Malts – Macallan, Aberlour, etc. *We are relaxing now, giving ourselves more to the river. It knows where it's going … we'll just go along with it. It's older, more powerful than we will ever be, and I've just enough energy and new skill and knowledge now to chart a course downstream.*

We've been floating for days it seems, and I'm settling in – with the boat, with the other travellers, with the guides and the river. We are living our lives on the Spey's water and banks. We're never far from the water. I'm ready to hear some of the Spey's old stories now, to take notice of them. We make a large circle on a flat shelf that looks out over the water and engage in that old art form of storytelling and listening once again. I can feel that knowledge is being passed from one generation to the next here, in the ancient way like it was in oral cultures; the way it was practised before pen and paper, before Gutenburg and the internet. I find I need a special kind of listening. Not an interrogation of what is being said, more an openness, an act of receiving.

If I give myself to the story being told I can see the old kirk, the stone church, again and sense the battles fought for centuries over this land and water with the clan boundaries being pushed back and forth. I can feel the old army buried out there, some of their bones still scattering amongst the hillside boulders. I wait and listen. There's a low steady hum. I listen. I can hear the cries of the old clans, disposed by the English crown and their conspirators, and the country changing again – the incessant drum beat of politics sounding down the centuries. I close my eyes and see the onrush of modernity in steam and steel and rail that changed so much here and I can taste the grainy tang of the whisky distilleries on my tongue. And in between the words of the stories, in the pause between each and every word, that steady hum – I hear the Spey whispering in the background, still running, still making her way to the sea.

> Under the magnificent bridge built by Thomas Telford in 1814 to the last campsite. Floating under the bridge we make sure the students look up to see the height of the river in the great flood of 1829. Telford wisely listened to the locals when they told him to build it 12 feet higher than he planned – otherwise the bridge would have been lost in that exceptional flood. So, here is Craigellachie – that is a fine Scottish name for the students to wrestle with. It is the least 'wild' campsite but it has its compensations. A village, yes, but rivers have always been the sites of settlement – and this is a fine example with its few shops and pubs – especially Joe's – more the size of a sitting room than a pub bar – with its open fire, fine whiskies and photos of large salmon.

Being the Way of the Spey

We are on the last run now. I've given up paddling against the current. Instead, I lie back in the canoe and watch the clouds and sky roll by. I feel the river quicken as it hears the sea calling louder and louder. The river braids amongst the banks *of cobbles. Each channel leaving and rejoining the main flow. Many parts coming together, making something bigger. I'm drifting, away and back again, to the Spey. I trail a hand behind the boat to feel the silky flow of the water. I'm dreaming of the nights in camp when I could still feel the river rolling through the ground as I slept. I see the inscriptions of all who have lived with and travelled this river. Their stories are written in the old stones and their voices circle in the eddies. My story, small though it may be, is there too now.*

I peer down deep into the water and see memory travelling there. I feel porous now, my edges dissolving – and that seems to be happening to the river too as the high cliffs give way to a flood plain and a wide-open sky. Part of me is out there flowing in the air and water. Part of the air and water is in here and we're all heading down to the sea. With my hand in the river I see the country around me in a way I never have before. I am both an observer and a part of it – every moment in its history acting on the present, like the headwaters and all of the tributaries, gathering and pushing towards the sea. I can reach all the way back upstream to Kingussie where the water is trickling down from the mountains and the hills. I have more questions, but for the moment they can wait. I lie back and feel the Pre-Cambrian crust of the Earth springing back after the great weight of glacial ice has been released. The Spey is still cutting its course, still making its way to Moray Firth. My flesh is porous – I am deep in the river and, just as I hear the first tumbling ocean wave round the final bend, I feel the first salmon of the season leaping and bunting their way upstream, making their way home to the Spey.

> Even though it is nearly over, we still have to pay attention to this river – faster and bigger towards the end than at the beginning of the journey, and route finding in the braided channels is never the same as the last time. I'm thinking ahead now to the end of the journey. This river has never been dry since the last ice age. It has been in a state of constant flow for millennia. That means so much to me, as does sharing it with the staff and previous groups. I hope that it means something for these students too. I hope they have had a glimpse of what it means to share a 'place' educationally, and to begin to share a year of adventures and learning with their peers.

And then all too soon – it's over. The beach at Spey Bay. 'Stop here or you'll be off to Norway!', one of the leaders jokes. After the thanks and the hugs I need space to sit and make sense of it all. Looking out to sea, with the river behind me, the rest of the program and perhaps a life as an outdoor teacher lie ahead. Uisge beatha, *they say, is Gaelic for 'the water of life'. And so it is here, with this river.*

Conclusion

In Chaps. 2 and 3 we have illustrated the importance of place as a foundational pillar within a socio-ecological approach to education. The purpose of this chapter has been to demonstrate how place can become embedded within the educational setting. Perhaps the task of imagining and then conducting a form of place-responsive outdoor education is daunting in comparison to an outdoor program that is imagined as occurring in context-free sites where the educator and learner can script their own experience. In a context-full rather than context-free approach to outdoor education, local landscapes take on a complex and overlapping set of particular meanings and opportunities for staff and students. It is this overlapping inter-disciplinarity that many educators might seek to simplify and separate, and yet these experiences cannot be understood only as ‘parts’. They are a ‘whole’. Further, it is not just the content at issue – there are contested values; emotional, aesthetic and even spiritual responses to this experience; and these cannot be apprehended meaningfully by anyone other than the individual staff member or student. Here we believe there are special learning experiences that are elusive in many other educational settings and contexts. If there is a justification for the effort and cost of such journeys it cannot lie in simply learning a physical skill; it must be found in experiences that cannot be replicated in other ways, and that have exceptional benefits. In the case of an outdoor education program, such as the one these students were enrolled in, this process is intended to be followed throughout the year, and to be exemplified and ‘lived’ in both theory and practice.

We commented that it is likely that outdoor educators and guides will find it difficult to replace traditional ways of practice with alternatives. It is not necessary that tradition be abandoned. Rather, it is better that it be acknowledged, the best of it taken forward, and the rest replaced with beliefs, values and practices that are more responsive to contemporary social and ecological imperatives. Gruenewald (2003, p. 9) describes this as a process of decolonisation of certain ideas and values so that a more appropriate reinhabitation of place is possible:

> Decolinisation describes the underside of reinhabitation ... If reinhabitation involves learning to live well socially and ecologically in places that have been disrupted and injured, decolonisation involves learning to recognise disruption and injury and to address their causes. From an educational perspective, it means unlearning much of what dominant culture and schooling teaches, and learning more socially just and ecologically sustainable ways of being in the world.

References

Barr, D., and B. Barr. 2009. *The Spey: From source to sea*. Edinburgh: Luath Press.

Brookes, A. 1993. Deep and shallow outdoor education: Can we tell the difference? *The Outdoor Educator* June: 8–17.

Csíkszentmihályi, M. 1975. *Beyond boredom and anxiety*. San Francisco: Jossey-Bass.

Geddes, P. 1905. Civics as applied to sociology, Part 1. In *Sociological papers*, ed. V. Banford, 105–106. London: Macmillan.

Gratton, C., and J. Jones. 2004. *Research methods in sports studies*. London: Routledge.

Gruenewald, D.A. 2003. The best of both worlds: A critical pedagogy of place. *Educational Researcher* 32(4): 3–12.

Haluza-Delay, R. 2001. Nothing here to care about: Participant constructions of nature following a 12-day wilderness program. *The Journal of Environmental Education* 32(4): 43–48.

Hay, P. 2002. *Main currents in Western environmental thought*. Sydney: University of New South Wales Press.

Higgins, P., and A. Lugg. 2006. The pedagogy of people, place and activity: Outdoor education at Moray House School of Education, the University of Edinburgh. In *Shaping the outdoor profession through higher education*, ed. B. Humberstone and H. Brown, 103–114. Windermere: Badger Press.

Nicol, R., and P. Higgins. 1998. A sense of place: A context for environmental outdoor education. In *Celebrating diversity: Learning by sharing cultural differences*, ed. P. Higgins and B. Humberstone, 50–55. Buckinghamshire Chilterns University College: European Institute for Outdoor Adventure Education and Experiential Learning.

Relph, E. 1976. *Place and placelessness*. London: Pion Ltd.

Riddington, G., P. Higgins, and A. Radford. 2004. *An assessment of the economic impact of water-related recreation and tourism in the catchment of the River Spey*. Aviemore: Spey Catchment Steering Group. http://www.education.ed.ac.uk/outdoored/resources.html. Accessed 1 Oct 2009.

Schama, S. 1995. *Landscape and memory*. London: Fontana.

Scottish Natural Heritage. 2008. *Scottish Outdoor Access Code*. http://www.outdooraccess-scotland.com/default.asp?nPageID=26. Accessed 1 Oct 2009.

Sparkes, A. 2008. Sport and physical education: Embracing new forms of representation. In *Handbook of the arts in qualitative research: Perspectives, methodologies, examples, and issues*, ed. G. Knowles and A. Cole, 653–664. Thousand Oaks: Sage.

Strang, V. 2004. *The meaning of water*. Oxford: Berg.

Wattchow, B. 2005. Belonging to proper country. In *Outdoor and experiential learning: Views from the top*, ed. T.J. Dickson, T. Gray, and B. Hayllar, 13–27. Dunedin: Otago University Print.

Wattchow, B., and M. Brown. 2011. *A pedagogy of place: Outdoor education for a changing world*. Melbourne: Monash University Publishing.

Wightman, A. 1996. *Who owns Scotland*. Edinburgh: Canongate.

Zimmerman, M. 1996. Martin Heidegger: Antinaturalistic critic of technological modernity. In *Minding nature: The philosophers of ecology*, ed. D. Macauley, 59–81. London: The Guilford Press.

Chapter 11
Through Physical Education: What Teachers Know and Understand About Children's Movement Experiences

Trent Brown

> *The meanings of their [students'] educational experiences are never void of their bodily experiences although often we ignore or dismiss these experiences as unimportant. When doing so, educators and scholars design curriculum, organize students, and construct language in ways that limit rather than expand opportunities for students to be physically educated.*
>
> (Oliver 2001, p. 473).

Abstract The purpose of this chapter is to present findings from a research project that aimed to uncover teacher understandings and conceptions of children's subjective and 'intrinsic' movement experiences and associated meaning-making of such experiences within the context of school physical education. Subjective, 'intrinsic' meaning of movement experiences has not received due recognition within the physical education context. Movement is basic to bodily experiences and is at the core of the practice of physical education. A socio-ecological approach would suggest that to produce quality physical education, teachers need to understand and plan meaningful educational endeavours. Thus children's subjective intrinsic experiences will help them understand their feelings, sensory experiences and 'place in the world'. Eight specialist physical education teachers working in government secondary colleges were interviewed using semi-structured questions about their students' subjective movement experiences, the contribution of their teacher education program to their understanding of this, and how their curricula and teaching skills could be developed in this domain in the future. Analysis of the results has indicated that most physical education teachers interviewed have a global and superficial understanding and knowledge of the concepts related to children's subjective movement experiences, although their ability to articulate these

---

T. Brown (✉)
Faculty of Education, Monash University, McMahon's Road, Frankston, VIC 3199, Australia
e-mail: trent.brown@monash.edu

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_11, © Springer Science+Business Media Dordrecht 2014

is ‘clouded’ by dominant scientific expressions. Additionally, teachers intimated that their personal experiences in physical activities provided insight into how some groups ‘felt’ when participating in physical education. Implications for physical education teacher education (PETE) unit and program development are drawn, as well as suggestions for ongoing physical education professional learning opportunities.

Keywords Subjective movement experiences • Teacher understandings • Physical education

Introduction

Within the context of physical education there is renewed interest in the concepts of movement, movement experiences, meaning and meaning-making as they relate to the pedagogies of the body (Arnold 1979; Brown 2008). This research has not been abundant, but what has been available for four decades is conceptually rich and has provided untapped intellectual resources for theoretical development. However, locating and positioning the intrinsic qualities of movement within the physical education context and, importantly, how physical education teachers understand and practice such content requires understanding of how the context of physical education has been determined by social, cultural, historical and philosophical factors. As a result, two main research questions were developed to understand these movement-related concepts and external factors, namely:

- What are physical education teachers’ understandings and conceptions of children’s subjective movement experiences during school physical education?
- How do teachers see their understandings, conceptions and practices of physical education as contributing to the educational movement experience and meaning-making of the children they teach?

For quality and comprehensive physical education to occur, educators need to understand and plan for meaningful educational endeavours. Then students’ subjective intrinsic experiences will help them understand their feelings, sensory experiences and ‘place in the world’. As Kleinman (1979, p. 179) has argued, one of the key objectives of physical education should be to ‘discover the heretofore hidden perspectives of acts and uncover the deeper meaning of one’s being as it explores movement experiences’. From a more contemporary perspective, Tinning (2008, p. 26) writes that ‘human movement is as much a social experience as a biological experience, it is as much emotion as it is sweat’. Both scholars poignantly highlight that research must come to recognise the humanistic, philosophical and experiential outcomes in physical education.

