PRACTICE, EDUCATION, WORK AND SOCIETY

Practice-Based Education

Perspectives and Strategies

Joy Higgs, Ronald Barnett,
Stephen Billett, Maggie Hutchings
and Franziska Trede (Eds.)

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PRACTICE-BASED EDUCATION

PRACTICE, EDUCATION, WORK AND SOCIETY
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Practice-Based Education

Perspectives and Strategies

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JOY HIGGS

SERIES INTRODUCTION

Practice, Education, Work and Society

This series examines research, theory and practice in the context of university education, professional practice, work and society. The series examines places where two or more of these arenas come together. Themes that will be explored in the series include: university education of professions, society expectations of professional practice, professional practice workplaces and strategies for investigating each of these areas. There are many challenges facing researchers, educators, practitioners and students in today's practice worlds. The authors in this series bring a wealth of practice wisdom and experience to examine these issues, share their practice knowledge, report research into strategies that address these challenges, share approaches to working and learning and raise yet more questions.

The conversations conducted in the series will contribute to expanding the discourse around the way people encounter and experience practice, education, work and society.

Joy Higgs, Charles Sturt University, Australia

FOREWORD

This book explores the principles, context, practices and strategies of practice-based education from multiple perspectives. It examines the place and nature of practice-based university education, that is, education that prepares graduates for practice. This seems initially to be a straightforward goal, however, practice-based education is, in reality, a complex of ideas, pedagogies, opportunities and possible experiences. In this complexity of realisation and simplicity of concept lies its strength and potential for rich and productive higher education.

The book is written by leading academics in higher education and is aimed at a broad audience including university educators, as well as researchers and those in the professions. The book examines goals, trends, perspectives and strategies of practice-based education in international, professional education programs.

There are three sections in the book:
1. Contesting and Contextualising Practice-Based Education
2. Practice-Based Education Pedagogy and Strategies
3. The Future of Practice-Based Education.

Joy Higgs

SECTION 1: CONTESTING AND CONTEXTUALISING PRACTICE-BASED EDUCATION

JOY HIGGS

1. PRACTICE-BASED EDUCATION

The Practice-Education-Context-Quality Nexus

This book deals with practice-based education (PBE) in higher education institutions and presents PBE as a notion and an approach to education that is grounded in the preparation of graduates for occupational practice. Educators face the challenge of turning the concept of PBE into curricula and pedagogy, as discussed further in Chapter 6 and other chapters.

Various chapters in the book explore, challenge and problematise the notion and practice of PBE. Here I explore PBE as occurring in the practice-education-context-quality nexus and argue that all four factors need to work in harmony to realise a coherent and good PBE program or model.

EDUCATION FOR PRACTICE

We present practice in this book as *occupational* practice, which encompasses the various practices that comprise occupations, be they professions, disciplines, vocations or occupations. For doctors, engineers, historians, priests, physicists, musicians, carpenters and many other occupational groups, practice refers to the activities, models, norms, language, discourse, ways of knowing and thinking, technical capacities, knowledge, identities, philosophies and other sociocultural practices that collectively comprise their particular occupation.

Essentially, practice is embodied, agential, and socially-historically constructed. Practice is situated and temporally located in local settings, life-worlds and systems, as well as international discourses, and it is grounded and released in metaphor, interpretation and narrative. Consider the following narratives.

> How may we interpret medicine: as the art of healing, as a field of applied science, as a range of Indigenous cultures' natural or faith healing crafts, or as a variety of health care practices? Does the field of medicine deal with cure and prevention, illness and wellness, self-management and delivery? If I enter one of these paths of medical practice what is the nature of my practice? What do I need to learn to practise well? Who are the guardians of the field of medicine? Who are the people who engage with my services?

> I am an historian. I study and write about the past. I produce narratives about past history as well as the study of history. What have I learned about what it means to be an historian and how I can (continue to) learn about this profession? How might I pass on this learning to future generations?

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 3-12.

> As a teacher of teachers I am conscious that my students are learning to walk the walk as well as talk the talk of teaching. How do I enable their learning? What are they learning from me as a role model? What choices have I made about the type of teacher I am? How can I communicate my practice wisdom to this next generation of teachers?

Understanding what practice is (in general) and what a particular occupation's practice is like can inform education and the design of curricula.

PRACTICE-BASED EDUCATION

Another key question for PBE educators is this: what theory might frame education for practice? Key theoretical foundations of PBE (Higgs, 2011, p. 2) suggest that, as an educational strategy, PBE:

- is situated within practice-relevant contexts
- involves reflexivity, participation and dialogue
- occurs in many communities of practice (including workplace, academic, multidisciplinary communities)
- involves a process of socialisation into professional/occupational worlds, roles, identities and career paths
- involves engagement, through industry partnerships, in practice-based teaching and learning activities
- develops capabilities and behaviours that will enable graduates to contribute to local communities and society as responsible citizens and professionals who display ethical conduct and duty of care.

In this way PBE provides a framework complete with goals, strategies, a critical frame of reference and a range of contexts for achieving these outcomes.

HIGHER EDUCATION

To achieve the potential and status of higher education, universities need to provide *education* that is *higher*, and is *suited to the needs of its key stakeholders* within the *contexts of our times*. That is:

- To engage in *education* as opposed to technical training, university programs, whether liberal or vocational, need to prepare graduates who have multiple generic attributes and capabilities and future development capabilities (including communication skills, information literacy, decision making, critical thinking, teamwork, lifelong learning, political awareness and cultural competence), and the knowledge, decision making and technical capabilities needed to enter their chosen profession, discipline or occupation. Such education should be grounded in relevant studies in the social and physical sciences as well as the program's discipline-specific studies.
- To be *higher* (education), university programs should address the needs and interests of both society and individual students, to prepare self-aware graduates

who are positively contributing members of society. Such education addresses both the individual and the common good.

- To address *the needs of key stakeholders*, university education must identify priority stakeholders (including students, faculty, employers, practice communities, society and prospective clients – individuals, groups, organisations and communities) and acknowledge their interests, in order to blend these interests in curricular goals, programs and outcomes.
- To engage in *professional education* requires graduates to achieve the capability to act professionally and ethically, for the common good, in situations beyond the predictability of current knowledge and evidence, and with respect for the clients and communities with whom the graduates work.
- To operate within the *contexts of our times* involves:
    - recognising changing society expectations and patterns;
    - balancing the changing interests and expectations of students, consumers, clients, employers and communities;
    - shaping curricula in local and global frames of reference;
    - addressing expectations of employers, regulatory authorities (both professional and higher education);
    - considering the interests of industry, education and community partners;
    - being informed by educational trends and good practices;
    - operating within the parameters of educational systems (e.g. funding, organisation, resourcing); and
    - being proactive, future-oriented and innovative in consideration of all of these priorities.

PBE, HIGHER EDUCATION AND EDUCATIONAL STANDARDS

According to Barnett (2011, pp. 2-3) "higher education is an educational process that may or may not be found in universities; it is a critical concept that provides standards such that educational processes in universities … can be assessed as to the extent to which they fulfil the criteria implied in the idea of higher education."

If we take the ideas of higher education articulated above, what standards are pertinent to PBE? How do we create and assess good PBE? It may be helpful, in reflecting on these questions, to consider a set of educational standards for professional[i] and practice-based education (P&PBE) (EFPI, 2011) that was developed at Charles Sturt University (CSU), Australia. The sources of these standards include key higher education literature (such as Biggs, 2006; Coates, 2010; Gvaramadze, 2008), the Bologna Process,[ii] the European Association for Quality Assurance,[iii] the European Commission's Report on Progress in Quality Assurance,[iv] the European Tuning Project, [v] the Dublin Descriptors, [vi] the work of the Quality Assurance Agency (UK),[vii] the UK Quality Code for Higher Education,[viii] the Department of Education, Employment and Workplace Relations' "A New Era of Quality in Australian Tertiary Education,"[ix] the Department of Education, Employment and Workplace Relations' "Transforming Australia's

Higher Education System"[x] and the work of the Australian Learning and Teaching Council Standards Working Party.[xi] CSU staff had extensive input to the development of these standards.

The CSU standards comprise a set of statements or criteria that identify characteristics of good P&PBE at the course level. The standards indicate the expectations of these courses and as such represent the minimal acceptable performance level. They relate to entry-level courses (undergraduate and graduate-entry programs) at CSU, with masters entry courses operating at a higher level than bachelors e.g. having higher levels of student outcomes/attainments. The primary aims of the standards are to:

- enhance the quality of education using a cycle (plan, implement, review and improve) of continuous quality improvement
- support course teams in curriculum development
- provide a common frame of reference across P&PBE undergraduate and graduate-entry courses at CSU to help in course design, delivery and review
- identify the information to be entered into course and subject profiles in the curriculum database
- provide a means for accountability in the delivery of professional courses
- provide a means of reflection for course teams and individuals on their performance and contribution to the quality of CSU professional courses.

The CSU P&PBE course standards are presented in key areas of education that encompass good practice across the curriculum. Tables 1.1, 1.2, 1.3 are course-related. A fourth table, not included in this chapter, deals with university-level infrastructure necessary for the P&PBE standards to be realised.

- Table 1.1 focuses on the course goals. The dimensions within this category address the *course learning outcomes*.
- Table 1.2 addresses the *teaching and learning activities* associated with achieving the learning outcomes. These standards are expressed as activities or processes and ensure the alignment of the teaching, learning and assessment activities with good P&PBE course goals.
- Table 1.3 presents the *course infrastructure* needed for the P&PBE standards to be realised. Adequate resources (e.g. staff, learning spaces) are necessary for the delivery of good P&PBE.

Table 1.1. Course goals and learning outcomes

Students will demonstrate by the completion of the course the following capabilities and attributes expected of graduates entering their professional communities and workplaces

DIMENSIONS/MEANING	STANDARDS
PROFESSIONALISM AND CITIZENSHIP	
Capabilities and attributes: – Accountability – Ethical conduct – Trustworthiness, respect, dedication – Commitment to professional values – Lifelong learner – Social inclusion, diversity acceptance – Contribution to the wellbeing of society – Commitment to quality – A global perspective of practice – Understanding of financial, social and environmental sustainability – Reflective practitioner	1. Demonstrate commitment, and an ability to undertake lifelong learning through reflection, self-evaluation and self-improvement. 2. Exhibit qualities and behaviours consistent with professional values informed by social justice, global citizenship, Indigenous and cultural competencies and inclusion principles. 3. Explain how practice is informed by knowledge of continuous quality improvement, sustainability and global trends in practice.
PROFESSIONAL JUDGMENT:	
Capabilities and attributes: – Critical reflection – Analytical – Constructive criticism of own practice – Flexibility, ability to manage change – Problem-solving capability – Creativity – Ethical decision-making ability – Practise according to the law	4. Demonstrate critical and creative decision making and problem solving that is context-relevant. 5. Make work-related decisions that are aligned with professional values, standards and ethics and address legal requirements. 6. Demonstrate accountability by being able to report and articulate the basis for professional decisions and actions.
COMMUNICATION AND INTERACTIONS	
Capabilities and attributes: – Communication according to professional values and boundaries – Supportive communicator – Cultural competence (particularly in relation to Indigenous and multicultural Australia) – Confidentiality – Team worker – Collegiality and collaboration	7. Demonstrate ethical, respectful, supportive and culturally competent communication and interaction consistent with professional codes of practice. 8. Demonstrate proficient and professional communication, through a variety of delivery media/modes to specialist and non-specialist audiences. 9. Demonstrate teamwork, leadership, collegiality, conflict management and professional conventions at the level of an emerging professional.

Table 1.1. (continued)

DIMENSIONS/MEANING	STANDARDS
INFORMATION LITERACY	
Capabilities and attributes: – Ability to access new information – Ability to judge information applicability to a specific work setting – Synthesise information from multiple sources – Produce reports and presentations utilising multiple forms of media	10. Demonstrate an ability to critique new information and determine its relevance to a given situation. 11. Demonstrate efficacy in the use of information and communication technologies as part of: a) learning b) professional practice.
PROFESSION COMPETENCE AND WORK READINESS	
Capabilities and attributes: – Profession knowledge – Profession skills – Ability to integrate theory with practice – Knowledge of and ability to work within relevant legislation – Competence in safe work practices and knowledge of relevant occupational health and safety policies – Competence in discipline/ profession knowledge and skills – Initiative – Ability for independent work	12. Demonstrate the discipline-specific technical capabilities of a beginning practitioner or professional. 13. Integrate discipline, practical and social knowledge and skills in contemporary professional practice. 14. Demonstrate an understanding of legal and ethical requirements and the boundaries in which to work. 15. Recognise and respond appropriately to unsafe practice. 16. Demonstrate an ability to plan and manage workloads.

Table 1.2. Learning and teaching activities and processes

The focus of these learning and teaching strategies is on professional socialisation and learning approaches to learn and perform in communities of practice.

DIMENSIONS	STANDARDS
CURRICULUM DESIGN (planned content, learning activities and assessment)	17. The formal curriculum reflects PBE goals (dimensions making up Table 1.1) and good practice. 18. Curriculum mapping is in place with: a) constructive alignment of P&PBE goals, learning activities and assessment b) a range of learning opportunities relevant to preparation for practice c) relevant sequencing of learning activities and content (particularly theory and practice). 19. Relevant stakeholders such as students, industry partners and community partners are involved in curriculum design.

Table 1.2. (continued)

DIMENSIONS	STANDARDS
CURRICULUM REVIEW (CONTINUOUS QUALITY IMPROVEMENT)	20. The curriculum is regularly reviewed internally to ensure the PBE standards are addressed. 21. The curriculum is subject to external scrutiny to ensure that external expectations of professional education are addressed. 22. Relevant stakeholders including students, industry partners and community partners are involved in curriculum review.
RISK MANAGEMENT OF THE CURRICULUM	23. Staff in workplace learning placements ensure a relevant balance between student learning and client services priorities and appropriate levels of student supervision. 24. Relevant processes are in place to manage risks (legal, health, safety, environment, values, ethics, reputation) for students, site, university. 25. Recognise and address the risks inherent in any mal-alignment between the hidden and planned curricula.
(ACTUAL) PBE TEACHING AND LEARNING ACTIVITIES	26. Teaching methods activities (lectures, learning materials, etc.) explicitly demonstrate relevance of content to practice (i.e. the practice of the students' future profession/ occupation or a broad work arena, e.g. business). 27. Strategies other than teacher-led learning and assessment activities (e.g. self-directed and peer learning/assessment). 28. Learning activities include consideration of and/or opportunities to engage with relevant stakeholders and CSU's communities (rural and regional Australia; Indigenous Australians; professions, industries and students; national and international institutions, scholars and researchers) through responsiveness, partnerships, ethical reciprocity and inclusiveness in relation to these communities. 29. Distance students have learning activities to develop practice skills, cultural capabilities, interactive skills, professional identity, etc. 30. Assessment activities that accurately evaluate and promote learning related to the goals in Table 1.1 and identify the need to take action (e.g. with failing students).
INCLUSION OF WORK-INTEGRATED LEARNING (WIL) OR WORKPLACE LEARNING (WPL) ACTIVITIES	31. Provide WPL activities to gain real-world and/or simulated experiences to develop sound decision making in practice. 32. Provide WIL strategies (e.g. simulations, e-learning, visits by industry partners and clients) to bring the practice world into the classroom. (E-learning is of particular value to distance students.) 33. Assessment methods promote learning as well as evaluating the students' practice ability.

Table 1.3. Learning and teaching infrastructure

DIMENSIONS	STANDARDS
STAFFING (numbers, expertise)	34. Skilled staff that can provide effective learning to a diverse range of students are available and accessible in appropriate numbers. 35. Staff collectively have a range of expertise and experience including relevant theoretical and scholarly knowledge and relevant professional experience. A whole-course approach is required to achieve and improve the standards.
STAFF SUPPORT AND DEVELOPMENT SYSTEMS	36. Staff have support for quality teaching, e.g. workloads that provide adequate time for teaching, curriculum development and career advancement. 37. Staff development opportunities/systems are in place to enhance teaching.
STUDENT SUPPORT SYSTEMS	38. Learning support schemes are available to students to develop learning skills, information literacy, and to remediate learning difficulties. 39. Systems and schemes are in place to support students and their participation in learning opportunities (e.g. WPL placements).
ON-CAMPUS WORKPLACE LEARNING ENVIRONMENTS	40. To enable students to gain relevant work experience either to complement real-world experience or, when real-world workplace learning is not feasible, the school/faculty provides alternative learning opportunities, e.g. via simulated learning and workplaces or university clinics/ farms, etc. These strategies provide for: – developing practice skills & knowledge of the occupation – developing professional identity – learning to work in practice communities – developing relevant interaction and social capabilities – developing professional decision-making and self-appraisal skills. 41. Resources create an up-to-date practice-relevant setting that enables students to experience their practice world, e.g. – real/simulated clients – practice workloads – real/simulated interactions with practice communities, clients and local communities. 42. Staff provide sound role models for the occupation/ profession/discipline.

Table 1.3. (continued)

DIMENSIONS	STANDARDS
LEARNING RESOURCES	43. Resources available to staff and students to promote student practice-based learning are: – relevant to P&PBE goals/outcomes (see Table 1.1) – accessible and sufficient (in numbers) – current – of high quality.

CONCLUSION

So, how can educators move from the *idea* of PBE to the *practice* of PBE? And how can we define and realise good PBE? The first proposal presented in this chapter is that these outcomes need to be achieved by realising, concurrently and in harmony, the four dimensions: the practice the graduates will enter; the educational paths, experiences and opportunities upon which this preparation for and development of practice builds; the contexts for learning and practice; and the pursuit and facilitation of quality processes and outcomes. An important consideration for PBE is understanding and utilising relevant educational theory to frame educational strategies and practice. The second proposal is that universities need to provide *higher* education that is suited to the needs of its stakeholders. Linked to this argument is the way educators and educational systems shape the quality of higher education through setting and reviewing educational standards.

A set of standards for professional and PBE is presented here. Addressing these standards through curricula and pedagogy offers a framework to realise approaches to PBE that can enhance professional practices for the benefit of professionals and their clients.

ACKNOWLEDGEMENTS

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NOTES

[i] Professional education is the broad context. PBE provides the curriculum framework.
[ii] http://www.ond.vlaanderen.be/hogeronderwijs/bologna/
[iii] http://www.enqa.au/
[iv] http://www.enqa.au/
[v] http://www.unideusto.org/tuningeu/
[vi] http://www.tcd.ie/vpcao/academic-development/assets/pdf/dublin_descriptors.pdf
[vii] http://www.qaa.ac.uk/
[viii] http://www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/quality-code-brief-guide.aspx

[ix] http://www.deewr.gov.au/HigherEducation/Documents/PDF/Additional%20Report%20-%20Transforming%20Aus%20Higher%20ED_webaw.pdf
[x] http://www.deewr.gov.au/HigherEducation/Pages/TransformingAustraliasHESystem.asp
[xi] http://www.altc.edu.au/system/files/ProjectOutline23Nov09.pdf

REFERENCES

Barnett, R. (2011). *Being a university*. Oxon, UK: Routledge.
Biggs, J. (2006). *Teaching for quality learning at university* (2nd ed.). Berkshire, UK: Open University.
Coates, H. (2010). Defining and monitoring academic standards in Australian higher education. *Higher Education Management and Policy, 22*(1), 1-17.
EFPI. (2011). *Standards for professional and practice-based education.* The Education For Practice Institute, Charles Sturt University, Sydney. (Version 2: September, 2011.)
Gvaramadze, I. (2008). From quality assurance to quality enhancement in the European higher education area. *European Journal of Higher Education, 43*, 443-455.
Higgs, J. (2011). *Professional and practice-based education at Charles Sturt University. Sydney, Australia*: 2e The Education For Practice Institute, CSU, Sydney Olympic Park.

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2. A PRIMER ON PRACTICES

Theory and Research

As the title indicates, this chapter is a primer on practices. It begins by discussing practice theory generally but mostly presents my own ideas. The topics addressed are practices, activities, and social phenomena, with special attention to temporality and the unfolding of practices. The chapter concludes with comments about conducting research on practices. My goal is to provide practice theoretical stimulation to readers interested in practice-based education and research.

WHAT'S THE DEAL WITH PRACTICE THEORY?

The expression "practice theory" has gained currency in recent decades. I believe it has its origins in anthropology, in connection with the work of Pierre Bourdieu (1972, trans. 1976) as codified in a well-known article by Sherry Ortner (1984). But the expression covers much more. Perhaps the two leading exponents of practice theory are Bourdieu and Anthony Giddens (1979). In philosophy, both Hubert Dreyfus (1991) and Charles Taylor (1985) have described key dimensions of practices, and figures such as Jean-François Lyotard (1988) have defended parallel ideas. Otherwise, the work of Andreas Reckwitz (2002), Elizabeth Shove (Shove, Pantzar, & Watson, 2012), Stephen Kemmis (Kemmis & Grootenboer, 2008), and Schatzki (2002) should be mentioned. In the background of these theorists' ideas stand the prominent philosophies of Heidegger and Wittgenstein. Because of this background, the work of many other theorists converges with ideas associated with the more narrowly defined partisans of practice. The above thinkers form a diverse group. As a result, only general commonalities exist among them. Three commonalities are particularly significant.

The first is the idea that a practice is an organised constellation of different people's activities. A practice is a social phenomenon in the sense that it embraces multiple people. The activities that compose it, moreover, are organised.

The second commonality is the idea that important features of human life must be understood as forms of, or as rooted in, human activity – not the activity of individuals, but in practices, that is, in the organised activities of multiple people. Some of the features in question are social phenomena such as science, power, organisations, and social change. The idea that these phenomena are forms of, or rooted in organised activities, opposes a wide variety of social system and structuralist theories that make systems principles or abstract structures and mechanisms central to social phenomena. Other features of human life thought to

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 13-26.

be rooted in organised activities are psychological – or quasi-psychological – matters such as reason, identity, learning, and communication. These features, too, so goes the intuition, are features of practices, or perhaps more precisely, features that come to characterise particular people by virtue of their participation in social practices. Indeed, some philosophers have contended that the contents of most if not all of a person's mental states and actions presuppose the practices in which the person participates. This contention helps differentiate practice theoretical accounts of social phenomena from those social ontological individualisms that uphold the thesis that social phenomena are aggregates or constellations of individuals' actions. If what a person does, thinks, believes, etc. presupposes the practices that s/he carries on, social phenomena cannot consist simply of people's actions but must comprise these actions together with, or in the context of, these practices.

The third common tenet is an account of human activity that, in emphasising that human activity rests on something that cannot be put into words, counters the subject-object split that has defined much philosophical thought in the modern era (but has received substantial criticism from multiple directions in the past 80 years). Examples of the nonpropositional something are Ryle's *know-how*, Merleau-Ponty's *habits/schemas*, Dreyfus' *skills*, Bourdieu's *habitus*, and Giddens' *practical consciousness*. Standing behind these conceptions are Wittgenstein's ruminations on rule following and knowing how to go on. This nonpropositional thing, moreover, is bodily. This emphasis on the body partly represents polemical opposition to the historical domination of mind over body in the mind-body dualism. A few theorists, however, notably Merleau-Ponty and Dreyfus, have sought to conceptualise the bodily nature of abilities. Meanwhile, in the work of theorists such as Bourdieu and Giddens, who are interested in sociality, these bodily abilities help organise activities as practices. In sum, the domain of "practice theory" is delimited by a conception of practices as organised activities, the conviction that both social phenomena and key "psychological" features of human life are tied to practices, and the idea that the basis of human activity is nonpropositional bodily abilities.

Beyond practice theory, a wide variety of theorists today use the expressions "practices" or "social practices" in the absence of an elaborated or even explicit conception of practices. These expressions are also often used almost unreflectively, in a way that suggests that the writer or speaker believes that his/her subject matter is a form of, or rooted in, human activities. In this way, a vague, unarticulated sense of the first two commonalities that delimit practice theory has disseminated far beyond its imprecise shores and become commonplace in contemporary social thought.

PRACTICES AND PRACTICE-ARRANGEMENT BUNDLES

The central concept in practice theory is that of practices. A practice, on my understanding, is an open-ended, spatially-temporally dispersed nexus of doings and sayings. Practices are open-ended in the sense that they are not composed of any particular number of activities. A practice that is so composed, is complete,

dead, no longer being carried on. The activities that compose a practice are spatially-temporally dispersed, moreover, because each of them takes place somewhere in objective space at some point in, or over some duration of, objective time. Not all activities, it should be noted, are unambiguously locatable in objective time. An example is winning a school math contest, which can be located at the conclusion of the competition, during the entire time the competition takes place, or when the results are certified. To say, finally, that activities form a nexus is to say that they hang together: that they are organised and connect through such relations as causality and intentional directedness.

A practice is a nexus of doings and sayings. Sayings are a subclass of doings, namely, all doings that say something about something. At the base of a practice, furthermore, lie those doings and sayings that are basic activities. Basic activities take place without the actor having to do something else: they are actions a person can perform without further ado. Examples are typing on a keyboard, moving one's hands hither and thither, uttering the words "Your exam begins now," and thinking that a sunset is beautiful. As these examples suggest, most basic doings and sayings are bodily activities. Note that a paraplegic is capable of doings and sayings, too, since he or she is able to perform a small set of bodily actions and, like abled people, is capable of performing a large range of "mental" actions such as thinking, imagining, and calculating, all in one's head.

In almost all cases, people perform further actions in performing basic ones. A person, for example, writes an essay or manipulates a PowerPoint presentation by typing on a keyboard, sorts and files papers by moving her hands hither and thither, and takes solace surrounded by noisy kids by thinking that the sunset is beautiful. In turn, these "higher level" activities typically constitute even higher level ones. For example, in writing an essay a student might be doing the work for a course, and in giving an exam a teacher might be testing student learning and abilities. Action hierarchies such as these are teleological. For example, the teacher's purpose in saying "Your exam begins now" is to begin the exam, and her purpose in beginning the exam is to test students' learning and abilities (or just to do her job). Teleological hierarchies top off in some activity in which there is no further involvement, some activity that does not help compose yet a further activity. Such an activity is a person's end: it is that for the sake of which she acts. A student might take courses and do coursework, for example, for the sake of advancing career prospects, living the good life, or surviving to the end of the semester, just as a teacher might give exams for the sake of bettering people's life chances, improving society, or just doing her job. A practice embraces all the activities contained in such teleological hierarchies: the activities and states of existence for the sake of which people act, the projects, i.e., actions they carry out for their ends, and the basic doings and sayings through which they implement these projects.

As for organisation, a practice's activities are organised by practical rules, understandings, teleoaffective structures, and general understandings. An action belongs to a practice if it expresses one of the understandings, rules or teleoaffective elements that organise that practice. This general conception of organisation is shared by Bourdieu and Giddens, though they diverge on what

organises practices: habitus, stakes, and capitals (Bourdieu), sets of rules and resources (Giddens).

By "practical understanding" I mean knowing how to carry out desired actions through basic doings and sayings. An example is understanding how to sort and file papers – by moving one hands hither and thither. By a "rule," I mean an explicitly formulated directive, remonstration, instruction, or edict. Rules are ubiquitous in human life: humans are always formulating or producing them. By a "teleoaffective structure," moreover, I primarily mean a set of teleological hierarchies (end-project-activity combinations) that are enjoined or acceptable in a given practice. To say that a hierarchy is enjoined is to say that, when carrying on a practice, participants (or participants with certain identities) should realise them, i.e., perform particular actions and projects for the sake of particular ends. The affective component of a teleoaffective structure embraces the emotions and moods that people carrying on a practice should or may acceptably express. Practices vary on how robust their affective organisation is. Finally, general understandings are abstract senses, for instance, of the beauty of an artisanal product or of the nobility of educating students. They are not ends for which people strive but senses of the worth, value, nature, or place of things, which infuse and are expressed in people's doings and sayings. Doings and sayings belong to a given practice when they express some of the understandings, teleoaffective components, and rules that make up the organisation of that practice.

The activities that compose practices are inevitably, and often essentially, bound up with material entities. Basic doings and sayings, for example, are carried out by embodied human beings. Just about every practice, moreover, deals with material entities (including human bodies) that people manipulate or react to. And most practices would not exist without materialities of the sorts they deal with, just as most material arrangements that practices deal with would not exist in the absence of these practices. Because the relationship between practices and material entities is so intimate, I believe that the notion of a bundle of practices and material arrangements is fundamental to analysing human life. The conviction that some amalgam of activity and materiality is ontologically and dynamically fundamental to human life is not shared by all practice theorists, for example, Giddens. It is upheld, however, by other practice theorists such as Bourdieu and also by a range of other contemporary theoretical approaches including actor network theory, sociocultural theories of mediated action, object-centred socialities, and some accounts of science.

To say that practices and arrangements *bundle* is to say (1) that practices effect, use, give meaning to, and are inseparable from arrangements while (2) arrangements channel, prefigure, facilitate, and are essential to practices. More specifically, practices and arrangements form bundles through five types of relation: causality, prefiguration, constitution, intentionality, and intelligibility. I will make brief comments about each. *Causal relations* between practices and arrangements take two prominent forms: activities altering the world, plus entities and the events befalling them and inducing activities. By *prefiguration*, meanwhile, I mean the difference that the present makes to the nascent future. Contrary to the

widespread analysis of prefiguration as a matter or enablement and constraint, I conceive of it as present states of affairs that qualify forthcoming activity on indefinitely numerous registers such as easier/harder, more/less expensive, nobler/baser, more/less time-consuming. Material arrangements ubiquitously prefigure the perpetuation of practices, that is, the repetition or redirection of the doings and sayings that compose particular practices. Arrangements also prefigure changes in practices and arrangements. Existing arrangements in classrooms, offices, and labs, for example, prefigure changes in college policies, making possible changes easier or harder, more or less expensive, more or less time-consuming, and so on. Similarly, existing material infrastructures such as communications and computer systems prefigure changes in these infrastructures or the introduction of new ones.

As for *constitution*, arrangements constitute practices when they are either essential to these practices or pervasively involved with them over a swath of space-time. Students are essential in this sense to teaching practices, just as classrooms have helped constitute these practices for decades. Conversely, practices constitute arrangements when given arrangements would not exist were it not for particular practices. In this sense, teaching practices constitute the classroom arrangements where they occur, but not the walkways that students and instructors take to and from classrooms. Practices are *intentionally* related to arrangements, furthermore, via both the thoughts and imaginings participants have about them and the actions participants perform toward them (including using them). Teachers, for instance, think various things about smart boards and classroom chair arrangements and act toward them in various ways. A final sort of relation between practices and arrangements is *intelligibility*: arrangements having meaning for – being intelligible as such and such to – participants in a practice. I will not argue the point here, but the intelligibility of the world is tied to the practices people carry on: the meanings that windows, lecterns, smart boards, class management software, chalk, students, and administrators have for teachers are tied to the practices teachers carry on amid these entities.

Thickets of relations of all five types can be thinner or denser, more compact or spread out, continuing or fleeting, and so on. Relations of these sorts are typically very thick between the practices and arrangements that compose a bundle. In fact, it is this concentration of relatedness, its density and continuity, that makes it the case that a bundle exists. Teaching practices, for example, maintain particularly thick causal relations with the students, markers, essays, computers, and blogs on which the people carrying them out immediately act as thinner causal relations with other university arrangements, for instance, those composing central administration or the athletics department. The students, markers, etc. with which teaching practices maintain thick causal relations also tend to be the entities with which they maintain constitutional relations and whose meanings the practices subtend. It is with these entities that teaching forms a bundle. As indicated, bundles of practices and arrangements are central to social analysis.

ACTIVITY AS TEMPORALSPATIAL EVENT

Practices are nexuses of activity. I have been using the word "activities" to denote doings and sayings, both basic activities and the further activities they constitute in the circumstances (e.g., typing on a keyboard, writing an essay). The current section examines activities as a type of entity (see Schatzki, 2010, for more detail).

Activities are events. This means that they happen. Theorists who hold that activity is an event standardly contrast activities as events to another type of event often called "mere occurrences." Examples of mere occurrences are hail falling, neurons firing, and flags fluttering in a breeze. Activity events are distinguished from mere occurrences by virtue of being intentional and voluntary. Mere occurrences lack these properties: they just happen.

Even though activities and mere occurrences are different categories of event, I believe that they share an important feature, namely, that of befalling entities: an activity befalls the person whose performance it is. (This idea derives from later Heidegger's notion of the event.) To be sure, a person performs, or carries out, the action that a performance is a performance of. But she does not perform, or carry out, the performance – the activity – itself. Rather, the performance happens. It's happening to, or befalling her, is, at once, her carrying out the action. Otherwise stated: although a performance is doing something, the doing itself is not a further thing a person does – it just happens. Incidentally, because a person is responsible for her actions, on my analysis responsibility, and also choice and thereby freedom, befall a person (cf. Sartre, 1943, trans. 1956). They are conditions that hold of a person by virtue of activities befalling her. They are not triggers or states of affairs that pre-exist and determine activities.

Activity is an event that befalls people and other creatures. It is also a temporalspatial event. It is temporalspatial, however, in an unusual sense. Normally, an event is deemed temporalspatial if it occurs in time and in space, that is, if it has a location in time and space. Activities do occur in space and time. When I write that activities are temporalspatial, however, I mean that time and space, or better, timespace, is an essential feature of activity and exists only when, and in so far as, activity happens. Activity is temporalspatial because something called timespace makes activity what it is, activity, as opposed to mere occurrence.

My specific understandings of the temporal and spatial components of activity timespace are an interpretation of Heidegger's analysis of existence in *Being and Time* (1928, trans. 1978). Heidegger averred that temporality (*Temporalität*) is the meaning of human existence. In the present context this can be taken as the claim that human activity is essentially temporal. By "temporality," moreover, Heidegger meant the past-present-future dimensionality of activity. A key feature of these three dimensions is their simultaneity: each an essential dimension of activity, the past, present, and future necessarily happen together. They do not form a succession, the past preceding the present which precedes the future. The idea that past, present, and future are simultaneous contrasts with the dominant understanding of time in Western culture as succession, as the before and after ordering of events, states of affairs, and instants, etc. On this understanding, the

past precedes the present, which precedes the future. By contrast, the past, present, and future of human activity occur together, simultaneously, whenever activity takes place. All three dimensions co-exist so long as a person acts.

Heidegger interpreted the past, present, and future of temporality, specifically, as thrownness, being-amid, and projection, respectively. Thrownness is already being-in-a-world. Whenever a person acts, she is always already immersed in particular situations, in the context of which she acts. What she does is sensitive to, responsive to, and reflective of those situations, or rather, of particular aspects of them. These aspects are givens, from which she departs in acting: they are what matters to her in the situation. Projection, meanwhile, is being ahead of oneself. Projecting is putting ways of being before oneself and acting for their sake. Whenever a person acts, she acts for the sake of some way of being (e.g., winning a competition, getting home on time, being a good sister) – toward which she comes in acting. Being-amid, finally, is having to do with entities encountered in the world, that is, acting toward, with, and amid (*bei*) them. All told, a person, when acting, proceeds amid entities stretched out between that toward which she is coming and that from which she is departing. This proceeding-stretching out is the opening up of the past, present, and future of activity.

This structure can be described teleologically. The future dimension of activity, coming toward something projected, is acting for an end. The past dimension of activity, departing from something that matters, is reacting to something or acting in its light, that is, being motivated. The present of activity is acting-encountering entities. The temporality of activity is, thus, acting amid entities toward an end from what motivates. Because activity is essentially temporal, human activity is inherently teleological and motivated.

So described, the future and past dimensions of activity determine what people do. People act *for the sake of* something and *because of* such and such: what determines their activity is "that for the sake of which they act" and "that given which they do so." It follows that understanding or explaining activity requires grasping or citing the ways of being for the sake of which people act as well as the events or states of affairs given which they proceed as they do.

Spatiality (*Räumlichkeit*), meanwhile, is the world through which a person proceeds, housing activity, the involvements that entities in the world have in the activity that happens amid them. More specifically, spatiality embraces arrays of places and paths anchored in entities, where a place is a place to perform some action and a path is a way among places. This room, for instance, embraces an array of places and paths to sit, to speak, to gaze, to exit, and the like that are anchored at chairs, desks, and doors. To say that a place or path is anchored at an entity is to say that this entity provides stability and a location in objective space to that place or path. As a person passes through her day, she proceeds sensitive to the places and paths that are anchored in the arrangements amid which she acts.

Human activity is a temporalspatial event. An important feature of activity that follows from its temporal character is indeterminacy. Activity is indeterminate in the sense that it is not fixed or laid down prior to a person acting either what she does or what teleological and motivational factors determine her activity. It is only

with the performance itself that what she does, and that for the sake of which and because of which she does it, become definite. Indeterminacy does not mean not determined: what a person does is always determined by that for the sake of which, and that because of which, she does it. What these are, however, remains open until she acts. For the same reason, indeterminate activity is not random. Activity is indeterminate because what determines it is fixed or settled only with its happening.

As stated, the indeterminacy of activity follows from the temporal character of activity. The past, present, and future dimensions of activity are simultaneous. The past and future, moreover, determine the present – activity itself. So the determination of activity does not precede (or succeed), but instead is simultaneous with the activity determined. Until activity occurs, consequently, what determines it cannot be fixed or settled. These facts do not imply that a past state of affairs cannot determine present activity. What they entail is twofold: that a past state of affairs cannot, *prior to present activity*, settle what someone presently does and that a past state of affairs does determine present activity only if its doing so is a (present) dimension of that activity. In other words, it is present activity, not the past state of affairs, that makes it the case that the past state of affairs determines it.

Strictly speaking, timespace is a feature of each activity. It is, however, a social feature of individual activities. It is social because the timespaces of different people's activities interweave under the aegis of social practices and the material arrangements with which practices are bundled.

The interwovenness of the timespaces of different people's activities consists in the existence of common, shared, and orchestrated elements. Elements of timespace – ends, purposes, motivations, places, paths – are common when participants in a practice act for the same ends, purposes, or motivations, or at the same places and paths anchored at the same or similar material entities, and do so because this is enjoined in the normative organisation of the practice. For example, a place for teachers to stand and speak is anchored for teachers and students alike at desks at the front of classrooms because this is enjoined in educational practices. Elements of timespace are shared, meanwhile, when people act for the same ends or motivations or at the same places and paths, and this is not enjoined of them but still acceptable in their practices. A classroom example is teacher and students having a good laugh together after the conclusion of a compulsory exam, for the shared purpose of reducing tension. Elements of timespace are orchestrated, finally, when one element being part of one person's timespace is not independent of a different element being part of a different person's timespace. An example is a teacher acting for the sake of maintaining discipline not being independent of a student acting for the sake of undermining authority.

Via commonality, sharing, and orchestration, the timespaces of the activities of participants in a practice that is carried on amid particular arrangements interweave. This interwovenness is a joint product of the normative organisation of the practice involved, the arrangements in which it is carried on, and the many contingent events that inflect the progression of activity in that practice-arrangement bundle. Interwoven timespaces are a feature of this bundle.

In sum, activities are indeterminate temporalspatial events, the interwovenness of whose temporal and spatial dimensions is a feature of the practice-arrangement bundles as part of which they occur.

SOCIETY AND ITS UNFOLDING

Social life, as I analyse it, is human coexistence. Human coexistence, in turn, is the hanging-together of different people's lives. In my (2002) view, the hanging-together of human lives inherently transpires as part of practice-arrangement bundles. Such bundles form "sites" where social existence transpires. Bundles, moreover, connect, through links between their practices, connections between their arrangements, and relations of the sort that join practices and arrangements into bundles. Through such relations, bundles form constellations and constellations larger constellations. The total plenum formed by this labyrinth of linked practices and arrangements is the overall site where social life transpires.

A social phenomenon is, by definition, any form taken by or anything pertaining to the hanging-together of human lives. Substantially, any social phenomenon is a slice or set of aspects of the plenum of linked practices and arrangements. This analysis holds of all social phenomena, small and large, micro and macro, local and global. All social phenomena share the same basic ingredients – practices, arrangements, and relations among them – and composition. The difference between, for example, small social phenomena such as individual classes and large social phenomena such as a national educational establishment is the difference between less and more spatially (and temporally) expansive practice-arrangement bundles or aspects thereof. The educational establishment embraces practices, arrangements, and relations that are spatially further flung than are those making up a class. It is variable, moreover, whether the sets of practices, arrangements, and relations that make up larger phenomena are more complex than those making up smaller phenomena.

This account of social phenomena sets parameters for an account of social unfolding, or development. Perhaps the chief implication is that the unfolding of social phenomena consists in the emergence, persistence, and dissolution of bundles and constellations thereof. I believe, moreover, that human activity is the chief dynamo in social affairs. Practices and bundles arise, persist, and dissolve principally through human activity, though not only this: actions of nonhumans, as well as events and processes that befall nonhumans, also contribute to the development of practices and bundles. The main point at present, however, is that social development ultimately rests on the emergence, persistence, and dissolution of bundles. I have described forms and components of these three processes in another essay and will not repeat my discussion here. Instead, I will say a few words about the dynamics and control of bundles.

An important feature of the evolution of bundles flows from the indeterminacy of activity, namely, that the evolution of a bundle never simply follows from the past: how a bundle evolves is never settled or fixed before participants or members act. Whatever they do is determined teleologically and motivationally, but what

they do and what ends, purposes, and states of affairs determine this, are open until they act. At the same time, activity occurs within contexts that it reflects. Humans, for instance, are trained to be sensitive to normativity. Because of this, the normative organisations of the practices that they have been carrying on, form a context in light of which they usually proceed, by so acting as to extend the practices and maintain their organisations. Past and present states of affairs similarly form contexts that determine present activity if it reacts to them. There can be no guarantee, however, that the present and future will resemble the past or that any particular context – normative organisation, past or present states of affair, desired states of being – will help determine what people do. Experience and knowledge can ground better judgments about the likelihood of particular actions and the reasons for them. But one never knows when these judgments will be thwarted, and human life is full of examples – small and large – of new starts and changes in direction.

These facts also imply that human activity cannot be controlled. The best that designers of lives and institutions can do is to create contexts that, as experience and thought show, make certain activities very or more likely. Since activities are events that befall people, people themselves likewise cannot control them. People do have intimate experience of themselves and might know better than others which contexts increase the likelihood of their performing certain activities. But people's activity can be – and is from time to time – subject to new starts or changes in direction that surprise them.

These observations ramify to social developments at all scales. Because human activity and the unfolding of bundles are central to social change, indeterminacy characterises social developments of all sorts. Novelty and new starts can burst forth anytime and set social affairs in new directions. All alleged constraints or barriers can be suddenly thwarted. Indeed, it is best to abandon the notions of constraints on and barriers to change and instead to conceive of human activity as taking place in contexts to which it is variably reactive. Of course, the fact that new starts and directions are perpetually possible should not obscure the fact that, over any period of time, much about social life does not change: activity is an event, but not all events amount to changes of any significance. Indeed, many, if not most activities perpetuate existing bundles, and activities can perpetuate the status quo even when change seems immanent. This situation, however, can change – any time. New starts also occur sufficiently often to render reliable predictions about human life impossible.

These facts conspire to make the perpetuation and dissolution of bundles a more straightforward affair than their establishment. As noted, humans are trained to be sensitive to normativity, to what is enjoined of and acceptable for them to do. This training brings it about that they usually uphold what is enjoined and acceptable in their practices: the maintenance of normativity is a fundamental fact about human life. Because of this, the perpetuation of bundles is a sort of default situation in human societies.

The flip side of the default perpetuation of bundles is that their dissolution is overwhelmingly, though not exclusively, tied to external factors and contexts.

Sometimes physical events eradicate bundles by killing the humans that had been carrying them out, destroying the arrangements amid which they acted, or inducing the abandonment of extant ways. Examples are, respectively, epidemics, earthquakes, and solar eclipses. Blunt force and its threat can have similar results. Less violent examples highlight external challenges such as the launching of the Sputnik satellite, which led to the rapid abandonment of the existing U.S. space program (and the implementation of a new one), and the collapse of a market, which induces a firm to abandon production of a particular good. Of course, the dissolution of bundles can, pace these examples, take long periods of time. It took much time, for example, for rote memorisation to depart language education. Sometimes, moreover, bundles dissolve due to internal factors: an example is the abandonment of certain agricultural bundles consequent on the depletion of soil nutrients. Still, most dissolutions follow from external causes. And this fact indicates that the likelihood of dissolution can be significantly increased through the creation of particular external contexts, for example, the amassing of armies, the intensification of governmental projects, and the erection of trade barriers. Of course, these developments might simply induce the evolution – not dissolution – of the target bundles. One can never be sure how people will respond. Even when one succeeds in inducing dissolution, it is a further matter to shape what follows.

Establishing bundles is more work. The establishment of a bundle is the institution of one or more practices that conjointly transpire amid a particular, perhaps newly created or altered material arrangement or set of similar arrangements. It is relatively easy to create or alter arrangements, though doing so requires resources and materials. Practices are instituted, moreover, when activities come to be organised by some set of understandings, rules, and teleoaffective structure. To effect such an organisation, tasks must be distributed, ends and purposes set or coalesced, and rules issued or disseminated. General understandings must be exemplified and repeatedly formulated if they are not appropriated from other bundles. People must also be trained if their repertoires of basic activities need to expand and be aligned with to-be-performed activities. Once practices and bundles are established, moreover, they assume lives of their own and unfold in unforeseen ways. The emergence of bundles can also be a gradual and indistinct process, unknown to the people to whom it is occurring. I suspect that the emergence of Neolithic agricultural and artisanal practices occurred much this way.

RESEARCHING PRACTICES

The world according to practice theory offers much to investigate. There are practices, arrangements, activities, bundles, and constellations. There are questions about which of these exist when and where, their details, how they work and unfold, how they can be designed or altered, and how to prepare people to enter them. These questions point to different concerns and protocols of inquiry. In these concluding remarks on research, I want to concentrate on the first set of questions, which all concern what is. How does one uncover the world of practice, how it is?

Practices are more ethereal than are material entities. Whereas material entities and activities can be directly perceived (this requires knowledge of the bundles to which they belong and of teleology as well as motivation), practices must be uncovered. Not only are the constituent activities of practices spread out over space and time, but their organisations, as the organisation of spatially and temporally dispersed entities, are abstract phenomena. Other means than direct experience must be seized to uncover them.

Language is an important clue as to which activities and practices exist. This is true regardless of how much or how little knowledge and experience an investigator has of the bundles under investigation. Even an anthropologist with little knowledge of the society she is entering, or an unprepared educational sociologist investigating inner city schooling in his own country, can perceptually grasp many basic bodily doings and – provided linguistic knowledge – many basic bodily sayings of the people involved. What they might not so readily grasp are the activities and practices these doings and sayings help compose. Lexicon is an important clue here. The use of words for activities and practices is built into practices. The common use of activity words can hardly get activities wrong on the lower levels of action hierarchies, i.e., basic doings and sayings and the activities they immediately constitute. It is only at higher levels of these hierarchies, for instance, concerning names of that for the sake of which people act, that the use of language might be wrong, hoodwinked, brainwashed, the victim of ideology, and the like. Words for practices are likewise reliable guides to existing organised activity nexuses. Understanding people's words for activities and practices thus provides access to the activities and practices that make up their practice-arrangement bundles. Of course, issues might affix translating this language into one spoken or understood by the investigator and his audience.

Anthropologists who head into the field and educational sociologists who head to inner city schools do not do so unprepared. They take courses and read books, attend conferences, talk to people who have been there, look at newspaper stories, and watch documentaries. With the knowledge thereby gained, both about their subjects and about types of people more broadly, they can, when encountering their subjects, decently well identify the activities and practices these people carry on, as well as the material entities and arrangements thereof amid which do so. Nonetheless, much about the organisations and temporalspatial infrastructures of these practices and bundles, about how the practices and arrangements hang together and connect to others of their own ilk, about the contexts in which activities take place, and about the histories of the bundles and how they might develop in the future, in what contexts, will be unknown. This is detailed information that no one, including the subjects, possesses; at best, the knowledge that is distributed among the subjects and those who have studied them might, if pooled, cover much of these matters. Despite this, understanding these things is essential to understanding the subjects' lives and worlds and to anticipating and attempting to shape their future.

To acquire this knowledge, the investigator has no choice but to do ethnography, that is, to practice interaction-observation. Under "ethnography" writ large I

include focus groups and meetings of subjects, as well as videotaping practices. There is no formal or mathematical or computer-based method that can get at these matters. There is no alternative to hanging out with, joining in with, talking to and watching, and getting together the people concerned. Comparative methods might produce some understanding. Any accurate use of comparative methods, however, presupposes ethnography – else, one cannot know what and how to compare, what umbrella categories to use, and the significance of revealed commonalities and differences. Of course, this truth does not stop people who are unwilling to do ethnography from making either uninformed and ultimately unilluminating comparisons or, more likely, comparisons at high levels of generality. High-level comparisons can, moreover, be revealing. But one will never understand the significance of what has been uncovered and its implications for change and design absent ethnography. This is why it is far more important for, say, government officials to read case histories, ethnographies, and histories than the comparative work of political scientists.

A further important method, in a way a part of ethnography writ large, is the interview or oral history. Whereas ethnography delves into the contemporaneous condition of particular bundles and constellations, oral history documents reflective participants' temporal journeys through series of bundles and constellations, thereby offering glimpses of the organisations and timespaces of these bundles at different times, the links among them, the activities that compose them, evolutions in these matters, and what is involved in individual people participating in multiple bundles over time. Paired with ethnography and histories of the present such as genealogy (in Foucault's sense), oral histories offer as complete an accounting of extant bundles and constellations as is available. The historical dimension is important also because of the previously discussed fact that the persistence of bundles is the default situation in human society. Persistence does not mean stasis, and the past development of a bundle is a context in which the bundle presently unfolds.

Underlying the grasp of others' languages and the pursuit of both ethnography and oral history is the general experience of and familiarity with humans and their situations that attentive and reflective people acquire merely by living. I mention this because this experience and familiarity are especially pertinent to understanding the future and how it can be shaped. There is no substitute for knowing something of the ranges and possibilities of human ways and arrangements – both those of particular people and those of people in general – for gauging the future and venturing policies designed to point incipient activities in one direction rather than another. Such knowledge is also, incidentally, the empirical basis on which general social theories are constructed.

I conclude with a pitch for statistics (but not also, note, for mathematical modelling and computer simulations). Statistics provide overviews of the quantifiable features of large classes of phenomena and thereby contribute to the attainment of overviews of social affairs. As such, statistical information can make key contributions to, say, institutional choices and the conduct of life. They identify and confirm the existence of social problems and enable judgments of

better and worse social arrangements. Comparative statistics, moreover, are conceptually impeccable when the categories of things measured unambiguously apply to the societies or peoples compared (e.g., unemployment rates). The possession of statistical information, however, does not substitute for understanding social affairs, and it can never by itself, in the absence of this understanding, indicate how to resolve problems. Statistics are also regularly misused. Statistics, accordingly, are ultimately useful only in conjunction with some combination of ethnography, oral history, history, and theory.

REFERENCES

Bourdieu, P. (1972, trans. R. Nice, 1976). *Outline of a theory of practice.* Cambridge, UK: Cambridge University Press.

Dreyfus, H. (1991). *Being-in-the-world: A commentary on Heidegger's Being and Time, Division I*. Cambridge, MA: MIT Press.

Giddens, A. (1979). *Central problems in social theory: Action, structure and contradiction in social analysis*. Berkeley, CA: University of California Press.

Heidegger, M. (1928). *Being and time* (J. Macquarrie & E. Robinson, Trans. 1978). Oxford: Blackwell.

Kemmis, S., & Grootenboer, P. (2008). Situating praxis in practice: Practice architectures and the cultural, social and material conditions for practice. In S. Kemmis & T. Smith (Eds.), *Enabling praxis: Challenges for education* (pp. 37-62). Rotterdam, The Netherlands: Sense.

Lyotard, J.-F. (1988). *The differend: Phrases in dispute* (G. van den Abbeele, Trans.) Minneapolis, MN: University of Minnesota Press.

Ortner, S. (1984). Theory in anthropology since the sixties. *Comparative Study of Society and History*, *16,* 126-166.

Reckwitz, A. (2002). Toward a theory of social practices: A development in culturalist theorizing. *European Journal of Social Theory 5*(2), 243-263.

Sartre, J.-P. (1943, trans. H. Barnes, 1956). *Being and nothingness.* New York: Pocket Books.

Schatzki. T. (2002). *The site of the social: A philosophical exploration of the constitution of social life and change*. University Park, PA: Penn State Press.

Schatzki. T. (2010). *The timespace of human activity: On performance, society, and history as indeterminate teleological events*. Lanham, MD: Lexington Books.

Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practices: Everyday life and how it changes*. Thousand Oaks, CA: Sage.

Taylor, C. (1985). Interpretation and the sciences of man. In *Philosophy and the human sciences: Philosophical papers 2* (pp. 15-58). Cambridge, UK: Cambridge University Press.

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3. DEVELOPING A CRITICAL PROFESSIONAL IDENTITY

Engaging Self in Practice

In this chapter we discuss the formation of critical professional identity through practice-based education (PBE). We use PBE as the umbrella term to describe a set of educational work-integrated practices that emphasise a situated and contextualised approach to professional education in universities. We argue that it is imperative to explore identity when becoming a professional, because it enhances the professional socialisation process and strengthens agency in practice. Our key contentions are that critical identity formation should play an explicit role in PBE, because it interweaves the individual with the social, the personal with the professional and the local with the global; and it enables students to become practitioners with a sense of self and purpose both as members of a given community and as global citizens.

When we started thinking about this chapter we played with the notion of a professional without a professional identity, or at least without an "owned" professional identity. We thought it could be someone who presents and conducts her/himself in accordance with tacit public social expectations and peers' professional norms related to a given occupation, but without being aware of them, let alone questioning them. We thought it could be a "cowboy" practitioner not accountable to anyone, a professional who lacks responsibility and credibility. It could also be someone who simply labels themselves a physiotherapist (for example) but does not examine or own what this means beyond a superficial naming of their occupation.

In using the term *critical* professional identity we recognised that some professionals have a conscious and purpose-driven identity whereas others do not. This point raised many issues for us. One issue is the role of higher education institutions in educating future professionals within our globalised world. Loller and Butcher (1999, p. 1) pointed out that although there might be benefits to living in a globalised world, with its often accepted and unquestioned dominant discourses, structures and expectations, "it is important that people are educated to be more aware of and advocate for those who are alienated and excluded from dominant structures." They argued that changes to educational systems are required if the graduates of these systems are to be "both committed to and capable of participating at a local level in decision making which has an influence on social structures" (p. 1). The preparation for practice through university education could

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 27-40.

be seen as a way of framing the development of professional identities underpinned by responsibility and commitment to local and global issues.

The recent shift by higher education institutions and governments to increase their focus on PBE is closely linked to the economic and global imperative of employability and a skilled workforce (DEEWR, 2008; Zelizer, 2011). Universities need to be seen to contribute to developing a skilled workforce in terms of influencing the organisational structure of the workplace, through research, and preparedness of graduates, through education. All these concepts place PBE in the centre of this new direction for higher education. It is important, however, that the strong outcomes-based vocational discourse in higher education does not see outcomes being limited to technical competencies and readiness for the immediate tasks after graduation.

PBE appears to be located in a space characterised by the recent movements towards regulated national standards and competency frameworks that privilege technical skills and knowledge. In these movements there is an interest in what students *do* and a preoccupation with procedures and graduates being work-ready in order to "hit the ground running" when they start working. What is missing in this discourse is a realisation of the responsibility placed on students for integrating classroom with workplace learning and translating their experiences into the capabilities of an accredited professional. It should not be just their responsibility.

What this discourse does not make explicit is the fact that, however seductive and uncomplicated the pursuit, acquisition and measurement of visible actions of practice might appear to be, we should be mindful that such learning does not provide a holistic picture of practice or the capacity for graduates to perform responsibly and sustainably in practice. Professional practice is, after all, a socially-situated and contextualised practice that is conducted by, for and with people. This imperative obliges us to situate PBE within the social, relational and cultural spheres of practice and education, where educators also help students to self-identify as belonging to a given profession and to develop their own, unique professional identity.

When focusing on education for practices or the preparation of future practitioners, we find that there are many purposes ascribed to PBE. These include purposes beyond technical competence, such as vocational orientation towards professional identity formation and personal growth. However contested these additional goals might be, we state with some confidence that a key purpose for PBE is that it shapes professional identity (see West & Chur-Hansen, 2004). Authentic work settings, in particular, provide opportunities for students to learn about all aspects of practice, including how to engage their "self" in practice and learning to take responsibility for decisions. This strong personal engagement and enhancement aspect of professional development is also reported by students who have found that workplace learning experiences were the highlight of their courses, instilling in them a greater sense of self-awareness, self-assurance and self-confidence (Cord & Clements, 2010). Thus, PBE is more than training students to become proficient in a range of measurable skills, procedures and actions.

This chapter discusses this "more" aspect of PBE. It specifically questions notions of professional identity and its formation and explores the role of PBE in the curriculum in enhancing professional identity formation. Our arguments are supported by a range of theoretical and practical frameworks. Drawing on Freire's (1972) notion of conscientisation, we discuss ways in which to address issues of *professional* (not just technical) identity formation within higher education courses. We argue that there is a need for higher education institutions to establish learning spaces that foster the conscious formation of professional identities in order to prepare students for the roles they will play as future professionals both in and beyond their immediate post-graduation work spaces. We also contend that students need to critically observe practice, participate in professional roles through workplace learning, practise critically, think for themselves, question and engage in dialogue so that they can claim control of their professional journey.

PROFESSION AND IDENTITY

As novice professional practitioners, students will experience uncertainty during their formal professional learning program. This will require them to not only make informed professional decisions, but also to match their rational and ritual workplace expectations with those of their future employers (Abrandt Dahlgren, Hut, Dahlgren, Hård af Segerstad, & Johansson, 2006). Engaging with uncertainty and ambiguity is a complex skill that requires embarking on a critical learning journey, nurtured by a conscious approach to professional identity formation. In this section, we examine some of the issues pertaining to this learning journey by first exploring what constitutes a profession and an identity and by examining the relationship between the two concepts. Second, we explore the processes involved in constructing professional identity and the ways in which we negotiate the complex dynamic boundaries between self and professional identity.

Practice, Profession and Professional

Though the body of literature on professional identity is significant (Giddens, 1991; Bauman, 1997; Chappell, Rhodes, Solomon, Tennant, & Yates, 2003), a review of scholarly journal articles in the field of higher education conducted by Trede, Macklin, and Bridges (2011) revealed thick descriptive information but little critique of the relationship between profession and identity. This is problematic as it highlights a limited understanding of the mechanisms at play, and could result in a limited capacity to effect change.

In the context of higher education research, professions have been described as occupations manifesting the following characteristics: university education, scholarly research, shared professional knowledge and skills, a code of ethical and professional conduct, status in society, professional autonomy, and accountability to society and the profession (Eraut, 1994; Mahony, 2003). However, if we engage with theorists from social sciences, such as Bourdieu (1979) or Schatzki (2010), professions or occupations can be understood as bounded sets of social practices.

Bourdieu's (1979) theoretical framework provides an understanding of the sociology of human relations. In this framework, professions exist within fields of practice, where fields are spaces of social interactions. Bourdieu defined such fields as bound conflictual spaces within which practices occur in order to acquire specific forms of capital in accordance with particular (although contestable) rules. These rules shape how people act and provide them with recognition and status (Bourdieu, 1986). The notion "field" is related to the notions of "interest" and "habitus." Interests influence what is produced in a "real-life game" (Bourdieu, 1984). "Habitus" is the product of a socialising process that predisposes people to value certain things and seek them out (Bourdieu, 2000).

On the other hand, drawing on Schatzki (2010), professions can be defined as social phenomena comprising organised activities of doings and sayings in time and space conducted by many people. Current activities happen because of past events and for the sake of future practices. Practice is a "timespace" event. Through activities, practices emerge, persist and then dissolve. Practices are inseparably intertwined with material arrangements. These include, for example, contracts, budgets, professional gadgets, workloads and distributions of responsibility.

Combining elements from the above-mentioned theories, we identify the term "profession" as a historically constructed phenomenon shaped by a web of (and at times conflicting) social, political and cultural forces and "interests." Regulation and education are two examples of these forces. Regulations include, for example, bureaucratic agencies (government or self-regulatory bodies) that seek to organise a similar set of practices through such mechanisms as national policies and the provision of infrastructure. Education is regulated through government policies and systems of formal education, career options and pathways. External regulatory forces stem from an imperative to homogenise, control and manage practices. They increase power and minimise risks through the edict of standards and codes of conducts. Internal (self-) regulatory forces stem from a need of members of a profession to critically implement their roles, to gain a sense of legitimacy and belonging, and to find support in a group of like-minded people.

Identity

The need to identify with a group, to develop a sense of identity in relation to both a given group of people and a set of practices, is an important element of becoming a member of a profession. Delving into the contested notion of identity is not easy because groups constantly form and dissolve (Bauman, 2005) making it problematic to form a sense of identity. When not rejected altogether, identity is seen as both a psychological and a political (or social) entity (Bjurström, 1997). If we draw on an existential definition of identity, we can define it as knowledge of "what one is doing and why one is doing it" (Giddens, 1991, p. 35). Identity is about knowing what one stands for. This implies a reflexive consciousness and an external (strategic) identity. It also implies a discursive consciousness of the conditions that shape consequences of one's actions. Having said that, we are

mindful that many actions are non-conscious or non-rational and may resist being made conscious.

Another helpful way of understanding identity is to see it as one of three different selves: a coherent consistent core self, a socially constructed relational self, and a fragmented, constantly-reforming-through-dialogue self (Habermas, 1987; Giddens, 1991; Chappell et al., 2003; Bauman, 2005). As the core self, identity relates to the indivisible unique core at the centre of an individual. It is the part that reflects about self and makes sense of experiences, develops an understanding of what belongs to "I." The second type of identity is about a de-centred self in relationship with a social sphere. This identity does not exist by itself, but is always related to others. This type of identity is defined as a social construction, influenced by external forces and relationships. Identity as "I" connected to the identity as "other" leads to the third type of identity as a dialogical self with others. This discursive identity relates to how people present and represent themselves to others, how they position themselves through dialogue within the social sphere. Individuals may have many discursive identities in relation to others, and the tensions between them allow new possibilities of identity to emerge (Chappell et al., 2003).

In the modern world, identities are formed and reified through practices that pertain to a range of elements that are largely irreversible (such as one's body, with its gender, age, etc.) and reversible (for instance, a social body with its own language, culture, shared interests, activities, skills, etc.). Indeed, identities are constructed by a sense of being made of flesh and bones as well as by belonging to a group (Bauman, 1997).

In an increasingly changing world, however, where what used to be irreversible is gradually becoming reversible, identity construction has become fluid (flexible and constantly morphing) and this construction has become the individual's task and responsibility (Bauman, 2005). Such individual change is linked to changes about the notion of society, which has lost its potency as it has lost its reality as a bounded space of influence and social responsibility (Bauman, 2001). Bauman argued that this loss of meaning in the term society is also true of the notion of community. He wrote, "'community' is these days the last relic of the old-time utopias of good society; it stands for whatever has been left of the dreams of a better life shared with better neighbours; obeying better rules of cohabitation" (Bauman, 2001, p. 15). Further, he stated that what has now replaced community is identity. Identity has become a surrogate of community. As a result of this shift, we now engage in the ever-consuming activity of identifying ourselves.

Apart from this shift from community- to self- identity the fast-paced changing world is conflicting and contradictory (see Lull, 2000), which can lead to ideological discontinuities and social disruptions. One way of coping with these discontinuities and disruptions is to go beyond explaining the world towards endeavouring to understand it. This means being able to reconcile objective facts with subjective experiences. It also means being able to distinguish between one's fate and self-chosen destiny (Bauman, 2000).

This conception of identity has implications for our understanding of professional identities, which might then be defined as fluid identities people embrace according to given professional conditions and situations, characterised by specific ways of acting. This fluidity in identity also has implications for the formation of professional identities, especially since there is a tendency towards the development of global and local forms of professions and hence professional identities, with different levels of legitimacy.

Professional Identity and Its Formation

Within the context of professionalism, professional identity formation can be seen as an ongoing life-wide context-specific phenomenon that occurs at the junction of self-development, practice-based (field of occupation) affiliations and institutional associations (Billett, 2007; Ni, 2011). A professional identity is thus constructed through experiences and the expression of ideas of self and one's field or communities of practice in shared public and professional spheres.

Being, thinking and acting as a professional are about knowing what one stands for; being, thinking and acting relate to professionalism, because they are fluid concepts that cannot simply be mastered by acquiring a set of rules or following a code of conduct. Knowing what one stands for clarifies the notion of being informed in making judgments and decisions and taking responsibility for these judgments and decisions. Knowing what one stands for enhances a sense of professionalism, and thus forming one's professional identity is a process of disintegration and emergence, of getting lost and finding something anew (Trede, 2009).

Developing professional identity is a fundamental aspect of professional socialisation (Clouder, 2005). It is a process that turns lay people into specialists or professionals in a given field. This process of becoming a professional involves learning to connect all aspects of professional practice in a responsible and reasoned manner (Trede, 2009); it also implies the adoption of new elements of identity, or elements of belonging, that are partly imagined and partly ascribed. Becoming a professional is a learning process that enables future professionals to develop a sense of ownership of their identity and to negotiate their position within their field of practice. It helps them negotiate subjectivity, agency and intentionality (Billett, 2001). This emerging identity, linked to the professional milieu within which an individual operates, is not developed in isolation, but emerges in relation to this individual's personal identity (Bourdieu, 1979; Nyström, 2009).

In a globalised world, higher education institutions need to produce "conscious" professionals who are more likely to construct an appropriately fitting professional identity: one that enables them to have a position within their chosen field of practice that is aligned with their values, interests and intentions. Higher education institutions that provide explicit professional identity development frameworks help students move from a mirroring their teachers' positions and beliefs to a critical approach, while honing their expertise and understanding of their practice

(Barrow, 2006; De Weerdt, Bouwen, Corthouts, & Martens, 2006). In other words, higher education courses need to integrate conscientisation processes, which we define in the following section, to help emerging professionals become participating citizens who contribute to shaping their field of practice. We acknowledge that this conscious process is complex, due to the fact that people's acquisition of the habitus of a field of practice is often an unconscious socialisation process. That said, we believe that a strong sense of professional identity can be achieved by adopting a critical stance or becoming critical professionals. We frame such people as those who participate in and transform their field of practice by generating knowledge through critical reflection and debate, and who infuse personal beliefs and values into their professional identity, resulting in the development of a deliberate code of conduct.

A CRITICAL APPROACH TO PROFESSIONAL IDENTITY FORMATION

Critique, Conscientisation and Transformation

Two key elements of becoming a critical professional are critique and transformation. These elements are closely intertwined and imply a shift from and challenge to the status quo. Critique starts with asking questions about existing practices and situations. It means taking a sceptical stance towards "self-evident" assumptions, disrupting taken-for-granted decisions, recognising tacit ways of knowing and being, and challenging unreflected policies, practices and procedures. A critical approach problematises the notion of "common sense," when not rejecting it altogether (Bauman, 1997). Common sense is informed by a particular viewpoint, which, contrary to its apparently explicit meaning, is not necessarily shared by all members of a group or society. Through this process of questioning and critiquing how and why things are as they are, a realisation emerges that things could be otherwise. It is this process of becoming aware through questioning that Freire (1972) called *conscientisation*.

More specifically, Freire (1972) defined conscientisation as a learning process and outcome that transforms reality. Through questioning, dialogue and reflection, learners move from being semi-intransitive (not critical), to being naive (showing over-simplification of problems), and finally to being critical (demonstrating depth of interpretation of problems). Conscientisation at a more systemic level is a process of learning that promotes a culture of knowing that frees people from a culture of silence and previously (possibly) unnoticed submission. It is a process that brings about liberation from oppression by transforming learners from passive to active subjects (agents of change).

Conscientisation is a collective critical reflective dialogue where practice reality is intersubjectively negotiated. A critical perspective should not be seen as a personal crusade that is alienating. Critique and the process of becoming aware should transcend individual journeys to become a collective and discursive endeavour. A critical approach to professional identity formation is underpinned by the claim that one can only understand self and others through interpretations and

through critiquing these interpretations purposefully. A critical approach makes implicit aspects of practice explicit. It also highlights the authoritarian and hierarchical power relations that commonly exist within practices. Furthermore, a critical approach helps learners to unpack the complexity of professional socialisation and participation. Participation from a critical perspective is a complex relational practice that is influenced by hierarchical roles. For example, participation of students in their future professional roles does not necessarily imply a smooth and simple journey of enculturation and acceptance. On the contrary, participation can be a difficult and uncomfortable experience for students, because participation, especially when it is not reciprocal, can keep students at the periphery of a professional community (Fuller, 2007). Transformation, or imagining other possibilities and acting on them to change the status quo, is the second key element of a critical approach. The process of conscientisation also helps students purposefully to identify existing elements of practice that should be perpetuated and those that can or should be transformed (Kemmis & Trede, 2010). The key distinguishing feature of critical thinking in critical pedagogy is its connection to moral action (Brookfield, 2012).

Critical Pedagogy and Professional Identity

Conscientisation is one approach to critical pedagogy. Such pedagogy goes beneath the surface to gain a critical understanding. Critical pedagogy is also about relationships, such as relationships between learning and teaching, practice and theory, identity and professionalism. A critical perspective on relationships directs attention to power relations and how they shape professional identity.

The three broad social constructions of professional identity (a core self, a socially constructed relational self, and a fragmented-constantly-reforming-through-dialogue self) align well with the pedagogical concepts of critique and transformation central to conscientisation. Together they point to a need to know "who I am; how I fit in with others and how to negotiate my fit with others; how to actively identify with others and/or differentiate myself from others." Within this purposeful identification process, learning, relearning and unlearning can occur. A purposeful professional identity construction thus requires a pedagogy that challenges and raises awareness of self and others. It starts with self-awareness and proceeds to include awareness-raising with and of others. Identification requires a pedagogy that addresses relational ways of knowing and cultivates critical thinking within a given context. Explicitly creating learning spaces to explore professional identity is a creative approach that helps prepare future professionals for a world of work where rules and what matters typically change at considerable speed. Such learning spaces invite students to share and articulate reasoning and motivations for their actions and to engage with competing interests, paradoxes, diversity and complexity. This, in turn, helps them solve unforeseen problems and to improvise, or act creatively, based on given professional rules.

Learning Spaces for Professional Identity Formation

Capacity building for critique and transformation requires skilful facilitation for learning; it starts by educators listening carefully to what and how students reason and willingly engaging in debate where all parties question not only the other, but also the self. To foster professional identity formation in students, academics need to have their own sense of professional identity, particularly because they are seen by students as role models. Left to their own devices, students may make sense of professional experiences and practice observations that strengthen their unreflected and unchallenged perspectives. Instilling a sense of scepticism and critique will prevent further stereotyping and reinforcing of unreflected worldviews and ideas. A key feature of critical pedagogy is engaging students in dialogues in order to make tacit notions of identity formation explicit. Creating spaces for such critical debates about professional identity can only enrich students' experiences of practice, noting the distinction between criticising and critiquing practice.

Active questioning requires agentic participatory learning. Challenging students to reflect on who they are and who they want to become provides them with a lens through which to make sense of and enrich their learning experiences. A critical approach prevents students taking on a professional identity by default, by demanding that they think for themselves and question existing practices. A critical approach draws out and makes explicit the external and personal forces that shape practice and practice conditions. Such an approach to professional identity formation is based on the assumption that professional identities are shaped by a range of forces and interests, rather than being neutral and value-free.

PBE programs can be thought of as the space within a curriculum (or indeed a whole curriculum framework (Higgs, 2011)) where professional identity is tested, challenged and shaped. PBE provides opportunities where the world of work is brought into the classroom (in idea or actuality) and where students go into authentic workplace settings. PBE can provide a pedagogical space where self and professional identities meet and blend. Students traverse university and workplace spaces. They are the nexus, the integrators, the personal sense-makers of the complex relationship between themselves, their future professional community, the academics at university, their workplace learning educators and other workplace participants (including clients), all of whom contribute to their professional identity formation. A PBE program comprises preparation for practice and learning professional roles, understanding workplace cultures, professionalising and socialising into a community of practice, and developing agentic participants of the workforce. All these processes, spaces and activities form professional identity. PBE is thus the space where professional identity formation can best be initiated.

Grace and Trede (2011) explored how students and educators in two allied health programs perceived and talked about professionalism. They found that formal education in the classroom and informal learning in clinical placements played equally important roles for students in developing a sense of professionalism. They concluded that there is a need to rethink philosophical approaches and pedagogical strategies to develop a notion of professionalism that

adequately prepares students for the demands of contemporary professional practice. These demands include, for example, a focus on interprofessional practice, engagement with uncertainty, and a focus on local and global practice issues.

Full participation by students in PBE means that they are appropriately guided to participate as much as possible. Educators need to recognise that complete safety cannot be guaranteed and that full participation involves taking informed and reasonable risks. Students become professionals by being given and trusted with responsibility (Clouder, 2009). There is a fine balance in this trusting process, and educators need to make judgments about where the borders of participation and freedom lie. The importance here is in allowing students to take responsibility for their own learning. It is a sound educational strategy that aims to instil commitment to learning.

Giddens (1991) wrote that in the current challenging changing world we all experience doubt and a degree of uncertainty in practice. With uncertainty comes risk. When the future cannot be predicted, professionals need to make choices and take risk. In the current risk-averse society we try to calculate, moderate or prevent risk. Although this might be the plausible thing to do we should not give in to the illusion that risk can be eradicated. As there always will be some risk it seems wise to engage with it in order to take informed risks. The current interest in risk management controls and limits actions. Instead of preventing risk, such management approaches potentially inhibit practice development and reduce professional identity formation to procedural aspects of practice roles.

Pedagogical processes should stay clear of telling students which kind of professional to be. A stronger sense of identity is nurtured through active participation in critical debate, because it enables students to become more responsible practitioners (Bauman, 2000). Nurturing a sense of responsibility towards self and others will heighten a sense of professional identity. To justify professional decisions it is not sufficient to fall back on rules, standards and policies. Instead, students need to learn to articulate the reasons behind their actions. An approach that seeks to replace responsibility with accountability can take on a sheep-like approach whereby people blindly follow the rules.

Professional identity formation and PBE have in common the capacity to help students make sense of their learning experiences, whether at university or in the workplace. Their meeting point is within a critical pedagogy approach that actively enhances opportunities to develop “considerate” students and self-critical thinkers who will reject practices that maintain injustices. It is an approach that will foster the development of students equipped to deal with the constantly changing and evolving work situations that await them (Barnett, 2010, see also Chapter 7).

CHALLENGES TO FORMING A CRITICAL PROFESSIONAL

The challenges and obstacles to fostering a critical professional identity are manifold. One significant challenge is the difficulty in working with students whose choice of university course and profession is based on a range of reasons

and motivations (such as enrolling in a philosophy course) that do not necessarily include a long-term commitment to a field of practice. With their non-vocational focus, such courses do not seek to foster the formation of professional identity. They may, however, nurture strong personal growth and self-identity development.

Other challenges and obstacles include a persistent dominance of a practice by demands for external measurable evidence, pressures of accountability and performativity based on decontextualised policy and standards, a focus on summative assessment of learning and a preoccupation with risk management. Such demands foster compliance, not questioning. As discussed earlier, a critical concept of professional identity formation is ill aligned with the current political climate and economic imperative of technical work readiness through PBE. Developing critical professionals cannot be realised when educators cannot see the need to do so, or even think it undesirable pursue this goal. Likewise, a resistance by students to thinking for themselves, to raising awareness of uncomfortable truths, or a reluctance to express themselves honestly, presents a challenge. Such educators and students are unwilling to create conditions that facilitate critique and transformation. Within a context where educators and learners do not engage with other possibilities, this approach is limited and cannot be called critical pedagogy.

In the current climate academics have limited options for facilitating learning for responsibility, due to a dominant focus on accountability, risk management, internationalisation and standardisation. These concepts allude to false ideas/uses of objectivity, safety and legitimacy. They erode academics' ability to be self-responsible or to facilitate critical reasoning within local contexts that are based on values rather than decontextualised standards.

Assessment is another challenge for developing critical professionals, because assessment is predominantly about certifying what has been learned rather than making a judgment on learning capabilities (Boud, 2010). Students are reluctant to ask questions, particularly critical questions, when they believe that their teacher will assess their reasoning and performance against norms and logical parameters. Assessment is further complicated because the educator-learner relationship is inherently a power relationship.