For over 150 years there have been national and international debates and tensions about the purposes, aims, objectives and methods of physical education and physical education pedagogy. During this extended time the subject has been instrumentally conceptualised and functionally legitimised as an arm of government social policy (Gard 2008) and has contributed to the schooling and disciplining of bodies (Fitzclarence 1990; Kirk 1994, 2001). From teaching emphases on drill to educational gymnastics, participation in games and/or sport and identification and preparation of talented individuals, to participation in moderate to vigorous physical activity, these historical variations and meanings and purposes of physical education have led to varying notions of its pedagogy(ies). Amid this diversity, Tinning (2002) has argued for a generative notion of pedagogy that encourages more reflexive and critical thinking about the contributions of physical education's many sub-disciplines. For example, the dominant discourses of the biophysical sciences (e.g. anatomy, exercise physiology, motor development) still pervade much of physical education pedagogy (Johns 2005), while others remain on the margins, such as the subjective intrinsic experiences of movement. These experiences can be understood through an approach known as 'phenomenology'.

Phenomenology is a philosophical approach to describing the meaning and meaning-making of agents/actors/performers. In physical education such meaning and meaning-making occurs as a result of engagement and reflection on individuals' subjective and intrinsic responses to the moving experience. Phenomenology is the study of phenomena – the way things appear to us in experience or consciousness. According to Thorburn (2008, p. 265), 'the essence of an experience is its intentionality: the meaning of events, the meaning of embodied action including kinaesthetic awareness of one's movements and the importance of sensations as they are experienced by the body'. Although terms like essence are now frowned upon, language like 'joy' to describe, connote or evoke a certain type of meaning. Unfortunately, very little is known about the pedagogical actions of teachers, especially as it pertains to the intrinsic notions of the participant. Tinning (2010) goes one step further and states that 'we have not seen much of the phenomenological focus on pedagogy in kinesiology' (p. 410). Given this, the purpose of this study is to further elucidate the problem of the 'pedagogical encounter' between physical education teacher and student as it relates to movement and meaning-making of the child: more specifically, how physical education teachers incorporate 'intrinsic' phenomenological concepts of 'lived experience' into their classes. The timeliness of the research is that while movement is basic to bodily experience, its qualities and characteristics in education and health promotion discourses are not well understood. If such qualities and characteristics are not understood, the pedagogical potential of children's physical education experiences and learning within them is diminished.

Toward a Deeper Understanding of Socio-ecological Theory

The promotion of physically active, healthy and sustainable lifestyles can be advanced by addressing how the interactions of movement experiences, in a range of environments according to changing community contexts, shape the potential contribution of sport and outdoor recreation. Social ecology of sport and outdoor recreation, in particular the inter/trans-disciplinary study of movement, environment and community, provides a unique response to epidemics like ‘obesity’ and crises like ‘ecological’ (Monash University Faculty of Education Movement, Environment and Community research group central issue 2009).

The lack of research into teacher understandings and conceptions of children’s subjective and intrinsic movement experiences demands an adequate theoretical frame to inform the research design, data collection and interpretation. The concept of a ‘social ecology’ of movement (Brown and Payne 2008a), as it fits within broader discourses of education and health promotion, has only recently emerged (Stokols 1996; Maller at al. 2006). In drawing on a social ecology of education (Payne and Philpott 2008) I acknowledge a broad range of work, such as figurational sociology (Green 2002; Ward 2009), carnal knowing (Mellor and Shilling 1997), eco-philosophy (Cooper 2006), eco-pedagogy and eco-phenomenology (Brown and Toadvine 2003) as it pertains to the broad discourses in explaining human, social, cultural, more-than-human and environmental concerns that influence the ethico-political and intergenerational dimensions of the movement concept.

The importance to physical education pedagogy can be seen via the ‘ontology of movement’, where movement creates the qualities it embodies and that we experience. Furthermore, Smith (2007) foregrounds his descriptions of the significance of children’s movements with Sartre’s three dimensions of the human body (landscape, intention and glance), signalling the relationships importance to our understanding. In other words, movement cannot be divorced from environment, or as Smith, Van den Berg and Kleinman have written – drawing on Sartre – movement cannot be excluded from its landscape of action.

It is pertinent here to pause briefly and mention that two innovations underpin the significance of the study, namely (a) the need to move beyond philosophical, theoretical and conceptual work; and (b) the collection of empirical data on how physical education teachers understand, conceive of and contribute to the educational movement experience and meaning-making of the children they teach through an emerging socio-ecological theory of movement (educational research). I will now outline the importance of these innovations to this study.

Beyond Conceptual Work

While phenomenological work is present in physical education research, its current status and currency of research activity is not well established, nor self-evident. It is known that movement is basic to bodily experience, but the qualities and characteristics of the ‘body moving’ in different contexts, such as physical education, are not well appreciated, nor understood in the current education literature and health promotion discourses. Such limited understanding about the moving body also serves to undermine how ‘movers’ make meaning of their bodily movements according to the spaces and places of that movement. If so, ‘learning’ in and through movement, as is demanded in schools, primarily through subjects such as physical education and dance, is also undermined for those individuals who are responsible for the teaching and learning of bodily experiences.

The revitalisation of movement and movement education may contribute positively to intelligent responses to the otherwise deficit-discourses and negative rhetoric about lifestyle diseases and plausibly disengagement in schools, especially during physical education. Such research is significant and innovative, as it attempts to locate the ‘marginalised’ literature about movement and movement experiences in physical education into a broader, non-reductionist theoretical framework of social ecology and pedagogical platform of experiential education that informs curriculum inquiry and critical research development. However, before intervention or curricula development with physical education/dance/movement education teachers occur it is imperative that a sound empirical base, beyond the philosophical, theoretical and conceptual work of the past 40 years is undertaken.

Developing an Empirical Base with Teacher Educators Through a ‘Social Ecology of Movement’

A social ecology of movement (and education) seeks to understand how movement and physical activity, and meaning-making and learning, must also account for the perceptual and intentional affordances, enablements and constraints of the various environments that spatially and geographically influence the human and social experience of movement. The spatialisation of the body is well understood in physical education (for example, kicking the ball into the wind), but its qualities and theoretical underpinnings have been eroded by need for instrumental and technical ‘outcomes’. As Brown and Payne (2008b) have written, the connections between spatialisation of the body and geographies of physical activity, phenomenology and meaning-making are linked primarily through the work of Merleau-Ponty (1962). For example:

> The notions of ‘body schema’ and ‘intentionality’ (and consequently ‘flesh’), effectively point to the inseparability and connectedness of the body, in movement, in space and time, with the numerous environments in which movement occurs, is enabled and constrained (built, structured, urban, open, natural, treed, footpathed, river, wilderness – for example, we move in particular ways in water, in a pool, on a river, through a wave and so on). (Brown and Payne 2008a, p. 12)

As a committed researcher in physical education pedagogy and curriculum development, I am also aware of the frailties of promoting phenomenology solely as a ‘solution’ to solve an ever-present, complex problem. As Roberts (2008) and Ryan and Rossi (2008, p. 40) have cautioned:

> meaning-making that is regarded as exclusively socially constructed does not account for the varied and often contradictory perspectives that an individual simultaneously takes up

> and rejects, yet theories that consider meaning-making to be based only on individual psychology neglect to explain the influence of the social milieu on any verbal or non verbal interaction.

Meaning-making that an individual ascribes to his or her movement experience cannot be divorced from the social processes that exist. For as Denzin (1989, p. 186) has clarified for personal meaning-making ethnographic narrative, ‘it is dependent on the “private” folklore of the person or the group, although it may draw on broader cultural and ideological themes’. In fact, there is much consistency in the work that appears here, for example with Bourdieu’s (1984) concept of ‘habitus’, Archer’s (2000)‘primacy of practice’, Elias’s (1994) notion of the ‘figuration’ and Merleau-Ponty’s (1962) ‘primacy of perception’. This has led me to be more cognizant of looking beyond individualism, anthropocentrism, socialism, communitarianism or environmentalism. In this way, I wish us to distance ourselves from the pedagogical and methodological connotation of the individualised learner disconnected or displaced from his or her environments and, therefore, ask broader questions about the ways in which society is reconstituted, as indicated by Giddens, Bourdieu, Archer and James. Social ecology and experiential education seek to overcome the chronic lapses into individualism and isolated selves severed from others and the world in which we experience and exist. We want to move on from methodological individualism in much the same way (Payne and Philpott 2008).

The purpose of the development of the concept of a social ecology of movement and movement education is to develop and contribute in a positive manner a series of intelligent responses to the current dominant deficit discourses.

Brown’s (2008; Brown and Payne 2008a, b) ongoing research examining movement, meaning, meaning-making as experienced through subjective, intrinsic qualities of movement and physical activity participation highlighted that:

> The challenge for us and physical education is for physical educators to recognize how the nascent but revitalizing phenomenology and social ecology of physical education can enhance its endeavours conceptually and practically in ways that have not been previously envisaged, or only partially so. (Brown and Payne 2008a, p. 14)

Such a call requires that the literature of a phenomenology of movement in physical education, or educating physically (Smith 1997), highlights the importance of ‘pedagogical encounters’ between teacher and child/student. Smith (1992, p. 62) writes:

> We need to suspend belief in how children’s physical education can be explained and be prepared to describe how it is possible for an adult to stand in an educative relation to children within particular, somewhat unique, situations that carry significant connotations of physical maturation.

Physical educators, therefore, need to understand, conceive of and plan for meaningful educational endeavours whereby the body-subject, the lived experiencer – likely to be the children in physical education classes – experience, feel, see, know and understand *themselves* through movement.

Approach and Methodology

The specific challenge for PETE research is to move beyond the philosophical and theoretical literature that has been available for four decades towards empirical research and understanding the centrality of movement experiences. Thus future educators and professionals concerned about health and wellbeing and educational experiences can critically examine their practices and policies. A revitalised notion of movement, and understanding of the various contexts and environments in which movement occurs, will enable deeper consideration of how the discourses of physical education and human movement can be reconceptualised in school-based pedagogies.

This study employed an interpretive design incorporating semi-structured interviews with eight specialist secondary physical education teachers in government schools, underpinned by socio-ecological theory. Informed consent was obtained prior to the semi-structured interviews, which were 60–75 min in duration. Interview questions were developed from the literature review and were those that best represented the intent of the study.

The questions were open ended and designed to promote conversations about participants' experiences, and their knowledge and understanding of subjective movement experiences, especially in relation to the teaching of secondary school physical education.

All interviews were recorded using a digital audio device and were later transcribed. Transcripts underwent an exhaustive thematic analysis and an analysis of oppositional relations (Patton 2002). Each theme was coded in NVIVO, using a system whereby the themes (or nodes) can be assigned to the transcribed text as they occur and then later recalled for analysis. Content analysis followed the interpretive methods advocated by Strauss (1987).

Findings and Analysis

As part of the semi-structured interviews, participants were asked a range of open-ended questions about their teaching of physical education (current pedagogy, examples of typical lessons). Knowledge and understanding of children's subjective movement experiences was the dominant theme, but participants were also asked questions about their university training/education, their professional learning opportunities, and how they saw the profession developing in the future, all 'framed' by notions of the subjective, intrinsic and personal. From this conversation in an interview with one teacher, which summarises a consistent, yet important aspect of most teachers' understandings: 'Yeah, it's a hard one isn't it? The enjoyment for the body is very much a perception thing' (male, experienced teacher).

This statement summarises succinctly what most physical education teachers interviewed intimated about their understanding and knowledge of the subjective and personal meanings of children in their classes. It was clear from the interviews that most participants possess a global understanding and knowledge of the concepts related to children's subjective movement experiences, and that this global understanding resonates as a component of educating the whole person as 'through, about and in' movement (Arnold 1979). Yet their ability to articulate through meaningful language was often compromised by a default bio-scientific language associated primarily with exercise physiology, likely to be a result of the large scientific content in their undergraduate degree programs – a fact noted as consistent with the dominant discourse of physical education since the 1980s (Johns 2005; Kirk 1990; Tinning 2002). Take, for example, the following exchange:

> Q: Think back to your undergraduate program and tell me if there are any concepts related to the notion of movement experiences.
>
> A: ... in terms of bio phys and movement experiences, some of the maximal testing [referring to exercise physiology testing] that we did and experiencing that feeling probably I would put that under movement experience.
>
> Q: What's that feeling?
>
> A: That feeling of what it means to be at your max I guess. That feeling of exhaustion; that you've got so much lactic acid in your legs that you can't walk. To have the heart pounding out of your chest, to be out of breath, those sorts of maximal feelings of exhaustion and so forth ...

Teacher Preparation

In examining the role of teacher preparation, it is apparent that little or no time is spent in PETE programs examining the importance of the personal, subjective and intrinsic experiences and meanings that occur through movement, from either a participatory perspective or within or using a pedagogical 'lens' or 'frame'. A couple of those interviewed did state that discipline study in sociology was apparent in their undergraduate courses, but that this was more analysis of sport on a greater scale and that subjective movement experiences were rarely if ever discussed outside 'aesthetic' activities such as dance or gymnastics:

> Never. I'm just thinking, because I did an Applied Science and then Dip Ed, we would have touched on it in Dip Ed, but no. (Female, experienced teacher)
>
> It's funny for a degree that is so focused on physical education, you have to actually spend so much time not looking at that as something of importance at all. (Male, experienced teacher)
>
> Never, never. Maybe the only places you ever, ever heard it mentioned and I don't think it was mentioned for any other reason than I think it's a bit of an inherent thing within it, is in dance. That's probably the only place or time I ever heard mentioned the joy of the movement and self-expression of movement. All the rest of it was technical skill development. (Male, very experienced teacher)

Such findings are not that unexpected, given the work of Swan (1995), MacDonald (1992) and MacDonald and Tinning (1995), who individually examined student-teacher preparation in PETE and professional socialisation, where sociocultural understandings were perceived as less important than knowledge associated with biophysical foundations. It is also consistent with the dualisms that are inherent in physical education between mind-body/body-mind, applied science degree/education degree, biophysical/socio-cultural ways of knowing and sport and games/gymnastics and dance (Rintala 1991). As a result, degree programs must move beyond such simplistic binaries, as mentioned above, and embrace the importance of the intrinsic and subjective. Several PETE degree programs in Victoria have taken up this challenge, so it will be interesting to see if in the future such ‘education’ has had an impact.