Critique, debate, dialogue and transformation all take time, and both educators and students are increasingly time-jealous. The constant increase in student-to-teacher ratios makes critical engagement increasingly difficult, especially when such engagements in time-demanding activities like debate are not rewarded for the educator or for the student.

As students take their first emerging steps towards becoming professionals it is understandable that they prefer to learn straightforward technical aspects of their future work roles rather than engage with paradoxical and complex ethical and moral issues. Many learning taxonomies call for scaffolding of learning and start with simple tasks and slowly move to complex practice issues. Novices may have a tendency to adopt a more rule-bound and absolutist stance. Having to think for oneself and carefully make decisions within practice situations can be a confronting and uncomfortable learning experience. There needs to be a fine

balance between allowing time to repeat tasks and encouraging students to make sense of their experiences.

Finally, even if educators are committed to using a critical pedagogy framework, they deal with competing interests from accreditation bodies, industry, students and university peers. Even within the PBE community the mainstream discourse often focuses on an economic imperative, with employability as the favoured learning outcome.

CONCLUSION

Professional identity formation does not end with graduation. A professional identity changes over time, as people mature as a practitioner and change their positions within and outside of the field of practice.

In this chapter, we have called into question unreflected accepted practices and goals of professional identity formation in the current period of liquid modernity and globalisation. We have argued that, even with a focus on the development of competencies and skills to educate employable professional graduates, identity needs to be explored if we are to adequately prepare novices for practice in the workplace.

Whether or not we agree with employability being part of a university's core mission, we can see how this points to the need to develop not just professionals, but more importantly, critical professionals. Critical professionals are capable of making professional judgments and decisions rather than blindly following rules or common practices, and are responsible professionals who seek both to optimise growth and wellbeing and to minimise harm to self and others. Critical professionals are critical members of a field of practice who understand the different kinds of relationships between people, objects and other fields, and who are valued within their field. They also understand what is possible: how to operate and effect change, or what needs to be perpetuated and what can be transformed (how and when). To be a critical member of a field requires having a strong (and non-complacent) sense of belonging, hence a sense of identity.

Our proposal for developing a critical professional identity is about providing students with coping, self-review and development mechanisms within a changing complex world. Our proposal is about helping students shape, do and be effective in work and life situations instead of having a professional identity imposed on them or taking on a professional identity by default. A critical identity also facilitates inclusive and appropriate decision making that is not necessarily an opposing position, but rather one that traverses different positions. Further, a critical identity helps novice professionals become part of a community where the "other" is also or could be themselves; to help them identify where and when changes can happen; to prevent burnout and increase their sense of control and voice within their professions. But developing a critical professional identity is not just about becoming resilient. It is also about giving novices the tools that will allow greater work enjoyment and increasing levels of purpose and hope as a practitioner. Being happy about one's position in a professional community then

feeds back into and strengthens one's coping mechanisms. Furthermore, by developing critical professionals, universities might be able to reclaim their former mission as a place for developing independent thinkers.

REFERENCES

Abrandt Dahlgren, M., Hut, M., Dahlgren, L. O., Hård af Segerstad, H., & Johansson, K. (2006). From senior students to novice worker: Learning trajectories in political science, psychology and mechanical engineering. *Studies in Higher Education, 31*(5), 569-586.

Barnett, R. (2010). Framing education for practice. In J. Higgs, D. Fish, I. Goulter, S. Loftus, & F. Trede (Eds.), *Education for future practice* (pp. 15-25). Rotterdam, Netherlands: Sense.

Barrow, M. (2006). Assessment and student transformation: Linking character and intellect. *Studies in Higher Education, 31*(3), 357-372.

Bauman, Z. (1997). *Identity: Conversations with Benedetto Vecchi*. Cambridge: Polity.

Bauman, Z. (2001). Space in the globalising world. *Theoria,* June, 1-22.

Bauman, Z. (2005). Afterthought: On writing; on writing sociology. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of quaitative research* (3rd ed., pp. 1089-1098). London: Sage.

Billett, S. (2001). *Learning in the workplace: Strategies for effective practice*. Crows Nest, NSW: Allen & Unwin.

Billett, S. (2007). Exercising self through working life: Learning, work and identity. In A. Brown, S. Kirpal, & F. Rauner (Eds.), *Identities at work* (pp. 183-210). Dordrecht: Springer.

Bjurström, E. (1997). The struggle for ethnicity: Swedish youth styles and the construction of ethnic identities. *Young: Nordic Journal of Youth Research, 5*(3), 44-58.

Boud, D. (2010). Assessment for developing practice. In J. Higgs, D. Fish, I. Goulter, S. Loftus, & F. Trede (Eds.), *Education for future practice* (pp. 251-262). Rotterdam: Sense.

Bourdieu, P. (1979). *La distinction: Critique sociale du jugement*. Paris: Les Editions de Minuit.

Bourdieu, P. (1984). *Questions de sociologie*. Paris: Les Editions de Minuit.

Bourdieu, P. (1986). The forms of capital (R. Nice, Trans.). In J. G. Richardson (Ed.), *Handbook for theory and research for the sociology of education* (pp. 241-258). New York: Greenwood Press.

Bourdieu, P. (2000). *Esquisse d'une théorie de la pratique*. Paris: Editions du Seuil.

Brookfield, S. D. (2012). *Teaching for critical thinking: Tools and techniques to help students question their assumptions*. San Francisco: Jossey-Bass.

Chappell, C., Rhodes, C., Solomon, N., Tennant, M., & Yates, L. (2003). *Reconstructing the lifelong learner: Pedagogy and identity in individual, organisational and social change*. Abingdon, Oxon: RoutledgeFalmer.

Clouder, L. (2005). Caring as a 'threshold concept': Transforming students in higher education into health(care) professionals. *Teaching in Higher Education, 10*(4), 505-517.

Clouder, L. (2009). 'Being responsible': Students' perspectives on trust, risk and work-based learning. *Teaching in Higher Education, 14*(3), 289-301. doi: 10.1080/13562510902898858

Cord, B., & Clements, M. D. (2010). Pathway to student self-development: A learning orientated internship approach. *Australian Journal of Adult Learning, 50*(2), 287-307.

De Weerdt, S., Bouwen, R., Corthouts, F., & Martens, H. (2006). Identity transformation as an intercontextual process. *Industry & Higher Education, 20*(5), 317-326.

DEEWR. (2008). *The digital education revolution*. Retrieved from http://www.deewr.gov.au/Schooling/DigitalEducationRevolution/Pages/default.aspx

Eraut, M. (1994). *Developing professional knowledge and competence*. Abingdon, Oxon: RoutledgeFalmer.

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

Fuller, A. (2007). Critiquing theories of learning and communities of practice. In J. Hughes, N. Jewson, & L. Unwin (Eds.), *Communities of practice: Critical perspectives* (pp. 17-29). Abingdon: Routledge.

Giddens, A. (1991). *Modernity and self-identity*. Stanford: Stanford University Press.
Grace, S., & Trede, F. (2011). Developing professionalism in physiotherapy and dietetics students in professional entry courses. *Studies in Higher Education, iFirst,* 1-14.
Habermas, J. (1987). *The theory of communicative action (vol. 2): The critique of functionalist reason*. (Trans. T. McCarthy). Oxford: Polity Press.
Higgs, J. (2011). *Professional and practice-based education at Charles Sturt University*. 2e The Education For Practice Institute, CSU, Sydney Olympic Park.
Kemmis, S., & Trede, F. (2010). Practice and developing future practice. In J. Higgs, D. Fish, I. Goulter, S. Loftus, & F. Trede (Eds.) *Education for future practice* (pp. 29-39). Rotterdam: Sense.
Loller, M., & Butcher, J. (1999). Confronting global and local social justice issues: A challenge for educators. Retrieved from http://www.aare.edu.au/99pap/lol99442.htm
Lull, J. (2000). *Media communication, culture: A global approach* (2nd ed.). New York: Columbia University Press.
Mahony, K. (2003). The politics of professionalism: Some implications for the occupation of ambulance paramedics in Australia. *Journal of Primary Health Care, 1*, 3-4.
Ni, L. (2011, 8-9 August). Building professional identity as computer science teachers: Supporting secondary computer science teachers through reflection and community building. Paper presented at the ICER, Providence, Rhode Island.
Nyström, S. (2009). The dynamics of professional identity formation: Graduates' transitions from higher education to working life. *Vocations and Learning, 2*, 1-18.
Schatzki, T. (2010). *The timespace of human activity*. New York: Rowman & Littlefield.
Trede, F. V. (2009). Professionalism: Becoming professional in the 21st century. *Journal of Emergency Primary Health Care, 7*(4), 1-5.
Trede, F. V., Macklin, R., & Bridges, D. (2011). Professional identity development: A review of the higher education literature. *Studies in Higher Education, iFirst*, 1-20.
West, C., & Chur-Hansen, A. (2004). Ethical enculturation: The informal and hidden ethics curricula at an Australian medical school. *Focus on Health Professional Education, 6*(1), 85-99.
Zelizer, B. (Ed.) (2011). *Making the university matter*. London: Routledge.

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4. SOCIAL AND POLITICAL CHANGE

Implications for Professional and Practice-Based University Education

The nature of the relationship between universities and their societies has long been the subject of discussion and scholarly debate. This chapter takes this relationship as its starting point in order to examine the implications of social and political changes for those responsible for professional and practice-based education. Implicit in the positioning of university education for professional practice is that there is an interdependent relationship between higher education and practice, theory and work.

RELATIONSHIP BETWEEN UNIVERSITIES AND THEIR SOCIETIES

Universities have a long and evolving history as institutions of significance in society. Increasingly, universities are simultaneously regarded by contemporary governments and other social institutions as potential sources of remedies for economic and social needs and challenges, such as producing an appropriately educated and skilled workforce, reducing inequality and unemployment, and as sources of new knowledge leading to enhancement of economic endeavours and social wellbeing. The 1960s saw an unprecedented and major shift in the mission and processes of universities, in which, propelled by governmental imperatives, socio-economic diversity among students was increased. This shift in student diversity occurred just as university missions and curricula began to become more globalised. The impact of these drivers has found the modern 21st century university struggling with competing agendas: the one, of pursuing differentiation and external recognition for competitive marketisation in a globalised system; the other, of meeting externally enforced, government funded, equity agendas, including increased and widened participation. The tensions and challenges for university leadership at the macro level in meeting these competing demands have echoes in the challenges facing leadership at the meso and micro levels that involve curricula, student learning and staff performativity. These issues challenge notions that might arouse nostalgia, such as the traditional idea of the university as a place of learning and its goals and relationships with the societies that support them.

The Idea of the University

The idea and ideal of the university has long been the focus of philosophers and historians (Wolff, 1969; Barnett, 1990). In ancient times, as early as 800 BCE and

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 41-54.

perhaps earlier, the Egyptians and Babylonians educated their upper class young people to be scribes to record the "wisdom" of governments and their kings. Because of the uniqueness of their skills these scribes were the cultured class and the intellectual elite (Whybray, 1965). Siemens and Matheos (2010) described the emergent relationship of universities as emanating from the establishment of the Library of Alexandria in the third century BCE, in which the library transformed a predominantly oral scholarly culture to a portable, heritable written knowledge (see also McNeely & Wolverton, 2008). The Library of Alexandria foreshadowed the emergent powerful social role of degree-granting universities in preserving cultural and scientific knowledge, by recording, collating, classifying and creating knowledge through scholarly critique and by disseminating cultural and scientific knowledge through public lectures. McNeely and Wolverton described early universities as small, localised communities of scholars and students that merged into larger geographical communities as mobility increased, and that changed as a result of changes in their societies. These early universities were not buildings but geographically located communities of minds.

Essentially, for the first millennia, universities were the preserve of the male elite of society. Siemens and Matheos (2010) described a significant change in the engagement and relationship between universities and society towards the end of the nineteenth century, exemplified by the establishment of Land Grant Universities in the United States in 1861 and Oxford University's establishment of an extramural program for the working classes in the beginning of the 20th century. These initiatives, they argued, signalled a new role for universities as agents of change in the social order in society. This new expectation was accompanied by unprecedented government sponsorship and funding of universities. Enormous growth in enrolment followed after World War II, with increased access and human rights becoming a significant mission globally. As universities and student numbers expanded, so too did the range of educational programs, particularly in response to the emergence of new occupations seeking university certification as well as established occupations seeking professionalisation through university certification.

Brennan, King and Lebeau (2004) proposed that the idea of the modern university embodies contradictions as it attempts to balance (i) maintaining its traditional role as an ideological apparatus, (ii) continuing engagement in the selection and socialisation of a dominant intellectual elite, (iii) meeting the demands to generate knowledge, and (iv) providing education for a skilled labour force. The contemporary university of the 21st century is significantly changed by the social expectations for widened participation, expanded research and social justice through education. Social, political and technological changes (particularly in information and communication) and social expectations (especially for expanded access to students of widely diverse cultures and educational preparation) have emerged so rapidly that universities struggle to recognise and respond adequately to these challenges.

Globalisation and Marketisation

The impact of globalisation on universities (including marketisation of higher education and expectations of enrolment mobility) has required them to *act* as well as *think* globally. Marketisation is a multi-faceted challenge. There is escalating competition between tertiary education institutions (public, private, universities, colleges, etc.) for the increasingly mobile student market. These markets are ever more cost- and gain-driven in the face of government policy and funding directives and rewards. Education has become branded and marketed for differentiation and student attraction. The Marxist notion of assigning an economic value where it previously did not exist has resulted in the commodification of the social practice of education. This view was illustrated by Ball (2004, pp. 16-17), who described the commodification of practice as evidenced by *value* replacing *values* and moral reflection being construed negatively as obstructive:

> The new knowledge worker should not be encumbered by scruples. Here cold calculation and extrinsic values predominate. This is the archetypal "post-modern" professional – defined by depthlessness, flexibility, transparency and represented within spectacles – within performances.

The challenge for universities is how to deal with the two issues of differentiation/market grab and product-selling orientation, while maintaining their more fundamental goals of knowledge generation and dissemination and the education of citizens. Professional education of graduates for practice contends with these challenges while continuing to prepare graduates to be ethical professionals who are capable of generating and critically appraising the veracity, utility and consequences of emergent knowledges and technologies in their practices. Education for practice remains focused on selecting and educating students to be graduates committed to serving the interests of society and its people, while following professional codes.

While the struggle to meet new expectations continues, universities also currently contend with a global financial crisis that has not reduced demand for their educational services but has reduced available funds from governments and endowments from traditional patrons. This financial challenge comes at a time when rapid technological development offers an unprecedented and expanding potential for changing the mode and extent of provision of education. Technological development is accompanied by high infrastructure demands and immeasurable and unpredictable costs. Furthermore, curricula must now be adjusted as universities address the need to educate students who are increasingly technologically literate and able to contend with the impact of technological opportunities in professional practice.

Reinventing Universities

Much has been written about the impact of the technological changes that have taken place in universities and how they operate (Schejbal, 2012), some suggesting

that the university may and must now reinvent itself. Yet, tracing the development of universities to the way we understand them today reveals that such calls for the revitalisation and re-invention of universities have been present across the millennia. Society has faced many social, political and technological revolutions over time, and also the continued growth in mobility of its populations. Universities have a record of adapting to these changes in their local constituency and of developing an increasingly global outlook. However, they are typically not quick to change. They tend to retain the systems and structures that pertain to previous generations. This lag between political and social changes and university adaptation often gives rise to an apparent mismatch between the needs of society and the affordances of technology (Siemens & Matheos, 2010). This is not an argument for universities to take up every new technological opportunity, but rather a call to adopt a critical regard for tradition as a foundation, not a yoke.

Changing Societies and Meeting Society Expectations

An important question for universities is to consider their role in changing their societies. Without doubt, there is a contemporary expectation that they will contribute to economic and social change. First and foremost, it is expected that this contribution to change will occur through research, the generation of new knowledge and the development of new technologies. More recently, the expectation has arisen that the contribution of universities to social change will occur through the emancipation and empowerment of new constituencies by providing greater access to higher education and by contributing to the professionalisation and accreditation of occupations.

Green and Renton (2009) have argued that mutually dependent relationships exist between the modern university and the state, that go largely unacknowledged to the detriment of both. Their argument is that the failure to acknowledge university/state interdependence in a political environment that espouses widened participation in higher education has generated unproductive systems of accountability and "managed education." The overwhelming focus on managing accountability has distracted attention and resources from teaching and has challenged and undermined the traditional "idea of the University" (p. 9). O'Neill (2002, p. 19) contended that such externally imposed accountability "actually damages trust." "Plants," she wrote, "don't flourish when we pull them up too often to check how their roots are growing: political, institutional and professional life too may not flourish if we constantly uproot it to demonstrate that everything is transparent and trustworthy."

Contemporary Social and Political Challenges

Goulter and van Rooijen (2010) argued that, despite the relatively high autonomy of universities, contemporary higher education institutions remain subject to and need to be responsive to diverse, complex, dynamic and compounding political,

social and industrial drivers. The realisation of university responses to these drivers via their mission and actions is also highly complex.

Current literature outlines many major impacts of contemporary social and political challenges on modern-day universities. Kamenetz (2010), for instance, described the effects on traditional university hierarchies of high demand for places, high dropout levels, low completion rates by equity groups, high student debt and introduction of technology. Kamenetz argued that these pressures have significantly changed student engagement with their education, to the point that it has become a DIY, self-directed university experience. This, in a time of focus on the attainment of standards, provides a challenging conundrum.

McGregor (2010) identified additional impacts of changes in social and political expectations of universities. The impacts include austerity and unprecedented uncertainty; forced adoption of competitive corporate systems of operating in response to national and international league tables; and dwindling public support for arts disciplines in contrast to science. These consequences are all accompanied by political interference and systems of accountability and reporting. Generally, one concludes that universities face unprecedented challenges associated with political unpredictability and uncertainty, globalisation, commodification of higher education, rapid expansion of enrolments and access, economic uncertainty, technological imperatives that change the traditional order and hierarchies, and the influence of knowledge-driven economies.

THE CHANGING WORLDS OF PRACTICE AND WORK

In addressing their educational role universities are challenged to provide curricula that incorporate informed interpretations of practice and work encompassing their changing patterns and stakeholder expectations of graduates entering these arenas.

Views of Practice

Practice is a contested term (Green, 2009), due to the complexity of practice and the various ways that practice theories interpret practice. Rouse (2007) recognised the multi-dimensional nature of practice and identified three key domains of philosophical thought underpinning contemporary practice theories. The first is an emphasis on the embedded quality of practice. The second attends to the largely tacit and embodied nature of practice. The third explores the dynamic and transformative nature of practice. These three domains in combination comprise a useful framework for exploring the nature and enactment of practice through practice development, research and education.

Practice may be viewed as a purposeful, situated and flexible engagement with the world, embedded in tradition and transactions with other individuals (Schwandt, 2005). Professional practice is a sociocultural process that is negotiated among multiple stakeholders representing the interests of higher education, workplace organisations, professional and discipline bodies, accreditation agencies, governments, global and local economies and communities. Knowledge, action and

practice are essentially interrelated (Higgs, Loftus, & Trede, 2010). Kemmis (2010), seeking a comprehensive perspective on practice, proposed that practices must be understood multi-dimensionally and with a respect for diversity. Following from this sociocultural notion of practice, Hutchinson and Shakespeare (2010) described practice as involving different groups of participants pursuing professional negotiations in order to re-present practice landscapes to each other, with an emphasis on matters important for their constituencies, and to persuade other constituencies of this importance. Furthermore, Kemmis and Trede (2010) argued that there is a reciprocal interplay between history and practice, where both shape each other.

Trede and Higgs (2010) posited that three interests differentiate and shape practitioners' approaches to their practice. Building on the work of Habermas (1972), they argued that modes of practice are diversely manifest in one of three ways: a technical interest; a practical, learning-enabling interest; or a critical emancipatory interest. Trede and Higgs promoted the value of critical practice, arguing that its focus on learning through dialogue, professional relations and cultural traditions breaks the down historical barriers to transformation and achievement of the emancipatory potential of education. Similarly, Fish and de Cossart (2007) argued for approaches to practice education that counter the tendency to view professionalism as a mere collection of technical competencies, contending that a narrative holistic approach, one that retains the complexity of professional work, humanises practice. They explained that a narrative approach allows the artistry of professional practice to emerge and be fully appreciated.

The Work Environment

The work environments of many university graduates exist in a context of unpredictability and constant change that has been tagged "liquid modernity" and "the dot.com mentality," both of which emphasise "short-term fixes." Bauman's (2000) idea of liquid modernity highlights current trends:

> In the liquid-modern world, shortcuts are sought in order to do away with avoidable and resented chores or pass them on to others (outsourcing, delegation, restricted job specifications). A focus on, indeed an obsession with, the enjoyment of present goals and desires, obscures the importance of the short term, and obliterates the significance of the long term. … These values and desires involve considerable opposition to and rejection of attitudes that predominated in the second half of the 20th century (such as the vision that puts others first, the sense of mystery of things beyond us, and recognition of the fallibility of human knowledge). (Fish & Higgs, 2008, p. 20)

From his extensive studies of society and culture in Britain and America, Sennett (2005, p. 3) emphasised these social issues that Bauman described, because "only a certain kind of human being can prosper in unstable, fragmentary conditions." Sennett argued that the short-term, no-ties mentality of dot.com companies is being

imposed on the public sector, asserting that "there is something bizarre about taking the conditions of an IT [information technology] startup firm and thinking you can run a hospital or a university that way" (p. 3).

Employer Expectations

Work readiness is a strong expectation of many employers, which has had an increasing impact on curricula in higher education over the last decade. An increasing feature of curricula has been work placements and the inclusion of authentic real-world tasks to prepare graduates for the world of employment. The focus of placements has been largely "learning to work" not "working to learn" Orrell (2004). Increasingly, this perceived need for readiness for work and job attainment has not been linked to the possession of good discipline-based knowledge; this has contributed to the fracturing and atomisation of curriculum intentions and design. Indeed, Harvey, Moon, Geall, and Bower (1997) noted that numerous reports on stakeholders' expectations:

> emphasize employers' stated needs for graduates to be able to function in the workplace, be confident communicators, good team players, critical thinkers, problem solvers and, in addition, to be adaptive, adaptable and transformative people capable of initiating as well as responding to change (cited in Crebert et al., 2004, p. 150).

PROFESSIONAL AND PRACTICE-BASED EDUCATION IMPLICATIONS

Letts (2010) examined the pedagogical landscapes that frame higher education, arguing that pedagogies of higher education have an important place in professional education. He argued that these pedagogies can both enable and constrain future practice. He challenged academia not to be beholden to the ideologies that shape and constrain higher education, and not to feel obliged to enact the pedagogies suggested by restrictive and repressive regimes.

Preparation for Employability

Higher education policies and external influences such as accreditation demands have resulted in universities facing growing pressure to produce employable graduates. For students and their families, also, there is an increasing cost entailed in gaining a university degree, and this has raised their expectations of employability after graduation. Eraut (1994) contended that higher education internationally should be called to account for the employment success of its graduates.

A significant factor in success in achieving employability is the inclusion of workplace learning experiences in curricula (see Crebert et al., 2004; Billett, 2009). Harvey et al. (1997) reported on recent research in Australia, the United States and the United Kingdom which identified that students who had undertaken work-

integrated learning (WIL) experiences reflected positively on their university experiences and were more likely to achieve employment in their chosen field.

According to Orrell (2011, p. 3), following an extensive review of the contributions of Australian Learning and Teaching Council (ALTC)-funded projects that focused on WIL, reported that successful inclusion of WIL in professional education programs requires a number of essential institutional, educational and partnership elements:

a) Institutional Elements

- a clearly articulated, shared vision of WIL within the university, including a shared understanding of its purposes and expectations
- realistic recognition of WIL in institutional systems and infrastructure, together with the provision of adequate resources
- recognition and legitimation within disciplinary communities of practice-generated knowledge, and the distinctive and complementary roles of universities and workplaces in shaping and supporting its learning
- engaging and utilising WIL processes in existing, institutionally-provided enabling services such as university careers services.

b) Educational Elements

- adequate induction and preparation of students prior to their practice-based experiences
- the provision of structured, critically reflective, self- and peer-learning processes during and after WIL experiences
- the presence of an element of risk, to contribute to profound learning for students (the corollary is the futility of unchallenging placements)
- investment in the development, trialling and up-scaling of technology-based tools to provide alternative or supplementary WIL experiences, and their integration in curriculum development and institutional strategic plans.

c) Partnership Elements

- ensuring that host-organisation supervisory staff are familiar with students' prior university learning
- identification and inclusion of all stakeholders in curriculum development, innovation and communication regarding WIL
- induction and professional development for university and host-organisation supervisory staff, and development of their leadership capabilities
- robust and mature relationships with placement providers (host organisations) underpinned by a commitment to mutual benefit.

Preparation for Changing Career Paths

Few university graduates in the 21st century will remain in one occupation, profession or job throughout their working lives. Bridgstock (2009) contended that, for graduates to succeed in the context of a rapidly changing knowledge- and information-intensive economy and to achieve optimal social and economic outcomes, "graduates must be able to proactively navigate the world of work and self-manage the career building process" (p. 31). This capacity implies a need to include career development literacy in students' learning in their university experience. While career development might seem to focus on the individual, Bridgstock argued that "a less-promoted effect of well-developed career management skills is an improved contribution to economic growth, through enhanced employability, productivity and education/work efficiencies" (p. 35).

Addressing Students' Expectations

Universities need to address students' needs, capabilities and expectations, at the same time as being responsible for contributing to the deep knowledge of graduates' practice worlds that allows the shaping of curricula and facilitation of students' learning. Curricula must be adjusted to include workplace learning preparation guidance of students that accounts for differences among student capabilities and backgrounds. These differences include the contrast between Generation Y students, who are technologically savvy but often work-life illiterate, and mature aged students with less "web-gen" experience in their prior learning but typically richer life experience. Beyond this contrast, modern students contend with multiple social roles of which being a student is only one. Students enrol in university studies with well-developed family and work commitments, and many of them live some distance from the university.

Universities are also expected to be places of lifelong education, providing new forms of continuing professional education and considerable growth in postgraduate education. Professionals often combine work and study to enhance their initial expertise, or look for "time out" from practice to critically reflect upon and reassess it, transforming their knowledge gained in practice through reflection on practice and further education. The last decade has also produced new partnerships between industries and universities, in which university degrees are gained through accreditation of work-based learning combined with formal studies (Billett, 2001). The concept of lifelong education has challenged the traditional nature of education for practice in terms of content, modes of delivery and teaching, learning and assessment processes.

Internationalisation affects professional education by generating a culturally diverse student body, challenged not only by learning and workplace cultures and contexts but also by the local host country cultures and contexts. Internationalisation also finds host organisations who seek to use placements and internships as foundations for professional recruitment. Leask and Carroll (2011) challenged the wishful complacency that can accompany internationalisation endeavours, arguing

that to benefit from opportunities for cultural diversity greater emphasis is needed on strategic and informed intervention (including formal and informal curriculum alignment) to enhance inclusion, and avoidance of forced and unsupported cross-cultural encounters.

Student diversity, including differences in educational preparation, culture and demography is increased by "greater access" policies and requires constructive engagement. Lee and Dunston (2011) have suggested that in the context of greater diversity there is a need to address difference not as deficit but rather through curriculum design and effective teacher-learner relationships. Curriculum design planning for difference implies a move away from reverse engineering of curricula that deals with difference on a case-by-case basis, towards design that invites and utilises diversity and difference. In education for practice this is a large agenda as it goes beyond the boundaries of institutions and competes as an agenda with numerous and extensive economic, industry and professional interests.

Learning to Learn and Learning for Life

In a context of increased change and uncertainty, education for practice for today will not necessarily align with education for practice for tomorrow. The challenge is to provide an education that increases graduates' capacities to be (i) intelligent and discerning consumers of research, (ii) conscious of their own capacity to generate knowledge in and through practice, (iii) explicit in their deployment of their practice-generated knowledge. Learning for, in and through practice must be understood to be a lifelong endeavour. Universities are being challenged by educational leaders, community stakeholders and students to rethink the relationship between higher education, learners and learning, to provide learning for life. Barnett (2010, p. 1) argued, "If lifelong learning is learning that occupies different spaces through the lifespan – 'from cradle to grave' – life-wide learning is learning in different spaces simultaneously … [where] lifewide learning suggests a concept of liquid learning, a multiplicity of forms of learning and thence of being experienced by the learner contemporaneously." The developing responsibility for providing the totality of students' learning experiences across multiple contexts is, once again, transforming the role of universities and their place in society.

Education for Practice

The new millennium, with its rapidly changing practice worlds and global challenges "require[s] an education for future practice that engages with uncertain, diverse, complex and rapidly changing conditions" (Higgs et al., 2010, p. 3).

> Future practices – practices aimed at building better futures – need to be critical, creative, collective and bold: bold because they involve naming sensitive and problematic issues in an authentic manner; collective because acting in isolation is not sustainable; creative because practice engages with uncertain, diverse and complex problems; and critical because good practice

> contests and radically questions rather than routinises practices. (Kemmis & Trede, 2010, p. 38)

McKenzie, Higgs, and Horsfall (2005, p. 469) argued that "the way to help students deal with the complex conditions of modern life is to teach for complexity, consciousness and capability." This involves enabling students to become co-creators of that complexity, to become meaning-makers and critical players amidst this supercomplexity. We argue here that education for future practice requires higher education to exceed the boundaries of merely addressing (i) mastery of a restricted set of skills, (ii) socialisation to conform to the status quo, (iii) and production of "work-ready graduates," in a reductionist frame of heightened accountability that is risk-averse and limited to quick fixes. We need to value multiple forms of knowing and learning. Curricula need to be more explicit and cohesive in their construction, acknowledging the distinctiveness of the diverse forms of knowledge and avoiding the privileging of one form of knowledge above the others, while at the same time having a concern for the particularities of practice needs.

Constructive Engagement with Technology

Increased technological development has generated a set of possibilities and expectations with the potential to disaggregate the curriculum into silos of conceptualisation, design, interaction and assessment. We need creative solutions to harness technology rather than be ruled by it, to use tools wisely and provide opportunities and spaces for educational strategies that assure quality, allow diversity, promote creative options and provide cohesion.

Academic Leadership

An overly managed approach to professional education can generate a disjunction between the market-driven agendas of university leadership and the goals of education for professional practice. Increased management of education through national and other forms of external surveillance engenders a number of tacit risks. The first risk is an absence of vision to guide the development of higher education, including education of the professions. The second risk is that logistics and measurement processes will override more pressing issues of creating educational experience and divert resources from educational quality enhancement. The third risk is that there will be an undue focus on management as distinct from leadership (Marshall et al., 2011) that will privilege pragmatics at the expense of much-needed innovation and future-oriented thinking.

Induction and continuing education of academic leaders in the scholarship of educational leadership is essential so that they can assume critical understanding of the changing role they forge for universities and their impact on education for the professions. Marshall et al. (2011) proposed that continuing professional development of leaders and managers of learning and teaching should provide the opportunity for:

- action learning, being experiential, practice-focused and project-based, so that it maintains grounded links with what matters most in practice
- personal mastery, promoting critically reflective, evaluative activities
- situated learning, focusing on practical application to personal role and responsibilities
- critical analysis, involving scholarship that challenges the status quo and taken-for-granted assumptions
- expert guidance, including elements of expert mentoring
- network building, including elements of collegial peer mentoring.

Informed, critically aware and vision-driven leadership is critical in this highly managed context of university education. Unfortunately, leaders are rarely prepared thus for their roles. They enter their educational roles through success in their discipline or practice fields which has become the substance of their academic field. Once they become leaders they are often overburdened by responsibilities that filter their vision of what is needed and what is possible.

A FINAL WORD

Education for the professions and for practice has long been a function of universities. Universities have not shaped the professions per se. However, social and political changes have changed the missions of universities and the ways they function. Universities have contributed significantly to the development of professional practices within their increasingly diverse practice contexts. While there are synergistic relationships between university education and professional practice, there are disjunctions in their mutual engagement that continue to challenge and disrupt the development of mature relationships between societies and universities in the provision of lifelong and lifewide learning for professional practice. It is the universities that must take the initiative to address these challenging disjunctions and, in doing so, be more inclusive, making spaces for stakeholders' participation in curriculum design and development processes. Universities need a clear vision about their role in education for practice; they must adopt more intentional and explicit pedagogical practices and curriculum spaces in which they are effective partners in students' transformation of practice experiences into sound knowledge for practice. This latter role is neglected at the university's own peril. For it is this transformative process in students' learning that validates the place of universities in modern society. It is also the vehicle through which universities can more than bridge the theory/practice divide and can reinforce the value of a symbiotic relationship between societies and university.

REFERENCES

Ball, S. (2004). Education for sale! The commodification of everything? King's Annual Education Lecture 2004, University of London. Retrieved from http://www.asu.edu/educ/epsl/CERU/articles/CERU-0410-253-OWI.pdf

Barnett, R. (1990). *The idea of higher education*. Buckingham: Open University Press.

Barnett. R. (2010). Life-wide education: A new and transformative concept for higher education? In *Enabling a More Complete Education Conference e-Proceedings*, April 2010. Retrieved from http://lifewidelearningconference.pbworks.com/E-proceedings

Bauman, Z. (2000). *Liquid modernity*. Cambridge: Polity Press.

Billett, S. (2001). *Learning in the workplace: Strategies for effective practice*. St Leonards, NSW: Allen & Unwin.

Billett, S. (2009). Realising the educational worth of integrating work experiences in higher education. *Studies in Higher Education*, *34*(7), 827-843.

Brennan, J., King, R., & Lebeau, Y. (2004). *The role of universities in the transformation of societies: An international research project synthesis report*. London: Centre for Higher Education Research and Information, Association of Commonwealth Universities.

Bridgstock, R. (2009). The graduate attributes we've overlooked: Enhancing graduate employability through career management skills. *Higher Education Research & Development*, *28*(1), 31-44.

Crebert, G., Bates, M., Bell, B., Patrick, C., & Cragnolini, V. (2004). Developing generic skills at university, during work placement and in employment: Graduates' perceptions. *Higher Education Research & Development*, *23*(2), 147-165.

Eraut, M. (1994). *Developing professional knowledge and competence*. London: Taylor and Francis.

Fish, D., & de Cossart, L. (2007). *Developing the wise doctor: A resource for trainers and trainees in MMC*. London: Royal Society of Medicine Press.

Fish, D., & Higgs, J. (2008). The context for clinical decision making in the twenty-first century. In J. Higgs, M. Jones, S. Loftus, & N. Christensen (Eds.), *Clinical reasoning in the health professions* (3rd ed., pp. 19-30). Edinburgh: Elsevier.

Goulter, I., & van Rooijen, M. (2010). Social, political and industrial drivers of higher education. In J. Higgs, D. Fish, I. Goulter, S. Loftus, J.-A. Reid, & F. Trede (Eds.), *Education for future practice* (pp. 135-140). Rotterdam, The Netherlands: Sense.

Green, A., & Renton, R. (2009). Higher education as an instrument of social change: A means to a political end. Paper presented at 31st Annual EAIR Forum in Lithuania, 23-26 August 2009.

Green, B. (2009). The primacy of practice and the problem of representation. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 39-54). Rotterdam, The Netherlands: Sense.

Habermas, J. (1972). *Knowledge and human interests* (J.J. Shapiro, Trans.). London: Heinemann.

Harvey, L., Moon, S., Geall, V., with Bower, R. (1997). *Graduates' work: Organisational change and students' attributes*. Birmingham: CRQ and AGR (supported by DFEE and CIHE).

Higgs, J., Loftus, S., & Trede, F. (2010). Education for future practice. In J. Higgs, D. Fish, I. Goulter, S. Loftus, J.-A. Reid, & F. Trede (Eds.), *Education for future practice* (pp. 3-13). Rotterdam, The Netherlands: Sense.

Hutchinson, S., & Shakespeare, P. (2010). Standard setting, external regulation and professional autonomy: Exploring the implications for university education. In J. Higgs, D. Fish, I. Goulter, S. Loftus, J.-A. Reid, & F. Trede (Eds.), *Education for future practice* (pp. 75-84). Rotterdam, The Netherlands: Sense.

Kamenetz, A. (2010). *DIY U: Edupunks, edupreneurs and the coming transformation of higher education*. White River Junction, VT: Chelsea Green.

Kemmis, S. (2010). What is professional practice? Recognising and respecting diversity in understandings of practice. In C. Kanes (Ed.), *Elaborating professionalism: Studies in practice and theory* (pp. 139-165). New York: Springer.

Kemmis, S., & Trede, F. (2010). Practice and developing future practice. In J. Higgs, D. Fish, I. Goulter, S. Loftus, J.-A. Reid, & F. Trede (Eds.), *Education for future practice* (pp. 29-39). Rotterdam, The Netherlands: Sense.

Leask, B., & Carroll, J. (2011). Moving beyond 'wishing and hoping': Internationalisation and student experiences of inclusion and engagement. *Higher Education Research & Development*, *30*(5), 647-659.

Lee, A., & Dunston, R., (2011). Practice, learning and change: Towards a re-theorisation of professional education. *Teaching in Higher Education*, *16*(5), 483-494.

Letts, W. (2010). Exploring the pedagogical landscapes that are framing higher education. In J. Higgs, D. Fish, I. Goulter, S. Loftus, J.-A. Reid, & F. Trede (Eds.), *Education for future practice* (pp. 123-133). Rotterdam, The Netherlands: Sense.

Marshall, S. J., Orrell, J., Cameron, A., Bosanquet, A., & Thomas, S. (2011). Leading and managing learning and teaching in higher education. *Higher Education Research & Development*, *30*(2), 87-103.

McGregor, K. (2010). Austerity challenging the values of universities. *University World News, Special edition 0002*. Retrieved from http://www.universityworldnews.com/publications/archives.php?pub=UWNSpecial

McKenzie, T., Higgs, J., & Horsfall, D. (2005). Guidelines for assessing progress of learning in complex domains. In S. Kinshuk, D. Sampson, & P. Isaias (Eds.), *Proceedings of the IADIS International Conference on Cognition and Exploratory Learning in Digital Age* (CELDA 2005) (pp. 469-572). Portugal: IADIS Press.

McNeely, I., & Wolverton, L. (2008). *Reinventing knowledge*. New York: Norton.

O'Neill, O. (2002). *A question of trust*. Cambridge: Polity Press.

Orrell, J. (2004). Work integrated learning programmes: Management and quality. *Proceedings of Australian University Quality Forum 2004*. AUQA Occasional Publication.