Understanding the Nature of the Experience

According to Brown and Payne (2009) it is imperative that the nature of the experiencer – where the embodied, ecological and meaning-making of the individual is kept pure and is not ‘poisoned’ by another’s experience. Archer (2000) writes that concepts such as self-consciousness, thought, emotionality and personal identity are prior to and more basic than the acquisition of our social identity. Such work directly contradicts much of the previous work on the social construction(s) of the body(ies) and acknowledges that critical realism has neglected the causal powers of subjectivism. Importantly, respondents acknowledged their subjectivities:

> I was naturally inclined to experience joy when I was active, but most people weren’t. (Female, experienced teacher)

Further to this, teachers either individually or as a team sought to understand via mimesis (Smith 1991, 2007) what children who were fearful of physical education felt like and sensed in their lessons. They engaged in a range of activities, performing and participating in dance or singing, reflecting and thinking about their ‘experiences’ from a subjective stance. In other words, they wanted to know more about themselves and their students’ experiences and meaning-making in learning:

> In our PLT [professional learning teams] … we wanted to put ourselves, we were trying to look at ourselves from a student in our class who is fearful of any activity that we were asking them to do, understanding that we often do that to kids in our subject. And so we tried to find something that would make all of us feel that way, and we’re like skydiving, ‘Nah I love that’, all these crazy things for a Phys Ed/Outdoor Ed faculty, and then someone said ‘singing’, and everyone said, ‘I’m not doing that’. And we went ‘That’s it’, and everyone’s like, ‘No. I’m not doing that.’ And it was perfect. So then we had to work really hard on encouraging each other to do it, even just to accept that we were going to do it. And then we did; we got the singing teacher to teach us, and we noted all of our feelings when we were having to do it, and we performed, we videoed it and we showed it to the staff. So we put ourselves totally through that experience to try and understand what a kid feels like in our class. (Female, very experienced teacher)

Another teacher with 7 years experience took a challenge to further understand what it would feel like to be a participant in an activity that she was not comfortable with – dance:

> So I went into it really nervous, because I can’t … I’m not coordinated at all when it comes to that whole rhythm movement stuff. Which is strange because when I was little I did

> calisthenics for many years and I guess that was more a structured thing than a movement. But yeah it was just that whole uncomfortable, you're out of your own confident circle, and you're with people you don't know at all, so that makes it even harder to make a fool of yourself I guess, in many ways. (Female, experienced teacher)

Experience, Success and Challenge

Positively, findings from this study have highlighted how some teachers engage in mimesis to more fully understand the experiences of children they teach. Partially overshadowing these responses, however, was the desire of those interviewed to express experience in terms of instrumentality and functionality, be that challenge, self-concept, skill development or success:

> They are enjoying themselves out there, so whether that's shown in a smile or whether it's not, but they are enjoying themselves and that comes through being challenged and having a teacher that motivates and has rapport with you. (Male, experienced teacher)

> ... it's the student succeeding and it's the teacher giving them praise or acknowledgment that they have succeeded. (Female, beginning teacher)

> ... I would hope that they experience success every time that they come to phys ed class, so not necessarily scoring a goal or anything like that, but just practising the skill and getting the feel of the skill correctly, make them feel like 'Yep, that was successful. Okay, I can put that in my memory bank for next time when we come back to it' sort of thing. (Female, beginning teacher)

> It needs success, so you need success to enjoy what you're doing and success doesn't have to be 10 free throws in a row. (Male, experienced teacher)

This demonstrates what Arnold (1979) stated as examples of education 'through' movement. Such extrinsic reasons for pursuing movement in physical education may be appropriate because they in fact lead to a desirable educational outcome. The teachers in this study have articulated that while they understand experience, primarily in terms of instrumentality, what they have not expressed eloquently enough is the importance of performing movement for its intrinsic purposes or reasons. Arnold calls this education 'in' movement and espouses the philosophy that movement (in physical education) is indeed worthwhile in and of itself.

Implication for 'Movement Education' Teachers and Researchers

This research has provided some initial evidence on what teachers know and conceive about children's subjective knowledge in physical education. It is likely that some teachers and practitioners will be confronted by such ethnographies, but I feel that the significance of an individual's sensory 'scapes' (Sparkes 2009) gives example to a 'corporeal (re)turn' (Brown and Payne 2009), where the embodied basis of meaning and meaning-making of deep, intrinsic, somaesthethic and subjective feelings as experienced by individuals through movement, contributes significantly to the ‘education’ of the moving actor. In this sense some teachers are developing deeper pedagogical relationships – as highlighted by van Manen (1997) – where the child does not get marginalised in the process of developing curriculum and pedagogical approaches consistent with subjective, intrinsic ways of knowing (Smith 1991).

The importance of acknowledging such discourses, I believe, has the potential to re-energise and renew the respective fields, while also challenging long-held beliefs of practitioners to look beyond the concrete, post-modern, objective, ‘everything must have an answer’ mentality pervasive in society and within the movement education sub-disciplines.

Clearly, as educators of the moving body we need to be sensitive to the educational experiences that are held in class or on the sporting field. This chapter has highlighted the often-forgotten aspect of physical education, outdoor education, dance education or sport – the subjective experiences had by the participant/student. Wattchow, Burke and Cutter-MacKenzie (2008) describe the concept of ‘place’ in outdoor education, which I believe offers similarities to the moving body. For example:

> A person’s embodied response to place (read moving body) precedes, but is linked to, their social constructions of that place (read moving body) – the layers of interpretation that the learner develops – whether they be through personal narrative, or historical, scientific or aesthetic ways of knowing that place (read moving body). (p. 31)

The moving body is complex and it can be examined through various research ‘approaches’. It is important that researchers and practitioners continue to advocate and develop various pedagogies, curricula and approaches to their work, so that the multi-layered qualities of bodily movement and how individuals come to make meaning of their movement becomes an ingrained component of their moving educational experiences.

Concluding Comments

As evidenced in the Chap. 9, there is still much work to be done to enact a pedagogy in physical education contexts that is consistent with the child’s personal and subjective understandings. Chapters 2 and 3 highlighted the centrality of understanding lived experience to a socio-ecological approach to education. This chapter has illustrated from a socio-ecological perspective the importance of the individual’s meaning-making (Brown 2008; Brown and Payne 2009) via deeper understanding of their personal, subjective and intrinsic ‘knowledge-making’ as a result of participation in movement within the physical education context. Understanding how children engage with movement in personal, social and cultural ways calls into attention the knowledge, understanding and pedagogy of physical education teachers.

Thus this research has focused on the individual and how they come to make meaning from their personal, subjective and emotional responses to participation in movement-related disciplines, beyond those behavioural models seen in health promotion. A socio-ecological approach to physical education encompass within pedagogies approaches that consider an individual's emotional experiences of movement alongside more traditional approaches that engage with their psychomotor domains.

Acknowledgment This project was funded by a Monash University Faculty of Education seeding grant for 2009. The chapter has been reproduced in part from work that was presented at the 27th International/National ACHPER conference held in Adelaide in 2011. Additional theoretical work in the area of social ecology and phenomenology has also been included to re-frame and re-present the findings.

References

Archer, M.S. 2000. *Being human – The problem of agency*. Cambridge: Cambridge University Press.

Arnold, P.J. 1979. *Meaning in movement, sport and physical education*. London: Heinemann.

Bourdieu, P. 1984. *Distinction: A social critique of the judgement of taste*. London: Routledge.

Brown, T.D. 2008. Movement and meaning-making in physical education. *ACHPER Healthy Lifestyles Journal* 55(2/3): 1–5.

Brown, T.D., and P.G. Payne. 2008a. *The concept of movement and its social ecology*. Paper presented at the Australian Association of Research in Education (AARE) International Education Research Conference, Queensland University of Technology [QUT] Kelvin Grove, November 30, 2008–December 4, 2008.

Brown, T.D., and P.G. Payne. 2008b. *Theorising a phenomenology of movement for physical education pedagogy: A synthesis of key ideas*. Paper presented at the British Educational Research Association annual conference, Heriot-Watt University, Edinburgh, 30 Aug–4 Sept.

Brown, T.D., and P.G. Payne. 2009. Conceptualizing the phenomenology of movement in physical education: Implications for pedagogical inquiry and development. *Quest* 61(4): 418–441.

Brown, C., and T. Toadvine. 2003. *Eco-phenomenology: Back to the earth itself*. Albany: SUNY Press.

Cooper, D.E. 2006. *A philosophy of gardens*. Oxford, UK: Oxford University Press.

Denzin, N.K. 1989. *The research act*, 3rd ed. Englewood Cliffs: Prentice Hall.

Elias, N. 1994. *The civilizing process: The history of manners and state formation and civilization*. Oxford: Blackwell.

Faculty of Education. 2009. Movement, environment and community – research group. Retrieved 19 May 2009, from http://www.education.monash.edu.au/research/groups/mec/focus.html

Fitzclarence, L. 1990. The body as commodity. In *Sport and leisure: Trends in Australian popular culture*, ed. D. Rowe and G. Lawrence, 96–108. Sydney: Harcourt Brace Jovanovich.

Gard, M. 2008. Producing little decision makers and goal setters in the age of the obesity crisis. *Quest* 60(4): 488–502.

Green, K. 2002. Physical education teachers in their figurations: A sociological analysis of everyday 'philosophies'. *Sport, Education and Society* 7(1): 65–83.

Johns, D.P. 2005. Recontextualising and delivering the biomedical model as a physical education curriculum. *Sport, Education and Society* 10(1): 69–84.

Kirk, D. 1990. Knowledge and science and the rise of human movement studies. *Australian Council for Physical Education and Recreation National Journal* 12(7): 8–11.

Kirk, D. 1994. Physical education and regimes of the body. *Australia and New Zeland Journal of Sociology* 30(2): 165–177.

Kirk, D. 2001. Schooling bodies through physical education: Insights from social epistemology and curriculum history. *Studies in Philosophy and Education* 20: 475–487.

Kleinman, S. 1979. The significance of human movement: A phenomenological approach. In *Sport and the body: A philosophical symposium*, ed. E.W. Gerber and W.J. Morgan, 177–180. Philadelphia: Lea & Febiger.

MacDonald, D. 1992. *Knowledge, power and professional practice in physical education teacher education: A case study*. Geelong: Deakin University.

MacDonald, D., and R. Tinning. 1995. Physical education teacher education and the trend to proletarianization: A case study. *Journal of Teaching in Physical Education* 15(1): 119–987.

Maller, C.J., M. Townsend, A. Pryor, P. Brown, and L. St. Leger. 2006. Healthy nature healthy people: 'Contact with nature as an upstream promotion intervention for populations'. *Health Promotion International* 21: 45–54.

Mellor, P., and C. Shilling. 1997. *Re-forming the body*. London: Sage.

Merleau-Ponty, M. 1962. *Phenomenology of perception*. London: Routledge & Kegan Paul.

Oliver, K. 2001. Philosophy and physical education: Exploring body-narratives – Introduction. *Studies in Philosophy and Education* 20: 473–474.

Patton, M.Q. 2002. *Qualitative research and evaluation methods*, 3rd ed. Thousand Oaks: Sage.

Payne, P.G., and T. Philpott. 2008. *A social ecology of movement, environment and community*. Paper presented at the Australian Association of Research in Education (AARE) International Education Research Conference, Queensland University of Technology [QUT] Kelvin Grove, November 30, 2008–December 4, 2008.

Rintala, J. 1991. The mind-body revisited. *Quest* 43: 260–279.

Roberts, J. 2008. From experience to neo-experiential education: Variations on a theme. *Journal of Experiential Education* 31(1): 19–35.

Ryan, M., and T. Rossi. 2008. The transdisciplinary potential of multiliteracies: Bodily performance and meaning-making in health and physical education. In *Multiliteracies and diversity in education – New pedagogies for expanding landscapes*, ed. A. Healey. Melbourne: Oxford University Press.

Smith, S.J. 1991. Where is the child in physical education research? *Quest* 43: 37–54.

Smith, S.J. 1992. Studying the lifeworld of physical education: A phenomenological orientation. In *Research in physical education and sport – Exploring alternative visions*, ed. A.C. Sparkes, 61–89. London: The Falmer Press.

Smith, S.J. 1997. The phenomenology of educating physically. In *Phenomenology and educational discourse*, ed. D. Vandenburg. Durban: Heinemann.

Smith, S.J. 2007. The first rush of movement: A phenomenological preface to movement education. *Phenomenology and Practice* 1: 47–75.

Sparkes, A.C. 2009. Ethnography and the senses: Challenges and possibilities. *Qualitative Research in Sport and Exercise* 1(1): 21–35.

Stokols, D. 1996. Translating social ecological theory into guidelines for community health promotion. *American Journal of Health Promotion* 10(4): 282–298.

Strauss, A. 1987. *Qualitative analysis for social scientists*. Cambridge, England: Cambridge University Press.

Swan, P. 1995. Studentship and oppositional behaviour within physical education teacher education: A case study; and between the rings and under the gym mat: A narrative. D.Ed thesis, Deakin University, Melbourne.

Thorburn, M. 2008. Articulating a Merleau-Pontian phenomenology of physical education: The quest for student engagement and authentic assessment in high-stakes examination awards. *European Physical Education Review* 14: 263–280.

Tinning, R. 2002. Toward a 'modest pedagogy': Reflections on the problematics of critical pedagogy. *Quest* 54: 224–240.

Tinning, R. 2008. From Dr Fritz Duras to the ‘obesity crisis’: Observations on the evolution of human movement studies as an academic field. *ACHPER Healthy Lifestyles Journal* 55(4): 21–27.

Tinning, R. 2010. *Pedagogy of human movement: Theory, practice, research*. London: Routledge.

van Manen, M. 1997. *Researching lived experience: Human science for an action sensitive pedagogy*. London: Althouse Press.

Ward, L. 2009. Physical education teachers’ engagement with health related exercise: A healthy profile? Unpublished doctoral thesis, Loughborough University, Leicestershire.

Wattchow, B., G. Burke, and A. Cutter-Mackenzie. 2008. *Environment, place and social ecology in educational practice*. Paper presented at the Australian Association of Research in Education (AARE) International Education Research Conference, Queensland University of Technology [QUT] Kelvin Grove, November 30, 2008–December 4, 2008.

Part III

Chapter 12
Conclusions and Future Directions: A Socio-ecological Renewal

Brian Wattchow, Trent Brown, Ruth Jeanes, Justen O'Connor, Amy Cutter-Mackenzie, and Laura Alfrey

Abstract At the heart of this book has been the acknowledgment that there exist different ways of seeing and, consequently, different ways of knowing the world. The rich and diverse case studies that make up Part II of the book have seen respected authors from the varied disciplines of physical, sport and health education, outdoor and environmental education and early childhood education come together, utilising the multi-disciplinary framework of socio-ecological education. They have done so because of their belief that a socio-ecological theory and requisite methodological approaches offer the opportunity for renewal for researchers and practitioners in their fields. A significant part of this renewal involves reaching beyond disciplinary boundaries, or silos as we called them in the introduction chapter, to forge new connections. Overcoming these 'invisible' structures that can govern how we see, think and act is central to the work of the socio-ecological educator and is evident in many of the case studies. To that end we want to spend a little time here, in the conclusion, discussing this issue.

Keywords Educational renewal • Socio-ecological educator • Early childhood • Physical education • Outdoor education • Environmental education

Within our respective disciplines, there have existed various claims on so-called 'core' knowledge. The historical and philosophical basis of many of these claims can be seen as a result of a 'turn' within academic circles that privileged scientific

---

B. Wattchow (✉) • T. Brown • R. Jeanes • J. O'Connor • L. Alfrey
Faculty of Education, Monash University, McMahon's Road,
Frankston, VIC 3199, Australia
e-mail: Brian.Wattchow@monash.edu; Trent.brown@monash.edu; Ruth.jeanes@monash.edu; Justen.oconnor@monash.edu; Laura.alfrey@monash.edu

A. Cutter-Mackenzie
School of Education, Southern Cross University, Gold Coast, QLD, Australia
e-mail: acutterm@scu.edu.au

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3_12, © Springer Science+Business Media Dordrecht 2014

ways of knowing. While scientific knowledge remains important, privileging it marginalises other approaches to research and pedagogic practice. It was Thomas Kuhn who popularised the term ‘paradigm’ in his book, *The Structure of Scientific Revolutions* (1962). A paradigm, according to Macdonald (2002), provides a particular way of seeing and making sense of the world – in this way it shapes how we think and act. Within each of the disciplines that encompass this book, there has been some form of ‘paradigm wars’ in recent decades. These ‘wars’ tended to be played out in academic discourses during the 1980s and early 1990s and historically saw scientists (those with a positivistic outlook) position themselves at one end of the continuum, with social constructivists (those with a post-modern, post-structural or feminist outlook) at the other. Remnants of such artificial binaries are still visible today, be they in research, teaching or different university faculties. For example in physical education this divide exists as an exercise science-human movement studies binary. In outdoor education it remains a battle between adventure-environmental viewpoints and within environmental education as a contest between environmental science-environmental studies. Clearly, each side of these binaries operates with a different set of ontological, epistemological and methodological beliefs. To provide further evidence of this point, we want to explore an example from the discipline of human movement.

Most of us have at some point in our lives ridden a bike. The movement of cycling is relatively simple – we sit on the seat, turn the pedals, which drive the chain that moves the wheels. When (exercise) scientists see a cyclist they may wish to know more about their training program, the intensity at which they ride, the angles of different parts of their body. What they are doing is objectively looking at the ‘physical’ body. The body is seen, like the bicycle itself, as a machine. This is one way of knowing – the scientific way. However, there exists a great deal of literature on the philosophy of cycling, the history of cycling and even the sociology of cycling. Moreover, we are also coming to understand more about the lived experiences of the cyclist as well! These latter approaches, and those who research using them, arise from different ontological, epistemological and methodological starting points. Neither should be seen as ‘wrong’ or ‘right’ or better than the other; they just use different apparatus or ways of thinking and being to gain insights into the phenomena they are studying. From our perspective, while we tend to use qualitative approaches to research, we acknowledge that there exist different ways of knowing and therefore different ways of viewing and being in the world.

As we have argued throughout *The Socio-ecological Educator*, such approaches and divisions are characteristic of Western modernity. So persistent have these divisions become that they now inform the structures of almost all formal Western education and learning environments, from kindergarten to university. They give a flawed conceptualisation of how people actually live in, and experience, the world. As much as specialisation has afforded progress through a variety of developments, it has also hindered integrated and holistic understandings and practices. Our central argument is that early childhood, primary, most of secondary and even significant components of tertiary education should not be held in the grip of specialisation. The world badly needs citizens who can see and work in inter-disciplinary ways.

We believe that these old disciplinary walls, which until quite recently seemed certain and stable, are cracking apart under the strain and complexity of ‘new’ challenges facing society. A critical reader of this book would see that some of the writing and case studies presented here seem to represent only subtle or minor challenges to the old structures. Other sections and case studies may seem to offer more radical solutions. Both responses, we argue, are needed and appropriate at this point in time.

We have attempted to make the case that health and physical education, outdoor and environmental education, and early childhood education are approaches to education and learning that have much to benefit from opening up new pathways of communication and collaboration. Striving to find common ground, without sacrificing distinctiveness, is crucial to socio-ecologically inspired renewal. Two exciting possibilities emerge. First, new ways of exploring complex phenomena arise when inter-disciplinary work is done. So called specialists come together in a spirit of collaboration to share distinctive viewpoints with a mutual purpose of discovering solutions to real-world problems. Similarly, individuals or groups can research issues and develop innovative solutions by deliberately including inter-disciplinary knowledge and approaches to inquiry. Such an inquiry must balance multiple starting points, perspectives and methodologies in a collective narrative. We argue that such approaches are inherently socio-ecological in character. Second, socio-ecological researchers and practitioners are emerging who are working from the ground up. In other words, their perspective and practice is socio-ecological from the outset. Is this a new ‘silo’; a new form of specialism? Or does it represent a fundamentally different way of seeing and being in response to changed environmental and social conditions where hyper-specialisation is part of the problem rather than the solution? Only time will tell. Certainly this provides the more radical challenge to existing knowledge structures. From such a viewpoint the ‘silos’ themselves are artificial contrivances, a habitual way of thinking about human knowledge and activity that limits new forms of practice.

In the following section, we both reflect on and summarise the possibilities that emerged out of the case studies, but also turn our attention to the future. What key changes or developments are needed to energise a shift towards a more socio-ecological future in education? How can we, as socio-ecological educators, work both within and across our disciplines to bring the old walls down, which in turn will open the way to a more optimistic future? We consider these questions by returning to our foundational concepts (as identified and discussed in Chap. 2): lived experience, place, experiential pedagogy and agency and participation. We examine what our case studies tell us about these concepts but also what is required to advance both research and practice in these areas in the future.

Towards a Renewal of Lived Experience

Undertaking reconceptualisation or renewal, in this sense of lived experience, immediately calls into question the nature of one's experience. What is it? How might we 'do' lived experience? Can we research or teach it? We understand lived experience as van Manen (1997) does, drawing on the work of Dilthey (1985), that 'in its most basic form lived experience involves our immediate, pre-reflective consciousness of life: a reflexive or self-given awareness which is, as awareness, unaware of itself' (p. 35). The essence of understanding our lived experience comes from privileging the knowledge we generate from our 'physical' body. In this way the deeply intrinsic, subjective, emotional and aesthetic qualities of our understandings – be that in the contexts of physical and health education or outdoor and environmental education – are valued for what they are and what they mean to the individual.

To unpack this a little further, it is worth returning to the discussion we first introduced in the introduction. The 'methodological' approach we employed in Part I of the book, using personal stories through life histories, modeled and foregrounded our lived experiences as children, teachers, academics, scholars and researchers. We wanted to give affordance to our stories because, as Sparkes (1999, p. 19) writes, it is 'in the telling, listening and reading of stories the opportunity arises to share experiences about our own lives and the lives of others'. During the process of writing these stories, we demonstrated the initial tenet of lived experience, that of the temporal structure (van Manen 1997). Furthermore, scholars such as Arnold (1979), Bain (1995) and van Manen (1997) all write that lived experiences can be understood and made meaningful only as a result of reflection.

It is through this process of introspection and interpretive examination that we come to understand life and its essences and meanings. As Dilthey (1985) in van Manen (1997) reminds us, lived experience is to the soul what breath is to the body. We hope that you acquired an insight into our souls, shared our dreams and perhaps reflected upon the nature and significance of your own lived experiences in some way through at least one or a combination of these stories. In reading them your interpretations and considerations may have been in line with how some of us feel at times: that in some senses we are 'working on the margins'. While we feel this is a reality of our work, we are optimistic that we are on a crest of an upward movement that sees lived experience, place, experiential pedagogies and agency all as foundational concepts in *The Socio-Ecological Educator*.

For Arnold (1979), the 'nature of the experiencer', or one's lived experiences – be they in health and physical education or environmental or outdoor education – are the basis for how one's identity is formed. Committed to a similar ideal is Archer's (2000) 'primacy of practice', which tells how an individual's experience – their practice, forged (with)in environments and social relations – develops one's 'sense of self'. What is consistent here is that these examples of socio-ecological approaches to education 'connect' the individual to their environment via personal ecologies, which afford and privilege their physical 'body' in the existential qualities of time and space. Such a nuanced understanding is consistent philosophically, conceptually and contextually with Merleau-Ponty's (1962) notion of being-in/with-the world.

For those researching and working in the educative professions, concepts such as subjectivity, intentionality, embodied meaning and reflective practice and how they impact the researcher and the researched have the potential to impact learning, pedagogical practice and curriculum theory and development. In Brown's chapter examining how teachers taught students about their movement experiences, the distinct lack of an appropriate language to use with the students about their feelings, emotions, subjectivities and their meaning-making was evident. This finding is not surprising given that researchers like Sparkes (2004) and Denison and Markula highlight that 'it seems unlikely that we will ever be able to produce truly embodied accounts of people's movement experiences given the current research climate and emphasis on language and texts, we did [sic] acknowledge that more evocative ways of writing might approximate closer interpretations of people's movement experiences' (2003, p. 18). Such a statement gestures towards the aim of phenomenological research, which is to take lived experiences and translate them into textual expressions (van Manen 1997). These views are entirely consistent with how we see a socio-ecological approach in education. It asks researchers and practitioners alike to consider the centre of the model – the individual – not just in terms of his/her behaviour, but in ways that prioritise an individual's primordial, pleasurable, aesthetic, subjective and intrinsic way of knowing and understanding themselves (Archer 2000; Pringle 2010; Sheets-Johnstone 1999; Shusterman 2008).

Many, if not all, of the case studies presented in the chapters in Part II challenged so-called assumptions about traditional practices that have existed in their respective disciplines (e.g. health and physical education, environmental and outdoor education) or more broadly in research. This critique has been overt because, historically speaking, education has often served to undermine an individual's lived experience. This is especially due to education's explicit and implicit use of objective and scientific ways of knowing, as well as through technocractic practices and tools such as NAPLAN (National Assessment Program – Literacy and Numeracy) in Australian schools. Such practices dismiss more balanced and nuanced views of the learner as, in the end, teachers find themselves pressured to teach to the test.

O'Connor, Jeanes, Alfrey and Wattchow (Chap. 3) use diverse vignettes to provoke readers to consider their practice. They provide apt examples of real-life scenarios that practitioners engage with every day. In each of these 'cases' it is possible to understand how certain types of pedagogies get entrenched in practice, but the authors ask readers to reflect on their own lived experiences as they read these narratives. This literary device prompts the reader to reflect upon how pedagogies, including their own, can influence students' learning. The take-home message is one that asks educators to 'hear' (Wattchow and O'Connor 2003) and understand a learner's lived experiences, and offer their own experiences, expertise and teaching ability so that students can develop meaningful, contextually rich, personal understanding from their educative experiences.