Orrell, J. (2011). *Good practice report: Work-integrated learning*. Sydney: Australian Learning and Teaching Council.

Rouse, J. (2007). Practice theory. In S. Turner & M. Risjord (Eds.), *Handbook of science: Philosophy of anthropology and sociology* (pp. 639-682). Amsterdam, The Netherlands: Elsevier.

Schejbal, D. (2012). *In search of a new paradigm for higher education. Innovation in higher education*. Retrieved from http://www.citeulike.org/article/10437872

Schwandt, T. A. (2005). On modeling our understanding of the practice fields. *Pedagogy, Culture and Society*, *13*(3), 313-332.

Sennett, R. (2005). The culture of work. In: C. Calhoun, C. Rojek, & B. S. Turner (Eds.), *The Sage handbook of sociology* (pp. 129-134). London, UK: Sage.

Siemens, G., & Matheos, K. (2010). Systemic changes in higher education. In *Education: Exploring our connective educational landscape*. Retrieved from http://ineducation.ca/article/sytemic-change-higher-education

Trede, F., & Higgs, J. (2010). Critical practice and transformative dialogues. In J. Higgs, D. Fish, I. Goulter, S. Loftus, J.-A. Reid, & F. Trede (Eds.), *Education for future practice* (pp. 51-60). Rotterdam, The Netherlands: Sense.

Whybray, R. N. (1965). *Wisdom in proverbs: The concept of wisdom in Proverbs 1-9, 45*. London: SCM Press.

Wolff, R. P. (1969). *The ideal of the university*. Boston: Beacon Press.

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5. PROBLEMATISING PRACTICE-BASED EDUCATION

Practice-based education is establishing itself as a new term in higher education in Australia. It is used not only to encompass those elements of professional education that have traditionally taken place in a practice setting (e.g. in the areas of clinical placement in health and practice teaching in education), but also a dimension of any higher education program that engages students with the practice of whatever students study. The questions to be considered though are: does the adoption of this term signify a new approach, or is it merely a rebadging of long-standing activities within a new discourse? Even if it is only a relatively minor reworking of existing ideas, does it allow the possibility of new kinds of pedagogical and curriculum practices to emerge from a new configuration? Can this shift become the starting point for a more critical approach that brings university courses more fully into the world of professional activity?

This chapter explores the uptake of the use of practice-based education and locates it in the context of innovations in higher education curriculum and pedagogy, especially in changing approaches to professional education. It examines how practice-based education might be both similar to and different from previous innovations, and whether a study of them can illuminate present discussions. It also takes up changes that have arisen in the wider world of scholarship regarding a new positioning of practice and the emergence of practice theories. It suggests that there may be important new features of the emerging notion of practice-based education, but that the uncritical celebration of "practice" can obscure as much as it reveals.

What is Practice-Based Education?

Is practice-based education a term describing a coherent set of practices? What range of different practices does it illuminate and/or disguise? Does it represent a coalition of the convenient or an important shift in higher education?

In higher education at present we see a diversity of practice-based activities. They have a variety of names, many of which are associated with particular disciplines or groups of disciplines: practicum, work placement, internship, cooperative education/sandwich elements of a course, fieldwork, clinical education, clinical supervision, and so on. There is also a plethora of terminology across disciplines which can obscure the commonalities of the educational practices represented, such as the use of supervised activities in situ and engaging students in reflective work. And the use of a single descriptor within a professional

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 55-68.

area can tend to suggest a greater commonality within that area than is often the case. So, for example, most teacher education programs include a practicum, and one element of that is normally practice teaching in a real educational setting, but the type, extent and the nature of supervisions varies greatly between programs. They are, simply, programs that include experiences in practice settings.

In Australia, the term "work-integrated learning" is being used as a collective description of programs that combine study with various kinds of involvement with work or practice. None of these elements necessarily makes a course practice-based, except in the loosest sense. If they did, then the term practice-based would be such an umbrella term it would not signify a great deal. We must then probe the idea further to see if there are some features that are central to practice-based education that might characterise courses described in this way. Mere involvement in some kind of work or practice is probably not enough, because to be a part of an educational program identifiable learning outcomes need to be demonstrable and thus an explicit learning dimension needs to be added to participation in work itself.

Before proceeding with this analysis however, it is useful to look briefly at the terms themselves: *practice*, *based* and *education*. They suggest questions that can focus our exploration.

Practice What constitutes practice? Choice of this term at the present time suggests a practice that occurs beyond that of courses themselves. This would normally be the practice of the profession or the discipline, as represented by what practitioners do in their work. It implies choice about whose practice is being specifically referred to (which type or category of practitioner within any given domain of practice?), and the contexts in which the practice might be carried out. The use of the term practice clearly goes beyond knowledge of the practice to involve the conduct of the practice.

Based If a curriculum or pedagogic process is based on something, it suggests that characteristic features of the educational activity derive from it or occur within it. To base something on practice means more than preparing for practice. Indeed, it doesn't necessarily imply that preparing for specific practices is the main goal. To be practice-based means more than just a course with "added practice."

Education The use of education suggests that it is not training, or at least training is not the main intention. It also implies more than engaging in some kind of practice or preparing to only engage in that practice. An education based on practice must still be an education with the broader scope and longer time horizon that that connotes. A notion of knowing and doing beyond the particularities of a given practice activity or a given setting is clearly suggested by the term "education."

Moves to practice-based education have been driven at least in part by the increasingly vocational emphasis in higher education over the past 20 years. In the

UK, for example, the importance of work for undergraduates was signalled by the recommendation of the pivotal Dearing Committee (NCIHE, 1997) that all students should have undertaken work experience before graduation. While this has often been interpreted as merely the undertaking of work, it has also led increasingly to work-integrated programs.

What Can We Learn from Earlier Innovations?

Rather than approach directly the question of what is practice-based education, it might be useful to take a brief excursion into other ideas that have occupied equivalent spaces in curriculum and pedagogy in higher education. There are two familiar approaches that have been much more fully discussed but which share similar conceptual problems. They have been in use for longer periods than practice-based education, at least as it is presently identified, so we might be able to discern something from the difficulties they encountered. The first of these is learner or student-centred education. The second is problem-based learning. The common issue is that these terms are in everyday use in higher education, but they are used quite loosely in typical discussions. This means that we may not know what they refer to in any given instance, and different people use them for different purposes. This is not to say that there is not a substantial body of literature concerning these ideas, and clear advocates for a particular view, but that the way particular ideas get taken up often differs from what their advocates and researchers might suggest.

Learner-Centred Education

What can a focus on learner-centred education contribute to our understanding of practice-based education? It is an innovation that has been around for a longer time, it was similarly in need of clarification, and it has been used in a number of different ways, not least in conjunction with practice. An exploration of some of the features of learner-centred discourse can illuminate the evolution of related ideas.

At its most basic level, *learner-centred* has been contrasted with *teacher-centred* approaches. That is, rather than concentrating on the needs of the teacher, or the curriculum content as represented by the teacher, the focus is on what the student needs to learn effectively. Almost all uses of the term have counterposed learner and teacher. However, there have been quite different manifestations of learner-centredness in higher education over 50 years. These are discussed in detail in Boud (2006). The major differences in the notion of learner-centred as represented in the literature on substantial innovations are summarised in Table 5.1. In everyday institutional use, there were of course even greater variations.

From the earliest manifestations of learner-centredness in programmed learning, through the practice of self-directed or negotiated learning and problem-based learning to the hybrid of work-based learning partnerships, there are substantial shifts in what learner-centred was taken to mean. In the arrangement of teaching

called the Personalised System of Instruction, or the Keller Plan, which was one of the first systematic applications of research-based, conceptually sophisticated pedagogy in higher education in the 1960s, learner-centred meant only that students could control the pace of their study and not be locked in to the weekly schedule of lectures which was designed on the assumption that all students could benefit from exposure to teaching at the same rate. No notions of student interest or of variation in content or approach to study were considered. Students could study when they wished at the pace that suited them and be tested when they felt they were ready.

Table 5.1. Uses of learner-centred approaches over time

Period developed	Innovation	Philosophical basis	Notion of learner-centred
1950-60s	Programmed learning/ Personalised System of Instruction	Behaviourist	Learners control rate of study
1970-80s+	Self-directed/ negotiated learning	Humanist	Learners negotiate goals, content and outcomes
1970-90s+	Problem-based learning	Constructivist	Learners collaboratively focus on what is needed to be learned
1990s+	Work-based learning partnerships	Eclectic	Learners negotiate programs from the exigencies of work

A subsequent view of learner-centred was in what was originally, and probably inappropriately, termed "self-directed learning." Students identified their desired goals and outcomes, proposed a program of study, indicated how they would be most appropriately judged, and negotiated a plan with teachers or advisers. Depending on the constraints of the wider program in which they were enrolled, students had flexibility in varying content, objectives, activities, resources and assessment. Although they may have had to negotiate the specifics with someone in authority in order to get them approved, there was considerable scope for programs to be learner-centred through tailoring them to individual students' needs. Self-directed learning should be more accurately described as negotiated learning.

These two illustrations represent well-documented examples of practices claimed to be learner-centred. Today we see this term used frequently by leaders of universities to characterise their institution. When vice-chancellors use the term now, do they mean more than that they look after their students and treat them well? From the context of their speeches it is clear that learner-centred is taken to be a good thing, but what it actually means now is quite obscure. Indeed, it has

always been obscure except when it has been tied to very specific practices (Boud, 2006). The term itself is ubiquitous, but it has lost any sense of useful meaning, except in the very general sense of being somewhat student-oriented.

Problem-Based Learning

Let us turn to problem-based learning. This is another conceptually sophisticated approach to curriculum and pedagogy that has been well documented and researched since its emergence in the 1970s. It has been regarded as one of the greatest changes in professional education worldwide and has generated a vast literature. It is a more tightly defined innovation than learner-centred education, but it too has been taken up in many ways, some of which are pertinent to practice-based education. What then does problem-based learning refer to and how is it used? With regard to the macro level of the curriculum, rather than being focused on any foundational disciplines, problem-based learning frames activity around common and pervasive problems from professional practice. Although it has been used to design individual course units, a few problem-based modules within an otherwise conventional curriculum hardly constitute problem-based learning. It may use some features of problem-based pedagogy, but it not a problem-based curriculum.

In its most common manifestation, problem-based learning pedagogy characteristically starts with a problem that engages students and is experienced by them as "real." The students are required to work cooperatively with a group of peers to formulate and enact what they need to resolve the problem. In this process, students identify their own learning needs and use available resources. After a period of investigation and sharing of their learning with each other, their new knowledge is reapplied to address the original problem given.

The main pedagogical features are (a) devices to promote student agency and engagement (such as the problem and the requirement to address it), (b) emphasis on peer learning and peer commitment (collectively, students in a small group are required to study together to understand the problem and address it), and (c) equipping students to engage in learning beyond the given (students are not told what to study to understand and address the problem; they learn how-to-learn as well as learning knowledge required for a solution) (Boud & Feletti, 1997). While it appears to be a problem-solving activity, and has this effect, it is much more, in that it builds the capacity for students to solve increasingly more demanding problems and learn effectively in the process.

The adoption of problem-based learning requires a substantial commitment beyond individual staff members. It needs research on what are common and pervasive problems in professional practice, sophisticated design of curriculum materials, particularly generative problems, and training of staff to shift teaching practices to facilitative ones compatible with problem-based learning pedagogy.

What, then, can we draw from this brief analysis of the phenomenon of problem-based learning? Firstly, it has involved a fundamental shift in conceptions on the part of curriculum designers. The conceptions that changed are not only of

the relationships between teaching and learning, but also those between learning and practice. The outcome of any given episode with a group of students is not primarily the acquisition of more knowledge, though this obviously occurs, but the ability to address a problem of practice and build their capacity to address similar problems. Typically, in later years of their courses students tackle real problems in authentic practice settings, using the approaches with which the problem-based curriculum has equipped them. Secondly, we are dealing with not just a pedagogical innovation, but one that profoundly shapes the curriculum. Adding a problem-based module is rarely enough to achieve the longer-terms outcomes of the curriculum. Thirdly, new pedagogies and associated teaching and learning activities arise, but these derive from the primary conceptual shift to seeing the process of professional formation differently. They have been generated from the exigencies of the foundational idea.

Since the emergence of problem-based learning there have been other educational trends that have influenced higher education, though none have led to quite the same extensive focus as problem-based learning and such a characteristic form of curriculum. These include:

The experiential turn

This movement emphasised the importance of engaging with the experience of learners and creating activities that generated new experiences to stimulate further learning. Learning required a fuller engagement with the whole person than the intellect or psychomotor skills.

The reflective turn

This shift recognised that learning from complex experience necessarily requires reflection. Most professional courses require more than knowledge; application in practice settings is the raison d'etre of courses and a key tool to coping with complexity is the skill of reflection both in and on practice.

The competency turn

While the competency emphasis has not been taken up in higher education quite as operationally as in vocational education and training, there has been a profound shift in expectations of learning outcomes. The focus is increasingly placed not primarily on what students know, but on what they can do.

All these influences have been taken up to a greater or lesser extent in current views of practice-based education. Indeed, many current programs foreground one or more of these features rather than a practice-based emphasis.

The Practice Turn and its Educational Implications

While these educational influences undoubtedly have had an impact, an underlying and potentially more profound one is probably the practice turn itself. The practice turn was explicitly identified in the book *The Practice Turn in Contemporary Theory* (Schatzki, Knorr Cetina, & von Savigny, 2001). It refers to a confluence of

developments that have influenced the world of scholarship across the humanities and social sciences and is becoming recognised in education and many professions. It is a major shift occurring in the realm of ideas and practice (Reckwitz, 2002). While there is any amount of scholarly work that utilises practice theory or practice-based studies (e.g. Gherardi, 2008), it is a way of thinking that is still in the process of being developed in the field of teaching and learning and formal education. It is an idea that is gradually permeating the educational space and is starting to be used for thinking about the design of programs.

Some of the ways in which the practice turn is manifest in education in general and in courses in particular are, firstly, that work experience (of all kinds) is being embraced. This is not just a tolerance and acceptance of the high levels of work full-time students are engaged in concurrently with their studies, but an expectation that participation in work, especially that related to the course, should be encouraged and will be positive. Secondly, new forms of work or community service are being introduced. In the United States, the notion of service learning is very well established, but for example, in Australia, institutions like Macquarie University are now placing as a formal requirement for all undergraduates that they take a credit-bearing Participation and Community Engagement unit "to engage with the community, learn through participation, develop your capabilities and build on the skills that employers value" (Macquarie University, 2011). Thirdly, placement activities within programs are being re-energised and more conscious attention is being given to them. As courses increasingly emphasise what students can do rather than what they know, following the competency turn, those parts of programs that encourage students in practice are being seen as more central to the achievement of outcomes than previously. Formal assessment of placement outcomes in courses for which placement is not a professional requirement is occurring, and time is more likely to be allocated to staff responsible for educational coordination of such elements. Finally, in the Australian context, there has been a substantial move towards active pursuit of what is known as graduate attributes (elsewhere known as key skills or generic attributes). These are institution-wide outcomes to be attained by all graduates. In the past they have been commonly asserted by institutions as aspirational statements, but in recent years there have been systematic attempts to embed them in all course units and to assess their achievement (e.g. Barrie, 2007; Barrie, Hughes, & Smith, 2009). Although graduate attributes may not foreground practice explicitly, it is in the non-classroom-based elements of programs that particular opportunities for their development can often be pursued most readily.

In some ways, such as in these examples, the practice turn is having a noticeable impact on higher education; yet the overall magnitude of this impact is probably not great. Why should this be? With relatively few exceptions, the curriculum as a whole is relatively untouched. Changes have occurred either in areas that do not influence the core elements of programs, or lip service is paid to them, such as has occurred in the embedding of graduate attributes. There is some reform of course elements and substantial revision of some modules. In general, however, curriculum and pedagogy follow conventional models with a few notable add-ons.

There are considerable numbers of innovations, but these are still mostly taking place at the individual unit level. Most importantly, though, the nature of practice is unexplored and unproblematised. Without a more thorough investigation of what practice is and how effective practice can be developed, then the practice turn in higher education may be only notional.

The Challenge of the Nature of Practice

Before considering its application in higher education, we should first consider what constitutes practice and how it might be conceptualised. In a recent paper on viewing academic development in terms of practice, common features of practice as used in professional work were summarised (Boud & Brew, 2012). These features were identified as *embodiment* (the location of practice within persons), *material mediation* (the influence of material conditions), *relationality* (practice occurs in relation to other persons), *situatedness* (the contextual locatedness of practice), *emergence* (that practice cannot necessarily be fully determined in advance of particular circumstances) and *co-construction* (that practice is socially constructed with others). Other features of practice linked to these that graduates will typically encounter are that it takes place in conjunction with those trained in other traditions or professions (interprofessional) and that practice is often co-produced with others; that is, it is not just the practice of professionals that must be considered but how their work is constructed alongside, say, clients, customers or patients.

Even a lesser set of features of practice than this would provide substantial challenges to curricula that have previously been characterised as emphasising attributes of individuals: knowledge, skills and attitudes and constructing programs to foster such individual development.

Taking each feature in turn we can begin to unpick the challenge:

Embodiment

Treating students as whole persons with feelings, emotions and desires, rather than focusing on intellect and skills provides unique demands. However, many of the innovations associated with the experiential turn provide ways of conceptualising and organising courses. Of particular significance here is the valuing and utilising of students' experience, both from within and outside of their courses.

Material mediation

In one sense all programs involve material mediation through learning resources, virtual learning environments and communication tools. The issue becomes using these in the service of a practice view. New forms of material mediation need to be considered, such as the use of stimulated patients in health-related disciplines or simulated experiments in the sciences. Material mediation can bring practice engagement into the curriculum so long as it is not also used to displace elements of real practice.

Relationality

As practice occurs in relation with others who practise, this feature draws attention to the engagement of students with practitioners of all kinds and with their peers in practice settings. Students cannot learn relational aspects of practice independent of such relationships.

Situatedness

Practice is always located in time and place. The context in which it occurs typically exerts a strong influence on the nature of the practice. Situatedness prompts students to include, as part of their development, practice in settings that are either authentic or that exhibit strong features of such settings. Not only this, but the diverse nature of practice settings after graduation suggests that multiple practice situations would be needed within programs.

Emergence

At a time when programs are being increasingly codified in terms of standards, criteria and learning outcomes, emergence draws attention to the fact that not all worthwhile things can be planned for or specified in advance. Indeed, too much pre-specification can inhibit the very qualities that need to be pursued. Opportunities for students to follow where learning is to be had are also needed.

Co-construction

A deeply embedded feature of most formal education is the individualistic assumption that underpins it. Students are commonly treated as isolated units throughout; they are typically assessed as individuals and priority is given to ensuring that they are not disadvantaged by what others do. The notion of co-construction and its development challenges this separatist view. If practice is co-created with others, then the opportunity to do this in learning settings also needs to occur. An important first step is the co-construction of learning by teachers with learners, to give a tangible manifestation of the process of co-construction. This suggests far more negotiated activities and learning events that are not solely defined and created by teachers.

While numerous examples of each of these are found in the teaching and learning literature, and examples of many are found in parts of the curricula in most professional areas, it would be optimistic to suggest that they are widespread. They are not systematically pursued or even considered as a set. With few exceptions, like the problem-based curriculum, there is a lack of an overall design and little collective responsibility for what a program as a whole seeks to do. Practice-based features remain the poor cousin.

Implications of Such a Practice View for Courses

Examples of all these features of practice can probably be found in some form in almost any course, but there is a big difference between “coverage” in the sense of being used in some kind of activity, and “pursuit” in the sense that the course actively and systematically emphasises the feature. A significant shift in the

balance towards the development of practice would see these features together as ubiquitous rather than characteristics of isolated and uncommon innovations. Such a shift would require a new focus on the nature of the activities in which students engage in all parts of courses, and the demonstration that these activities had as their core practice elements of the kind discussed above. In short, they would involve learning practices that paralleled the diversity of practices in the professional sphere. This does not mean that they would have to be mini versions of normal workplace activity, but that learning tasks would be typically more embodied, relational, situated, emergent and co-constructed than might presently be the case. Such a curriculum would involve multiple, different, rich tasks in which students worked (more often) with others, tasks that had points of reference in the world external to the institution, tasks that acknowledged and worked with the embodied and thus emotional dimensions of work, tasks that were not fully determined or had criteria not fully determined in advance, and tasks which involved working with others, non-students, who had a real stake in the outcome.

Such a view is only a small projection from what many courses are seeking to do currently, but it is one driven by a more theorised view of what constitutes practice, a view that is needed if we are to proceed beyond simply "adding more useful activities." We must determine the nature and educational characteristics of what needs to be included before sensible discussions can be had about what might have to go to make room for them. A principled position on practice-based education is needed to break the deadlock of the inexorable push to include more of the same, but more updated, content in courses.

What Would a Practice-Based Curriculum Look Like?

Students working in external practice settings would not necessarily dominate a practice-based curriculum. It is not primarily about the location of activity or even the nature of specific activities, but about the overall orientation and focus. Neither need it be it a narrowly skills-based or vocational curriculum. It could be taken in that direction, but it is not intrinsically so. It is a conceptual frame, a lens through which to view curriculum; it does not define the particularities of the learning outcomes that might be sought in any given instance.

Practice would be the central, organising feature. The curriculum would be based on a detailed analysis of the forms of practice used within the domain of the program and how they can be conceptualised and enacted. The curriculum would be founded on a view of what practice was and how it could be conceptualised in a learning context. Following the example of problem-based learning, it might select common and pervasive practices for students to work with, or if professional practice is more differentiated than that found in the health disciplines with their focus on the health of a person, it might use different principles for the selection of central practices. It would not start from theory or knowledge of the foundational disciplines. There would be a rich use of such resources, but they would not provide the framing principles, or the starting point. It would utilise an

understanding of practice theory to inform its design, but it would not necessarily introduce that as a part of the initial content.

The content and processes of the curriculum would be derived from content and processes in the domain of professional practice, but not exclusively so. An analysis of the practice material and the processes used would need to lead to the kinds of scaffolding required to form learners as practitioners.

A range of different practice experiences would be constructed to move students along a trajectory to ultimately reach work close to authentic work in the field. It would encompass at early stages simulations and role-plays of practice, through tasks taken from practice completed in controlled environments, to more complex tasks that encompassed a typical range of challenges from work settings.

Students would be equipped with tools and strategies to interrogate and reflect on practice. They would be partners in the design and development of these tools and strategies to ensure that they met their own needs and those of different practice settings in which they would need to operate. They would refine these tools to deal with more complex and challenging situations.

Inquiry approaches would be used to examine practices and what constitutes them. Inquiry is a necessary feature of changing practice both on the micro-scale (individual practice activities, reflective practice) and the macro-scale (changes in the nature of practices themselves, researching practices). The curriculum would position students as knowledge (and practice) producers as well as knowledge acquirers or appreciators of practice (cf. Powell & McCauley, 2003; Manathunga, Kiley, Boud, & Cantwell, 2012). This is no less significant in a practice-based curriculum than a traditional one.

Working with others is such a central part of almost all practices now that it would have a much larger role than at present in the otherwise individualistic approach to learning and assessment in educational institutions. Learning with and from others would be the norm, and practising with others would be pervasive.

Assessment would use tasks derived from practice activities and provide opportunities for students to model and become familiar with the activities practitioners use to make judgments about their own work. Assessment artefacts, such as examinations and tests rarely found outside the educational institutional context, would be either uncommon or transformed in major ways to reflect a different basis for practice acquisition.

It would be unlikely for there to be the polarity between theory-based and practice-based course modules that is common in existing professional curricula. Such a dichotomy is a heritage from an earlier separation between academic and vocational courses that it would be inappropriate to reify. Theory learned in the context of application might be more effectively utilised than that learned separately, as the problem of transfer does not arise in the same way (Bowden & Marton, 1998). Indeed, discourses such as the "theory-practice divide" or "putting theory into practice" would be eliminated from language as a practice-based frame became accepted as normal.

Equipping students for continuing learning in diverse settings would be a leitmotif for all aspects of teaching, learning and assessment. This would range

from building the capacity to be a proactive learner who can operate with others, to developing the capacity for informed judgment about the quality of work produced. Assessment would not only be about judging outcomes and improving work, but about the second-order, self-regulative skill of knowing on what basis to judge, and assembling for oneself, with others, the means to do so (Boud, 2009).

The adoption of a problem-based curriculum does not in itself define the sites in which it might be conducted. However, it would be rare for such a curriculum to be undertaken entirely separate from actual sites of practice. It is conceivable, however, to envisage practice-based education conducted exclusively in sites of practice (such as can currently be found in work-based learning partnerships, Boud & Solomon, 2001), or in arrangements in which students were mainly based on campus with elements undertaken elsewhere.

What it does imply is that the nature of campus-located activity might change. There would be a far greater emphasis on simulations, group work, practice-like activity within the educational environment rather than a preponderance of lectures, tutorials and the like. This would have profound implications for the campus environment. Workspaces would need to readily accommodate everything other than formal presentations, and informal spaces around them would need to accommodate students working with each other in many different configurations, with access to resources on demand. Luckily, this is a projection of the directions in which campus design is already moving.

A particular implication of a practice-based approach is far better collaboration between educational institutions and external organisations. New forms of partnership would be needed that involved genuinely shared responsibility.

While it is more obvious what a practice-based approach would look like in areas where it is used as preparation for entry into a specific profession, that doesn't mean to say that this approach could not be used in more general educational programs.

What Would Constitute a Practice-Based Education?

There is currently a loosely framed version of practice-based education that seems to encompass any use of practice within a program of study as constituting practice-based education. This version is vulnerable to critical debate as it is relatively undefined and substantially unconceptualised. The criteria for what is practice-based are ambiguous, and their absence does not enable us to make effective judgments about what doing it well or badly might involve. My own institution, for example, thinks of itself as practice-based and it has been through a number of cycles of trying to define what this term means. While there is now a consensus institutional statement, it is characterised by a desire to be as inclusive of as many programs as possible. It, and statements like it in other institutions, lacks the distinct edge which would enable programs to have a clear direction to becoming substantially practice-based.

This chapter has sought a tighter frame, based on some perspectives about practice and practice theory from the scholarly literature beyond higher education.

It has taken the view that just because a program may have fragments of practice-based activity within it, such inclusion does not make the program practice-based. The distinctions made by Bob Ross and others in the early days of the adoption of problem-based learning in Australia (Ross, Abel, Margetson, & Sauer, 1985) are relevant here, and help characterise the present situation. Translated to the current context, we can see that there are:

Practice-oriented curricula These are often seen in the disciplines already oriented towards practice: education, nursing, some parts of engineering, etc. There is a fundamental acknowledgement that programs need to equip students for practice, but this is done in well-established ways that involve elements of practice at key stages of the program and some reference to the practice-based nature of the profession throughout.

Practice-based curricula These would be based on a conceptual view of practice, and curriculum and pedagogy would derive from it. There are few well-developed examples at present. Some manifestations of a partial approach are found in the UK examples of work-based partnership degrees and attempts to have school-based teacher education. These have had only limited success because they have been positioned as marginal to most provision and have not been well conceptualised in terms of the notion of practice. Indeed, to be fair to them, they have not sought to characterise themselves in this manner.

We can think of these two ideas about the curriculum as representing weak and strong approaches to practice-based education. It remains to be seen where the strong approaches will be developed and what will drive them. Until we see this, then the notion of practice-based education will remain problematic. It reminds one of the famous quote attributed to Mahatma Gandhi, with the term "practice-based education" substituted: "What do I think of Western civilisation? I think it would be a very good idea."

Conclusion

Is the term practice-based education more than a presentational device? It might be so long as the practices that comprise it meet certain conditions. We must be mindful, however, of the common phenomenon of educational slippage: a worthwhile idea becomes watered down through loose framing and the lack of appreciation of key curricula and pedagogical features.

Can we say that practice-based education has arrived? In a limited sense it has, but so far the potential is very far from being realised. Various features are missing. We don't have a shared conception of practice or a common view of what education through practice might look like. Embodiment is often limited to placements and to some extent simulations. Co-construction is discussed but is insufficiently manifest. Practice-based education in the fuller sense discussed here

is an underdeveloped idea. It is as yet insufficient to make a curriculum with the pedagogies that need to accompany it.

The implications of taking the practice-based path are profound. There are substantial curriculum and pedagogical implications that shift the nature of what is the norm within educational institutions. It is not an incremental change with a bit of added practice, but a different way of viewing educational work.

REFERENCES

Barrie, S. (2007). A conceptual framework for the teaching and learning of graduate attributes. *Studies in Higher Education, 32*(4), 439-458.

Barrie, S., Hughes, C., & Smith, C. (2009). *The national graduate attributes report: Integration and assessment of graduate attributes in curriculum* (Research Report). Sydney: Australian Learning and Teaching Council.

Boud, D. (2006). 'Aren't we all learner-centred now?' The bittersweet flavour of success. In P. Ashwin (Ed.), *Changing higher education: The development of learning and teaching* (pp. 19-32). London: Routledge.

Boud, D. (2009). How can practice reshape assessment? In G. Joughin (Ed.), *Assessment, learning and judgement in higher education* (pp. 29-44). Dordrecht: Springer.

Boud, D., & Brew, A. (2012). Reconceptualising academic work as professional practice: Implications for academic development. *International Journal for Academic Development, iFirst,* 1-14. doi: 10.1080/1360144X.2012.671771

Boud, D., & Feletti, G. (Eds.) (1997). *The challenge of problem-based learning* (2nd ed.). London: Routledge.

Boud, D., & Solomon, N. (Eds.) (2001). *Work-based learning: A new higher education*? Buckingham: SRHE and Open University Press.

Bowden, J., & Marton, F. (1998). *The university of learning: Beyond quality and competence in higher education*. London: Kogan Page.

Gherardi, S. (2008). Situated knowledge and situated action: What do practice-based studies promise? In D. Barry & H. Hansen (Eds.), *The Sage handbook of new approaches in management and organization* (pp. 516-525). London: Sage.

Macquarie University (2011). *Participation and community engagement*. Retrieved from http://www.pace.mq.edu.au/

Manathunga, C., Kiley, M., Boud, D., & Cantwell, R. (2012). From knowledge acquisition to knowledge production: Issues with Australian honours curricula. *Teaching in Higher Education*, 17(2), 139-151. doi:10.1080/13562517.2011.590981

NCIHE. (1997). *Higher education in the learning society.* Report of the National Committee of Inquiry into Higher Education. [Dearing Report], London: HMSO.

Powell, S., & McCauley, C. (2003). The process of examining research degrees: Some issues of quality. *Quality Assurance in Education*, *11*(2), 73-83.

Reckwitz, A. (2002). Toward a theory of social practices: A development in culturalist theorizing. *European Journal of Social Theory*, *5*(2), 243-263.

Ross, B., Abel, D., Margetson, D., & Sauer, C. (1985). Designing academic programs with a problem-orientation. In D. Boud (Ed.), *Problem-based learning in education for the professions* (pp. 69-79). Sydney: HERDSA.

Schatzki, T.R., Knorr Cetina, K., & von Savigny, E. (Eds.) (2001). *The practice turn in contemporary theory*. London: Routledge.

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SECTION 2: PRACTICE-BASED EDUCATION PEDAGOGY AND STRATEGIES

JOY HIGGS

6. PRACTICE-BASED EDUCATION PEDAGOGY

Situated, Capability-Development, Relationship Practice(s)

This chapter examines practice-based education (PBE) in relation to the ideas and practices of education, curriculum, practice and pedagogy. The work presented here was realised through a teaching fellowship funded by the Australian Learning and Teaching Council (Higgs, 2011a). The fellowship program identified and addressed a need for enhanced understanding and practice of PBE pedagogy to (a) clarify good practice, (b) collate and showcase good practice exemplars, (c) make good practices widespread, and (d) better prepare students for practice in 21st century universities and complex workplaces. The goals of this fellowship program were to explore and enhance PBE pedagogy by:

- clarifying good practices in PBE,
- distributing good practices through publications and debate, and
- promoting the adoption of good practices in professional education curricula.

KEY CONCEPTS

PBE was explored under four key concepts: pedagogy, practice, education and curriculum. Each of these terms reflects many constructs, meanings, definitions and usages in the literature. This section provides an exploration of these terms. To realise an interpretation of the four key concepts a distinction is made in relation to the contextualisation and usage of the concepts as follows:

a. When capitalised or written with an initial capital and used as a *proper* noun the term is taken to represent *a DOMAIN, a particular field of study*, a discipline, or a knowledge base. Within the field various traditions or schools of thought exist. In this context the principal interest lies in the nature of the phenomenon represented in the field and how it is/can be interpreted, conceptualised and planned. The field deals with the big picture of *why* and *what* the phenomenon is about, and this understanding is needed for evaluation of *how well* and *against which* frame of reference the phenomenon is realised.
b. In lower case the term (singular/plural) is used as a common noun to represent *one of/a group of* strategies or approaches in that field. In this context, the principal interest lies in the *realisation* of the phenomenon and *how (where, with whom, when)* it is or can be implemented.
c. The terms can be generic or personally owned. Generic, field-owned or field-appraised terms are owned by the field, as in "recognised good practices in

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 71-80.

school teaching." Personally owned and utilised terms belong to individual practitioners, as in "different educators' pedagogies or pedagogical approaches."

d. In the framing and interpretations below it is evident that judgment (and whose judgment) is active in deciding what constitutes good practice(s), pedagogies, curricula and education. For instance, judgments may differ if taken from the perspective of a discipline, such as in relation to *generally accepted* standards and practices in a field, or if taken from the perspective of the individual educator or scholar.

EDUCATION

The Domain

In the words of Wenger (1998, p. 263):

> Education, in its deepest sense and at whatever age it takes place, concerns the opening of identities – exploring new ways of being that lie beyond our current state. Whereas training aims to create an inbound trajectory targeted at competence in a specific practice, education must strive to open new dimensions for the negotiation of the self. It places students on an outbound trajectory toward a broad field of possible identities. Education is not merely formative – it is transformative.

Other representations of Education include: "the passing on of cultural heritage, … the fostering of individual growth" and the initiation of the young/novices into worthwhile ways of thinking and doing (Bullock & Trombley, 1988, p. 254). Similarly, in Chapter 7 Kemmis presents Education as a means of initiating people into forms of understanding, ways of relating to one another and the world, and modes of action that foster the self-expression, self-development and self-determination of individuals and collectives, thus promoting individual good and the good of humankind.

Education for professional or occupational practice extends beyond the time, place and intention of university curricula and includes initial preparation for the occupation and ongoing development across the working life.

CURRICULUM

The Domain

The term (university) *Curriculum* refers to the sum of the experiences students engage in and acquire as a result of learning at university and the factors that create these experiences. It includes explicit, implicit and hidden aspects of the learning program, and also experiences that occur incidentally alongside the formal curriculum. The curriculum is intentional teaching, content and assessment, as well as unintentional messages to learners created through role modelling by teachers and fieldwork educators, through assessment schedules, learning climate, infrastructure (resourcing, facilities, staffing, administrative and support systems),

university communities and additional experiences (e.g. sporting, social) that are part of university life (Higgs, 2011b). Billett (2011) distinguished between:

a. the intended curriculum – what is intended to occur by sponsors or developers in terms of educational goals (i.e. what should be learned) and learning outcomes as a result of curriculum implementation.
b. the enacted curriculum – what is enacted by teachers and students as shaped by available resources and situational factors, together with the values, experiences, expertise and interpretations of what was intended by teachers and others.
c. the experienced curriculum – what students experience when they engage with the intended, enacted and unintended aspects of the curriculum and how the students learn through that experiencing.

Models and Approaches – Curriculum

Approaches to curriculum design and enactment vary considerably. Curriculum models include traditional curricula (typically face-to-face and on-campus), problem-based curricula (where the teaching and learning context, content and process are based around problems or cases), and distance education courses (where most of the teaching and learning occurs off campus in students' preferred/convenient locations).

PEDAGOGY

The Domain

The domain of Pedagogy overlaps the fields of practice, curriculum and education. Billett (2010, personal communication) argues that pedagogy builds on an understanding of the pedagogical relationship which in practice – like all relationships – is dynamic, and evolving. In comparison, Daniels (2001, p. 1) contended that "The term Pedagogy should be construed as referring to forms of social practice which shape and form the cognitive, affective and moral development of individuals." Stephen Kemmis (in Chapter 7) portrays pedagogy as a complex technical, practical, moral and political phenomenon encompassing the normative and technical aspects of education and upbringing. A contrary view is that Pedagogy can encapsulate the entirety of the teaching and learning environment, *how* and *what* is taught, and *how*, and through which learning strategies, students learn. Here Pedagogy and Curriculum become blurred.

Billett (2010, personal communication) relates, "the distinction I have been making between curriculum and pedagogy in recent projects is that curriculum is about the existence and organisation of students' experiences, including their duration and rotation across settings (e.g. different work settings, or between academy and practice settings), and pedagogy is about the enrichment of those experiences by teachers, others, the settings or students themselves."

Peter Goodyear (1999) used the term Pedagogical Framework. Such frameworks comprise philosophy, high-level pedagogy which refers to the concrete

instantiation of philosophical positions within an educational context, a broad pedagogy strategy and particular pedagogical tactics. The framework is used in conjunction with understanding of the organisational context (and its influences) and the setting to plan and review the concrete activities, processes, people and artefacts involved in learning activities. The use of pedagogical frameworks enables *robust reasoning* about what we are doing and achieving as educators.

In this chapter I take *Pedagogy* to refer to a form of social practice that shapes the educational development of individuals, framed around a perspective, model or theory of education that encompasses complex interdependencies between philosophical, political, moral, technical and practical dimensions. Examples are critical, liberal and vocational pedagogical perspectives.

The Realisation of Pedagogy – Strategies and Approaches

Billett (2011) defined pedagogy as the kind of guidance provided by teachers to assist students' learning and promote learner agency, that occurs in the form of teacherly engagements, information resources, learning support and interactions. The practice of pedagogy goes beyond what teachers enact; it also includes what those in workplaces do and the guidance they directly and indirectly provide, as well as what students do and the experiences and interactions that are accessible in practice settings (Billett, 2010, personal communication).