Chapters by Wattchow and Boyes, Wattchow and Higgins and Cutter-Mackenzie and Fulton all present a ‘different take’ on the importance of lived experiences, namely from their perspectives as researchers. Each of these chapters highlights how the lived experiences of the (i) researcher-as-actor (in the case Boyes as actor in the NZ curriculum process interviewed by Wattchow); (ii) researchers-as-guides (for Wattchow and Higgins as river guides in a postgraduate course); and (iii) teachers/academics-as-researchers (for Cutter-Mackenzie and Fulton in their respective auto-ethnographies contenxtualised through their teaching practices) can be understood and (re)presented. Each of the authors has demonstrated careful understanding of the ‘different options available regarding the ways of representing their research’ (Markula and Silk 2011, p. 191). Traditionally such representations have tended to draw on the work of Sparkes (2004), Hopper et al. (2008) and Denison and Markula (2003) to highlight the importance of the *representation* of lived experiences. Such forms have included poetic representations (Sparkes et al. 2003), fictional representations (Nilges 2001), confessional tales (Brackenridge 1999), narrative inquiry (Murray Orr and Olson 2001) or ethnodrama (Brown 1998). Yet each of these chapters has further developed the writers’ representation styles. In themselves the chapters can be read as evidence of socio-ecological beliefs and practices at work. A cyclical process is evident where lived experience, reflection and representation culminate in a pedagogic narrative about a particular experience in time and place. As a result the writer-researcher comprehends ‘their’ world a little better and, it is hoped, the narrative provides rich material for reflection on the part of the reader.

As examples, Wattchow and Boyes used an interview followed by interpretation to present their work. The rich narratives of *Headwater* and *Launching onto the surface of the Way*, *Setting out on the Way of the Spey*, *Learning the Way of the Spey*, *Being the Way of the Spey* took us to the wild and cold Scottish river in the minds and bodies of the authors, Wattchow and Higgins, whereas Cutter-Mackenzie and Fulton used poems, auto-ethnographies and author-inspired narratives as representations in *Ecologising Schooling* to remind us of the importance of the lived experiences of educators. While some outside qualitative research question its value as a ‘real’ method, increasingly the following criteria are being used as ways of understanding its importance. Textual representations should be trustworthy and have a strong sense of verisimilitude (the appearance of being true or real; it should take the reader there). They should have the quality of plausibility (they should ring true). Member checking can be used (texts taken back to the participants for consensus), and they should be reflexive (they should guide professionals to reflect upon their own situation and help them make their own decisions) (Gratton and Jones 2004).

The Connect Our Community project discussed by Alfrey and O’Connor in Chap. 6 has been underpinned by a body of work that seeks to develop a socio-ecological framework for physical education, which aims to shift the focus towards more multi-dimensional understandings of what it means to be ‘physically educated’ (O’Connor et al. 2012). Their framework is important in the understanding of lived experience of participants, as it asks both the educator and the learner to consider how play, games and sports can be meaningfully connected to the everyday lives of the participants. Their research reported on insights perceived by teachers and students that encouraged experiences of community and the interesting places within it through movement, in:

> experiencing community and questioning the personal, inter-personal and environmental factors that reflect our multi-level social ecologies means that students have [lived, added] experiences that better equip them to contribute meaningfully to society, to feel more connected to their communities and as a consequence, are (physically) educated in ways that encourage an appreciation for the everyday (p. 116).

Sharing many similarities to this work by Alfrey and O'Connor was the case study presented by Bone. Her chapter examined an early childhood perspective from a New Zealand preschool that introduced the Reggio Emilia philosophy as a way of connecting the child's lived experiences in preschool in and with the community. The preschoolers go 'out' into the community and the community comes 'in' to the preschool. The complex interplay between the concepts of belonging in the early childhood curriculum, community, socio-ecological frames and child development theories is explored in depth. The lived experiences of the actors, here being the early childhood educators, children and parents, are all richly explored through thick description and analysis in the chapter. Similarly to Alfrey and O'Connor, Bone remarks, 'the children learned more and more about the history of their place and the environment where they lived' (p. 137).

Throughout the book, we as authors have often confronted issues about the various discourses of education, sports coaching or outdoor leadership. Generally, in response we have acknowledged how such discourses have been historically, socially, culturally and ecologically conceptualised, contextualised, represented and legitimised within the respective disciplines and discourses that we work in. We acknowledge that the pedagogical and research demand on such a future direction is complex. What it calls for from both researchers and educators is an openness to 'ways of knowing', which affords the lived experiences and the nature of the experiencer prominence alongside more traditional ways of practising health and physical education, outdoor and environmental education. An approach that is congruent with the call more broadly in the literature is, we believe, very promising and has great potential to add depth, richness and value to the pedagogy and curriculum in the educative professions.

Towards a Renewal of Place

'It's about time', or so the old saying goes. Well, it's about place as well as time. Place, and a sense of place, are ancient ideas. Aristotle was writing about them: 'The power of place will be remarkable', he wrote in *Physics* (cited in Casey 1997) 300 years before the birth of Christ. Yet much of contemporary or 'mainstream' experience, even in the fields of education we have discussed in this book, is one of placelessness. How did we lose sight of the fundamental importance of place in the everyday experience of life? Casey (1996, p. 14) argues that it was the abstract physics of Newton and the critical philosophy of Kant that have resulted in places becoming ‘the mere apportionings of space, its compartmentalisations’. In the search for universal ‘truths’ it appears that it is all too easy to lose sight of the truth that we all inevitably live in a particular time and place. In his argument for a return to place, Casey (1996, p. 20) asks us to avoid ‘the high road of modernism … to reoccupy the lowland of place’. Place can then be considered both pre-modern and post-modern, and ‘it serves to connect these two far sides of modernity’. Casey’s argument is crucial. In any renewal, or radical paradigmatic shifts in ways of thinking and doing, it is all too easy to ‘throw out the baby with the bathwater’ and to try to ‘reinvent the wheel’. With regard to place, a more astute and nuanced approach is required that carefully considers which ideas and practices from earlier times should be carried forward, which should be adapted and which should be discarded and replaced. As socio-ecological educators we can be, in a sense, guardians of the continuity of places. Educators need to acknowledge that people and places are inextricably linked and pedagogic approaches that ignore or attempt to suppress this are unlikely to succeed. Is this a new form of localism where only knowledge and issues of immediate relevance to learners should be taught? No, because places are also connected to other places. Regional, national and even global issues continue to be important, but each educator and learner needs to feel anchored in a particular place if they are to feel secure in a rapidly changing world.

In his famous book *Emile*, a story about child-centred and nature-based education, Rousseau sent us out into the woods and fields with our students. In doing so he was calling for a practical, ‘fresh-air’ educative experience. Outdoor and environmental education are often cited as examples of this kind of experiential and student-centred learning in school and university programs. The Progressive Education movement and John Dewey further articulated a pedagogic philosophy based on ‘direct’, ‘first hand’, ‘immediate’, ‘raw’ and ‘authentic’ experiences as a contrast to much of the education that students experience in more conventional classrooms. Dewey, in particular, promoted the cause of experiential learning by carefully considering the relationship between experience and reflection and the social dimensions and contexts of the learner’s world. Through combining Rousseau and Dewey we develop both environmental and social imperatives in education. Yet even this is not enough for, as we have seen, curricula have become increasingly centralised and education politicised.

‘Place’ is a more complete concept when it comes to how humans actually live in and experience the world. A responsiveness to place in education, and by that we mean an active engagement with how learning places are experienced, constructed, interpreted and represented, actively resists centralisation of the curriculum, hyper-specialisation, production-line approaches, and the side-lining of local knowledge. Wattchow and Brown (2011), in their book *A Pedagogy of Place*, have called for a place-responsive pedagogy in outdoor education. In a detailed discussion they critique the myths, assumptions, beliefs and arguments that drive contemporary practices in that field. They find that much of the philosophical and pedagogical basis of modern education leads away from a deep appreciation and sense of attachment to learning places. Yet, in the case studies in this book we have seen multiple examples of the fundamental significance of place in the *life* of learning and learners. As Gruenewald and Smith (2008, p. 143) argue:

> The attention to experience in place-based education locates its pedagogy in the broader traditions of experiential and contextual education and in the philosophical tradition of phenomenology. Places, and our relationships to them, are worthy of our attention because places are deeply pedagogical.

The case studies in this book highlight aspects of place-responsiveness that re-sensitise us to its potential in a range of educational endeavours and settings, increase our understanding of the pedagogical role of place, and reawaken us to how place interacts with the other concepts of a socio-ecological approach (lived experience, agency and participation and experiential pedagogies). Finally, we can also learn from the case studies about new and emerging dimensions of place that compel us to continually re-examine its role in an emerging socio-ecological approach.

It is possible to interpret the almost ‘invisible’ role that place plays on the unfolding life narratives of the environmental educators Cutter-Mackenzie and Fulton in Chap. 5. School grounds, back yards, parklands, kitchens and classrooms are not just settings for our life narratives. Rather, it is better to think of them as co-authors. Our life stories are place stories, both personally and professionally. Similarly, the narrative force of place is evident in Chap. 1, where the editors of this book were asked to provide a brief vignette from their personal lives that shed some insight into their motivations as socio-ecological educators. Cricket nets, sports fields, neighbourhood roads, farm yards and even holiday places all surfaced as pivotal in their everyday lives.

According to Mugerauer (1995), Heidegger insisted that we reflect on what is nearest, ‘on what is so close that we do not see or think it’ (p. 118). The narratives represented in this book can also be read as place stories. In doing so we can learn much about the pedagogical power of place. People and place live and grow together. There is an ongoing reciprocity between the two. As people live in and change a place, so the place changes. When we are attentive to the places where we live we become attuned to this mutualism. We become compelled, as Heidegger argued, to care for our places. In doing so we are, of course, caring for ourselves and our communities.

Cutter-Mackenzie and Fulton’s story about the children at Prairie Sky School in Canada and their recollections from the landscapes of their respective Australian and Canadian childhoods, highlight that young people seem to accept the importance of place in their lives intuitively. What Thomashow (1996) calls ‘ecological identity work’ is, of course, simultaneously cultural identity work. Collectively, it is better to think of this work as being responsive to the pedagogic power of place. This is why place is such a powerful concept for educators. David Gruenewald (2003, p. 621) states that ‘places *teach* us about how the world works and how our lives fit into the spaces we occupy. Further, places *make* us: As occupants of particular places with particular attributes, our identity and our possibilities are shaped’.

Bone's description of the *Our Place* project in New Zealand early childhood education suggests many pedagogic strategies that are responsive to place. We note, from this case study, that place is an intergenerational phenomenon. Speaking socio-ecologically, the role of place functions in the chronosystem as much as it does in everyday lives. Many important lessons about the significance of places in peoples' lives are handed down through stories, by elders to the younger generation. And, significantly, many of these stories are told in situ – they are told in place. Abram (1996) and Park (1995) believe that stories can hold the accumulated knowledge of peoples and places and that the act of telling a story, when one has earned the right to do so, is 'to actively preserve the coherence of one's culture' (Abram 1996, p. 181). Even where we struggle to retain the depth of story and story-telling traditions still evident in many indigenous communities, we believe that they will continue to play a crucial role. Stories and places are inextricably linked. Wattchow and Brown (2011) consider the power of place-based narratives and story telling to be one of the key components of a place-responsive approach in education. However, in acknowledging the potential of place in education we also become aware of the danger of placelessness, of disconnections between people and location.

The case study on sports coaching by Jeanes, Magee and O'Connor serves to remind us what can happen when community and place values breakdown. Disaffected and disconnected youth can all too easily be labelled as 'problems' when, in reality, they are simply reacting to dramatic changes in society in which they feel powerless. Relph (1976) believes that, for many, the experience of being connected to community and place has been replaced by being one of a homogenous 'placelessness' – a lived experience of detachment. Local places and communities can be erased by modern development, or discarded and left behind by rapidly changing economic conditions.

From a socio-ecological perspective, we gain richer insights into the 'layer' of environment when we start to reconsider it from the perspective of place and placelessness. Place responsiveness, as one of the co-reliant concepts of a socio-ecological approach, supports a hopeful sense of the world in which we live. We can read the case studies by Jeanes, Magee and O'Connor and Alfrey and O'Connor as narratives of reconnection. In both stories, sporting and physical activity spaces in built environments play a pivotal role – as do negotiation and ownership about participation – in re-engaging previously disconnected and disaffected young people through the process of place-making. It flows naturally that this has as much to do with lived experience and agency as it does with place.

Finally, in the case study by Wattchow and Higgins we read about educators (or river guides) consciously working with participants to develop an empathetic insidedness (Relph 1976) on a 'multi-disciplinary' canoe journey on Scotland's River Spey. Their use of creative non-fiction brings to the surface a clear image that place responsiveness stems from a deep love, by educators, of particular places. As Relph (1976, p. 54) says, 'to be inside a place empathetically is to understand that place as rich in meaning, and hence to identify with it.'

From the case studies in this book we glean a valuable pedagogical insight. People cannot be taught or instructed to empathise with places, to love places, but educators can work to create an educative environment that encourages recognition and reconnection with place and community. The Australian socio-ecologist, writer and place-scholar John Cameron summed this up nicely when he wrote:

> [an] open attentiveness, the willingness to suspend judgment and ‘listen’ to a place, the capacity to reflect on both affective and intellectual responses. These are abilities which are best communicated by the presence and attitudes of the educators themselves – by how they are rather than what they say when they are … with the students. It sets the … educators on just as much a journey as the students; always broadening and deepening their relationships with places. (Cameron 2001, p. 32)

The ongoing process of professional critical reflection is crucial in this process of pedagogic renewal. But it is not enough to critique. New practices must be proposed, trialled, evaluated, researched and debated in education and, in particular, in the communities served by those educators. A shift towards place responsiveness as an integral part of a socio-ecological approach aligns educators with a wider and stronger discourse of societal and ecological renewal. The two are inextricably linked. Gruenewald (2003) has called for a ‘place consciousness’ to guide educational thinking and practice. Cameron’s call for a ‘place-responsive society’ (2003, p. 180) provides an important addition to Gruenewald’s approach as, in a process of renewal, a place-responsive pedagogy is vital in educating and learning about our connectedness to place and working towards reconnecting young people to the places where they live.

Towards a Renewal of Experiential Pedagogies

‘Going around and around in circles.’ It is a metaphor for not making progress. Yet much of what we have presented in this book takes on the idea that learning represents cycles of interaction between the individual and their context: an interaction that is constantly evolving, dynamic in nature and yet rooted to history. Socio-ecological frames are often represented as nested concentric circles of interaction between the individual and their social, environmental or indeed policy context. Kolb’s representation of experiential learning is formed as cyclical phases of action, reflection, abstraction and application. Essentially the cyclical metaphor for the socio-ecological educator is based around dynamic interactions and relationships across time, which generate new understandings. These relationships occur in social contexts as emphasised by Dewey and others, and for us this must extend to include a responsiveness to place. It is useful to explore experiential learning narratives to understand this educative phenomenon. The following story reveals much about the experiential approach.

The early Polynesian and Micronesian navigators used an intimate knowledge of a complex range of environmental cues to guide their voyages across thousands of miles of oceans. Without instruments or institutional structures of knowledge transmission, navigators passed on their intimate and historical understandings of the oceans via an apprenticeship of experience. Knowledge of the flight paths of birds, the location and paths of stars, the changing waves, currents and cloud formations was the product of multiple experiences over time. A knowing that was beyond language. Nainoa Thompson, in attempting to rediscover this knowledge in the 1980s, described how his early experiences shaped his sense and feel of the ocean world where he developed a personal relationship with the sea. ‘We learn differently when we are young; our understanding is intuitive and unencumbered’ (Thompson n.d.). Following his successful voyage from Hawaii to Tahiti, Thompson spoke of how he learnt from his teacher, Mau:

> Mau told me, ‘Everything was there in the ocean for you to learn, but it will take you 20 years to see.’ Mau is right. For me to learn all the faces of the ocean, to sense the subtle cues, the slight differences in ocean swells, in the colors of the ocean, the shapes of the clouds and the winds, and to unlock these cues and glean their information in the way Mau can, will take many years more. Initially, I used geometry and analytic mathematics to help me in my quest to navigate the ancient way. However as my ‘ocean time’ and my time with Mau have grown, I have internalized this knowledge, and my need for mathematics has become less. I come closer and closer to navigating the way the ancients did. (Thompson n.d.)

Thompson speaks of a way of knowing through experience: an embodied knowing developed by a teacher who, rather than transmit didactically his own knowledge, spoke of learning from the ocean. Confucius, the famous Chinese teacher, philosopher and political theorist, in the fifth century B.C. said, ‘I hear, I know. I see, I remember. I do, I understand’. Aristotle in the fourth century B.C. stated: ‘Their using the language of knowledge is no proof that they possess it’. Both were implying that knowledge was interwoven with application. Within the narratives presented in Chap. 1 and the case studies in this book, we see examples of how experience leads to an understanding of the world today, which informs future action. Knowledge, knowing and being are inseparable.

Experiential learning is formative. Cutter-Mackenzie recalls in Chap. 1 how her experience of growing up in an open-cut mining town had a profound impact on her environmental disposition, with reflection on conversations and exploration of the dense bushland surrounding her home. The books that surrounded Wattchow in his childhood were a source of contemplation that fed a desire for experience. The ‘project’ books he produced following these experiential wanderings became a site for reflection and knowledge formation that entwined with his ongoing explorations of his immediate world, all subtly supported by familial connections to place. These projects were evidence of an experiential learning that was formative and powerful. Nainoa Thompson’s and the editors stories in Chap. 1 provide examples of how experiential learning creates meaning for the learner, as it is attached to experience that leaves vivid bodily and conscious markings on our being. Of course time is an integral element in this process.

Dewey emphasised the continuous nature of experience, noting that the past is always connected to the future. To experience in the present tense is to subjectively interpret the moment-to-moment happenings in one’s existence. The accumulated product of this existence is an individual’s ‘experience’ as it exists in the past tense. These experiences ultimately impact the way any future experience is interpreted. The way we process experience, and in particular reflect critically on experience, is what Mezirow, Freire and others in the early 1980s stressed as being at the heart of all learning. Experiential learning, then, is an individual process that happens through participating in life events (Joplin 1981/2008; Itin 1999). To these earlier pioneers, reflection was largely a cognitive process, as emphasised by Dewey:

> The crucial educational problem is that of procuring the postponement of immediate action upon desire until observation and judgment have intervened ... [which] then give direction to what is otherwise blind. (Dewey 1938, p. 69)

As pointed to in Chap. 2, this notion of reflection has been challenged due to its rationalist assumptions and the inherent cognitive bias (Jordi 2011). But, like Jordi, we argue that there is no need to give reflection away entirely in order to re-embody experiential learning. There is a place for embodied and cognitive reflection to exist side by side. Touch, pain, movement, emotion can be embraced by an embodied knowing and reflected upon with conscious thought (Jordi 2011). Wattchow's accounts of place-based approaches to education demonstrate how we might imagine less cognitive ways to consider experiential learning. In Chap. 11, Brown calls for a pedagogy in physical education that acknowledges the importance of the individual's meaning-making via deeper understanding of their personal, subjective and intrinsic 'knowledge-making' as a result of movement experience.

Experiential pedagogies then differ from experiential learning in that they are transactional in nature (Itin 1999). According to Coulter (2001), early pioneers emphasised the role of the teacher in transforming student experience into learning. Outdoor education for a long time has embraced and promoted the concept of experiential education. Shooter and Furman highlight how adventure educators set a stage for students and provide freedom to discover the most relevant lessons through their own learning experiences. Historically, such an approach has not been overtly used in health or physical education. Traditional 'drill and skill' pedagogies are didactic in nature and stick to rigid models of preferred action, and that action is often decontextualised. Socio-ecological approaches call for a greater emphasis to be placed on the environment, as it creates 'affordances' for movement behaviour that emerge through experience (Handford et al. 1997).

Teaching games for understanding' (Bunker and Thorpe 1982) or embracing 'games-making' approaches (Cox 1988) are indeed experiential pedagogies used in physical education. Both ask for participant exploration and reflection to generate new understandings or movement responses. Such approaches may follow a cyclical action of experience, reflection, facilitation through questioning and application. Martin and Gaskin's (2004) integrated approach to coaching highlights a range of ways experience might be used to develop new understandings, but this relies on a cognitive questioning approach for reflection. We advocate that the less formulaic an experiential pedagogy is, the more authentic the learning is likely to be.

The chapter by Jeanes, Magee and O'Connor demonstrated that literature examining the 'grassroots' community coach is under-researched and under-theorised within the academic community. Coaching, like teaching as 'doing' professions, in general utilises experiential pedagogies through either implicit or explicit means. The work in this chapter on sports coaching using socio-ecological frames positions the multiple complexities, when 'doing' required of the sports coach (management, player welfare, reflection) verses the multiple agendas that exist for coaches by government agencies. Research findings suggest that the diversification of coaching roles must highlight the importance of understanding the multiple layers (personal, psychological, social, cultural, environmental) that influence coaches and subsequently the pedagogies they use. Optimistically, a base of literature in coaching is seeking to further understand the lives of coaches, and how this influences experiential pedagogies that they use (Harris and Jones 2012; Jones 2009). Beyond coaching, O'Connor and Alfrey's Chap. 6 highlights how providing students with an experience of their neighbourhood (maps, walks, explorations) resulted in both a reflection on (graffiti, ownership of space) and ultimately an application of this reflection to address barriers to an everyday physical activity (reclamation of space and formation of place through footprints and meeting places) that was not predetermined.

We have been careful throughout the book not to advocate the use of experiential pedagogies in a recipe-style way. Brown, Jeanes and Cutter-Mackenzie in Chap. 2 point to a more nuanced approach to experiential learning and experiential education as a way forward. Indeed a socio-ecological educator would strip away the formulaic approach and break down the hardened borders of the circles that encase any process, including those within socio-ecological frames (see Fig. 3.1). As pointed to by Jordi (2011), the reliance on experiential learning that only uses or even prioritises cognitive processing is flawed. It fails to take into account not only the great diversity of an individual's lived experiences, but if done in isolation from bodily, social, cultural, historical and ecological contexts, it serves to reify 'ways of knowing and doing' that reinforce and privilege rationalist and functionalist approaches to learning.

Towards a Renewal of Agency and Participation

As illustrated in Chap. 2, the idea that agency should be a key outcome of an educational process is not a new concept (Biesta and Tedder 2006). However, we argue that due to neo-liberal, performative agendas increasingly underpinning various educational environments, encouraging participation and developing agency among students has become far less of a priority in recent times (Maton 2000). This is despite the increasing advocacy for children's rights and empowerment during the 1990s and increasing demand for them to be involved and consulted in decisions about their lives. As discussed in Chap. 2, research conducted over the previous two decades has suggested that the way in which practitioners within a variety of settings, including schools, family legal services and health services, have sought to foster agency has been largely tokenistic (Hart 2008; Matthews 2003). Thomas (2007) concludes that children continue to have limited opportunity to input significantly into decisions made and are rarely given the opportunity to reshape various social structures to better suit their needs. Throughout the book, we have advocated that a socio-ecological approach to education should again place the development of agency as a core aspiration of learning for all learners of all ages.

The case studies provide some refreshing examples of educators grappling with the demands of facilitating active participation within their learning environments, and do so in a way that translates into sustainable student agency. Several chapters demonstrate how educators can encourage participation but also how this plays out within dynamic learning environments. Within some of the case studies, interviewees identified the opportunity to educate in a way that encourages students to take control of their learning and develop a critical awareness of their surroundings as a central benefit of a socio-ecological approach. As one of the teachers in O'Connor and Alfrey's case study explained, children moved from being seen as insignificant within the learning process to having leadership and through this gained confidence that they could make a difference to aspects of their lives.

Reflecting principles presented by Costall (2000) in his 'ecology of agency', education that is connected to place and community (as can be seen in O'Connor and Alfrey's case study) is essential for providing meaning and encouraging students to understand the value of active participation. Young people in this project could see the value of developing agency and being able to influence decisions, as this would ultimately enhance their local community. The development of agency through the educative process therefore cannot be arbitrary. Students have to see a value and purpose in developing leadership skills, their critical analysis and their ability to make change. While these skills can be fostered within a closed classroom context, ideally the educator is seeking to facilitate meaningful opportunities to use them, enabling students to experience first hand that they can be agents of change. We see this process illustrated in detail in the work of Bone, O'Connor and Alfrey, Jeanes, Magee and O' Connor, and Cutter-Mackenzie and Fulton.

Building on this, Shooter and Furman in Chap. 8 provide a useful questioning of how participation fostered within particular educational settings can be translated into students exerting agency in their everyday lives. Shooter and Furman discuss how a key aim of adventure education is to encourage responsible citizens who are motivated to affect positive change in relation to the environment beyond the often short-term experiences they gain in an outdoor education setting. They suggest that 'it is a stretch at best to suggest adventure education can yield direct influence on broad social settings'. Similar tensions have been identified in various educational contexts, including schools and youth work and community contexts (Eccles and Gootman 2002). Shooter and Furman argue that it is the responsibility of educators to ensure that the 'programmatic experiences be so profound that they empower participants to overcome myriad challenges back at home'. They illustrate that providing contexts that allow students to experience a sense of ownership over their learning is critical if students are to return to their 'everyday' lives feeling empowered and equipped with skills and desire to enact change. Such an educational approach is reflective of the principles advocated by Freire's (1972) critical pedagogy and the concept of critical consciousness as a key foundation for catalysing individuals to want to actively seek change.

The case studies have illustrated that promoting active participation within the education process requires careful planning. Educators have to construct the educational environment to provide opportunities for students to experience what active participation ‘feels like’ and understand the value in exerting influence within their lives (Wicker 1987). It is naive to assume that students will automatically become empowered through their learning experiences. The case studies suggest different ways of achieving empowerment. O’Connor and Alfrey’s example involved young people performing action research, and through this process they gained a critical awareness that encouraged them to take action on the issues they were exploring. Bone’s and Cutter Mackenzie and Fulton’s case studies suggest that educators in their schools adopt more of an iterative approach, waiting for ‘teachable moments’ where students express interest in particular issues and then use these to encourage further exploration. Shooter and Furman and Jeanes, Magee and O’ Connor, in their examples advocate structuring the learning environment or ‘setting the stage’ in particular ways that encourage students to draw on skills associated with the development of agency. For example, in Jeanes, Magee and O’Connor’s study, coaches encouraged participants to work in groups to design and lead sessions, negotiate content with both the coach and other team mates, and reflect on their delivery. Within all of the examples though, educators had given careful thought to how they would initially encourage active participation and then seek to translate this into individual agency as the educative experience progressed.

What also emerges from our case study chapters, as has been suggested in other research (Thomas 2007) is that educational experiences specifically tailored to encourage the development of agency among students remain unusual. In both O’Connor and Alfrey’s and Bone’s examples, active engagement of young people in their learning experience was facilitated as a result of a specific project. Teachers in O’Connor and Alfrey’s study suggest that this was quite an unusual experience for both them and the students. The Prairie School discussed by Cutter-Mackenzie and Fulton, however, does provide an example of a more embedded, ongoing approach to engaging young people actively in all aspects of the curriculum.