I take *pedagogy* to refer to the ways educators frame and enact their teaching and curricular practices and their teaching relationships, to enrich their students' learning experiences; such pedagogy is informed by the teachers' practice interests, personal frames of reference, practice knowledge, theoretical frameworks, reflexive inquiries, and capabilities, in consideration of contextual parameters, educational theory and research. The capabilities of teachers are of particular interest: the use of particular pedagogies (such as e-learning, clinical education) requires teachers to have skills, knowledge and creative potential in these areas as well as an interest in using them. This interpretation of pedagogy reflects the complex influences on and dimensions of this phenomenon and the challenges faces by researchers and educators in their endeavours to realise it.

The term *pedagogies* can be used to refer to learning and teaching approaches, including modes of interpersonal engagement in these approaches as well as the teaching and learning strategies involved in educational programs. These pedagogies may be shared (e.g. within a discipline) or personal/personally owned (by an individual educator or learner). Learners' pedagogies incorporate their learning goals, preferences, strategies and capabilities (e.g. mobile learning).

PRACTICE

The Domain

The term Practice can refer broadly to social practice, and more precisely, it frequently denotes professional practice. The term *professional practice* can refer

particularly to "the enactment of the role of a profession or occupational group in serving or contributing to society" (Higgs, McAllister, & Whiteford, 2009, p. 108). Professional practice encompasses the doing, knowing, being and becoming of professional practitioners' roles and activities (Higgs & Titchen, 2001); these activities occur within the social relationships of the practice context, the discourse of the practice and practice system, and the setting (local and wider) that comprise the practice world. Practice is inherently situated and temporally located in contexts such as different eras, generations, local settings, lifeworlds and systems; it is embodied, agential, socially-historically constructed, and it is grounded and released and understood through various language, imagery and literary means including metaphors, interpretations, images and narratives.

According to Schatzki (2011), a key argument in *practice theory* is the idea that a practice is an organised constellation of diverse people's activities. Activity, a key feature of practice theory, encompasses the idea that important features of human life must be understood as forms of human activity; these forms are the organised activities of multiple people rather than the activity of individuals (ibid.). A practice can be thought of as a social phenomenon in the sense that it involves multiple people; their interests, activities and consequences.

In action, *practice*, can be collective (e.g. a profession's practice) and individual (such as an individual practitioner's practice model and actions). A (collective) practice comprises ritual, social interactions, language, discourse, thinking and decision making, technical skills, identity, knowledge, and practice wisdom. Collective practice is framed and contested by interests, practice philosophy, regulations, practice cultures, ethical standards, codes of conduct and societal expectations. An individual's practice model and enacted practice are framed by the views of the practice community as well as the practitioner's interests, preferences, experiences, perspectives, meaning making, presuppositions and practice philosophy (i.e. practice epistemology and ontology).

Strategies and Approaches

The term *practices* refers to customary activities associated with a profession, and to the chosen ways individual practitioners implement their practice/profession. Examples of practices are ethical conduct, professional decision making, client-practitioner communication, consultation and referral, and interdisciplinary teamwork. For individual practitioners and professional groups, practice can be interpreted and implemented through practice models. Practice models are theoretical and philosophical constructs. They come in many shapes, forms and realisations: technical-rational, empirico-analytical, evidence-based, interpretive, and critical emancipatory models, for example.

One particular way of interpreting practice is through the term praxis. The term praxis refers to "acting for the good," "right conduct" (adopting a neo-Aristotelian view) and to "socially responsible action" (using a post-Marxian view) in the professions. Praxis is inherently active and reflexive. It is informed by historically-generated practice traditions that give it substance and provide a frame of reference

for setting standards and expectations that shape the collective practice of professions as well as individual practitioners' practice.

The term practice (and the verb to practise) can be seen to transcend the other terms. For example, we can refer to a variety of pedagogical *practices*, to university pedagogy as higher education *practice*, to one's educational *practices*, and to how a different teachers *practise* their pedagogies.

FROM CONCEPTS TO AN INTERPRETATION OF PRACTICE-BASED EDUCATION

Building on the ideas above I identified an interpretation of PBE to move beyond the broad picture of PBE as an approach to higher education that is grounded in the preparation of graduates for occupational practice. In this interpretation, PBE is presented as:

- *a pedagogical perspective***.** In Table 6.1, eight key dimensions of a PBE Pedagogy identified through this Fellowship are outlined.
- *a curriculum framework*
- *a set of pedagogical practices* or teaching and learning strategies. In Table 6.2, eight key pedagogical practices are outlined.

Table 6.1. PBE as a pedagogy – 8 key social practice dimensions

Pedagogical frame	Pedagogy refers to a form of social practice that seeks to shape the educational development of learners. PBE is a pedagogy that prepares students for a practice and occupation.
Practice and higher goals	PBE aims to realise the goals of developing students' occupationally-relevant social, technical and professional capabilities, forming their occupational identities, and supporting their development as positively contributing global citizens.
Education in context	PBE inevitably occurs within contexts shaped by the interests and practices of students, teachers, practitioner role models, university and workplace settings, and society. Both planned processes (e.g. curricula, pedagogies) and unplanned factors (e.g. changes in workplace access, student numbers) need review and enhancement to address these goals.
Understand-ing (the) practice	Students' prospective practice needs to be continually appraised and evaluated to provide a relevant frame of reference to situate their curriculum and pedagogical experiences.
Socialisation	Through pedagogical practices students are socialised into the practices of their occupation and into the multiple communities and circumstances of practice of their working worlds.

Table 6.1. (continued)

Engaging in relationships	Practice and pedagogy are essentially about relationships. These are realised through learners/academics, workplace educators/ practitioners/academics, peer learning, inter-university and industry/practice, university/regulatory authority and professional group/society partnerships.
Authenticity and relevance	Authenticity and relevance are themes embedded in the goals, venues, activities, student assessment and program evaluation of PBE programs. That is, the curriculum and the key pedagogical perspective are focused on relevance to graduates' future practice. The education approach, including educators' role-modelled behaviours, should reflect the expectations, norms, knowledge and practices of the profession.
Reflecting standards, values and ethics	A dimension that needs to permeate all aspects of curricula and pedagogies is the concept and practice of standards; standards as reflective of practice expectations and professionalism and professional codes of conduct or industry standards that are part of practice/professional socialisation; standards as accepted pedagogies across the discipline and standards of higher education – good educational practice.

Table 6.2. Eight key PBE pedagogies

Supervised workplace learning	This pedagogy involves students learning through engaging in practice in real workplace "placements" with formal or informal supervision by workplace educators and/or more experienced practitioners. Examples include nursing practicums and pre-service teachers' professional experience. The educators or practitioners act as mentors and role models.
Independent workplace learning and experience	In some courses there is no tradition of, or capacity for, supervision of workplace learning. In such cases students might participate in unsupervised work experience or organise their own independent learning programs/projects. Some curricula encourage and give credit for students' paid work as a means of gaining work experience and learning.
Simulated workplaces	Universities can establish actual or simulated workplaces where students provide services to clients. Actual workplaces include health clinics (e.g. physiotherapy), farms and veterinary clinics. Universities can also simulate workplaces (e.g. radio stations) which provide community and on-campus services that simulate real practice experiences.

Table 6.2. (continued)

Simulated practice-based learning	Practice can be simulated by creating practice environments (e.g. a simulated police training village), e-learning programs and tools to simulate practice tasks (e.g. online learning of professional decision making), problem-based learning (by focusing on cases and problem solving to promote practice-based learning), practical classes (e.g. learning resuscitation), role plays, peer-learning projects for clients (e.g. videos), moot courts with avatars to learn about client services.
Distance and flexible practice-based learning	Much PBE is conducted through distance, distributed and flexible pedagogies, recognising students' need or preference for learning at times, places and paces of their choosing. This trend is particularly common for graduate entry, international, interstate, regional/isolated and mature-age students.
Peer learning	Peer learning facilitates exploration of emerging occupational identities, capabilities and knowledge with other students and with a diminished authority of teachers. Such learning can occur in person, at a distance and via flexible and e-learning, e.g. peer projects, Skype, chat room. Peer assessment is a useful means of developing/critiquing shared perspectives.
Independent learning	Professional practitioners and workers in many occupations must rely on their own judgments, critique, standards and self-development. Practice-based learning can include encouragement of self-directed learning, self-appraisal, reflection and self-development.
Blended learning	No single pedagogy is sufficient to meet all the needs of all students in relation to all the learning tasks and goals of the curriculum. Blended learning addresses this challenge and bridges traditional and innovative pedagogies, on- and off-campus learning, individual and group learning, real, theoretical and simulated learning situations.

USING THIS PRACTICE-BASED EDUCATION FRAMEWORK

A first step in using this framework is to examine PBE as a social practice (or Pedagogy) for the educational development of individuals to enter a particular occupation or profession. Here are some key questions to consider: What is the practice of this occupation? What capabilities does the student need for this practice community? What is the course context and the resources and opportunities available? Who will be the key role models and educators to reflect the standards and expectations of the profession? How can authentic, relevant learning activities and relationships facilitate students' learning and socialisation?

Building on this foundation, educators then face the challenge of choosing and developing pedagogies or teaching and learning strategies to implement the curriculum framework that has emerged above. Educators designing a PBE program could ask: How can we design learning experiences that prepare students well for their occupational roles? How will the students help shape the learning activities? What pedagogies best suit our resources and workplace options?

In Figure 6.1, various elements of the framework are represented. The central place of relationships in PBE is highlighted, immersed in experiences and learning opportunities created by the chosen pedagogies. The outer circle emphasises that learning is situated and occurs within practice communities. Course designers should build learning and teaching activities within the outer ring context and ensure that the teaching-learning relationships and activities contribute to these contexts, working in partnership with students and members of the practice community (including employers, workplace educators, professional leaders and associations). Learners have a role in guiding the learning process and pursuing outcomes that best match their future roles in practice and also in society.

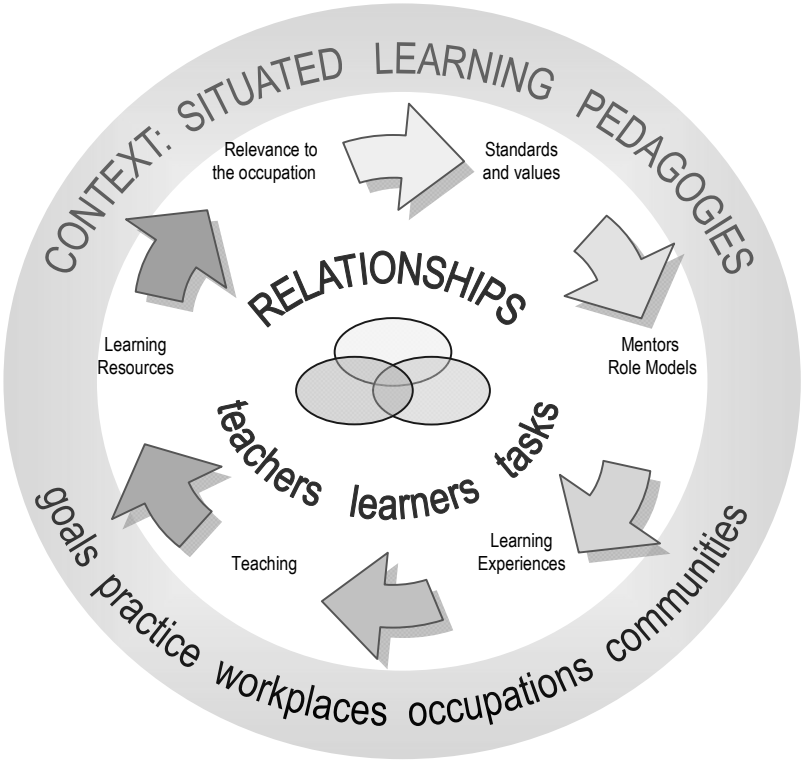

Figure 6.1. Practice-based education in action

CONCLUSION

In keeping with the ideas of Domain and Realisation presented in this chapter, PBE has been framed as a reflection on the domains of Education, Curriculum, Pedagogy and Practice, and considerations of how these key concepts can be realised in PBE. In this interpretation PBE is a pedagogical perspective, a curriculum framework and a set of pedagogical practices selected for the particular course and setting.

The goal of PBE is the development of relevant capabilities, both professional and social, that are for the good of the individual and society. The pursuit of these practice outcomes can be thought of as occurring through the practice of higher education, in particular, practice-based education, and could readily be labelled the use and development of situated, capability-development, relationship practice(s).

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REFERENCES

Billett, S. (2011). Final report on National Teaching Fellowship: Curriculum and pedagogic bases for effectively integrating practice-based experiences. Australian Learning and Teaching Council. Retrieved from http://www.altcexchange.edu.au/group/integrating-practiceexperiences-within-higher-education

Bullock, A., & Trombley, S. (Eds.) (1988). *The Fontana dictionary of modern thought* (2nd ed.). London: Fontana Press.

Daniels, H. (2001). *Vygotsky and pedagogy*. London: RoutledgeFalmer.

Goodyear, P. (1999). Pedagogical frameworks and action research in open and distance learning. *European Journal of Open, Distance and E-Learning*. Retrieved from http://www.eurodl.org/?article=35

Higgs J. (2011a). *Practice-based education: Enhancing practice and pedagogy. Final report for ALTC Teaching Fellowship*, Australian Learning and Teaching Council, Australia.

Higgs, J. (2011b). *Professional and practice-based education at Charles Sturt University*. Sydney, Australia: 2e, The Education For Practice Institute, CSU, Sydney Olympic Park.

Higgs, J., McAllister, L., & Whiteford, G. (2009). The practice and praxis of professional decision making. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 101-120). Rotterdam, The Netherlands: Sense.

Higgs, J., & Titchen, A. (2001). Preface. In J. Higgs & A. Titchen (Eds.), *Professional practice in health, education and the creative arts* (pp. x-xii). Oxford: Blackwell Science.

Schatzki, T. (2011). Theorising, educating, researching and doing practices. Keynote presented at The Education For Practice Institute Colloquium, Charles Sturt University, Sydney.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity.* Cambridge: Cambridge University Press.

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7. PEDAGOGY, PRAXIS AND PRACTICE-BASED HIGHER EDUCATION

In this chapter, I first consider *Pedagogy*[i] as a discipline and tradition, and some of the various traditions that have existed within Pedagogy in the late nineteenth and twentieth centuries, and into the twenty-first. Second, I consider the notion of *praxis* which, in the view of Marcus Aurelius (120-180AD), consists in acting for the good for the human community. If, on this basis, we can think of education – and the old tradition of Pedagogy – as being to prepare people to live well in a world worth living in, then we might think, on the basis of Stoic philosophy, for example, about preparing our students in higher education for living well – as citizens and as professionals – in a contemporary world worth living in. Once upon a time, before the Scholastics of the medieval era, education was always regarded as a preparation for life, not as a preparation for assessments, examinations and qualifications. In those days, education was always practice-based. My principal aim in this paper is to provide a particular kind of framework against which to understand "Pedagogy" and "*praxis*," so that we might more richly understand practice-based education as a distinctive kind of Pedagogy, aimed at a particular kind of *praxis* in people's ordinary lives and in their professional practice.

I hope also to show that practice-based education is a Pedagogy that can help us answer four challenges posed for university education in our times:

1. against a globalism that weakens our bonds to community and nation-state, so we may appear to ourselves to be floating and detached from those old anchors of social life, offering us a situated, committed (g)localism
2. against the atomistic individualism of a neo-liberalism that sees progress in an abstracted notion of organisational improvement rather than in the relief of suffering and in attainment of the good life for humankind, offering a substantive commitment to praxis and the good for humankind
3. against the acquisitive and accumulative self-interests of a neo-conservatism that fragments communities and societies as it secures the self-interests of the already-privileged, offering a commitment to a universalist morality (the Golden Rule) that recognises others as identical with ourselves in being unique and
4. against the self-absorption of an emerging neo-libertarianism that exalts the self, offering a view of practice and professional practice that recognises the social interdependence that secures both our self-hood and our solidarity with those with whom we share the fate of the human community.

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 81-100.

Practice-based education may be a contemporary form of the philosophical training of the ancient Greeks that prepared them to live well by thinking and speaking well, acting well, and relating well to one another.

PEDAGOGY

Writing in 1968-9, at the height of the student protest movement in Germany and the West generally, Jürgen Habermas (1970) described the overall function of the university as being to transmit and produce technologically exploitable knowledge – the knowledge and skills to function as a medical practitioner, for example. This general task, he argued, could not be separated from three other tasks:

1. to equip graduates with the extra-functional abilities needed for their professional work – a doctor's capacity for quick action in emergencies, for example
2. to transmit, interpret and critically develop the cultural traditions of the society and, on the basis of this, to contribute to the evolving self-understanding of the society by the community at large and
3. to form the political consciousness of students and graduates so that they understand themselves not as a privileged professional elite (as in earlier times) but rather, on the basis of opportunity and education, as co-participants with their fellow citizens in the process of producing "action-oriented self-understanding of students and the public" (p. 4).

These three tasks, Habermas argued, go beyond a purely technical definition of the role of the university in society – as the transmitter and producer of technologically exploitable knowledge; they are necessary parts of what universities do every day: they shape the self-understandings of students and graduates, and the self-understandings of members of the communities and societies in which they exist – self-understandings not only of students and graduates about how their own understandings have been shaped, but also of a community or society about how its knowledge, its culture and its debates are the contested products of its historical struggles. Seen in this way, the institution of the university occupies a special location in regard to the wider public and to social practice beyond its gates.

For example, Charles Sturt University has its roots in inland Australia and in the Murray-Darling Basin. Our campuses west of the Great Dividing Range place us squarely in the middle of a struggle of contested self-understandings in our communities about water, agriculture and the environment. Our University produces knowledge of technical value and importance not only for irrigation and agriculture but also for river health and the environment. For the most part, those connected to these different and contesting community "stakeholders" for technical knowledge interact amiably with one another within the University. Yet their expertise may be used in partisan ways by those involved in the struggle over water in the community beyond. It is up to us, within the University, to maintain the civility that we hope to foster as a social practice of rationality in the wider society – a partisanship to reason and to good for humankind rather than to self-interest. In my view, our stance is and should be not so much one of scientific objectivity that

detaches itself from the contending interests in the communities of the Murray-Darling Basin, but one that considers and weighs claims and counter-claims across the fields of water, agriculture and the environment in the name of reason and of good for humankind, to inform practical decisions about what to do that take into account the opposed self-interests of different groups in the community.

Habermas's views about the role of the university demonstrate a particular *Pedagogical position*. That is, they express a philosophical position about what an education consists in. This is what Pedagogy means, in the proper sense. We might call it "Pedagogy with a capital P." It is to be distinguished from the rather corrupted use that "pedagogy" has in Anglo-American-Australian usage today: "the art or activity of teaching." In Anglo-American-Australian usage over the last 50 years or so, *curriculum* has come to be the field that concerns *what* should be taught, and *pedagogy* (with a small p) concerns *how* things are taught. This usage is very different from that in Europe, where the field of Pedagogy (capital P) is the field concerned with *why* as well as how we educate children, young people or adults. Moreover, the European field of Pedagogy embraces upbringing in all kinds of settings, not just the processes that go on in schools and schooling. Pedagogy, properly speaking, aims to embrace both normative and technical aspects of education and upbringing, to provide an understanding of the whole enterprise, in all its technical, practical, moral and political complexity. A Pedagogical theory, therefore, is a theory of all that.

It would lead to clearer understanding of *Education* as a field, by the way, if, in English, we more consistently recognised that the notion of Education, properly speaking, embraces upbringing in forms that include what goes on in families and communities, early childhood care, youth work and adult education, to give just some examples. It would also be helpful if we could resist the temptation to use the word "education" when we mean "schooling" – as though schooling were not capable of being non-educational or even anti-educational.

In much of Europe, *Pedagogy* is distinguished from *Didaktik* (for us, Didactic), which concerns the specific approach to be taken in education. As well as *General Didaktik*, there is also *Subject Didaktik*, for example, in relation to the teaching of science or the teaching of history. Didaktik concerns the more specialised and technical tasks that embrace the "how" of teaching. The distinction between Pedagogy and Didaktik in Europe does not align perfectly with the Anglo-American-Australian distinction between curriculum and pedagogy (in the restricted sense of "the art and science of teaching"). The relationship between Anglo-American "curriculum" and the German-Scandinavian concept of Didaktik has been the subject of an extended trans-Atlantic dialogue (see e.g., Gundem & Hopmann, 1998).

Although it is a matter for extended debate, my own view is that the European notion of Pedagogy is very similar to the Anglo-American-Australian notion of Education in its form as a discipline that thrived until about the mid-twentieth century, though it is losing its vitality in some parts of Europe today. The late nineteenth and early twentieth century use of the word "pedagogy," such as by John Dewey in his 1897 "My pedagogic creed," was essentially German, and used

the German idea of Pedagogy. If this is so – and there is much argument about it – then we might think of the relationships between Education and Pedagogy and their subordinate fields of Curriculum and Didaktik a bit like this (with Pedagogy and Education as affines, but Curriculum and Didaktik as rather different from one another):

Education	Pedagogy
Curriculum	Didaktik

Part of my claim about the relationship between Education and Pedagogy is based on Dewey's thinking about Education – critical for our understandings of Education in the English-speaking world since the end of the nineteenth century. Dewey had been influenced by Hegel and Hegel's understanding of *Bildung* as the cultivation of the educated or civilised person. Dewey was, however, a democrat who resisted that classical notion of *Bildung* and embraced a liberal-democratic idea of the purpose of education. He famously enunciated this view in his *Democracy and education* (1916).

My own view is that Education, properly speaking, is the process by which children, young people and adults are initiated into forms of understanding, modes of action and ways of relating to one another and the world that foster individual and collective self-expression, individual and collective self-development and individual and collective self-determination. Education, in these senses, is oriented towards the good for each person and the good for humankind.

I take it that to express this view of Education is to take a particular Pedagogical perspective. I believe that the English-language notion of Education has been informed, and not just by Dewey, by the European field of Pedagogy as a human science (Ponte & Rönnerman, 2009) since the times of Desiderius Erasmus (1466-1536) and Johann Amos Comenius (1592-1670), the founders of Pedagogy, whose thought influenced educational thinking throughout Europe. At the beginning of the twentieth century the affinities remained, although the fields were being pulled in different directions, especially by the rise of positivist social science in North America and Britain, and by the claims of this new kind of science about what an educational theory might be like (Carr, 2006). In any case, by the mid-twentieth century, both "parent" disciplines (Pedagogy as the parent of Didaktik and Education as the parent of Curriculum) were falling on hard times. Both have been overtaken by much more technical professional fields concerned with the content and administration of mass schooling. In Europe, Pedagogy is being ploughed under by technical approaches to Didaktik; in the US, the UK and Australia, Education is being ploughed under by technical approaches to Curriculum and Educational Administration.

The shift, around 1900, from the classical view of Pedagogy and the classical view of *Bildung* as the cultivation of the civilised person to the liberal-progressive view was part of the great shift taking place in the nineteenth and into the twentieth century, from a view of society as necessarily highly-stratified to a much more

democratic view about participation – although the move to comprehensive male suffrage in much of the West was yet to embrace the notion that suffrage should include women. That latter shift came about during the twentieth century, and it was accompanied by a more critical reading of democracy than had been characteristic of the liberal-democratic position. The new shift was *critical* in the sense that it aimed to uproot and overturn discrimination against women and against racial and ethnic minorities – through the twentieth century, it used the *human rights perspective* of the liberal-democratic position against itself, critically, to extend inclusion into full participation in the political life of Western nations.

In terms of *Bildung*, these shifts may be seen in a shift, around 1900, from the classical notion of *Bildung* as cultivation to a liberal-democratic notion of *Bildung* as education for individual liberty and citizenship in the emerging nation-states of the late nineteenth and early twentieth centuries, and the later shift in the 1960s and 70s to a more critical social-democratic view of *Bildung* associated with the more inclusive and more self-critical emancipatory aspirations of the social-democratic welfare society.

These ideas were part of the intellectual machinery and political debates of the nineteenth and most of the twentieth century throughout the West. Their changing fortunes can be read in the changing fortunes of conservative political parties, liberal democrats and social democrats in elections in Europe, the UK, North America and Australia. In the last two decades of the twentieth century, however, some of these political formations began to change in order to survive the new social and cultural conditions of postmodernity (Lyotard, 1984; Jameson, 1991). The liberal democrats and some social democrats transformed themselves to emerge as neo-liberals, attracting some more liberal conservatives in the process, and the remaining conservatives became neo-conservatives, who also attracted adherents from diverse groups wanting to defend their interests from the kinds of distribution threatened by the social democrats.

The shifting ideas about education in the late 1970s and early 1980s could be seen in a contest between three broad views of the nature and purpose of Education. In 1983, describing the main contenders among overarching views of education then current in Australia (and throughout much of the West) Peter Cole, Dahle Suggett and I (Kemmis, Cole & Suggett, 1983) distinguished

1. the *vocational/neo-classical* orientation, which fostered the stratification of society into the professional classes (neo-classical), the trades (vocational) and unskilled workers
2. the *liberal-progressive* orientation, which kept alive Deweyan ideals about progressive education and the realisation of the full potential of each individual within an individualist liberal-democratic view of society and
3. the emerging *socially-critical* orientation, which aimed to involve students more significantly in the lives of their communities through educational projects that would include addressing and overcoming injustices associated with, for example, gender, class, race, ethnicity and indigeneity.

This last orientation was an expression, for education at every level, of the view of university education expressed in Habermas's (1970) *Towards a rational society*.

These three orientations to education can be understood as representing three different Pedagogical positions – three different views of the nature and function of education.

I will set aside for the moment the question of what came next. By the end of the 1980s, however, it was already clear from the *realpolitik* of the time that the socially-critical, emancipatory view of education had a limited future. Striding from the wings onto centre stage were the neo-liberals and the neo-conservatives. Their views of education would be very, very different from those prevalent in the first three quarters of the twentieth century. For the moment, however, I pause in that story to consider the notion of *praxis*.

PRAXIS

Each of those Pedagogical positions – those overarching perspectives on Education – has a view of the good for each person and the (always contested notion of) good for humankind. We should remember that ideas about what the good life consists in are always contested. In *After virtue* (1983, p. 204) Alasdair MacIntyre concluded that

> the good life for man [sic] is the life spent in seeking for the good life for man, and the virtues necessary for the seeking are those which enable us to understand what more and what else the good life for man is.

Advocates of different political views, and different Pedagogical views that may be drawn from them, have different ideas of where this quest ends.

For advocates of the vocational/neo-classical view of Education, society is stratified into people of different orders and abilities, who have different kinds of responsibilities and who legitimately receive different kinds of rewards for their efforts. These groups have different self-interests but together they form a society in which some, while perhaps falling short of being the philosopher kings Plato envisaged (around 380 BC) in his *Republic* (trans. 2003), nevertheless have the duties and obligations of a ruling class.

Advocates of the liberal-progressive view of education, by contrast, believed that the rather rigid distinctions between those old orders in society were breaking down in modern democracies. They did not expect that all distinctions would disappear, however: their notion of a modern democracy did not exclude the idea of difference based on merit (meritocracy) which might produce differences in contributions and rewards among members of a society. Their view of society was individualist inasmuch as they held that all people are equal in the moral and political senses, and equal before the law. It was progressive because it sought to overthrow the old class divisions of nineteenth century Western societies, and it was liberal in its aspirations to respect and foster the human rights of all individuals.

Advocates of the socially-critical view of education believed that the liberal-progressive view had not produced enough of the progress and respect for human rights that it had promised. Their view was "socially-critical" in the sense that it aimed to identify and overthrow injustices in the treatment of people on the basis of matters other than class – injustices based on gender, race, ethnicity and indigeneity, for example. It was "*socially*-critical" because it took the view that unjust and irrational social arrangements in societies are held in place by particular kinds of ideologies – that is, on the basis of shared and taken-for-granted world-views, social practices and social structures that preserve injustice, inequality and inequity – and that overturning these shared world-views, practices and structures is necessary in order to overcome the unjust and irrational distinctions, differences, rewards and self-interests they produce.

In the neo-classical (conservative) view, social distinctions go hand-in-hand with differences in rewards and self-interests. In the liberal-progressive (liberal-democratic) view, all individuals are to be regarded as equal in moral and political terms, and such social distinctions as may arise should be regarded as contingent: justified by merit, prudence or simple good fortune. In the socially-critical (social-democratic) view, societies should strive to be more egalitarian, and, where possible, to distribute rewards and differences in ways that foster the wellbeing of all individuals and redress irrationality and the injustices of domination and oppression (Young, 1990).

Each of these views of education, then, is associated with a political view that gives it a distinctive notion of *the good life* and *the good society*. I think it is true to say that, with some updating and airbrushing, these views have survived into the twenty-first century in the West, and they continue to be contested today.

People act on these different views of the good life and the good society when they consider what they should do in their lives and work when it comes to the water, the agricultural economy and the environment of the Murray-Darling Basin. When they take into account not only their own interests, and try to act in the interests of humankind as a whole – including the interests of humankind in having a sustainable future – they act in a way that the ancient Greeks called *praxis*.

Praxis is to be distinguished from *poiēsis* or "making" action. *Poiēsis* produces something external to the person making it, whereas *praxis* is part of the self-formation of the one who acts: the person who is doing *praxis* is doing it because it is good in itself to do it, and because by acting this way the person will be in accordance with the good of the human community – creating the good society by acting for the good of society. *Poiēsis* is guided by the *telos* (or general purpose) of *technē*: the technical aim of producing an excellent product. *Praxis*, on the other hand, is guided by the *telos* of *phronēsis*, usually interpreted as wisdom (the aim of acting wisely and prudently), which is a commitment, in the face of uncertainty, to act not only in one's own interests but in the interests of the human community – and, we might add for our times, in the interests of a sustainable future not just for humankind but also for the other species with whom we co-exist on Earth.

Each of the Pedagogical perspectives described earlier has a view of what the good life and the good society is, and, as suggested, they continue to be contested

today. But acting on any one of those views may count as *praxis*; *praxis* is necessarily framed by the knowledge and understanding of the one who acts, and by the particular intellectual, cultural and political traditions that inform that person's ways of understanding him- or herself and the world. Necessarily, all of us act and can act only for the good as we see it, always bound by the limits of our circumstances and location, even if we remain open and responsive to the perspectives of others, and sensitive to the fact that our perspectives are bound by the traditions that have formed our own thought. Thus, although an action may be *praxis* at the moment a person acts, that person or others might later judge it to be unwise, imprudent or improper – if the action turns out to have unanticipated and untoward consequences, for example.

There is an important qualification here, however. A person's action does not count as *praxis* if the person is acting according to a rule in order to produce a particular *external* outcome or consequence, like getting a promotion or, more generally, serving self-interest or the interests of a group to which the person belongs. In such cases, the person is acting for an external good, not for the good of humankind. *Praxis* is not a matter of following rules or priorities or routines. It is a matter of deliberating in the face of uncertainty about how to act rightly, taking into account moral, social and political considerations, not just prudential questions, and then acting for the good – acting rightly, or as one should under the circumstances. The good is in the acting; it is not in an external product or outcome that comes from the acting; it is "in the acting" in the sense that it is the way people should act in the world and in relation to the others with whom they share the world.

Praxis in Marcus Aurelius

Praxis, "acting for the good," is not just an abstract matter of someone claiming to act or to have acted for the good. What it means to act for the good is a substantive matter. It depends on what a person thinks the good consists in, and also on how the person understands the situation in which they find themselves and in which they must act. Is the situation one that merely calls for the application of a rule to bring about an intended outcome, or is it an uncertain practical situation in which it is not clear what one ought to do under the circumstances? If it is the latter, then how one ought to act will depend on one's preparation. For Marcus Aurelius (120-180 AD), Stoic philosopher and Roman Emperor (161-180 AD), doing what was good in uncertain practical situations – like the situations in which he was called upon to mediate disputes or to decide whether to go to battle against the Germanic tribes harrying the northern margins of the Roman Empire in 171 AD – required "living a philosophical life" (Hadot, 1995), which meant *not* simply participating in philosophical discourse (what philosophy today appears to consist in) but living a good life and, by so doing, *realising* a world worth living in.

Marcus Aurelius's *Meditations* (trans. 1944; Hadot, 2001) are reflections on life and how it should be lived according to the tradition of Stoic philosophy. Importantly, it is almost certain that he never expected anyone other than himself

to read them; according to Pierre Hadot (2001), the reflection that produced each "meditation" was a spiritual exercise that allowed him to formulate a powerful aphorism which he could use to urge himself to "live a philosophical life" as the Stoics interpreted it, which meant to "live according to Nature." In his late teens or early twenties, Marcus was "converted" to the Stoic life by his teacher in philosophy, Rusticus, who lent Marcus his copy of the *Discourses* of the Stoic philosopher Epictetus (55-135 AD).

Hadot (2001) wrote that the aim of the Stoic life was to live "in accordance with Nature," which means, in turn, living in accordance with the sublime Rationality of the universe as it is expressed in the unfolding of the history of the world and all the events and actions that have happened, are happening and will happen. To live in accordance with this Rationality, the Stoic constantly kept in mind three disciplines, or spiritual exercises, which guided him in his deliberations about every uncertain practical situation in which he was called upon to act. Hadot's (2001) study of Marcus's *Meditations* and other texts of the Stoics reveals that these three disciplines were

1. the discipline of *attention*, according to which we must try to see each situation in which we are required to act clearly and "objectively," without being unduly influenced by subjective factors like our own preferences or habitual ways of understanding and interpreting things
2. the discipline of *desire*, according to which we must not be too attached to things that are pleasurable or too anxious to avoid things that are painful, but rather understand ourselves as acting "in accordance with Nature" in the sense that all of history has brought us to this moment and the situation in which we now find ourselves, and has prepared us precisely for this moment and our deliberation on how to act courageously for the best and
3. the discipline of *action*, according to which we must act always for the good of the human community.

I mention Stoic philosophy and Marcus Aurelius simply to indicate that, at least for the ancient Greeks and the Romans who inherited their philosophical ideas, *praxis* was not a purely formal matter of "acting for the good" but it meant something simultaneously practical and difficult. It was "practical" because it concerned *doing* something and living with the consequences, and "difficult" because it required acting in a disciplined way, unselfishly, courageously and generously. It was not just to follow a moral, ethical or political rule, but to deliberate, taking all the circumstances into account, and doing one's best in the interests of the human community.

Hadot (2001) pointed out how the *Meditations* reveal Marcus' impatience and irritation at many of the people around him who acted so often in accordance with their own self-interests and without thought for the interests of others. In the *Meditations*, Marcus nevertheless urged himself to treat them with kindness and generosity. They only acted that way out of ignorance, he reasoned; if they knew how they were offending against the gods and the interests of their community by acting only in their immediate self-interests, they would understand that their *real*

self-interests included not rousing the gods and their community against themselves. He believed, therefore, that it was part of his duty to educate them to see that their real self-interests included taking account of the views of the gods and the community in which they lived.

Marcus' view that he had this educational duty resounds across nearly two millennia. It is strikingly similar to what Habermas described as among the tasks of the university – to educate our students and the wider community about where our real self-interests lie. When we think about the educational responsibilities of the university in the face of the water issues in the Murray-Darling Basin, for example, our real self-interests lie not only in the economic self-interests served by particular farming practices or particular practices of water use, but rather in the interests of achieving a sustainable economy together with sustainable rivers and sustainable biodiversity in the ecosystems in and around them. It requires recognising that sustainable agriculture and sustainable use of the environment will be intergenerationally just when they leave future generations with the same or better opportunities than our generation to live sustainably on the Earth.

This is, of course, just one particular example of what it might mean to act in the way Aristotle or Marcus Aurelius thought of as *praxis*. But it illustrates the way those of us who live in the university should act in the way we teach, the way we conduct our research, and the way we engage with our professional and local communities. We do not have, nor should we seek, the prerogatives of a philosopher-king or the Roman Emperor. We are or should be democrats whose role is, through our teaching, to engage our students and fellow-teachers in a rational conversation about technologically exploitable knowledge, human values, and the traditions that have shaped us – traditions that also need critical appraisal and perhaps to be transformed for new circumstances and new times. Similarly, through our research, we should engage our peers in the disciplines and the professions in a rational conversation about the extension of technologically exploitable knowledge and the extension of our critical self-understandings of our world, our history and ourselves. Our role is not to be privileged authorities, but interlocutors with our students, our peers and our communities in civil and democratic conversation.

Praxis in the University

We in the university differ from others in our communities, however, in our obligation to take into account scholarship and research literatures in our various fields, and to know how our theories and our intellectual traditions have been formed through history, in relation to problems and opportunities that emerged in the past. The obligation falls on us, in our turn, as stewards for our times of the intellectual traditions of our disciplines and fields, to conduct our teaching, our research and our engagement with our communities as *praxis* – for the good of humankind, not just in the service of sectional interests. As stewards of our disciplines and fields, our *praxis* consists in acting for the continuing development

of knowledge, responding for our times to the new problems that always emerge with changing times and changing circumstances.

In a case like the university's teaching and research in disciplines and fields relevant to the contemporary situation of the Murray-Darling Basin, acting for the good requires listening to a variety of perspectives across disciplines and fields, and in our professional and local communities, and engaging with these interlocutors in open-eyed, open-minded discussion about what needs to be done in the interests of the water and the rivers, agriculture and our regional economies, and the environment. The questions of what to do are contested. At present, they seem strained to the point where engagement among different and opposed interests and views threatens to blow apart. It is our task in the university to hold these different *perspectives* in civil and constructive engagement with one another, and to assist the *protagonists* on different sides of the water debate to engage with the evidence, the natural and physical science, the social science, the history and humanities, and with one another in civil and constructive ways.

This spirit is beautifully captured by the Jesuit philosopher John Courtney Murray (1960, p. 14), quoted by Richard Bernstein (1992, p. 339) as exemplifying the ethos of what Bernstein called "engaged, fallibilistic pluralism," needed more than ever in our times in philosophy, when different perspectives and specialised fields within philosophy are losing contact with one another. Murray wrote:

> Barbarism … threatens when [people] cease to talk together according to reasonable laws. There are laws of argument, the observance of which is imperative if discourse is to be civilised, Argument ceases to be civil when it is dominated by passion and prejudice; when its vocabulary becomes solipsist, premised on the theory that my insight is mine alone and cannot be shared; when dialogue gives way to a series of monologues; when the parties to the conversation cease to listen to one another, or hear only what they want to hear, or see the other's argument only through the screen of their own categories … When things like this happen, [people] cannot be locked together in argument. Conversation becomes merely quarrelsome or querulous. Civility dies with the death of dialogue.

In the face of contemporary fragmentation and the breakdown of dialogue in philosophy, Bernstein (1992, p. 339) believed that counter-tendencies could be perceived:

> … not towards convergence, consensus and harmony – but toward breaking down of boundaries, "a loosening of old landmarks" and dialogical encounters where we reasonably explore our differences and conflicts. In this situation the pragmatic legacy is especially relevant, in particular the call to nurture the type of community and solidarity where there is an engaged fallibilistic pluralism – one that is based upon mutual respect, where we are willing to risk our own prejudgments, are open to listening and learning from others, and where we respond to others with responsiveness and responsibility.

The situation Bernstein was describing was the state of American philosophy at the beginning of the 1990s. But the pathology he identifies is virulent and violent. Beyond the relatively polite forums that constitute the discipline of philosophy, the kind of barbarism Murray described has become endemic in our collective civic lives – in particular in the media-hyped frenzy that counts for public political debate in much of the Western world today. It is a kind of politics that marks the end of politics – the end, that is, of politics as a means to achieve wise, prudent and rational (that is, reasonable) solutions to questions of how we are to live together in shared communities and a shared planet. Even while we observe this barbarism as a spectacle, however, I think it has not yet taken root in the ways we talk to one another in the university or in the wider community – though there are exceptions in both these places, where some people are willing to vilify others, throwing aside not only good manners but also the Golden Rule that holds us together in communities where the moral universal is that we will treat others as we hope to be treated.

Within the university, I think that, generally speaking, the civility Murray described still survives and thrives – not in all matters or on all occasions, but most of the time – in our teaching, in our research and our engagement with our communities. That civility is an important and substantive part of our *praxis* as academics. It is an indispensable part of our capacity to engage in the work of teaching, research and community engagement in relation to our students, our peers in the disciplines and professions, and the communities we serve. Without it, we are unable to listen to the arguments of others, to weigh the evidence they present for and against our understandings or their own, or to respond anew to changing times and changing circumstances by renewing, always and for our times, the resources of our knowledge, our theories and our traditions.

Pedagogy and Politics in the Twenty-First Century

I noted earlier that we might need to return to the question of what, pedagogically speaking, came after the transition to the socially-critical view of Education that emerged in the middle of the twentieth century and which was eclipsed when 1980s neo-liberalism and neo-conservatism emerged onto the stage.

What came next, borne of the Digital Age, was a new and widespread consciousness of ourselves as living in a global economy and a globalised world. The vocational/neo-classical, liberal-progressive and socially-critical Pedagogical perspectives had all been shaped by political philosophies and positions that presupposed the nation-state and its citizens as the object of Education: the formation of people and citizens able to live well in a nation-state worth living in. The Digital Age blew that presupposition away. People began to regard nation-states as contingent and replaceable social forms, not as the bedrock of political life and thought. While it is not yet possible to conceive ourselves as citizens of the world in anything more than a metaphorical sense – there is no world government – we nevertheless can conceive of a good greater than the goods of our own political arrangements in our own nation-states. Moreover, we can and do readily

conceive of ourselves as actors – producers and consumers – in a world economy, and as participants in a polyglot global culture that speaks many languages and springs from diverse histories and cultural traditions but nevertheless offers hopes of connectedness and conversation across old cultural boundaries and divides.

I do think, however, that, to the extent that we believe that our old bonds to local communities and nation-states have dissolved, we begin to believe that it is possible to exist as individuals even if we float detached from the communities and societies that once anchored our social being. Under such circumstances we become acutely aware of ourselves, I think, and less sensitive to the sociality and solidarities that make us who we are. This state of detachment is not the alienation from meaningful work and forms of life diagnosed by the critical theorists of the mid-twentieth century; I believe it is a kind of vertigo that people experience when they think of themselves as individuals floating in an apparently infinite social space – something like a Facebook social network of 6,911,179,598 friends at 23:15 Coordinated Universal Time on April 9, 2011 (according to the world population clock of the US Census Bureau).

The explosion of political possibilities this vista suggests has not produced world anarchy. Even as the possibilities multiply, world politics continue to be colonised by suppositions and social forms from the Western past. Neo-liberalism offers the prospect of the rational calculation of costs and benefits in every domain of human existence, from markets and economies through to Education, which becomes no more than another futures market in human capital. Throughout the West, we work in organisations ruled by a tyranny of targets and key performance indicators that promise continuous improvement of everything – everything, that is, except the human experience of a human life. It is the cost of "reflexive modernity" – the notion that, if a thing exists, it can be improved (Giddens, 1991; Beck, 1992).

Neo-conservatism offers a new version of the old capitalist prospect of making money and holding onto it by re-shaping the rules of social and political life in the interests of those who have, at the expense of those who do not. Its way of producing a new era of capitalism was to insist that governments have no place in providing goods or services that can be provided by the private sector, regulated by market forces alone. Thus, neo-conservative governments in the 1980s and '90s divested states of a range of services like transport, communication and energy distribution, creating new opportunities for the production of private wealth – new opportunities, that is, for corporations and individuals wealthy enough to buy those businesses.

In the neo-liberal case, the concepts of a good life and a good society are made secondary to the "administrative" calculations of costs and benefits, as if these were separable from human lives, human suffering and collective human thriving. In the neo-conservative case, the concepts of the good life and a good society are made secondary to the calculation and conservation of capital, asserting the interests of those who have at the expense of those who do not – across the globe, not just in the nation-state or neighbourhood. Neo-conservatism did not just revive the spirit of nineteenth-century capitalism, however; combined with the late twentieth-century spirit of floating detachment I mentioned earlier, it also fostered

a new libertarianism that exalts individual self-interest. This libertarian stripe in neo-conservatism has done much to foster the rise of barbarism in public political debate in the popular media and the corresponding decay of *praxis* in the public life of our politicians. In *The Human Condition*, Hannah Arendt (1958) made a compelling argument that "the political" gradually dissolved in "the social" throughout the modern era and into the mass democracy of the twentieth century, to the point where government became simply the administration of the state (p. 45), a kind of extended housekeeping on behalf of an individualised mass society. Speaking of political life in the *polis* of the ancient Greek city-state, Arendt (pp. 26-27) wrote:

> To be political, to live in a *polis*, meant that everything was decided through words and persuasion, not through force and violence. In Greek self-understanding, to force people by violence, to command people rather than to persuade, were prepolitical ways to deal with people characteristic of life outside the *polis*, of home and family life, where the household head ruled with uncontested, despotic powers, or in the life of the barbarian empires of Asia, whose despotism was frequently likened to the organisation of the household.

Today, parliamentary majorities in the West seem all too frequently to rule with this kind of despotic force; like those who lived the life of the *polis* in those ancient Greek city-states, we too should regard their despotism as barbaric.

The rise of this neo-libertarianism with its private, individualistic calculation of pleasure and profit is, in my view, more corrosive than the atomistic individualism that Charles Taylor (1991) described as a key element of "the malaise of modernity." This neo-libertarianism poses new challenges for us in the university, as we try to maintain a civility in our relationships within the institution, at a time when barbarism appears to reign in public political debate. Among the corrosive implications of this barbarism is that it gives our students and the communities we serve a very poor model of civil debate, of rationality as reasonableness, of respect for evidence, and respect for persons.

It is not clear to me whether our era is yet producing a new Pedagogy for these times. Instead, it seems to me, neo-liberal, neo-conservative and neo-libertarian forms of thought and theorising seek to occlude the very notion of Pedagogy. It is as if they were declaring that Pedagogy as a field, as a discipline and as a problem is *passé*, a form of thought and theorising that can safely be forgotten.

People (like me) brought up in the era of Pedagogy, however, cannot easily give up the aspirations of a pedagogy of emancipation from suffering, oppression or domination. Although we may be able to project the *end* and *purpose* of Pedagogy onto the global polity from the nation-state, we might nevertheless concede that we lack the *means* to achieve that end, an end that in the age of the nation-state was provided by its own internal educational apparatus. We need to think of – and are thinking in various ways about – global Pedagogies, by which I mean more than globalised digital means of Education – the online education revolution. I think we

are still only in the very early stages of conceptualising a global Pedagogy that offers all people on the planet the means to live well in a world worth living in.

A Glance Back at the Ancients

As I write these words, I become acutely conscious of the ancients whose world did not spread far from the Mediterranean Sea. What was their "global" seems today much more "local," though it remains richly diverse in cultures and languages and political histories. One thing that the ancients knew, however – at least those who took any of the philosophical schools seriously – was that what we actually do in the world has consequences. These include the natural, physical, economic, social, political consequences of our individual choices and of our collective actions. The ancients were less protected from these consequences than many of us living in the West imagine ourselves to be today. It mattered very greatly whom one knew, who one's family was, which of one's kin would give or receive support, who one could afford to offend. These social and political bonds were as decisive in determining one's happiness and survival as the weather, the harvest, and the vagaries and risks of trade – those things that the ancients described as indifferent to human beings. "Be indifferent to that which is indifferent to you," the Stoics taught.

The ancients lived in a world in which social *practice* was known to be decisive in the fates of individuals and states – the city-states of ancient Greece, for example. Their philosophy was not philosophical discourse aimed solely at arriving at understandings. It aimed to teach people – young, aristocratic men, not generally women and slaves – how to live and how to deliberate wisely. It aimed to teach them practical reasoning and practical wisdom. Aristotle saw no use in trying to teach Ethics to the young; he believed they must first have some experience in deciding how to act for the good of the community in complex and uncertain circumstances, properly to appreciate the intricacies of such deliberations.

Through teaching philosophy as a way of life, Hadot (1995) argued, the ancients aimed to bring people to wisdom, so they could live well in a world worth living in. This, I believe, is at the heart of *practice-based education*. It means bringing people to wisdom, so they can live well in a world worth living in, no matter which field they are in or preparing for. Like Aristotle, we should recognise that we cannot put old heads on young shoulders. We cannot *teach* wisdom, I believe. But we can give people the kind of experiences that will lead them to wisdom. I think *this* is the key role of practice-based education. Perhaps, after all, there is a new Pedagogy for our times, and it takes the form of practice-based education.

CONCLUSION: PRACTICE-BASED EDUCATION

I began by examining Pedagogy in order to show that, properly speaking, the field of Pedagogy concerns not just the art and activity of teaching, but rather the rationale for Education of a certain kind. I gave the example of Habermas's view of the functions of the modern university, and examples of the shifts from

vocational/neo-classical to liberal-progressive to socially-critical views of Education through the late nineteenth and twentieth centuries.

I then examined the ancient Greek notion of *praxis* and Marcus Aurelius's Stoic understanding of *praxis* to demonstrate that "acting for the good" is not just an abstraction. What it means to act for the good is a substantive question. It means facing up to the uncertain and sometimes difficult situations in which we find ourselves technically, morally, socially and politically, and taking multiple perspectives into account before reaching our decision of conscience about how to act, with others. I suggested that, in the case of university education, our action should be *praxis* when we confront the uncertain questions of how to act collectively within the university and in relation to our peers in the disciplines, as well as in relation to the professional and local communities we serve.

I concluded my discussion of *praxis* with the suggestion that practice-based education is a version, for our times, of the aspiration of the ancients to prepare people to live well. According to Hadot (1995, 2002), the ancients did this – preparing people to live well – through introducing them to philosophy as a way of life. Living well meant thinking well, acting well and relating well to others. Young men studied *logic* to learn to think and speak well, *physics* to act well in the world, and *ethics* to relate well to others. Unlike philosophy as a discipline today, Hadot (1995) wrote, the aim was not to engage in philosophical discourse for its own sake but to learn a way of life – the philosophical way of life.

To live a good life requires a good society in which to live – a society worth living in. Such a society will be one which orders its affairs in such a way that people can live good lives. The two are mutually constitutive: good people and their good actions constitute a good society in which all act in accordance with universal reason, and a good society allows people to live and act well in their own interests and the interests of all.

I wondered earlier whether we had yet invented a new Pedagogy for our new times, when we have been loosened from the boundaries of the nation-state into a more globalised consciousness; when neo-liberalism transforms the notions of "improvement" and "development" into abstract states of organisations rather than matters to do with the relief of suffering and improving the fates of all the Earth's inhabitants; and when neo-conservatism and neo-libertarianism foster a re-awakened privileging of the self and self-interests against the claims of the collective interests of humankind. If these are indeed our ills, however, they also imply their opposites – the possibility of a state other than that. Against a floating, detached globalism we might posit a situated, committed localism – a commitment to acting for the good where we are. Against an abstracted idea of "improvement" we might posit a concrete and particular commitment to *praxis* – acting substantively for the good for humankind in the uncertain practical circumstances in which we find ourselves. And against the privileging of the self and self-interests we might posit a return to the era of the Golden Rule and a commitment to a universalist morality that recognises each and all others as identical to ourselves, precisely in being unique and uniquely human. "Plurality," Arendt (1958, p. 8) wrote, "is the condition of human action because we are all the same, that is,

human, in such a way that nobody is ever the same as anyone else who ever lived, lives or will live."

These are old aspirations, with roots in the democratic and republican debates of classical Greece and Rome, a trunk in the post-revolutionary civic ideals of France and the US, evolutionary branching through Modernity and the rise of the industrial democracies and the nation-state, and flowering in the social democracies of the mid-twentieth century. The Pedagogical question nevertheless arises of how to reach the destination those aspirations describe from where we are now – in a world of floating individual detachment, organisational abstraction, and a zero-sum competition among individual liberties and self-interests.

One answer assayed by Hadot (though not as a Pedagogical suggestion) is that we might think about the kinds of "spiritual exercises" practised by the Stoics, the disciplines of attention, desire and action. We might submit ourselves to those disciplines in order that we will live "according to Nature," thoughtfully, courageously and generously in terms of the good for humankind. *Praxis* does not consist simply in living according to these general rules or invocations, however; it consists of applying our thoughtfulness, our courage and our generosity when we are in uncertain practical circumstances when we are called upon to act, an when we choose to act "in accordance with Nature" and for the good of humankind.

If we take this aspiration into the university and consider its application in our teaching, I believe we arrive somewhere very near the idea of "practice-based education." This is education which envisages the student as a graduate and as the practitioner of a profession. Practice-based education envisages *living well* in that future professional practice. It does not ground itself solely in the *discourse* of the profession; it is grounded in the *practice* of the profession. Thus, practice-based education brings practice and its problems into the classroom, and takes the professional-to-be out of the classroom and into the contexts where the profession is practised. Most of all, however, practice-based education aims to show the profession, the professional and the professional-to-be what it means to act in *praxis* in the profession. Formally speaking, this means developing people's capacity for "action that is *morally-committed, and oriented and informed by traditions in a field*" (Kemmis & Smith, 2008, p. 4; emphasis in original). Substantively speaking, it means acting well in response to the uncertain demands of particular situations that arise for the practitioners of different professional practices, using (as Aristotle pointed out in Book VI of the *Ethics*, trans. 2003) all the technical skill and tactical cleverness at one's disposal, and drawing on the wisdom one has learned from reflection on one's experience in a range of different kinds of circumstances and with a range of different kinds of practical problems that arise in the conduct of the practice. What it means for a nurse to act well is something to be judged in relation to the professional practice of nursing; for a teacher, in relation to the professional practice of teaching; for a historian, in relation to the professional practice of history. Whereas what it means to act "professionally" might have some general features shared across professions (Macklin, 2009), it also means something substantive for each profession – for

example, something substantive about care in nursing, or something substantive about education in teaching.

Alasdair MacIntyre (1983) wrote that the practitioner of a particular kind of practice lives a certain kind of life or that "our lives have a certain form" (p. 201) when we have enduring goals that inform and motivate our life and work. The nurse lives a life devoted to care, skilled in care-giving, and wise and judicious in the form of caring given under different circumstances. The teacher lives a life that likewise demonstrates commitment to education; and the historian, a life likewise committed to history. Different and distinctive kinds of practical problems arise for practitioners in these different fields; it is the nurse's or the teacher's or the historian's task to be able to respond to the particular distinctive kinds of uncertain practical problems that arise in their distinctive forms of professional practice, and it is the task of the university teacher preparing a student to enter each of these professions to recognise and respond to that profession's own distinctive kinds of problems.

Practice-based education takes this task seriously. It does not rest content with the "transmission … of technologically exploitable knowledge" described by Habermas (1970) as part of the overarching aim of the university. Practice-based education aims to give students more than the propositional or theoretical knowledge and the technical skills that will permit them to do their jobs. It also aims to give students a taste for, an enduring curiosity about, and a sustained commitment to confronting the problems of practice – it aims to awaken them to the demands of professional practice, work and life. It aims to help them grasp that they need to be informed yet open-eyed and open-minded in interpreting each new situation, to deliberate wisely, to act decisively for the good, and then to reflect carefully on what happened and what the consequences were.

To put it in Hadot's terms, practice-based education aims to train students in the disciplines of professional practice. The discipline is aimed at having them think and speak well and clearly in the practice of their profession, to act well, and to relate well to others for whom and with whom they work. It is a discipline aimed at confronting the uncertain practical problems that arise – that they will encounter – in their conduct of the practice of their profession. Confronting these problems demands more than knowledge and skill and some "right" set of values and intentions. As MacIntyre (1983) showed, it demands intellectual virtues like honesty, courage, persistence and integrity. So practice-based education aims to put students in situations where they will learn what it means to practise these virtues. Thus, the problems posed in practice-based education must include not only *theoretical* problems that are answered by *thinking* or *saying* or *writing* something, but also *practical* problems that can only be answered by *doing* something (even if one's decision is to do nothing). And this means putting students into situations, where necessary under supervision and with support, where they must actually practise the professional practice they are learning. Only there can they develop the *phronesis* that is borne of *praxis* – the wisdom that is learned from the lived experience of trying to act in the best way possible given a particular situation and

circumstances. (On the view that *phronesis* is gained only through *praxis*, see Kemmis, 2012.)

We might conclude, then, that the Pedagogy of practice-based education has ancient roots. Nevertheless, it seems to me an especially appropriate new Pedagogy for changed times and circumstances, and especially for a neo-liberal, neo-conservative, neo-libertarian era in which knowledge and experience are discussed as if they were somehow global, abstract and individual, as if they really had been detached – as they never are in life – from the local, the particular and the communal. Practice-based education is a Pedagogy for our time because it reminds us of our situated-ness, our location in places where things really do happen to people, with real consequences for those involved and for the planet. It is an apt Pedagogy for preparing students for the professions because it prepares them for the exercise of the intellectual virtues required for professional practice under the uncertain practical conditions that life throws at us. And it might still be apt, as it was two millennia ago, if it instils the disciplines of attention, desire and action taught by the Stoics and still relevant for wise professional practice today.

NOTES

[i] Key terms (e.g. Education/education) when capitalised refer to the discipline or field of study, while the term uncapitalised refers to practices or strategies in that field

REFERENCES

Arendt, H. (1958). *The human condition*. Chicago: University of Chicago.

Aristotle (trans. 2003). *Ethics* (J.A.K. Thompson, Trans. 1953; H. Tredennick, rev. with notes and appendices 1976; J. Barnes, Intro. 1976, 2003; A.C. Grayling, Preface 2003). London: The Folio Society.

Beck, U. (1992). *Risk society: Towards a new modernity* (Mark Ritter, Trans.). London: Sage.

Bernstein, R. J. (1992). *The new constellation: The ethical-political horizons of modernity/ postmodernity*. Cambridge, MA: MIT Press.

Carr, W. (2006). Education without theory. *British Journal of Educational Studies*, *54*(2), 136-159.

Dewey, J. (1897). My pedagogic creed. *School Journal*, *54*, 77-80.

Dewey, J. (1916). *Democracy and education*. New York: Macmillan.

Giddens, A. (1991). *Modernity and self-identity: Self and society in the late modern age*. Stanford, CA: Stanford University Press.

Gundem, B. B., & Hopmann, S. (Eds.) (1998). *Didaktik and/or curriculum: An international dialogue*. New York: Peter Lang.

Habermas, J. (1970). *Toward a rational society: Student protest, science and politics*. (An earlier version of Chapter One, 'The university in a democracy – democratizing the university' was originally published as an essay in 1968.)

Hadot, P. (1995). *Philosophy as a way of life* (A. Davidson, Ed. and Intro; M. Chase, Trans.). Oxford: Blackwell.

Hadot, P. (2001). *The inner citadel: The meditations of Marcus Aurelius* (M. Chase, Trans.). Cambridge, MA: Harvard University Press.

Hadot, P. (2002). *What is ancient philosophy?* (M. Chase, Trans.). Cambridge, MA: Harvard University Press.

Jameson, F. (1991). *Postmodernism, or the cultural logic of late capitalism*. Durham, NC: Duke University Press.
Kemmis, S., & Smith, T. J. (2008). Praxis and praxis development. In S. Kemmis & T. J. Smith (Eds.), *Enabling praxis: Challenges for education* (pp. 3-13). Rotterdam: Sense.
Kemmis, S. (2012). Phronēsis, experience and the primacy of praxis. In A. Pitman & E. A. Kinsella (Eds.), *Phronēsis as professional knowledge*. Rotterdam: Sense.
Kemmis, S., Cole, P., & Suggett, D. (1983). *Orientations to curriculum and transition: Towards the socially-critical school*. Melbourne: Victorian Institute of Secondary Education.
Lyotard, Jean-François. (1984). *The postmodern condition: A report on knowledge* (G. Bennington & B. Massumi, Ed. & Trans.). Minneapolis: University of Minnesota Press.
MacIntyre, A. (1983). *After virtue: A study in moral theory* (2nd ed.). London: Duckworth.
Macklin, R. (2009). Moral judgement and practical reasoning in professional practice. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 83-99). Rotterdam: Sense.
Marcus Aurelius (trans. 1944). *Meditations* (A.S.L. Farquharson, Trans.). Oxford: Oxford University Press.
Murray, J.C. (1960). *We hold these truths*. New York: Sheed & Ward.
Plato. (trans. 2003). *The republic* (H.D.P. Lee, Trans., 2nd ed.). London: Penguin.
Ponte, P., & Rönnerman, K. (2009). Pedagogy as human science, *Bildung* and action research: Swedish and Dutch reflections. *Educational Action Research*, *17*(10), 155-167.
Taylor, C. (1991). *The malaise of modernity*. Concord, ON: Anansi.
U.S. Census Bureau. (2011). *World population clock*. Retrieved from http://www.census.gov/main/www/popclock.html
Young, I. M. (1990). *Justice and the politics of difference*. Princeton: Princeton University Press.

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8. PRACTICE-BASED LEARNING AND PROFESSIONAL EDUCATION

Pursuing Quality Outcomes and Sustainability

The provision of practice-based (e.g. workplace) experiences is now almost a universal requirement for students in higher education programs preparing graduates for specific occupations (Organisation for Economic Co-operation and Development, 2010). Whereas once such provision was largely restricted to medicine, law, physiotherapy, nursing and teaching, it is now being requested, demanded and expected across seemingly all programs that develop the capacities required for specific occupations (Department for Innovation, Universities and Skills, 2008; Universities Australia, 2008). Indeed, there is often increased engagement by professional bodies and industry groups in the form of requests for such experiences in occupational specific educational programs, supported in principle and even through regulation by the government. Students are also keen to engage in these experiences as they are concerned about developing capacities that will enhance their employability and preferably lead to direct employment. Consequently, there is much interest from external sources, including government, and there are growing expectations that higher education institutions in countries such as Australia and the UK will be able to provide a range of effective practice-based experiences that will enhance students' employability upon graduation.

Such imperatives demand that education programs include these experiences, albeit in ways that are sustainable in terms of costs and resources, and that the programs can meet the range of expectations that will be used to evaluate them. Yet there is not often the provision of funding from professional bodies, industry or government to support the costs of such arrangements, unless there is a particular and pressing priority (e.g. for rural medical students). Hence, while imperatives about the need for such experiences are proposed and expectations are generated about them, the resources for their implementation must usually be found within higher education institutions. Experience from elsewhere (i.e. vocational education) suggests that if higher education institutions fail to fulfil expectations it is not these expectations that are seen as unrealistic and unfair, but rather the institutions that are judged unresponsive and incompetent (Ghost, 2002).

This chapter discusses some sustainable ways in which practice-based learning experiences can be utilised within programs preparing individuals for professional occupations. It proposes that engagement in authentic practice-based occupational experiences (i.e. those occurring in and as part of the circumstances of practice) is rightly seen as an essential component of initial preparatory programs for

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 101-112.

occupations, such as those that are increasingly the substance of higher education. However, the way in which those experiences are organised, enacted, and integrated within the other experiences that comprise the student's curriculum is central to the quality of the learning outcomes they secure. In particular, it is proposed that a scholarly teaching practice needs to be developed that effectively engages, supports and integrates benefits from student engagement in practice.

Existing concepts and practices within educational science might not always be helpful in guiding the effective utilisation of these experiences in educational programs seeking to develop in students both the canonical knowledge of the occupation and also to meet the requirements of the diverse workplaces in which those practices are enacted, and where graduates' employability will be appraised. Academics need to develop their understandings of these practices, thereby informing and extending that science. That case is made here by considering the nature and contributions of learning through practice, how such learning relates to the provision of professional education, and ways in which the utilisation of these experiences can be sustainable and effective. The chapter draws upon the findings of a recent National Teaching Fellowship program involving 20 projects across a range of disciplines within six Australian universities (Billett, 2011a).

LEARNING THROUGH PRACTICE

The learning of occupations through practice experiences is well proven and has stood the test of time. Across human history, it comprises the most common and sustainable mode of supporting learning for occupations. The family business, community-based work, or the organised workplace were the predominant settings of occupational preparation until industrialisation in Western nation states (Billett, 2011b). The provision of education programs supporting occupational development in Western traditions has until relatively recently been limited to a few major professions. Whereas medicine, law, and sometimes architecture were foci of educational programs in ancient universities in Europe and before that in places such as Greece in Hellenic times (Lodge, 1947), even these and other occupations upon which human existence and advancement depends have largely been developed through practice and in practice settings. That is, it is practice-based learning experiences which have largely brought humanity to this point of its development. The development of occupational competence and the generation of new ideas and responses to emerging issues has seldom depended upon specialised programs of preparation within educational institutions. Instead, the development of occupational capacities across millennia and the advancement of these occupations' knowledge has arisen to a large extent through practice-based experiences and through learning by engagement in experiences (Greinhart, 2002).

It is worth noting that learning through practice has long been highly valued, often even more than the augmenting of experiences in educational settings, which have been seen by some as substitutes for actual practice. For instance, it is claimed that anatomy classes were introduced into medical training in Hellenic Greece because medical students or novices were unable to access the range of

medical experiences that provided the required level of understanding of anatomy (Clarke, 1971). Such experiences had previously been provided when the novices worked alongside more experienced doctors as they performed various procedures and operations. Moreover, and perhaps even more noteworthy, the advent of the textbook is held to be a by-product of the lack of opportunity for these students to learn from the knowledge of medicine held by more experienced practitioners (Clarke, 1971). Thus, it seems textbooks were introduced as a device to capture and codify in some way the medical knowledge that doctors possessed, which novices and students found difficult to access and learn.

Indeed, the specialised provisions of occupational education are relatively recent. It is likely that the various industrial revolutions in Europe and elsewhere, as well as the formation of modern nation states, necessitated vocational education provisions and the development of the skills of a far wider range of occupations within universities, which accordingly grew in size and scope (Billett, 2011b). Yet, through industrialisation it was the collapse of the family businesses, which had been generative of the occupational skills, that necessitated the creation of educational provisions to produce skilled workers with the depth of skills and in the numbers required to sustain growing economies (Gonon, 2009).

It is also sometimes suggested that the requirements of modern workplaces are such that learning through practice is no longer sufficient. There is likely to be some truth in this suggestion, particularly given the kinds of knowledge required for much contemporary work. Some of these forms of knowledge are difficult to experience and access and therefore learn (Martin & Scribner, 1991). However, there have always been similar kinds of knowledge that individuals had to learn, albeit perhaps in less abstract forms than in current times. Certainly, there are forms of knowledge and means for the learning of that knowledge that are probably best addressed within intentional activities in educational institutions and through organised experiences for students. These experiences include finding ways to understand the canonical concepts and propositions associated with bodies of professional or other knowledge; constructs that may not be explicit or easy to engage with in practice settings. There is also the need to develop the knowledge required for work that has particular values, and that need to be learned with consideration to their diverse associated circumstances, values and practices. For example, understanding the ethical considerations for professional practice might best be undertaken initially within an environment that exposes learners to a range of associated considerations, before these learners have access to the operation of that practice in a particular workplace setting.

However, the preparation of occupational skills within educational institutions alone is rendered difficult because the experiences (activities and interactions) provided in such settings are quite different, in terms of their goals, procedures, imperatives, and bases of evaluation, from those in authentic circumstances in which those occupations are practised (Raizen, 1991). Also, the requirements for learning effective occupational practice transcend simply understanding and being aware of contextual factors. Recent accounts of learning emphasise the importance of the learning being informed and enriched by a range of environmental factors

that shape and mediate the nature of human performance (Barsalou, 2009; Billett, 1994; Brown, Collins, & Duguid, 1989). Put simply, learning how to nurse a patient in a mock hospital, using other students as pretend patients and engaging in pretend procedures, is not just a poor substitute for authentic engagement in such challenging activities; it fundamentally lacks the context in which such activities are enacted and the ways this work is performed and assessed, which are shaped by the practices of others as well as by the norms of the workplace.

Consequently, across a range of occupations, concerns have arisen that higher education graduates cannot enjoy a smooth transition to practise the occupations for which they have been prepared (Department of Education Science and Training, 2002; Department of Innovation, Universities and Skills, 2008; Universities Australia, 2008). It is within practice settings that capacities are enacted and appraised as graduates undertake situationally and occupationally authentic tasks. Lack of prior opportunity to develop capacities to undertake such tasks limits the prospect that graduates will be successful in their role and deemed by others to be effective. At this time, then, there is growing interest in providing higher education students with practice-based experiences that can be generative of these capacities and that will assist them in practising more effectively upon graduation. Although the provision of these work experiences is often seen as responding to a request to prepare "job ready" graduates, there is also a belief that educators must organise appropriate experiences for students to develop the capacities to undertake the occupational tasks for which they are being prepared.

However, amidst these requirements, it is important to be aware that the expectations now directed towards higher education programs by industry, professional bodies and students are difficult to fulfil. It is one thing to prepare graduates to possess the canonical concepts and practices required for occupational practice (those that every practitioner would be expected to be able to know and do). It is quite another thing to prepare graduates for the particular requirements of the workplaces in which they may find employment. The point here is that occupational practice is as diverse as the settings in which it is enacted. Although there may well be canonical principles and practices that underpin the occupation, these are enacted in quite different ways across different practice settings, for very good reasons, bringing with them complexities, variations and specific requirements that are difficult to predict. It is in those contexts that recent graduates are appraised in terms of their competence. Thus teachers in higher education confront the difficult and demanding task of preparing graduates who can smoothly engage and become immediately effective in practice settings.

So, it is important for these teachers to develop a scholarly practice directed towards developing students' capacities, in their own teaching and by supporting students' engagement in practice settings and assisting them to reconcile their experiences there. One reason for teachers to develop these capacities is that educational science may not be particularly helpful in informing them how learning experiences outside educational institutions might best be organised and enacted.

EFFECTIVE EDUCATIONAL PROVISIONS

There is a range of good reasons why academics may need to develop informed scholarly practice about utilising and integrating practice-based experiences within their programs, despite the lack of development within educational science. These reasons are at least fivefold. Firstly, educational science and informed practice of education are still in their relative infancy. Unlike many disciplines, this science is relatively recent. Educational psychology as a field is still relatively new, with its foundations extending back only to the 1930s. For instance, the genetic epistemologist Piaget would not have seen himself as an educational psychologist, even though his work has been adopted to inform children's development through education. Moreover, understandings about curriculum and pedagogic concepts and practices are still somewhat immature. This is not surprising, when we consider that Tyler's book on curriculum, first published in 1949, is often seen as a seminal text on curriculum and curriculum development. Among key journals in the field, the Journal of Curriculum Studies had its first issue only in 1967. Thus disciplinary knowledge associated with these practices is still relatively nascent.

Secondly, understanding of the knowledge to be learned through educational programs, and the processes by which it is learned, is still the subject of much debate. New developments often overturn what was previously accepted. For instance, the taxonomies of knowledge advanced by Bloom (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956) in the late 1950s were overturned and transformed by findings from cognitive science within the 1970s and 1980s. These changes are quite fundamental, and in particular impact upon the kinds of procedural learning that are important for occupations. Whereas Bloom et al. referred to these as psychomotor skills, more recent accounts from the literature on expertise present them as a set of procedures that have dimensions of specific through to highly strategic procedures which are analogous to higher orders of cognitive thinking under Bloom. Moreover, the means by which the knowledge required for occupations is to be developed (i.e. learned) have also transformed, including considerations of what was earlier referred to as transfer. Whereas previously there were strong beliefs about the development of highly transferable principles in educational programs, principles that would then be adaptable to different circumstances of practice, current accounts suggest that quite the opposite approach is required for adaptability to occur. That is, rather than the transfer of knowledge being top-down – the canons being applied willy-nilly to different circumstances – the capacity to adapt what is known is premised upon individuals construal, construction and aligning what they know to the requirements of the particular circumstances where human performance is required. To put it simply, we have moved from the belief that higher-order capacities could manage the process of transfer through to a conviction that local knowledge and understanding of contacts, circumstances and requirements are likely to be necessary for effective adaptability. All of this should shape the way we prepare students to engage in the particular instances of practice that they encounter upon graduation.

Thirdly, many of the concepts that commonly inform educational practice

remain immature. In the context of this discussion, the issue of theory and practice, and the divide between them, is still prominent in the educational field. It is often stated that something called theory is developed from experiences within educational institutions and something called practice is developed within settings where practices are undertaken (but not educational institutions). That premise, however, is quite erroneous. Individuals learn concepts, propositions, causal links, and factual knowledge (i.e. theory) across different kinds of settings, including workplaces (Billett, 1994). Further, the learning of how to do things (i.e. procedural learning), which is analogous to the term practice, also arises within educational settings, as it does within settings where people practise things. So, key understandings that are used as part of the everyday educational discourse in higher education and used to appraise the worth of experiences within practice settings, and the integration of these practice-based experiences within higher education programs are shaped by such immature and erroneous premises.

Fourthly, there is still a great deal of uncertainty about what kinds of experiences generate what kinds of knowledge. That is, if there are particular forms of knowledge that need to be learned for people to practise occupations effectively, these forms of knowledge need to be identified and understood, and appropriate experiences need to be organised for students to generate those kinds of learning. It is difficult to proceed with any confidence with particular pedagogic strategies or with the sequencing of experience in practice-based settings unless these ways of proceeding are informed about the ways in which the particular experiences that are selected for students are generative of the kinds of knowledge that need to be learned. Moreover, even if we were confident about the knowledge required for existing performance in a particular occupation, we cannot be confident that it will remain so. As Scribner (1985, p. 138) explained over a quarter of a century ago:

> new cultural means are being elaborated at an accelerating rate in industrialised nations. Hardly have we approached the problem of understanding the intellectual impact of the printing press, than we are urged to confront the psychological implications of computerisation.

Fifthly, it is fair to say that the majority of educational science is directed towards the education of young children and in schooling settings, and not towards younger or older adults learning in settings outside educational institutions. Indeed, educational science seems rather confused in its engagement with learning outside of educational institutions, which it often uncritically privileges. Learning in workplace settings is often referred to as informal, ad hoc and non-formal forms of learning or education. Yet such a set of descriptors is neither helpful, accurate nor likely to provide the bases for effective educational provisions that would utilise and integrate these experiences to help students become able to practise their occupation in particular settings beyond graduation.

Given these limitations, it is important that teachers develop their own scholarly practice that informs how their teaching progresses, how they provide, enact, enrich and evaluate experiences in practice settings, and then seek to integrate those experiences with students' experiences within the overall course curriculum.

PURSUING SUSTAINABLE PROFESSIONAL EDUCATION

In order to propose sustainable and effective approaches for integrating students' experiences in practice-based settings into the overall curriculum, the findings of a National Teaching Fellowship (Billett, 2011a) are drawn upon here. This Fellowship comprised 20 projects, each of which sought to enrich higher education students' experiences through the integration of experiences in practice settings. The findings from these projects are used to propose means by which teachers in universities can both engage in practice-based scholarly work and be informed how to proceed effectively to integrate those experiences. Through those projects, individual academics and/or teams of academics implemented a range of approaches to enrich students' experiences. As a result of their engagement, consideration, and evaluation of their efforts, much was learned about the range of educational purposes for which integrating experiences might be utilised, some sustainable options were developed for providing those experiences often to large numbers of students, and then some curriculum and pedagogic practices were aligned to secure effective integrations (i.e. utilising and reconciling those experiences with what is afforded students in these programs).

Purposes

There is a range of educational purposes in providing students with experiences in practice settings and then integrating them with the program of study. These different purposes need to be delineated, because quite different kinds of experiences, their duration, and their modes of integration are warranted to achieve distinct outcomes. Across these projects and through discussion with participants, the following kinds of purpose were identified. Firstly, there is a need to understand the particular occupation which is served by the students' course. Many students select an occupation without being fully informed about it, or their decisions are founded on misunderstandings. It is important, particularly given the high attrition rates in occupations such as nursing, for some students to engage with and experience the occupation for which they are being prepared.

Secondly, to develop the kinds of capacities required to be effective in work practice, students may need to access opportunities to engage in occupational tasks and, to the extent that they are can undertake them a number of times, to practise, refine and hone their ability to perform these kinds of tasks.

Thirdly, students might need to engage in different kinds and instances of the occupation to understand the range of ways in which it is practised, the different goals that practitioners seek to achieve in different settings or circumstances, and also the different means by which those occupational goals are achieved. Students may need to engage in a number of practice settings to develop these insights.

Fourthly, these experiences might be required to extend or build upon knowledge which is specifically taught in university settings. Hence, students might learn conceptual and empirical knowledge about human physiology, student behaviour, library cataloguing systems, journalistic practices, and so on, in

universities, but they are not required to extend and apply this kind of knowledge in instances of occupational practice. Consequently, they are unable to build upon their propositional knowledge, which is constrained by the circumstances of its construction, and to experience how these propositions are exemplified.

Fifthly, these experiences can be used to orient students to the physical and social settings in which the occupation for which they are preparing is actually practised. Some kinds of setting and some kinds of work will be difficult to understand, and it will be difficult to develop effective capacities for them, unless such experiences have been accessed.