This leads to a further observation from the case study chapters that the promotion and facilitation of student agency can only happen when educative experiences are positioned within structures that facilitate it. In our early chapters we drew on the work of Giddens (1984) to provide a lens for understanding the relationship between structure and agency. The case studies reveal the multiple structures that can restrict active participation by learners in educational contexts. At the local level educators themselves are a key structure that can either hinder or encourage the development of agency. In the case studies there are numerous examples of educators who have a desire to foster student involvement and are comfortable with relinquishing some of their power to do so. However, there were also examples of educators who saw little value in this approach and who were unwilling to develop a more equitable learning environment. In Jeanes, Magee and O’Connor’s chapter, for example, participants discussed coaches who were unwilling to share power and preferred to maintain a more traditional, autocratic coaching style, which instantly turned away the young people involved. Providing experiences that promote individual agency therefore initially requires negotiation between student and educator.

Beyond a commitment from individual educators, at a broader level, schools, universities and community environments need, through their policies, curriculums and practices, to place importance on the development of agency among learners as a central aim of what they are trying to achieve. Educators who operate in environments where wider structures are not supportive of developing alternative approaches are unlikely to be able to do so. Within schools, for example, most teachers work under pressure to reach performative targets and to teach within crowded curriculums that prioritise certain subjects over others. To work in the ways advocated within the case study chapters in this book may seem initially appealing but, to varying degrees, unrealistic in reality when operating in current structures. That is why we advocate, at this point in time, dual strategies for nascent socio-ecological educators. There is important inter-disciplinary socio-ecological work to be done both within the restrictions of current educational systems and structures and work to be done that challenges the institutions within which educators work. Interestingly, both approaches can work simultaneously if not perfectly, as demonstrated in the fundamental socio-ecological reforms of the New Zealand Health and Physical Education curriculum recounted in the chapter by Wattchow and Boyes.

The case studies perhaps reflect some of this realism, illustrating that methods for facilitating agency and participation can vary along a continuum. As discussed in Chap. 2, various ‘scales’ of participation have been developed to capture the nuances and complexity of active participation and to highlight that it is not a simple binary of non-participation or full engagement (Hart 2008; Thomas 2007; Franklin 1997; Treseder 1997). The continuum is evident when examining the practice presented in the case studies. In O’Connor and Alfrey’s study, adults invited children to give input into a problem they had already decided upon. That is not to say that the issue students investigated was not important to them; it clearly was, but the boundaries of what they were examining were pre-defined. The researchers also commented that as much as they encouraged teachers to allow young people to lead, the process often switched back to a more teacher-driven agenda due to wider structural pressures such as time constraints and the need for a ‘finished product’ from the students. Within Hart’s (2008) continuum of participation, this would likely be described as educators actively consulting with students. Cutter-Mackenzie and Fulton’s example suggests an approach that is more child led, with ideas for exploration and decisions on how these were going to be explored frequently emerging from the children. Shooter and Furman suggest that while adventure educators will initially scaffold the learning setting, allowing learners ‘the freedom to discover the most relevant lesson through their own learning experience’ is an embedded aspect of their role. Such an approach is more aligned to the student-driven section of Hart’s ‘ladder of participation’.

Some of the projects discussed in Jeanes, Magee and O’Connor’s chapter present interesting paradoxes with regard to the development of agency and participation. While coaches within projects frequently sought to construct environments that allowed participants to experience agency, in several projects participants were attending because they had to, not because of an active decision to do so. The project aimed at facilitating the development of young people's employment skills, for example, was mandatory for participants if they wanted to continue to claim their 'job seekers' allowance (a government payment). This presents a difficult challenge for educators, sending an immediate message to students that exertion of agency may be limited in particular contexts that are determined by others in positions of greater power. This case study, more than any other, illustrates that even when adopting a socio-ecological approach to education, equipping students to make changes in often chaotic external environments that offer no structural support is extremely challenging.

The case studies therefore raise interesting questions about the extent to which educators are prepared to foster student agency and in what context this occurs. In the majority of the case study chapters, active participation is encouraged at the local level, such as the classroom or the coaching space. However, Wattchow and Boyes' chapter suggests that while this may be promoted and also achievable at a local level, students continue to have limited input into influencing and effecting wider structural changes that affect their local contexts. Wattchow and Boyes highlight that the one noticeable omission in an otherwise progressive approach to curriculum development is the absence of opportunity for students to have input into its design and content. There continue to be limits on how much educators will facilitate (or be allowed to facilitate) active participation by students in all spheres of the socio-ecological model (Matthews 2003).

In Chap. 2 we illustrated the complexities in defining agency and participation before examining ways in which educators could transform these concepts into reality for students via particular educational experiences. From our case studies, we would conclude that the facilitation of active participation and ultimately agency among students continues to be fraught with tension. It involves constant negotiations between educators, students, wider social, cultural and institutional structures. Even where there is strong commitment at local level to encourage students to take control of their learning, this does not always result in students having influence beyond their immediate educational setting.

While continuing to advocate that agency and participation remain a central concept within our socio-ecological approach to education, we recognise that this aspect requires further interrogation within both research and practice. Within research, there is a need for a greater understanding of how opportunities for student participation can translate into individual agency and, importantly, how students can then draw on gains made in the educative setting and create positive changes over all aspects of the ecological systems they exist in. Connected to this, there is also considerable scope for exploration of why the promotion of active participation is more acceptable in particular layers of the educative system than in others. While, as indicated, examples such as those highlighted in the case studies may not be commonplace at the local level, they do exist. Even so, examples of students having opportunity to facilitate change in structures that govern education, particularly with regard to the curriculum, remain limited. Greater understanding of how particular structures determine the contexts in which active participation is or is not promoted, and what influences this, is required to disentangle the constraints to facilitating genuine equity between educators and students in the learning environment.

Within practice, there is a need for greater reflection by educators on what they understand by agency and participation and how much we are attempting to foster it within the learning environments we create. How much power are educators willing to share and ultimately transfer? Is it possible for students to develop too much agency or negative agency? In 2011 the UK witnessed what was described as ‘most unpleasant and violent’ youth riots (*Daily Mail*, 10 August 2011). Was this, as was widely portrayed, young people degenerating into savage, mindless thugs, or was it an extreme example of young people exerting their agency to protest against the ongoing decline in social and environmental conditions that they were experiencing as Britain slid deeper into a state of economic decline? This rather extreme example highlights the need for educators to consider what they specifically are attempting to achieve through creating situations that they hope will foster student agency. As educators we should not only consider how we will promote the development of agency through education, but also support students in understanding how to exert influence responsibly and appropriately rather than a more simplistic notion of instilling within all students the idea that they can be change makers?

There is still, therefore, much to consider within this core foundation theme. The case studies have illuminated various ways of encouraging participation and agency through a socio-ecological approach, but have also presented us with tensions and dilemmas that require greater research, contemplation and discussion in the future.

Reflecting on the Limitations of a Socio-ecological Approach

Whilst within this book we are promoting a socio-ecological approach to education it should be noted that we are not uncritically advocating socio-ecological frameworks. As with any theoretical underpinning or framework we acknowledge that there are limitations to socio-ecological approaches. One of the most important critiques levied at the use of socio-ecological frameworks is that they broaden understanding to a point where the knowledge becomes unmanageable. At such a point understanding and responding to the various socio-ecological drivers affecting individuals becomes too extensive a task. We have witnessed this within health sciences where the use of socio-ecological frameworks to understand physical activity behaviour has greatly enhanced understanding of barriers to involvement. However, consequently it has been increasingly problematic for researchers, policy makers and practitioners to respond to the broad array of factors identified across the multiple levels of a socio-ecological frame in any sort of coherent way. Similarly, within our proposed approach there is a danger that we are encouraging educators to consider ‘too much’ and consequently, invoking a socio-ecological approach becomes a daunting prospect. What we hope the case studies have illustrated is that socio-ecological education does not have to embrace all aspects of the personal, social and environmental context at all times. Perhaps instead, the aim should be to examine those aspects that offer the greatest potential for leverage whilst acknowledging their place within a broader connected and dynamic social ecology.

We recognise that educators cannot do everything but they can be clear on how their work is a piece that adds to the picture that resolves a much larger puzzle. Education then, involves learning that personal and contextual factors, together with individual and group actions, shape the way we act in the world. Take for example the coaches discussed in Jeanes, Magee and O' Connor's chapter. They were quick to recognise that broader environmental factors restricted their ability to support young people and there was very little they could do to alter this. The acknowledgment of this however, meant they were able to encourage the young people they worked with to consider how their wider families and the established norms within their housing estates (such as open drug dealing) may be contributing to their problematic behaviour. In advocating a socio-ecological approach to education therefore, we are not prescribing to educators a 'catch all' approach but instead encourages a careful examination of those things that often go unnoticed within and across the layers of our interconnected lives.

In addition to the diagrammatic simplification we also acknowledge more broadly that socio-ecological models can fail to provide an adequate theoretical underpinning of the complexities of social life. As Ungar (2002) discusses 'ecological perspectives on ethnicity, race, and gender in practice situations promised a more critical understanding of the power implicit in transactional processes.' Further, '[t]hese perspectives, however, developed rather modestly and did not initially challenge or deconstruct dominant values' (p. 483). We recognise therefore that socio-ecological models on their own provide a useful overarching framework for considering behaviour but do not necessarily fully explain how certain behaviour become established and ingrained as cultural norms and values (Glass and McAtee 2009). In this book we have sought to move our own socio-ecological approach forward through the integration of the four foundational concepts that, we hope, has provided a socio-ecological approach with a sound theoretical and practical foundation. We are careful however to assert that these foundations are not without critique and nor are they substantive enough to bear the full weight of any social ecology. Instead, they represent starting points for futher reflection, conversation and inquiry in the future.

Final Remarks

The Socio-ecological Educator: A Renewal of Sport, Physical, Health, Environmental and Outdoor Education has been written for educators who are passionate about education. This final chapter has drawn attention to the importance of understanding socio-ecological approaches to physical and health education, outdoor and environmental education and early childhood education. It has done so via the presentation of rich descriptions of the four foundational concepts of lived experience, place, experiential pedagogies, and agency and participation. For each concept, a reflexive analysis and synthesis has occurred via examination of all chapters. Incorporating a 'futures-orientated' vision, we have also given some direction to readers that is consistent with these concepts and values.

What has underpinned all chapters in the book has been a desire to understand human experience in its broadest sense in multiple contexts and settings. As authors, we all acknowledge that we understand and enact socio-ecological approaches in different ways. However, our desire to work across disciplinary boundaries, moving outside our silos to further develop knowledge for the benefit of the professions (research, academic and practice focused), has the ability to inform future research and practice in diverse fields from sport, physical and health education, outdoor and environmental education and early childhood education. Furthermore, we understand that socio-ecological approaches to education exist across many levels and possess multiple layers, embracing personal, social, cultural, environmental and geographical influences that shape individuals, identities, family, policies and the environment.

The challenge as we see it is for this work to be taken up more broadly by researchers and educators within our diverse fields. We feel that this is only the beginning of a journey and that socio-ecological approaches underpinned by lived experience, place, experiential pedagogies and agency and participation have the potential to make a great deal of difference in the lives of children, young people, teachers, coaches and leaders. At the heart of this work will be an ongoing commitment to, and care of, the people, places and communities where we live and work.

References

Abram, D. 1996. *The spell of the sensuous: Perception and language in a more-than-human world*. New York: Vintage Books.

Archer, M.S. 2000. *Being human – The problem of agency*. Cambridge: Cambridge University Press.

Arnold, P.J. 1979. *Meaning in movement, sport and physical education*. London: Heinemann.

Bain, L.L. 1995. Mindfulness and subjective knowledge. *Quest* 47: 238–253.

Brackenridge, C.H. 1999. Managing myself: Investigator survival in sensitive research. *International Review for the Sociology of Sport* 34(4): 399–410.

Biesta, G., and M. Tedder. 2006. *How is agency possible? Towards an ecological understanding of agency-as-achievement.* Learning lives project. Working paper 5. Exeter: Exeter University.

Brown, L. 1998. Boys training. In *Where the boys are*, ed. C. Hickey, L. Fitzclarence, and R. Matthews, 83–96. Geelong: Deakin University Press.

Bunker, D., and R. Thorpe. 1982. A model for the teaching of games in secondary schools. *Bulletin of Physical Education* 18(1): 5–8.

Cameron, J. 2001, Beyond dualism: Wilderness, outdoor education and everyday places. *12th National outdoor education conference proceedings*, 27–32. Latrobe University, Bendigo, 15–18 Jan.

Cameron, J. 2003. Responding to place in a post-colonial era: An Australian perspective. In *Decolonizing nature*, ed. W.M. Adams and M. Mulligan, 172–196. London: Earthscan.

Casey, E. 1996. How to get from space to place in a fairly short stretch of time: Phenomenological prolegomena. In *Sense of place*, ed. K.H. Basso and S. Feld, 13–52. Santa Fe: School of American Research Press.

Casey, E. 1997. *The fate of place: A philosophical history*. Berkeley: University of California Press.

Costall, A. 2000. James Gibson and the ecology of agency. *Communication and Cognition* 33(1): 23–32.

Coulter, X. 2001. The role of conscious reflection in experiential learning. Paper presented at adult higher education alliance conference on the changing face of adult learning. Austin.

Cox, R.L. 1988. Games-making: Principles and procedures. *Scottish Journal of Physical Education and Treatment of Children* 16(2): 14–16.

Denison, J., and P. Markula. 2003. *Moving writing – Crafting movement in sport research*. New York: Peter Lang.

Dewey, J. 1938. *Experience and education*. New York: Collier Books.

Dilthey, W. 1985. *Poetry and experience*, Selected works, vol. 5. Princeton: Princeton University Press.

Eccles, J., and J. Gootman. 2002. *Community programs to promote positive youth development*. Washington, DC: National Academy Press.

Franklin, B. 1997. The ladder of participation in matters concerning children. In *Children in focus: A manual for participatory research with children*, ed. J. Boyden and J. Ennew. Stockholm: Grafisk Press.

Freire, P. 1972. *Pedagogy of the oppressed*. Harmondsworth: Penguin.

Giddens, A. 1984. *The constitution of society*. Cambridge: Polity Press.

Glass, T.A., and M.J. McAtee. 2006. Behavioral science at the crossroads in public health: Extending horizons, envisioning the future. *Social Science & Medicine* 62(7): 1650–1671.

Gratton, C., and J. Jones. 2004. *Research methods in sports studies*. London: Routledge.

Gruenewald, D. 2003. The best of both worlds: A critical pedagogy of place. *Educational Researcher* 32(4): 3–12.

Gruenewald, D., and G. Smith. 2008. *Place-based education in the global age*. New York: Lawrence Erlbaum Associates.

Handford, C., K. Davids, S. Bennett, and C. Button. 1997. Skill acquisition in sport: Some applications of an evolving practice ecology. *Journal of Sport Science* 15: 621–640.

Harris, K., and R.L. Jones. 2012. *Enhancing coaches' experiential learning through communities of practice (CoPs): An action research study*. Saarbrücken: Lambert.

Hart, R. 2008. Stepping back from the ladder: Reflections on a model of participatory work for children. In *Participation and learning – perspectives on education and the environment, health and sustainability*, ed. A. Reid, B.B. Jensen, J. Nikel, and V. Simovska. Dordrecht: Spirnger.

Hopper, T.F., L.E. Madill, C.D. Bratseth, K.A. Cameron, J.D. Coble, and L.E. Nimmon. 2008. Multiple voices in health, sport, recreation, and physical education research: Revealing unfamiliar spaces in a polyvocal review of qualitative research genres. *Quest* 60: 214–235.

Itin, C.M. 1999. Reasserting the philosophy of experiential education as a vehicle for change in the 21st century. *The Journal of Experiential Education* 22(2): 91–98.

Jones, R.L. 2009. Coaching as caring ('The smiling gallery'): Accessing hidden knowledge. *Physical Education and Sport Pedagogy* 14(4): 377–390.

Joplin, L. 1981/2008. On defining experiential education. In *The theory of experiential education*, ed. K. Warren, M. Sakofs, and J. Hunt, 15–22. Dubuque: Kendall Hunt Publishing.

Jordi, R. 2011. Reframing the concept of reflection: Consciousness, experiential learning, and reflective learning practices. *Adult Education Quarterly* 61(2): 181–197.

Macdonald, D. 2002. Critical pedagogy: What might it look like and why does it matter? In *The sociology of sport and physical education*, ed. A. Laker, 167–189. London: Routledge.

Markula, P., and M. Silk. 2011. *Qualitative research for physical culture*. London: Palgrave MacMillan.

Martin, A., and C. Gaskin. 2004. An integrated approach to coaching athletes. *Proceedings of the 2nd international conference: Teaching sport and physical education for understanding.* Melbourne: University of Melbourne.

Maton, K. 2000. Making a difference: The social ecology of social transformation. *American Journal of Community Pyschology* 28(1): 25–57.

Matthews, H. 2003. Children and regeneration: Setting an agenda for community participation and integration. *Children and Society* 17(4): 264–276.

Merleau-Ponty, M. 1962. *Phenomenology of perception*. London: Routledge & Kegan Paul.

Mugerauer, R. 1995. *Interpreting environments: Tradition, deconstruction, hermeneutics*. Austin: University of Texas Press.

Murray Orr, A., and M. Olson. 2001. Transforming narrative encounters. *Canadian Journal of Education* 30(3): 819–838.

Nilges, L. 2001. The twice-told tale of Alice's physical life in wonderland. *Quest* 53: 231–259.

O'Connor, J., L. Alfrey, and P. Payne. 2012. Beyond games and sports: A socio-ecological approach to physical education. *Sport Education and Society*, 1–16. doi:10.1080/13573322.2011.608940

Park, G. 1995. *Nga uruora (The groves of life): Ecology and history in a New Zealand landscape*. Wellington: Victoria University Press.

Pringle, R. 2010. Finding pleasure in physical education: A critical examination of the educative value of positive movement affects. *Quest* 62(2): 119–134.

Relph, E. 1976. *Place and placelessness*. London: Pion Ltd.

Sheets-Johnstone, M. 1999. *The primacy of movement*. Philadelphia: John Benjamins Publishing Company.

Shusterman, R. 2008. *Body consciousness – A philosophy of mindfulness and somaesthetics*. Cambridge: Cambridge University Press.

Sparkes, A. 1999. Exploring body narratives. *Sport Education and Society* 4: 17–30.

Sparkes, A.C. 2004. *Telling tales in sport and physical activity – A qualitative journey*. Champaign: Human Kinetics.

Sparkes, A.C., L. Nilges, P. Swan, and F. Dowling. 2003. Poetic representations in sport and physical education: Insider perspectives. *Sport, Education and Society* 8(2): 153–177.

Thomas, N. 2007. Towards a theory of children's participation. *International Journal of Children's Rights* 15: 199–218.

Thomashow, M. 1996. *Ecological identity: Becoming a reflective environmentalist*. Cambridge, MA: The MIT Press.

Thompson, N. n.d.. Hawaiian voyaging traditions. http://pvs.kcc.hawaii.edu/index/founder_and_teachers/nainoa_thompson.html. Accessed 29 June 2012.

Treseder, P. 1997. *Empowering children and young people*. London: Children's Rights Office and Save the Children.

Ungar, M. 2002. A deeper, more socio-ecological social work practice. *The Social Service Review* 76(3): 480–497.

van Manen, M. 1997. *Researching lived experience: Human science for an action sensitive pedagogy*. London: Althouse Press.

Wattchow, B., and M. Brown. 2011. *A pedagogy of place: Outdoor education for a changing world.* Melbourne: Monash University Publishing.

Wattchow, B., and J.P. O'Connor. 2003. *re(Forming) the 'physical' in a curriculum/pedagogy for health and well-being: A socio-ecological perspective.* Paper presented at the NZARE/AARE, Auckland.

Wicker, A.W. 1987. Behavior settings reconsidered. In *Handbook of environmental psychology*, vol. 1, ed. D. Stokols and I. Altman, 613–653. New York: Wiley.

Index

A
Adventure education, 139–150, 219
Agency, 25, 27, 28, 33, 37–42, 51, 52, 60–66, 87, 92, 93, 102–104, 119, 137, 157, 207, 208, 213, 214, 218–223, 225

B
Behaviour change, 139–142, 144, 149
Belonging, 33, 66, 110, 127–137, 176, 180, 211
Bronfenbrenner, U., 24, 80, 112, 128, 130

C
Cale, L., 6, 9
Coach education, 91
Community, 12, 24, 51, 72, 90, 109–124, 128, 142, 155, 191, 210
Community coaching, 90, 91, 217
Connecting classrooms, 109–124
Cultural intermediary, 15, 98, 102
Curriculum, 6, 24, 48, 71–87, 110, 128, 148, 160, 174, 193, 209
Curriculum development, 7, 19, 72, 73, 87, 193, 222
Curriculum reform, 71–87

D
Decolonisation, 57, 75, 186
Dewey, J., 7, 24, 28, 34, 35, 37, 42, 57, 121, 212, 215–217
Dualism, 30, 58, 197

E
Early childhood, 94, 127–137, 207, 211, 214, 224, 225
Early years, 128
Eco-biography, 167
Eco systems, 57, 58, 66
Educational discourse, 36
Educational policy, 60, 72
Embodied experience, 25, 37, 56
Environment, 4, 23, 51, 74, 91, 111, 128, 139–150, 155, 174, 191, 206
Environmental education, 4, 6, 23–31, 34, 36, 51, 119, 151, 164–170, 179, 206–208, 211, 212, 224, 225
Environmental problems, 139–150, 168, 169
Exclusion, 56, 62, 92
Experiential education/pedagogy, 31, 33, 35–37, 42, 53, 56, 58–60, 72, 77, 80, 81, 84, 85, 129, 142, 149, 165, 169, 174, 179, 181, 190–195, 199, 207, 211–213, 215, 217–219

G
Generation, 72, 87, 106, 128, 141, 147, 154, 156, 157, 163, 164, 169, 184, 214

H
Health education, 4, 6, 20, 23–30, 34, 36, 54, 57, 75, 79, 80, 208, 224, 225
Hidden curriculum, 73, 74

B. Wattchow et al. (eds.), *The Socioecological Educator*,
DOI 10.1007/978-94-007-7167-3, © Springer Science+Business Media Dordrecht 2014

I

Identity, 16, 31, 32, 56, 58, 67, 76, 91, 100, 110, 132, 148, 175, 176, 197, 208, 213
Independent mobility, 113, 115, 117, 123
Interdisciplinary, 12, 24, 26, 110, 112, 119–120, 157, 174, 178, 179, 181, 207
Intrinsic meaning, 33

J

Joplin, L., 35–37, 42, 58, 121, 217

K

Kolb, D., 35–37, 42, 215

L

Learning transfer, 145–146, 148, 150
Lifeworlds, 4, 28, 51–54, 59, 63, 64, 66, 96
Lived experience, 4, 7, 25, 27–30, 33–35, 42, 51–53, 55–59, 64–66, 72, 87, 105, 113, 116, 123, 137, 169, 191, 194, 199, 206–211, 213, 214, 218, 224, 225
Localised learning, 174

M

Meaning making, 4, 7, 28, 29, 51, 64, 67, 190–194, 197–199, 209, 217
Merleau-Ponty, M., 7, 29, 31, 193, 194, 209
Moos, R., 24, 146
Movement, 6–9, 14, 17, 18, 24, 29, 30, 54–57, 75, 80–82, 85, 86, 97, 99, 110–113, 115, 116, 120–122, 137, 177, 183, 189–200, 206, 208, 209, 211, 212, 217

N

Narrative, 3–20, 30, 34, 61, 116, 129, 131, 133, 136, 155–158, 168–170, 194, 199, 207, 209, 210, 213–216
New Zealand curriculum, 79, 128

O

Our Place project, 128–129, 131, 137, 214
Outdoor education, 30, 31, 33, 34, 54, 66, 80, 100, 146, 148, 173–186, 199, 206, 208, 209, 212, 217, 219, 224

P

Participation, 6, 7, 9, 10, 14, 16–18, 27, 28, 31, 33, 37–42, 51–53, 55, 59–66, 75, 85, 87, 91, 92, 101–104, 119, 120, 122, 129, 131, 136, 137, 140, 146, 190, 191, 194, 196, 197, 199, 200, 207, 213, 214, 217–223, 225
Penney, D., 19, 55, 91, 112, 114
Phenomenology, 4, 7, 19, 26, 28–30, 36, 42, 53, 57, 59, 92, 97, 146, 174, 191–194, 206, 207, 209, 213–215
Physical education, 6, 24, 47, 72, 110, 145, 179, 185–200, 206
Place, 4, 24, 50, 73, 90, 111, 128, 141, 155, 173–186, 190, 207
Place based education, 31, 157, 169, 213
Power, 3–20, 32–34, 39–41, 62–64, 67, 73, 74, 80, 82, 85, 101, 103, 119, 135, 146, 197, 211, 213, 214, 220, 222–224
Prairie Sky School, 158–163, 213
Pro-environmental attitudes, 140, 146
Provocations, 131, 132, 137

R

Reflection, 10, 12, 16, 17, 19, 28, 30, 32, 34–37, 41, 52, 57–60, 64, 80, 81, 103, 114, 133, 143, 167, 191, 208, 210, 212, 215–218, 223, 224
Reggio Emilia, 128–131, 137, 160, 211
River Spey, 173–186, 214

S

Scientific paradigm, 206
Silos, 23, 24, 207, 225
Social policy/exclusion, 90, 92–95, 105, 191
Social-ecology, 8, 9, 13, 18, 19, 23–42, 51, 62, 65, 89, 94, 95, 112, 114, 140, 192–194, 224
Socio-critical, 26, 73, 79, 80, 84, 86, 95, 96
Socio-cultural, 18, 24, 26, 80, 82, 91, 96–102, 106, 140, 142, 147, 197
Socio-ecological approach, 4, 6, 9, 10, 19, 23–25, 27, 28, 30, 31, 34, 38, 42, 51, 58, 60–62, 65–67, 81, 84–86, 89–106, 110, 112, 113, 128, 129, 137, 142, 143, 155, 170, 174, 185, 199, 200, 208, 209, 213, 215, 217, 219, 222–225

Socio-ecological framework, 24, 40, 42, 62, 90, 94–95, 101–103, 106, 166, 223
Sparkes, A., 4, 86, 179, 198, 208–210
Sport coaching, 13–16, 83, 89–106, 211, 214, 217, 218
Student choice, 61
Student voice, 112, 114
Sustainability, 18, 25, 26, 41, 59, 85, 92, 121, 123, 128, 145, 149, 150, 165, 166, 169, 170, 178, 186, 191, 219

T
Transformational learning, 142, 147

V
Van Manen, M., 28, 30, 199, 208, 209

W
Walk to school, 113