Sixthly, some professional associations require graduates to have undertaken a prescribed number of hours of work experience before being granted provisional occupational status. Sometimes the number of hours is quite high, and students must spend significant time in workplaces to obtain the requisite number of hours or days. Then, there are confidence-building and identity-forming outcomes that often arise from students' engagement in workplace activities. Through experience in practice settings students become more familiar with the requirements for work and the work practice, understand the context of work, and hopefully begin to identify with their selected occupation.

These different educational purposes involve quite different forms of engagement with practice settings. For instance, whereas developing effective capacities requires considerable time and opportunities for repeated engagement in particular activities, other purposes can be addressed in briefer periods of experience. Becoming familiar with the occupation through observation or engaging in peripheral activities, or having the opportunity to observe a number of different ways in which an occupation is practised, require a different set of experiences from those aiming to develop specific occupational capacities. The point here is that teachers need to be clear about the particular educational purposes they are trying to achieve through the provision of practice-based experiences, and then to organise students' access to those experiences accordingly.

Options for Providing Practice-Based Experiences

In discussion of the experiences needed to meet the kinds of educational purposes outlined above, a single model is often proposed: supervised placements. Because long-standing programs such as medicine, nursing and teacher education use a process in which students are closely supervised by a more experienced worker when they undertake their practicum or placement, that becomes seen as the standard model for such experiences. However, whereas supervised placements are perhaps essential when dealing with sick people or young children or other circumstances that carry high-risks (e.g. civil engineering, medicine, accountancy, law), they are not always necessary. Moreover, organising, supporting and funding supervised placements can be very resource intensive. As the need for the provision of practice-based experiences increases, for a wider range of occupations and a greater percentage of students, the resource implications are enormous. Moreover, beyond issues of resourcing, these supervised placements may not

always be the most effective means of supporting student learning in practice settings. Therefore, and in consideration of generating sustainable practice, it is worthwhile considering other options for providing authentic experiences.

Some students are already employed in and work in the occupational fields for which they are being prepared. That employment provides a set of experiences that might meet the particular purposes for which these students are being asked to engage in workplace settings. Thus, when there is alignment between students' paid work and their occupation, the practice-based experiences might be capitalised upon, being freely available to the students and requiring little organisation on the part of the higher education institution. Similarly, students' paid part-time work can also provide experiences that can inform their studies. Although the applicability of this option will vary depending upon the program, this paid work experience may well serve a useful basis for informing the student studies.

An example I have often used concerns students who undertake paid part-time work and are studying business and commerce. They may well be able to use their work experiences to understand more fully practices associated with their degrees, such as marketing, supervision, business management, human resource management, interviewing, and so on. Of course, this will not work for some occupations, but it offers a set of experiences that are common to many students and that do not require much in the way of organisation by the educational institution. Another consideration here is that students who are engaged in paid part-time work as well as their studies are often quite short of time. Indeed, they are "time-jealous." Using their work experiences rather than having them do practicums may be a better option for the management of their time and resources.

There are also opportunities provided by observing occupations in action. For instance, law students used to attend court proceedings to understand court processes and also the performance of legal officers. This kind of observation was then followed by a structured experience to help understand and reflect on what had been observed. Similar kinds of experience might be applicable in other occupations and, importantly, do not require the same resourcing as supervised placements. Also, some students have had extensive work experience abroad, which may well be an effective resource for them to draw upon within the context of their programs. Many postgraduate and older adult students in higher education have experiences that can be used in these ways. Other opportunities might arise from simulation-type activities which can be helpful. For instance, some aspects of work performance are difficult to access, and indeed direct access is not always desirable. Substitute or simulated activities can help students develop some of the occupational capacities which are best not learned in the immediate circumstances of practice, such as managing awkward customers or clients, or difficult situations.

Of course, the applicability of these ideas will vary depending upon the occupation, the circumstances and the kinds of opportunities that are available for students, given their location, contacts and resources. The point here is that there are sustainable options for providing practice-based experiences other than through supervised practicums. Yet regardless of the particular option adopted, it is likely that actions by teachers will be needed to realise the learning potential of these

experiences, to maximise students' learning within them, and to integrate that learning into the overall course provision. In the next section, I give some consideration to the kinds of pedagogic practices that teachers in higher education institutions can enact in order to secure and enrich the integration of students' practice experiences within their university programs.

Pedagogic Practices for Integrating Practice Experiences in University Courses

In the Fellowship mentioned above (Billett, 2011a), and an earlier smaller Fellowship (Billett, 2009), I identified three key moments when teachers in higher education can enrich students' experiences in practice settings and also assist their integration within their courses of study. These moments are: (a) before, (b) during, and (c) after the students' practice-based experiences. Discrete purposes and processes were identified for each of these three moments. It was found that, *before students engage in practice-based experiences*, it was helpful to: (i) orient them to the requirements for effectively engaging in the practice setting and the occupational tasks they were likely to confront; (ii) clarify the purposes of their participation, their responsibilities and the responsibilities of others towards them; (iii) prepare them to be active and engaged in their work activities and to be agentic (i.e. proactive and engaged) learners during those experiences; (iv) provide them with any procedural capacities (e.g. specific skills) that they might need during that practicum; and (v) prepare them for any contestations or confrontations they might encounter in the workplace settings.

During their practice-based experiences, it was important that students learned to (i) engage with and be guided by a more experienced workers and thereby learn from them; (ii) identify and engage intentionally with any activities that might be particularly helpful to their learning (i.e. pedagogically rich activities); (iii) find ways of engaging with peers and use these interactions to inform, consolidate and extend what they were learning from their practice experiences; and (iv) engage actively and purposefully during these experiences in order to maximise the learning potential of the time in the setting. We need to be reminded here that during these practice-based experiences much of the quality of the learning is dependent upon the students' personal epistemologies, which include their capacities and also their beliefs associated with engaging effortfully and intentionally in learning during these experiences.

When students had completed their practice-based experiences, it was important that they had an opportunity to share what they had experienced and learned. In particular, it was important to bring groups of students together so that they could share their experiences and learn from each other. More than learning about variations in the occupations in which they participated, which is of course important, this sharing opened up other options and could also help those whose experiences had not been particularly positive or productive to derive good learning outcomes. And, it was found that when students had had bad experiences they could share and learn from others, and in many instances could appreciate that the problems they had encountered were not theirs alone. Others had had similar or

contrasting experiences that helped explain what had happened to them.

Bringing people together was also helpful because it allowed them collectively to identify links between what they had been taught in the course and what they had experienced in the practice setting. This also helped them to reconcile experiences across the educational and practice settings and to identify and realise the worth of contributions from both settings. There is a tendency for students returning from a practicum to state that they have learned more in the last few weeks than they had in the entire degree program. However, sharing and reconciling their experiences in the two settings, with this reconciliation being guided carefully to secure the kinds of learning the students need, helps them to understand the importance of contributions from both settings in helping them to learn and practise as they have done.

Opportunities to share experiences helped students to appreciate that their experiences and approaches to work were in many ways subjective. It became clear that there were values as well as technique associated with effective occupational practice, and these were revealed in their considerations of their experiences, when what they saw as productive and positive was not always shared across the cohort. Finally, these opportunities to come together and to share experiences often inspired criticality of a productive rather than a negative kind when individuals were processing unsatisfactory or confronting experiences.

The opportunities to share, comment upon and elaborate on others' and one's own experiences can lead to productive experiences and outcomes. This was realised long ago. For instance, early in the history of the American cooperative education movement, those implementing it realised that it was necessary to capture, share and reconcile the programs' intended educational goals with the experiences of students during their co-op placements. Hence, the co-op seminar was introduced for students as they returned from their practicum experiences. These seminars sought to engage students in making explicit links between their experiences and their program goals, to identify learning that had general applicability, and to meet a set of concerns about the broader outcomes of development for the learners (Grubb & Badway, 1998).

SUSTAINING QUALITY PROFESSIONAL EDUCATION

It is important to be reminded that the ideas presented here about curriculum and pedagogic practices were developed through scholarly engagements by busy academics working with their students and in their programs. Indeed, these ideas arose from a group of higher education teachers seeking to enact and refine particular sets of experiences for their students, considering the consequences of those enactments and also appraising the worth of what they did and the consequences for their students. It was not always easy or straightforward, but these ideas arose from considered engagement by academics with teaching-related issues that they were addressing within their courses. Together, a set of principles and practices has been presented here, ideas that are applicable in different ways within higher education programs. Fuller consideration of these ideas may well be

helpful for informing practice (Billett, 2011a). Yet there was another kind of learning here: it was through these projects that these teachers came to develop their capacities and share their insights in ways that informed and developed their practice. Hence, such activities are important in supporting and developing active and critically-reflective educators.

REFERENCES

Barsalou, L. W. (2009). Simulation, situated conceptualization, and prediction. *Philosophical Transactions of the Royal Society of London: Biological Sciences, 364*, 1281-1289.

Billett, S. (1994). Situated learning – a workplace experience. *Australian Journal of Adult and Community Education*, *34*(2), 112-130.

Billett, S. (2009). *Developing agentic professionals through practice-based pedagogies*. Sydney: Australian Learning and Teaching Council.

Billett, S. (2011a). *Curriculum and pedagogic bases for effectively integrating practice-based experiences*. Sydney: Australian Learning and Teaching Council.

Billett, S. (2011b). *Vocational education: Purposes, traditions and prospects*. Dordrecht, The Netherlands: Springer.

Bloom, B. S., Engelhart, M., Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives: The classification of educational goals*. New York: Longmans.

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, *18*(1), 32-34.

Clarke, M. L. (1971). *Higher education in the ancient world*. London: Routledge & Kegan Paul.

Department of Education Science and Training. (2002). *Employability skills for the future*. Canberra: Department of Education Science and Training, Commonwealth of Australia.

Department for Innovation, Universities and Skills. (2008). *Higher education at work – High skills: High value*. London: Department for Innovation, Universities and Skills.

Ghost, S. (2002). VET in schools: The needs of industry. *Unicorn*, *28*(3), 61-64.

Gonon, P. (2009). *The quest for modern vocational education: Georg Kerschensteiner between Dewey, Weber and Simmel*. New York: Peter Lang.

Greinhart, W.-D. (2002). *European and vocational training systems: The theoretical context of historical development. Towards a history of vocational education and training (VET) in Europe in a comparative perspective*. Florence: CEDEFOP.

Grubb, W. N., & Badway, N. (1998). *Linking school-based and work-based learning: The implications of LaGuardia's co-op seminars for school-to-work programs*. Berkeley: National Center for Research in Vocational Education.

Lodge, R. C. (1947). *Plato's theory of education*. London: Kegan Paul, Trench, Trubner.

Martin, L. M. W., & Scribner, S. (1991). Laboratory for cognitive studies of work: A case study of the intellectual implications of a new technology. *Teachers College Record*, *92*(4), 582-602.

Organisation for Economic Co-operation and Development. (2010). *Learning for jobs*. Paris: OECD.

Raizen, S. A. (1991). *Learning and work: The research base. Vocational Education and Training for youth: Towards coherent policy and practice*. Paris: OECD.

Scribner, S. (1985). Knowledge at work. *Anthropology and Education Quarterly*, *16*, 199-206.

Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.

Universities Australia. (2008). *A national internship scheme: Enhancing the skills and work-readiness of Australian university graduates*. Canberra: Universities Australia.

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KAREN EVANS AND DAVID GUILE

9. PUTTING DIFFERENT FORMS OF KNOWLEDGE TO WORK IN PRACTICE

Approaches to the long-standing challenges of integrating subject-based and work-based knowledge in higher education programs have typically focused on questions of how learning can be transferred from one setting to another, relating the assumed "abstract" nature of theory to the assumed "real" nature of practice. This is often seen as a single movement, as encapsulated in the term "from theory to practice." A significant feature in such thinking is to do with knowledge, with a limited understanding of work-based learning as about the transmission of skills or inculcation into the routine processes of work environments. A fresh approach that focuses on different forms of knowledge examines the ways in which these forms are contextualised and recontextualised in movements between different sites of learning in colleges and workplaces (Evans, Guile, & Harris, 2009).

The argument presented in this chapter is predicated on the idea that all forms of knowledge are contextual but not context-bound. It introduces fresh thinking about the theory–practice relation by recognising that all the forms of knowledge included in a degree have been recontextualised, that is, changed in the move from one context to another to serve a new purpose, and that the pedagogic challenge facing lecturers is to support learners progressively to recontextualise forms of knowledge (i.e. use knowledge in different ways) in different contexts, in relation to different purposes. The contexts can include lectures and seminars or offices and workshops as, for example, when learners use knowledge to analyse the structure of the media industry, or use that understanding to guide thinking and action when working on a film set. In this approach the work environment can become an important locus for knowledge production and critical understanding as well as for the development of lifelong learning capacities.

Higher Education and Learning through Practice

What higher education students learn in and through the workplace or practice setting entails not only the development of specific skills or competencies but also wider knowledgeability about activities, roles and social practices, as well as professional identity formation. These learning processes may occur within placements in degree programs, or subsequent to degree programs as graduates take up positions that have further learning embedded in them. All graduate transitions to employment involve substantial new learning. Sometimes the transition is structured by the employer or profession, as in some graduate-entry schemes, in preceptorships in nursing, and in various forms of internship. How

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 113-130.

transitions are experienced derives in large part from the graduate's negotiation of the particular field of practice. In all cases, different forms of knowledge developed within and beyond the higher education program are put to work in new and changing contexts.

In this chapter, we consider how different forms of knowledge are developed through education, training and workplace practices. These ideas have themselves developed in context of research into a new generation of degree programs that incorporate substantial elements of work-based learning. This research has yielded fresh ways of thinking about the ways in which different forms of knowledge are put to work, pointing towards new approaches to curriculum design and offering fresh insights into how learners can be supported in making transitions between work, practice and academic settings.

Work-Based Learning: A Source of New Insights into Practice-Based Learning

Work-based learning has flourished in UK higher education in recent years as incentives have been introduced for universities to develop new kinds of degrees that can reflect the needs of employment in particular sectors more closely than traditional academic degrees; a second trend has been to find ways of assessing and accrediting the learners' knowledge and skill gained through work placements. These have developments attracted the enthusiastic engagement of higher education practitioners keen to try out new ways of developing curricula — along with scathing critiques of the perceived dilution in standards in equal measure. Work-based degrees have offered higher education institutions and employers a way to expand the range of the degree beyond "first generation" subjects, such as architecture, engineering, and medicine, and "second generation" subjects, such as business administration and social work, which developed disciplinary knowledge and occupational expertise and identity. Critiques of a new third generation of work-based degrees characterised by increasing prominence of practice-based learning (e.g. Garrick & Kirkpatrick, 1998) have focused on the potential threats to standards of scholarship, associated with perceived weakening of disciplinary knowledge, independent thinking and critical judgment.

As work-based degrees have become a more prominent and accepted feature of the higher education curriculum in the UK, discussions about this type of degree have been overly skewed towards consideration of the organisational arrangements and technical issues that accompany credit and quality assurance frameworks. As a consequence, discussion about the scholastic basis of the new degree frameworks, and the roles of work-based and practice-based learning within them, has been relatively neglected, thus prompting the search for new ways thinking about the theory–practice relationship that this chapter represents.

Work-based learning is defined here as learning that derives its purposes from the contexts of employment; practice-based learning similarly derives its purposes from the beliefs and methods held in common by an occupational group. Thus work-based and practice-based learning have substantial areas of overlap but also

differentiated features. Work-based learning, for example, often emphasises the regulatory frameworks inherent in the employment relationship; practice-based learning emphasises the regulatory frameworks and practices of the professional bodies. For a number of reasons, degrees that incorporate substantial elements of work-based learning involve disciplinary, work-based and practice-based knowledge in ways that present curriculum and pedagogic challenges for lecturers and workplace mentors. Firstly, discipline-based knowledge has a different "logic" from practice-based and work-based knowledge. The former develops through codified rules that can be used to select and combine theories and concepts into modules. In contrast, practice-based learning involves a good deal of "procedural" knowledge, some highly codified according to rules and systems (e.g. legal), others less codified, and work-based learning involves getting to grips with what is sometimes referred to as "work-process" knowledge (Fischer, Boreham, & Nyhan, 2004). By that we refer to technical (e.g. software systems) and organisation-specific (e.g. routines, artefacts and protocols) knowledge. Moreover, people tend to use both practice- and work-based knowledge tacitly.

Secondly, different modes of assessment have been employed, sometimes within the same degree. In the case of discipline-based knowledge, learners have been expected to apply it to practice. In the case of work-based knowledge, learners are often assessed in accordance with competence-based criteria that are themselves heavily contested (see Hager, 2011). As a consequence, policymakers, higher education, employers, learners and agencies responsible for promoting work-based learning have continued to struggle to articulate the relationship between discipline-based, practice-based and work-based knowledge, and learners themselves often take a considerable time on graduation to "think and feel" their way into using their knowledge at work (see Eraut, 2004).

How, then, can these relationships be articulated anew, to support the development of students, teachers and workplace supervisors **t**hrough curriculum design and pedagogic strategies that embrace practice-based learning? What is involved in good work-based learning in higher education? The answers to these questions proposed here have their origins in a 2-year research project – *Putting Knowledge to Work* (PKtW; Evans et al., 2009).[i] This research responded to the challenges of finding ways of improving practice in higher education programs with substantial work-based elements by researching how the subject-based and work-based aspects of a curriculum or learning program can better articulate with one another. In this research process, forms and "flows" of knowledge have been foregrounded.

Exemplar programs from banking, aircraft engineering, media practice, financial services, management development (glass industry) and leadership development (civil service) were analysed to identify what was involved in successfully moving knowledge from disciplines, professional fields and workplaces into a curriculum, and from a curriculum into successful pedagogic strategies and learner engagement at higher education level, in educational institutions and workplaces.

Innovative degree programs stimulated, in England, by the introduction of foundation degrees and company–college partnerships, have advanced knowledge recontextualisation processes in some important ways. Analysis of documentary, interview and observational evidence from these exemplar programs generated some key principles.[ii] The idea of modes of recontextualisation has been used heuristically, leading to development of a novel framework of wider potential application by both researchers and practitioners. Three of the exemplars are introduced below, drawn from aircraft engineering, banking and media practice, to explain the modes of recontextualisation and the developing PKtW framework. While the framework cannot itself be transferred to other fields and types of degrees without contradicting our main underlying principle – since it too has to be recontextualised – its potential as an intellectual tool has already been recognised for rethinking some of the assumptions and existing practices in first and second generation degrees with long-established experience of practice-based learning, such as nursing and medical education. A fourth example is given of the potential use of the framework in nursing degrees, opening up fresh thinking in a wider range of programs involving practice-based learning.

Explaining Recontextualisation

This contribution concentrates on the different forms of knowledge involved, including those manifested in "skills" and "know-how" and embedded in communities as well as in propositional knowledge. Whereas research undertaken by Eraut (2004) developed typologies of forms of knowledge used in a range of professional fields, our approach takes a different perspective. It focuses on ways in which different forms of knowledge have features and inherent "logics" that are privileged and play out in different ways according to context. Understanding how different forms of knowledge are recontextualised, as people move between sites of learning and practice in universities, colleges and workplaces, provides new ways into long-standing and seemingly intractable problems of relating theory and practice. These go beyond typologies of forms and features of knowledge to analysing the knowledge logics that underpin them and how knowledge is changed as it is put to work across contexts of learning and practice in universities, colleges and workplaces.

All knowledge has a context in which it was originally generated. Some knowledge is regarded as context-independent, and ascribed higher status on that basis (see e.g. Young, 2007). Contexts are often thought of as settings or places, but contexts in our use extend to the schools of thought, the traditions and norms of practice, and the life experiences in which knowledge of different kinds is generated. For knowledge generated and practised in one context to be put to work in new and different contexts, it must be recontextualised in various ways that simultaneously engage with and change those practices, traditions and experiences. Our starting point is that recontextualisation is multi-faceted, pedagogic practice. It refers to the idea that concepts and practice change as we use them in different

settings. The research has drawn on (i) developments of Bernstein's idea that concepts change as they move from their disciplinary origins and become a part of a curriculum (Bernstein, 2000; Barnett, 2006) and (ii) van Oers' (1998) idea that concepts are an integral part of practice and that practice varies from one sector or workplace to another. Both these notions have been expanded in order to embrace the ways in which learners change as they recontextualise concepts and practices and the extent to which this process may spur innovation in workplaces as much as in educational contexts. Chains of recontextualisation can be forged by practitioners as they seek to understand and evolve practice. Four kinds of recontextualisation are significant:

Content recontextualisation
- putting knowledge to work in the program design environment

Pedagogic recontextualisation
- putting knowledge to work in the teaching and facilitating environment

Workplace recontextualisation
- putting knowledge to work in the workplace environment

Learner recontextualisation
- what learners make of these processes.

PUTTING KNOWLEDGE TO WORK IN THE PROGRAM DESIGN ENVIRONMENT

Most descriptions of the theory–practice relation fail to acknowledge that knowledge viewed as content is knowledge that has been "codified," that is, organised in accordance with the rules, procedures and systems of particular, sometimes competing, disciplines, schools of thought and practices. Consequently, when curricula are created, this occurs through *content recontextualisation* (CR), when knowledge moves from its original context of production (e.g. the academic research community or an industry R & D program) into the formal learning program offered by a learning provider.

In this CR process, as indicated in Figure 9.1, codified knowledge is selected, simplified, recast and made more teachable and learnable for particular learners, as part of the program design. In professional and vocational education this process entails the selection and organisation of work and subject knowledge for the demands of professional and vocational practice.

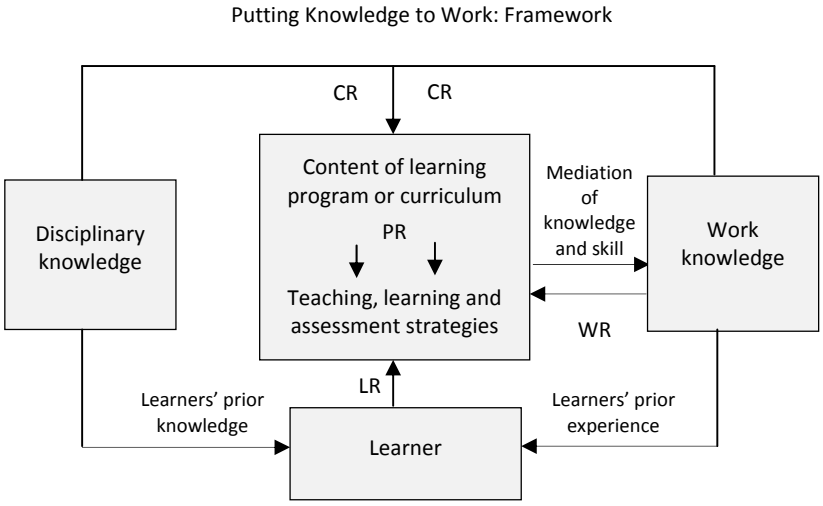

Figure 9.1. The framework

The process is tricky because knowledge logics that lead towards greater degrees of abstraction, on the one hand, and towards making a series of practical, operational connections, on the other hand, differ and are not seen to be easily related to one another (Young, 2007; Guile, 2010). These distinctions can shed light on the difficulties of relating different forms of knowledge in professional and vocational programs. Disciplinary knowledge logics offer greater resources for recontextualisation than other knowledge logics, as codification provides principles for the selection and recombination of concepts from the discipline into a curriculum. Codified procedural and work-process knowledge offer more limited principles for selection because codification here delineates procedures and processes but not relations between them and, as a result, provides few principles for selection and recombination. In contrast, personal, tacit forms of knowledge are by definition uncodified. Curriculum designers thus have clear criteria to use to determine the order in which disciplinary forms of knowledge should be introduced to learners but less clear criteria for how to introduce other forms of knowledge.

PUTTING KNOWLEDGE TO WORK IN THE TEACHING AND FACILITATING ENVIRONMENT

Once different knowledge logics have been reconciled by curriculum planners making their own decisions about how to incorporate and sequence disciplinary, work-process and procedural knowledge in a curriculum, the focus moves to design and organisation of the teaching and learning dimensions of programs. *Pedagogic recontextualisation* (PR), as shown in Figure 9.1, takes place as

different forms of knowledge are organised, structured and sequenced into learning activities, options, modules, for the purposes of effective learning and teaching.

PR is also far from straightforward, because these decisions are never technical matters. They are inevitably influenced by teachers,' tutors' and trainers' assumptions (often unarticulated) about what constitutes good learning experiences and worthwhile learning outcomes, and also by the specifications set by professional or examination bodies. Consequently the challenge is to

- present the general principles that underpin disciplinary knowledge so that learners can use them to understand/change the design of work and the production of goods and services
- use work as a test-bench for both specific items of knowledge and general principles.

Recontextualisation is aided if students understand the rationale for bringing different forms of knowledge into play. Teachers, tutors and workplace trainers have to make decisions about how much time they devote, and which strategies they use, to explain the background to different forms of knowledge in order to promote this understanding. The challenge is to offer learners time and freedom to engage with these forms of knowledge in their own terms and to infer their implications for practice.

PUTTING KNOWLEDGE TO WORK IN THE WORKPLACE ENVIRONMENT

The story of the theory–practice relation is usually left here. However, integration processes start with PR but do not end there. Workplace environments fundamentally affect how knowledge is put to work, and they vary in the nature and quality of learning experience that they afford (Guile, 2006, 2010). *Workplace Recontextualisation* (WR) takes place through the workplace practices and activities that support knowledge development, and through the mentorship, coaching and other arrangements through which learners/employees can engage with and learn in workplace environments. This workplace mediation of knowledge and skill is indicated in Figure 9.1.

These practices and activities are fundamental to learners beginning to vary and modify existing workplace activities and developing the confidence and capability to work with others to significantly change those activities. They allow us to see that we constantly progressively recontextualise concepts in activity. For example, the concept of measurement takes many different forms in workplaces; hence pedagogic contextualisation requires a range of supports.

In the workplace, knowledge is embedded in routines, protocols and artefacts, as well as in organisational hierarchies and power structures. The key challenges include learning (i) to participate in workplace activities and use artefacts, and (ii) to use work problems as a further "test-bench" for curriculum knowledge. This is facilitated when workplaces create stretching but supportive environments for

working and learning and when learners take responsibility for observing, inquiring and acting.

WHAT THE LEARNER/EMPLOYEE MAKES OF IT: LEARNER RECONTEXTUALISATION (LR)

What learners make of these recontextualisation processes varies according to personal characteristics, group/cohort and the scope for action in any particular environment. As with prior learning and tacit knowledge, these attributes may be unequally distributed (see Evans, Kersh, & Kontiainen, 2004). Learner recontextualisation (LR) takes place through the strategies learners themselves use to bring together knowledge gained through the program and gleaned from working with more experienced people in the workplace. These strategies sometimes involve learners in the creation of new knowledge, insights and activities.

The LR process is critical to the development of a professional and/or vocational identity. This process entails understanding and articulating the reasons for the constitution of their chosen occupation and their reasons for wanting to join it. It also influences their motivation and engagement with the other processes involved in putting knowledge to work. Learners come to self-embody knowledge cognitively and practically. The challenge is use knowledge as a set of resources to develop professional and academic identity *together*, using both curriculum and workplace knowledge as test-benches for general principles and to meet academic requirements. Thinking and feeling one's way into a professional identity is facilitated by such practices as engaging in learning conversations and hearing accounts of critical incidents (or "war stories"); voicing (articulating) developing understandings to others, being stretched to work at the next level.

Program Design and Practice – The Exemplars

Each of the four expressions of recontextualisation sheds light on some element of the challenge of relating subject-based and work-based knowledge in real-life programs.

The original exemplars were structured and analysed according to the recontextualisation framework set out in Figure 9.1. In each case, commentaries trace the chains of recontextualisation and lessons that can be drawn for program design and practice (for a full account see Evans et al., 2009).

In aircraft engineering, a major airline and a UK university came together to mount a program for aspiring maintenance engineers leading into development of the first Bachelor of Engineering Honours degree incorporating European Aviation Safety Agency (EASA) licensing requirements. Student engineers completed their studies after the "practice" year with a foundation degree or proceeded for a further year full-time (2 years part-time) to the B.Eng. degree, with two years of further practice required in each case for the full licence. The principal challenge for the

designers of this program here was meshing licensing requirements for EASA within the degree framework.

Content recontextualisation (CR) in the program design process involved selections and combinations of knowledge from disciplines (physics, maths, law and psychology) with knowledge about work processes in aeronautical engineering (work-process knowledge) and knowledge about legal issues, such as health and safety (procedural knowledge) and legal knowledge, recontextualised to the demands of professional and vocational practice and EASA requirements. The program is based on a rationale negotiated between a large commercial airline and a UK university. Initial scepticism on both sides reflected different values bases, which in other contexts can lead to a "disintegrated" learning environment for learners (Allan, 2008). Tensions were overcome by mutual recognition of expertise between members of the program design group and by the careful articulation of the different knowledge requirements in relation to an agreed rationale. This negotiated rationale has four elements:

- incremental steps towards working on aircraft as a whole system;
- academic foundational elements (from physics and mathematics);
- knowledge interdependency between the modules;
- safety requirements paramount: consolidation of learning at every stage to reveal and remedy gaps in knowledge.

Different knowledge logics have been brought into a new relationship which has changed the shape of the program from the conventional pyramid structure of broad base narrowing to individualised project-based work at the apex to a flatter "trapezium" structure consisting of layers of interdependent academic, practice, systems and skills modules, leading towards readiness for work in the operational environment of the practice hangar, at the end of the second year (full-time) or its part-time equivalent.

The *PR* process initially prioritises maths and physics "academic elementals" in a way that provides time for understanding and connecting concepts and enabling teachers to demonstrate the use of maths and physics in aircraft maintenance problems. Practice-based elements that have closest connections to maths and physics are introduced iteratively, providing learners with experiences that enable them to make the theory–practice connections as further academic and practice-based content is incorporated. Systems and skills modules then develop knowledge of the aircraft as a system, with simulated and real-life opportunities to put knowledge development to work.

Workplace recontextualisation (WR) involves the "gradual release" of knowledge and responsibility across the two dimensions, predictability and time (Aarkrog, 2003). Learners strengthen their skill repertoires through extended exposure to tools and equipment with which they are already familiar. The following extracts from interviews with instructors illustrate this process: *"The level of work tasks and standards of workmanship expected will increase progressively as the course and this module are completed."* They learn by making

mistakes in a controlled, closely supervised and sheltered environment, but one that progressively resembles the workplace itself: *"The dummy plane stage is simulated – it's a safe, transitional stage."* They move from predictable to less predictable tasks, where some of the complexities of real-life work (and its artefacts) are built into the learning experience: *"Students will need to keep a logbook of all the practical work completed."* In these ways they learn to operate under the pressures of the operational environment: *"The operational environment is extremely daunting for some people – students' confidence can be destroyed in an instant if they go in too soon."*

Feedback is tailored to workplace and academic criteria, with the aim of taking learners to the point where they are able to operate under the time and (un)predictability pressures of the operational environment. Key people, whom we term "industry educators," occupy boundary roles, supporting work shadowing, "mating-up" (learning in pairs with peers, or "buddies") and planning incremental increases in responsibilities. Debriefing focuses on developing confidence in putting knowledge to work, a key role for the "industry educator." Learner recontextualisation takes place through assignments, articulating developing knowledge, stretching (working at next level). This is a process facilitated by learning conversations, an inquiring approach from students, and thinking and feeling the self into professional identity.

The Key Principle of "Gradual Release"

The principle of gradual release involves:

- sequencing the knowledge elements of the program so as to develop learners' theoretical understanding alongside their skill development;
- supporting learners in moving between learning and practice environments via the gradual iterative release of responsibility from educator to learner in both educational and workplace contexts.

Effective recontextualisation through gradual release does not always involve close interdependencies among all the program elements. Parallel programs of college-based and workplace-based learning that recognise different logics as distinct can also be made to work synergistically, as another case has shown.

A German commercial bank based in London, in partnership with the European College of Business and Management, developed a company scheme for new entrants leading to a degree via a Higher National Diploma (HND). Applicants need a good level of achievement to enter the scheme (typically grades BBC at Advanced Level including maths and preferably a subject related to economics/business studies). They participate in a "real" banking job over 2 years, with block release each month to study for an HND in business and finance. Trainees are on permanent contracts from day one, but are supernumerary.[iii] Once they have passed the HND they are able to continue their studies and convert the HND into a BA (Hons) business studies degree. Whitehead (2009) reported from

the bank perspective: "We have a good post-qualification retention rate; it is a real alternative to going to university." While this is, in many respects, a traditional model, learners are offered supportive environments for knowledge recontextualisation based on agreement between the college and the company about respective areas of responsibility and clear college and work-based strategies to assist trainees to make iterative relationships between theory and practice. Recontextualising practices in this case lie in:

- use of industry educators who act as knowledge brokers;
- the college role in designing assessment specifications that expand and contextualise content;
- a pedagogy of work in the bank that goes beyond business as usual, expanding capabilities through planned combinations of routine and non-routine activity;
- motivation of learners towards self-management and a spirit of inquiry in seeking out resources and engaging in knowledge exchanges;
- a "recontextualisation link" at senior level, in the form of a senior workplace person charged with overview of all the trainees.

Industry Educators as Knowledge Brokers

Use of staff with up-to-date industry experience is a feature of every exemplar. Their role as knowledge brokers goes far beyond the standard use of visiting lecturers in programs. Industry educators are acknowledged to make a difference when they have experienced the same (or similar) qualifying pathway as learners; they are aware of the challenges learners face and will face in future, and they understand the working cultures and circumstances of the sectors and particular institutions. They can demonstrate the power of learning from others' experiences, including mistakes. Industry educators, in short, use their experience to forge relationships between theory, sector-wide knowledge and the practices of particular organisations and particular people within those organisations. They become knowledge brokers. Important as this is, it does not happen at the expense of academic and education-related qualifications and experience.

One of the biggest criticisms of the use of "reflective" strategies in work-based learning programs associated with national vocational qualifications is that they are primarily designed to assist learners to gain recognition and accreditation for their existing knowledge, rather than to support them in generating and using new knowledge. A learning conversation approach, facilitated by an industry educator, can offer an escape from this dilemma. The key premise of a learning conversation is that someone with extensive industry and facilitation expertise can design a conversational approach that not only recognises but also expands employees'/ learners' knowledge and puts it to work.

Use of Organisational Resources for Teaching and Learning

Learning conversations can be complemented by pedagogic use of organisational resources, whereby documentary and human resources are made available to learners, illuminating and exploring company practices and developing learners' essential skills. Learners are of the view that there are "fantastic resources" in companies that can be drawn upon and that the process is enriched if:

- mentors and managers are informed well in advance of program details and resources required
- learners are kept informed about the availability of organisational resources
- learners are allocated time during work to make the contacts and follow them up
- the company sets up and maintains an intranet site in the workplace, where some of the commonly-used resources are stored
- teachers use resources to debate theoretical constructs as concepts-in-action, not as givens.

Examples provided by learners include the use of historical data from insurance claims systems at work when completing a risk survey at college – "I used the data to assess risk measures, potential future risks, etc." A double iteration can develop where the company resource is taken into the college and then back into the workplace:

> For one college assignment we had to present a problem in the workplace which had impacted on customer service and explain how we might resolve the issue. I selected a problem concerning a database which had many blockages. With the agreement of my manager, I was able to take screenshots of the database and collate user feedback in order to present the problem and some recommendations. Thereafter, my manager insisted that some of them be adopted; it was an excellent opportunity for me. It was a piece of work that I wouldn't have had the time to complete in the workplace but through investigation and concentration during college time I could complete the work successfully. (student in a financial services foundation degree)

Interplay of these recontextualising practices with gradual release processes is exemplified by a media practice foundation degree. The course serves an expanding employment sector characterised by predominantly freelance work, skills shortages at the intermediate level, and a lack of clear entry points. The program was developed with the aim of bridging a gap between the nature and needs of the industry and conventional undergraduate-level higher education. This foundation degree supports mainly non-traditional learners who demonstrate creativity, intellectual enthusiasm and aptitude to develop their vocational practice (i.e. a mix of knowledge, skill, creativity and judgment). Members of the course team are active in the industry. They are well-qualified and experienced lecturers, able to give learners access to their networks. This contributes to a high level of contract-based employment after graduation and supports learners in developing

vocational identities and roles within the program. Carefully structured work placements and final year projects help learners to develop academically as well as vocationally. This ensures that the foundation degree is geared towards an industry-standard final production, and lays a foundation for learners who aspire to progress to the third year of an honours degree.

Curricular Holism

One of the challenges of designing a foundation degree of this kind successful management of a complex chain of recontextualisation across design, teaching, work placement and learning dimensions to assist learners (i) to mediate between the theory and practice in all the experiences offered to them; (ii) to develop the form and level of vocational practice required to move into a specific vocational field; and (iii) to develop the knowledge base to progress into the third year of an honours degree. The program is used to address a general rather than a specific vocational need. The task of determining what content is recontextualised from its disciplinary origins and from industry practice is primarily undertaken by the course team in consultation with the industry steering group.

This process involves selectively taking theories, concepts and methods from disciplinary fields and practice-based concepts and techniques and incorporating them into a common curriculum framework that:

- encapsulates core industry functions (production, post-production, etc.);
- mirrors the contingencies of the labour market (the paradox of self-employment and team- and network-based production);
- enshrines the traditional theoretical components of an undergraduate degree (as a resource for individual creativity);
- supports career and academic progression through the PPD.

An explicit team commitment to "curricular holism" (Stenhouse, 1975) allows diverse forms of knowledge such as film theory, technical knowledge and practical skills to sit alongside each other. Modules are sequenced so as to build upon each other thematically and practically; there is a shared rationale for why the different types of knowledge – such as theory as a resource to support future thinking, work knowledge as a resource to sensitise learners to the nature of work, generic knowledge to sustain motivation and engagement – have been included in the curriculum. To convey the purposes of the different types of knowledge *and* to support learners in using that knowledge as a resource to engage with and develop vocational practice, the principle of gradual release allows learners increasingly to assume control over the learning tasks, and their pacing, in each module and in each period of study.

To help learners to make the most of their vocational experiences while on placement, the provision of a choice of placement opportunities (e.g. work experience or crewing up) to reflect their preferences at different stages of their development plays an important part. This is combined with methods to track how

far they are developing their knowledge, skill and judgment, and with opportunities to reflect on their workplace learning (i.e. formalised and structured debriefing sessions with tutors, industry experts and peers) in its own terms *and* in relation to the course-based units (and the knowledge therein). The placement presents the course team and the learners with a dual challenge: relating local, segmented and context-specific learning in the field to the theoretical discourses of, for example, cultural studies, and "progressively recontextualising" (van Oers, 1998) practices learned in the university or in workplaces, in changing circumstances.

Over the course of a unit, the course team gradually relaxes its control over the sequencing and pacing of teaching and learning so that learners can undertake more practical work at their own pace and in line with their individual creative and vocational interests. The principle and practices of gradual release thus guide ways of putting knowledge to work across the whole of the program: the process begins with the sequencing of modules towards practice over the 2-year period – culminating in a major project; it underpins the iterative relationships between knowledge and practice across *all* the modules (supported by the knowledge and experience of the tutors); it is reflected in the increasing amounts of time spent in access to facilities, self-directed and work-related learning activities.

Tutors are aware that it is important to strike the right balance being over-controlling and being too reliant on self-directed learning. For example, they re-balanced this principle a little in the major project. This involves tutors taking a more proactive role in the early stages of the formulation of learners' ideas for their project, by acting as coaches rather than points of reference for learners (see Evans et al., 2009, for a fuller account). Moreover, the placement is an opportunity for learners to be experimental, inquisitive and creative and to take initiative. This is enhanced significantly if learners are placed with a company or network that has less hierarchical and more informal working relations, because it enables them to move quickly from the periphery to take the fullest possible role in the time available. This movement and the accumulated experience that goes with it inevitably enhance learners' awareness of what is valued in the industry, and hence their employability.

Major Implications

Putting knowledge to work-based and practice-based learning depends on the quality of the relationships that are built, not on whether the program is essentially provider-led or user-driven.

- Chains of recontextualisation can be forged by practitioners across learning and working environments as a way of maximising the integration of subject-based and work-based knowledge.
- Multi-faceted partnerships between the college, organisation and workplace sites can embed knowledge flows in and across program design, teaching and

learning and the facilitation of learning, workplace practices and the engaged learner.
- Recontextualisation is assisted by gradual release of knowledge and responsibility across the two dimensions, predictability and time.
- Using industry educators as knowledge brokers supports the effective use of workplace and professional resources for teaching and learning and the development of new knowledge through learning conversations.

Building such relationships is facilitated by dialogue at the local level, involving educational institutions, professional institutes, employers and employer organisations. Furthermore, program structures including assessment practices can be developed to achieve a critical mass of compatibility between employer professional body and course requirements.

Can the Approaches be Recontextualised to Nursing Education?

This paper has focused on the professional fields in which the original research was carried out. Exploring applications of the framework to other fields also requires new research in order to recontextualise it. In line with our underlying stance and argument, this knowledge cannot simply be transferred. This is already taking place in nursing and medical education. The ideas that this approach generates for restoring what Allan (2008) identified as curriculum disintegration in the context of the theory–practice "gap" in nursing (Maben, Latter, & Macleod Clark, 2006) can be organised according to the four expressions of recontextualisation: content, pedagogic, workplace, and learner recontextualisation, with a view to further research.

Nursing as a field entails the selection and organisation of subject knowledge for the demands of practice from social and psychological sciences as well as (predominantly) from medicine, pharmacology, and microbiology. Some knowledges (e.g. biomedicine) are valued more than others, depending on different tutors' preferences and different university traditions; some forms of knowledge are privileged by government policy, such as evidence-based practice; and the ascribing of value to knowledge is gendered (Davies, 1995). Learning outcomes are overtly agreed by both education and practice in the PR process, but each has its own, different agenda about the final outcome for students. For practice, a nurse ready to work as a registered nurse is what is wanted; for education, the student's learning has to be consolidated during the early years of practice (Chambers, 2007). In the practice setting, clinical areas are very busy, particularly in acute areas, and therefore the patient takes priority rather than the learner. What does supernumerary status mean for learning, and for WR processes, in these settings? In the LR processes the identity development that is so central to becoming a nurse also has its roots in gender, ethnicity and class (see Allan, Larsen, Bryan, & Smith, 2004; Larsen, Allan, Bryan, & Smith, 2005).

Overarching questions posed by nurse educators themselves include: Can the student's learning be progressive? Has it ever really been so? Is it legitimate to be so in the current climate? (see Spouse, 1998). And whose voices are heard in the discipline when these too are fragmented? As we have argued elsewhere (see Evans, Guile, Harris, & Allan, 2010), steps can be taken towards restoring the curriculum from its current state of fragmentation and disintegration, through the working of recontextualisation ideas, into strategies and smart pedagogic practices.

CONCLUSIONS

The long-standing language of "transfer" hinders rather than facilitates the search for solutions to the theory–practice gap. The concept of recontextualisation helps to:

- explain the ways in which all forms of knowledge are tied to context (settings where things are done);
- identify actions that assist people to move knowledge from context to context;
- identify how knowledge changes as it is used differently in different social practices (ways of doing things) and contexts;
- identify how new knowledge changes people, social practices and contexts;
- identify who and what supports processes of recontextualisation.

The lens of *recontextualisation* thus takes the debate beyond the "joining" of different knowledge forms (Billett, 2009) to focus attention on the underlying social processes involved in successfully moving knowledge from disciplines and workplaces into a curriculum, from a curriculum into successful pedagogic strategies and learner/employee engagement in educational institutions and workplaces. Some pedagogic strategies that facilitate these outcomes are smart re-workings of long-standing pedagogic practices such as the gradual release of knowledge and responsibility. Other strategies, such as the use of key professionals as intermediaries and knowledge brokers, supplement educational expertise while keeping academic requirements in view. The goals are best accomplished when a critical mass of compatibility is established between professional body, course and employer requirements. Furthermore, putting knowledge to work more effectively in practice may require fundamental shifts towards forms of work organisation that foster cultures of "working as learning" (Evans, 2009; Felstead, Fuller, Jewson, & Unwin, 2009) to support the longer-term achievement of organisational, professional development and wider societal goals.

NOTES

[i] Sponsored by the London Chamber of Commerce and Industry Commercial Education Trust and the UK Economic and Social Research Council (ESRC).

[ii] Over the 30 months of the original research, interviews were conducted in colleges and workplaces, with learner employees during and after their programs, with program designers, course tutors,

supervisors and workplace trainers. In the six programs selected for in-depth research, observations were carried out during more than 53 days of site visits. The authenticity of the findings has been cross-checked with practitioners, both in the field and through advisory groups. Preliminary findings from the project have been refined through review by practitioners and other informed commentators in a range of professional fields, as well as though seminars and specially arranged workshops

[iii] Present in addition to requisite staffing levels.

REFERENCES

Aarkrog, V. (2003). *The coherence between practice situations and ways of transfer*. Paper presented at European Conference of Educational Research, Hamburg, Germany.

Allan, H. (2008). *Negotiating supernumerary status: A new twist in the hidden curriculum in nursing*? Paper presented at the Learning to be Professional Conference, SCEPTrE, University of Surrey, Guildford, April 2009.

Allan, H. T., Larsen, J., Bryan, K., & Smith, P. (2004). The social reproduction of institutional racism. *Diversity in Health and Social Care, 1*(2), 117-126.

Barnett, M. (2006). Vocational knowledge and vocational pedagogy. In M. Young & J. Gamble (Eds.), *Knowledge, curriculum and qualifications for South African further education.* Cape Town: HSRC Press.

Bernstein, B. (2000). *Pedagogy, symbolic control and identity: Theory, research critique* (Rev. ed.). Lanham: Rowman and Littlefield.

Billett, S. (2009). Realising the educational worth of integrating work experiences in higher education. *Studies in Higher Education*, *34*(7), 827-843.

Chambers, D. (2007). Is the modern NHS fit for nursing students? *British Journal of Nursing 16*(2), 74-75.

Davies, C. (1995). *Gender and the professional predicament of nursing*. Buckingham: Open University Press.

Eraut, M. (2004). *Developing professional knowledge: A review of progress and practice*. London: Falmer Press.

Evans, K. (2009). *Learning, work and social responsibility*. Dordrecht: Springer.

Evans, K., Guile, D., & Harris, J. (2009). *Putting knowledge to work*. London: Institute of Education. Retrieved from http://www.wlecentre.ac.uk/pktw

Evans, K., Kersh, N., & Kontiainen, S. (2004). Recognition of tacit skills: Sustaining learning outcomes in adult learning and work re-entry. *International Journal of Training and Development, 8*, 54-72.

Evans, K., Guile, D., Harris, J., & Allan, H. (2010). Putting knowledge to work: A new approach. *Nurse Education Today*, *30*(3), 245-251.

Felstead, A., Fuller, A., Jewson, N., & Unwin, L. (2009). *Improving working as learning.* Abingdon: Routledge.

Fischer, M., Boreham, N., & Nyhan, B. (Eds.) (2004). *European perspectives on learning at work: The acquisition of work process knowledge*. Cedefop reference series no. 56, Luxembourg: Office for Official Publications of the European Communities.

Garrick, J., & Kirkpatrick, D. (1998). Workplace-based learning degrees: A new business venture, or a new critical business? *Higher Education Research and Development*, *17*(2), 171-182.

Guile, D. (2006). Learning across contexts. *Educational Philosophy and Theory*, *38*(3), 251-268.

Guile, D. (2010). *The learning challenge of the knowledge economy*. Rotterdam: Sense.

Hager, P. (2011). Theories of workplace learning. In M. Mallcoh, L. Cairns, K. Evans, & B. O'Connor, (Eds.), *The Sage handbook of workplace learning* (pp. 17-31). London: Sage.

Larsen, J., Allan, H. T., Bryan, K., & Smith, P. (2005). Overseas' nurses motives for working in the UK: Global perspectives or local prejudice*. Work, Employment and Society*, *19*(2), 349-368.

Maben, J., Latter, S., Macleod Clark, J. (2006). The theory-practice gap: Impact of professional-bureaucratic work on newly qualified nurses. *Journal of Advanced Nursing*, *55*(4), 465-477.

Spouse, J. (1998). Learning to nurse through legitimate peripheral participation. *Nurse Education Today*, *18,* 345-351.

Stenhouse, L. (1975). *An introduction to curriculum research and development*. London: Heinemann.

van Oers, B. (1998). The fallacy of decontextualisation. *Mind, Culture and Activity*, *5*(2), 143-152.

Whitehead, W. (2009). The case of Commerzbank. Presentation at Putting Knowledge to Work seminar. London: WLE Centre, Institute of Education.

Young, M. (2007). *Bringing knowledge back in*. Abingdon: Routledge.

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10. PEDAGOGIC DESIGNS, TECHNOLOGY AND PRACTICE-BASED EDUCATION

OVERVIEW

This chapter introduces a design-led way of thinking about practice-based education (PBE). It offers an overview of activity-centred educational design, sketching the principal design components that constitute a supportive environment for PBE. It describes how tasks, tools and people co-configure productive learning environments and it sets limits on what it is legitimate to try to design. The chapter then traces the development of some ideas about pedagogy and technology that have been evolving in our research and in our PBE designs over the last 20 years. The earliest version of these ideas emerged in an innovative program of PBE for experienced practitioners – an ongoing program of continuing professional development among a geographically distributed community of practice, using online discussion methods. The design challenge evolved as it became clear that the program also needed to promote the articulation, sharing and critique of the tacit knowledge embedded in existing working practices, as well as the "re-embedding" of know-how into innovative work practices. More recently we have been investigating the development of epistemic fluency on the boundaries between undergraduate professional education and the workplace – with a particular focus on practicum assessment tasks. Epistemic fluency is the ability to recognise and participate in diverse kinds of knowledge work, entailing different forms of knowledge and ways of knowing. When students on practicum undertake tasks that bridge between academic and workplace "ways of knowing," they often find themselves struggling to make sense of the situation. Our analyses of practicum tasks have shed some light on the ways in which knowledge is inscribed in artefacts (digital and physical), with further implications for the design of appropriately supportive technologies. The chapter concludes with some thoughts about improving the practices of educational design, through a consideration of how pedagogical designs can be inscribed as design patterns in pattern languages.

ACTIVITY-CENTRED DESIGN

PBE provides a congenial home for the idea that it is what students *do* that really matters. In this perspective on the educational significance of action, we include, of course, mental and physical activities – thinking and reflection as well as action that is visible in the world: "minds on" as well as "hands on." Indeed, close examination

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 131-144.

of much of what students are asked to do, in PBE, reveals subtle inter-weavings of the mental and physical: the two can be hard to separate.

Since the quality of students' activity shapes what they learn, it is necessary to think hard about what influences their activity – especially since significant passages of their activity unfold without direct supervision from teachers, mentors or others charged with aiding their learning. (To save space and avoid repetition, we will refer to all these people as "teachers.") Most forms of PBE involve periodic oversight by teachers, but the logistics of learning and preparation for practice mean that close, continuous monitoring and guidance is quite rare – reserved mainly for high risk, high stakes activities.

When close ongoing supervision is not possible, much greater attention has to be paid to upfront *design* – to what students are asked to do, how such suggestions are framed and explained, how the resources students will need are identified and made available, what suggestions are made to them about working independently or cooperatively, etc.

A superficially plausible alternative to deliberate design can be found in reliance on *tradition*. That is, the tasks posed for students to tackle may be taken, in an unproblematised way, from established practices. But reliance on tradition does not serve so well in times of deep change. For example, significant shifts are under way in the balance of forces that shape higher education. The odds in favour of more conscious, analytic, "designerly" approaches are improving. Chief among these powerful shaping forces are:

- diversifying student needs and expectations;
- rising societal expectations about graduate capabilities – often expressed by employers' organisations in terms of disappointment about the unreadiness for work of current graduates, but also found in worried commentary about global competitiveness, innovation, productivity, labour flexibility, etc.;
- accelerating technological change – however much we may feel we understand information and communication technology in some illusory "continuous present," we have little grasp of the effects on information and knowledge practices, social interaction and patterns of mobility being wrought through ever-connected mobile, personal devices and the interpenetration of the digital and material worlds;
- intensification of pressures on teaching staff – staff:student ratios are worsening; management demands to improve research performance and generate new revenue streams are becoming stronger.

In short, radical change in inputs, outputs, tools, processes and accountabilities are, for good and ill, undermining tradition – the reproduction of past personal experience is no longer a safe source for pedagogical ideas (Ellis & Goodyear, 2010; Goodyear & Ellis, 2010). Attention is necessarily shifting towards design.

Design Components

There are several ways in which university teachers can be helped to make a better job of design, and each of these is relevant to PBE. One can provide guidance about

design *process* – how to move from analysis, through implementation, to evaluation, for example (Piskurich, 2006; Reigeluth & Carr-Chellman, 2009). One can sketch appropriate *divisions of labour*, outline the remit of specialised design roles, and identify key tasks for those who most closely understand the subject matter, field of professional practice, or students (e.g. Hokanson, Miller & Hooper, 2008; Keppell, 2007). To complement these perspectives, our focus will be on *design components* – identifying the main things that *can* and *should* be designed (van Merrienboer, 1997; Goodyear, 2000).

Activity-centred design is concerned with what students actually do. But activity itself cannot be designed (neither can learning, experience, capability or commitment be designed). Rather, one needs to make a conceptual separation between *tasks* (which can be designed and set) and *activities* (which is what students actually do). This task:activity distinction was taken by Goodyear (2000) from the writing of the French ergonomist, Alain Wisner (1995). It helps separate the "official" or "management" view of how work is done (the normative account), from the "unofficial" or "workers" view of how the work is actually accomplished. Mapping this onto student activity in higher education, the distinction is important because (a) it helps us see that the tasks teachers set are resources for action, not specifications of action: there is room for creative interpretation, customisation, and contextually-sensitive improvisation on the part of the students, (b) this freedom – the potential for slippage between task and activity – also introduces the possibility for negative as well as positive forces to shape action (Ellis & Goodyear, 2010), and (c) one can see that tools and other resources that will be relevant to students will gain their relevance from their fit with the activity rather than with the task (Figure 10.1).

Figure 10.1. PBE design components

So the quality of a student's activity will also be shaped by the tools that come to hand, and by interactions with other people. That is, activity is both physically and socially situated (Lave & Wenger, 1991; Greeno, 2006; Suchman, 2007; Sorensen, 2009). (We are using the term "tool" here as a shorthand for everything

"material" in the student's work situation (in their "learnplace") that they can use to help with their learning. When speaking of the material, we are thinking of things that have a physical existence, including things that exist digitally. Obvious examples of tools are such things as word-processing software, textbooks, notepads and pens. But other material things can have a significant shaping effect on learning activity: desks, wireless internet connections and quiet (or noisy) spaces in which to work, for example. To call all these "tools" may seem unhelpfully concise, and there is an increasingly sophisticated theorisation of the relations between tools, artefacts, instruments, space, place and other material resources (e.g. Wartofsky, 1979; Rabardel & Beguin, 2005; Sorenson, 2009; Fenwick & Edwards, 2010; Fenwick, Edwards, & Sawchuk, 2011). We ask the reader to think expansively when seeing the word "tool.")

When teachers are directly supervising students' practical activity, they *can* have quite a strong influence on the range of tools that come to hand, and on the ways in which students do or do not work together. In the wider range of circumstances in which teachers cannot exercise such direct control – where students play a much greater part in configuring their own learning environment – then teachers' design work has a more distal and uncertain effect. Teachers can (and usually should) identify tools that might be useful – knowing all the while that students will make their own decisions about what to use. Similarly, they can (and often should) make recommendations about working with peers – knowing that students will also make their own decisions about the nature and intensity of their collaborative efforts. In short, the PBE design problem space consists of three broad components: tasks, tools and people. Pedagogical theory provides some deductive methods for linking desired outcomes to activities (different kinds of knowledge are acquired through different kinds of experience). Insofar as it contains practical theoretical resources for explaining how the physical and the social influence the quality of (situated) activity, pedagogy can also speak to these tool:activity and people:activity connections. In our view, pedagogical design actually needs some serious help from other fields (such as ergonomics and human-computer interaction) that are scrutinising these connections.

In what follows, we focus on "tools," since helping understand the role of technology in PBE aligns best with our brief for this chapter.

Technology and Practice-Based Education

Understanding the place of technology in professional practice, as well as in preparation for professional practice, can be seen as a special case of understanding how human activity – broadly defined – is mediated by the use of tools and artefacts. This has become a site of intense interest and fruitful reconceptualisation in recent years. The concepts that inform our approach have evolved on the boundaries of several theoretical traditions and have their empirical roots in developmental psychology, sociocultural studies, science and technology studies (STS), anthropology and organisational research (see e.g. Blackler, 1993; Engeström, Miettinen, & Punamaki, 1999; Knorr Cetina, 1999; Bereiter, 2002;

Law & Mol, 2002; Kaptelinin & Nardi, 2006; Suchman, 2007; Engeström, 2008; Ingold, 2011).

There is not space here to attempt an overview of these ideas, so we focus on the following points, which may help signal what is distinctive in the approach.

First, we see authentic engagement in practice as core to professional preparation – even if it has to be at the peripheries of ongoing professional work in the real world. With the increasing salience of various kinds of knowledge work in professional practice, these opportunities for PBE necessarily entail collaboration in the improvement of ideas. This kind of activity necessarily blends ideas that span academic and work-based ways of knowing.

Second, we reject the notion that technological innovation in PBE is best understood as a matter or proving that one tool or treatment is better than another. This quasi-agricultural research paradigm makes no sense. (It is surprising how much research into the use of technology in education treats students as if they were crops in an agricultural research station, whose learning can be measured as easily as one might measure the weight of a crop, and where variations in learning can be unambiguously and completely attributed to the nature of the "technological fertiliser" being applied.) Technology permeates modern life; teachers are losing control of what technology students use, and how they use it; technology is not monolithic – it has to be understood in terms of complex webs of interacting tools, artefacts, ideas and practices.

Third, PBE – structured as decreasingly peripheral participation in knowledge-rich practices – must therefore also be understood as entailing a growing appropriation and mastery of the symbolic, material and digital tools of a professional culture (Säljö, 1999).

Fourth, approaches to analysis and design in complex PBE environments need to be able to represent heterogeneous networks of things and people whose interactions constitute processes of knowledge work (Luckin, 2010; Fenwick et al., 2011).

> Knowledge generation … [is] … a joint exercise of relational strategies within networks that are spread across space and time, and performed through inanimate (e.g. books, mobile phones, measuring instruments, projection screens, boxes, locks) as well as animate beings in precarious arrangements. Learning and knowing are performed in the processes of assembling and maintaining these networks, as well as in the negotiations that occur at various nodes comprising a network… Things – not just humans, but the parts that make up humans and nonhumans – persuade, coerce, seduce, resist and compromise each other as they come together. (Fenwick et al., 2011, p. 10)

To date, educational design for technology-enhanced learning has had few ways of speaking about the relations between tools and artefacts (on the one hand) and human activity (on the other). The idea of "affordance" has been the main conceptual tool, and even this proves slippery (Conole & Dyke, 2004; Dohn, 2009; Collins, 2010). The term "affordance" helps capture the ways in which tools and

other objects "suggest" their uses to potential users. Thus, the physical form of a hammer *suggests* how it should be picked up, and what might be done with it. But it does not *determine* how it is used. The physical qualities of a printed book suggest ways in which a reader might use it (flicking through pages, as well as reading linearly; highlighting; making marginal annotations). There is conceptual confusion, however, about whether affordances are invariant qualities of objects, or vary depending on the relationship between the object and the user/perceiver. Also, the concept of affordance loses some of its power when one thinks about human activity being entangled with a large array of interrelated objects. As we are discovering, richer sets of relations are needed for both analysis and design.

We now turn to an illustration of the evolution of design ideas for PBE, that focuses on technology, representation and professional knowledge.

SHAREABLE REPRESENTATIONS OF PRACTICE: THE EVOLUTION OF PEDAGOGICAL DESIGNS FOR SHARING PROFESSIONAL KNOWLEDGE

The use of network technologies for sharing explicit, articulated knowledge is now commonplace and reasonably well-understood (Steeples & Jones, 2002; Goodyear, Banks, Hodgson, & McConnell, 2004; Dirckinck-Holmfeld, Jones, & Lindstrom, 2009; Dirckinck-Holmfeld, Hodgson, & McConnell, 2011). Online discussion boards and analogous facilities for creating, sharing, reading and commenting on texts – creating communal hypertexts (like Wikipedia) – have been available for 20 years or more.

Tacit knowledge is a different matter altogether. Tacit knowledge has a crucial role in professional practice (Baumard, 1999; Sternberg & Horvath, 1999; Eraut, 2000; Horn & Little, 2010). Eraut distinguished between three kinds of tacit knowledge relevant to professional work: tacit understanding of people and situations, routinised (automated) actions, and tacit rules that underpin intuitive decision-making. More recently, Collins (2010) made an educationally useful distinction between weaker and stronger forms of tacit knowledge. His weakest version of tacit knowledge, which he called "relational" tacit knowledge, is tacit only because of contingencies (e.g. it takes too much time to render explicit, or people would prefer to keep it secret). A stronger form is "somatic" tacit knowledge – knowledge which is inexplicable because of the nature of our bodies (including our brains). Polanyi's classic example of tacit knowledge – balancing a bicycle – is of this kind. Strongest of all, for Collins, is "collective" tacit knowledge. This is knowledge that cannot be made explicit because it is embedded in society; we acquire it through engagement in collective practices – there is more to being able to ride a bike through crowded streets than merely balancing; there is more to being an effective doctor in A&E than merely diagnosing. Working knowledge that enables one to carry out complex actions rarely relies only on one kind of knowledge. It is often a dynamic mix of explicit, relational, somatic and collective tacit knowledge. So "workplace readiness" involves having a subtle combination of different kinds of knowledge. Some of it may be explicit – or can be explained if there is time – but some of it may be deeply tacit, local, embedded

in tools and social practices and hard to gain outside the workplace. (People who have worked in one place for a long time tend to underestimate the extent to which their expertise is dependent on the local, and the difficulties newcomers face in discovering how to make things happen locally.)

Acquiring this kind of working knowledge at a distance may seem very problematic. Indeed, Collins (2010) sees the Internet as incapable of mediating socialisation into tacit ways of thinking. We partly disagree. Learning of different kinds of knowledge can be supported by different kinds of representations, and some kinds of representational practices can support learning of some kinds of tacit knowledge. We will now draw on the design of a specific internet-based educational toolset to illustrate the point.

In the early 90s, the first author was centrally involved in designing and testing one of the earliest network-based systems for geographically distributed continuing professional development. System design was informed by Lave and Wenger's ideas on learning in a community of practice, and gave a central role to the collaborative construction of a so-called "evolving knowledge base," reified from interactions between practitioners (Lave & Wenger, 1991; Goodyear & Steeples, 1992, 1993; Goodyear, 1995). Although aspects of the system proved useful to practitioners, for both learning and performance support, it was soon realised that much of the knowledge they valued most deeply was tacit, embedded in practice, and very hard to share. Ten years later, advances in digital video and networking capabilities – including the arrival of the WWW – made it feasible to revisit this problem, with a focus on using annotated videoclips to capture and render shareable some key aspects of practice. Practitioners would make a short video of a passage of work activity – their own or that of their co-located colleagues. They would then upload and annotate the videoclips – e.g. to explain a problem, provide context, or ask for specific help.

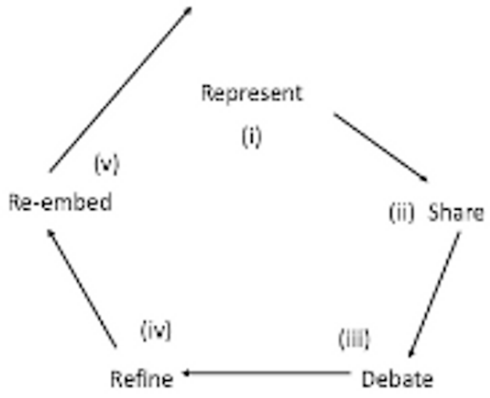

Figure 10.2. Community learning cycle

Other practitioners in the community would view the clips, add their own annotations (e.g. sharing candidate solutions, offering similar problems and workarounds). Over time, this process of "asynchronous multimedia conferencing" would build up a shared repository of multi-layered "representations of practice," with direct snapshots of action, accompanying commentaries, critiques, suggestions, etc. (Goodyear & Steeples, 1998, 1999; Sgouropoulou, Koutoumanos, Goodyear, & Skordalakis, 2000). Figure 10.2 provides an abstract view of the five phase "community learning cycle" entailed in this process. In respect of any one specific area of practice that comes into focus, the community's attention moves through a cycle in which (i) the practice is represented in a mix of digital images, audio and texts (a digital hypermedia artefact); in the process, knowledge embedded in the practice is captured, partly externalised and articulated; and (ii) made available to share with others; (iii) members of the community debate the area of practice in focus, draw links to other practices, to relevant experience, applicable knowledge, etc.; (iv) ideas are shared that help refine/improve upon the current practice; candidate solutions are offered for problems described; problems may be entirely reframed; and then (v) work is done to re-embed innovative ideas into working practices. Two points are important here. First, capturing practice takes tacit knowledge that was once embedded in unfolding interactions and now embeds it in artefacts – making it available for reflection, discussion and improvement. Second, the last stage of re-embedding is crucial to improving workplace performance. It takes many forms, but one which turns out to be particularly effective is to create new tools, artefacts, job-aids, etc. that embed new know-how into the fabric of the work. As Figure 10.2 suggests, this is not the end of the matter. Further cycles of learning and innovation may ensue, or attention may shift to another area of practice that is of concern to community members.

The annotated videoclips generated by the practitioners as representations of their actionable knowledge take on a complex set of qualities that make them hard to see as mere (digital) artefacts; yet they also take on some of the mobility of artefacts that "travel well." That is, they embody multi-level, useful and reliable knowledge that can be said to travel with "integrity and fruitfulness" (Morgan, 2011). While open to various interpretations, they typically "arrive" at new locations of use with their essence undisturbed, and once there, turn out to generate new understandings and practices. The clips also become objects for reflection. They allow a reflection-on-action that is both disciplined and energised by their representation of the action. They also allow a collective reflection on action that has generative qualities over and above those entailed in solitary reflection. Observing the interplay of practitioners' representations of practice, the various forms of knowledge entailed in the practice and surfacing in reflections upon it, it is hard to be quite so pessimistic as Collins about the reticence of tacit knowledge.

PRACTICUM ASSESSMENT, EPISTEMIC FLUENCY AND BOUNDARY OBJECTS

The relations between knowledge, professional practice, tools and artefacts have come under scrutiny once more in our latest research. We have been studying the

development of *epistemic fluency* in professional education, looking closely at how students learn to combine different forms of knowledge and ways of knowing (Goodyear & Zenios, 2007; Goodyear & Markauskaite, 2009). Epistemic fluency is particularly important when working across the boundaries of academic disciplines and professions. When interdisciplinary collaborations or multi-professional team working are involved, being "locked in" to a single epistemological tradition severely limits one's contribution to the work, and even one's understanding of unfolding events.

A particularly interesting site for studying the development of epistemic fluency in professional education is in the practicum and its variants: internships, work-experience placements, and so on. We have been investigating the tasks that teachers set for students – in preparation for the practicum, or while reflecting on it. In particular, we have been researching the design of *practicum assessment tasks*, since these tend to be given more serious attention by students and teachers alike. Our research is showing that *artefacts* commonly play a significant role in practicum assessment tasks and in the students' associated activity. This makes sense, as soon as one moves away from an overly mentalistic framing of professional capability. Of course, there are important elements of what most professionals do that involve little more than thinking and speaking. But much professional work is work involving knowledge-bearing artefacts of various kinds. Empirical studies of the practices of scientific research, such as Latour and Woolgar's seminal investigations of "laboratory life" (1979), have drawn attention to the important yet scarcely noticed role of artefacts created in the practices of scientific work. Much of the knowledge work carried on in laboratory settings is effected by producing, moving around and sharing various documents; inscriptional devices transform "pieces of matter into documents" (Latour & Woolgar, p. 51); scientists must practise the mundane yet painstaking crafts of constructing and manipulating texts, images, diagrams and other representations of the world. In more mainstream areas of professional work – take architecture as an example – artefacts such as building plans or scale models play roles that are more openly acknowledged, though still subtle and complex (Ewenstein & Whyte, 2009). Artefacts are not restricted to representing parts of the world; they also play a role in representing work processes and mediating action.

A familiar example from teacher education would be a lesson plan. In the context of the teacher education practicum, the artefact known as a lesson plan can be seen as a boundary object (Star & Griesemer, 1989) that helps relate school-based and university-based activities. Construction of, and reflection on, a lesson plan involves combining multiple domains of knowledge and ways of knowing, some of which hold little currency among hard-nosed practitioners. From the perspective of designing practicum tasks, it soon becomes apparent that there is an unfolding interplay between explicit and tacit knowledge, between representation and material practice. This interplay is not without tensions – the teachers of future teachers have to be able to adopt multiple, somewhat contradictory perspectives on the role of the lesson plan artefact. It is not wholly a resource for the apprentice teacher's classroom action; nor is it understood to be adequate for that work. Its

construction illustrates an ability to comply with curriculum, assessment and workplace demands; astute reflection upon it is taken as evidence of professional reflexivity.

So pedagogical design for the teaching practicum is partly about helping student-teachers in their appropriation of the tools and artefacts of the trade – and new digital technologies can scaffold that process in a variety of ways. But the pedagogical design is also partly about helping student-teachers to understand the ambiguities surrounding the artefacts they use, developing a sense of identity as sophisticated, reflexive users.

CAPTURING AND SHARING PEDAGOGICAL DESIGNS

In the final section of this chapter, we provide a brief summary of recent developments in capturing and sharing pedagogical designs (see e.g. Goodyear & Retalis, 2010). Figure 10.3 helps explain the approach, using an example relevant to PBE. Each of the elements in Figure 10.3 is a "design pattern." The patterns work together in a "pattern language" that can be used to help solve a design problem in PBE.

Each of the patterns offers a solution to a part of the overall design problem. It says what the designer (or teacher working as a designer) has to do, though it does so in a way that allows for some adaptation. Crucially, the pattern also contains an explanation of why the solution is a good solution to the problem. Well-formed patterns balance the immediate needs of action with the longer-term needs of learning: they support the design process directly, but they also educate. Figure 10.4 takes a look inside a pattern.

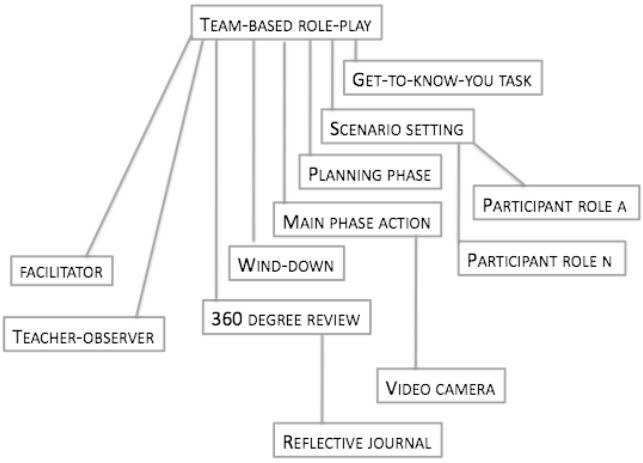

Figure 10.3. Pattern language for team-based role-play

The example pattern given in Figure 10.4 has a structure which follows a convention established in the work of Christopher Alexander (Alexander et al., 1977; see also Goodyear & Retalis, 2010). It has a title (360 degree review); a context description (indicating the design contexts in which the pattern may be relevant); a problem-statement (in bold); a rationale; a solution statement (in bold, after the word "Therefore," saying what must be done), and embellishments (the titles of other lower-level patterns for which this pattern provides a context).

The context description situates the pattern as an embellishment to other (higher level) patterns, much as a pattern for a door might be an embellishment to a pattern for a house. As a result, the rationale – the principled basis on which the pattern works – is contextualised. That is, the guidance is only guaranteed to operate within a defined context. As Voigt (2010, p. 107) has pointed out: "Where an abundance of paradigmatic and theoretical perspectives can be confusing, patterns aim to reduce the abstractness of theories, and support practitioners, *by explicitly referencing the context under which an educational design works*" (emphasis added).

360 DEGREE REVIEW

This pattern is particularly useful in a TEAM-BASED ROLE-PLAY or SIMULATION-BASED LEARNING EVENT.

♦ ♦ ♦

Learning through engagement in complex ROLE-PLAY scenarios, or SIMULATION-BASED LEARNING EVENTS, can be exciting, demanding and very absorbing. Levels of concentration may need to be high, if effective action is to be taken, especially where the action has a time-critical element to it. However, if participants are very engrossed in the unfolding action, and focussed entirely on the next decision they have to make, then some key opportunities for reflection and deeper learning may be lost.

[A paragraph or two of exposition, rationale, evidence etc normally goes here.]

Therefore,
at the end of a role play activity (or simulation-based learning event), and while memories are still fresh, get every participant to make a few notes on the performance of their team mates. Get them to focus on some positive and negative points; to capture what went well, what went wrong, and why they think this may have happened. Then have a FACILITATOR manage a discussion in which each participant in turn gets feedback from all their team mates (as well as from TEACHER-OBSERVERS). Each participant should make notes on the feedback they receive, and should subsequently use this for some private reflection, captured in a REFLECTIVE JOURNAL.

♦ ♦ ♦

Patterns needed to complete this pattern include: FACILITATOR, TEACHER-OBSERVER, REFLECTIVE JOURNAL…

Figure 10.4. Example design pattern: 360 degree review

Supporting the design work of teachers who are new to PBE is not straightforward. Generalised theoretical principles and broad statements of value and purpose can be useful as forms of orientation, but further help is needed with the specifics of task design, and with provision of guidance for choices about the resources that students will need, or how best they might work together. Design patterns capture action-oriented guidance with remarkable flexibility, due in part to the way in which they can be combined in pattern languages, and in part to the scope this offers for providing a boundary around the application of theoretical principles. Indeed, many real-world design challenges in PBE have to resolve tensions between academic and workplace goals, values and practices, and between the affordances of simulated and workplace settings. Design is a form of problem-solving that specialises in balancing competing forces. Designers have to work fluently with the abstract and conceptual as well as the concrete and material; with the explicit and the tacit. Novice teacher-designers need guidance that balances the generic and the local. Design patterns and pattern languages afford the crafting and inscription of such balanced guidance, by those with more experience of appropriate pedagogy, or of the use of supportive technologies, or of the local educational setting, or the field of practice.

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REFERENCES

Alexander, C., Ishikawa, S., Silverstein, M., Jacobson, M., Fiksdahl-King, I., & Angel, S. (1977). *A pattern language: Towns, buildings, construction*. New York: Oxford University Press.

Baumard, P. (1999). *Tacit knowledge in organizations*. London: Sage.

Bereiter, C. (2002). *Education and mind in the knowledge age*. Mahwah, NJ: Lawrence Erlbaum.

Blackler, F. (1993). Knowledge and the theory of organizations: Organizations as activity systems and the reframing of management. *Journal of Management Studies*, *30*(6), 863-884.

Collins, H. (2010). *Tacit and explicit knowledge*. Chicago, IL: The University of Chicago Press.

Conole, G., & Dyke, M. (2004). What are the affordances of information and communication technologies? *ALT-J: Research in Learning Technology*, *12*(2), 113-124.

Dirckinck-Holmfeld, L., Hodgson, V., & McConnell, D. (Eds.) (2011). *Exploring the theory, pedagogy and practice of networked learning*. Dordrecht: Springer.

Dirckinck-Holmfeld, L., Jones, C., & Lindström, B. (Eds.) (2009). *Analysing networked learning practices in higher education and continuing professional development*. Rotterdam: Sense.

Dohn, N. (2009). Affordances revisited: Articulating a Merleau-Pontian view. *International Journal of Computer-Supported Collaborative Learning*, *4*(2), 151-170.

Ellis, R., & Goodyear, P. (2010). *Students' experiences of e-learning in higher education: The ecology of sustainable innovation*. New York: RoutledgeFalmer.

Engeström, Y. (2008). *From teams to knots: Studies of collaboration and learning at work*. Cambridge: Cambridge University Press.

Engeström, Y., Miettinen, R., & Punamaki, R.-L. (Eds.) (1999). *Perspectives on activity theory*. Cambridge: Cambridge University Press.

Eraut, M. (2000). Non-formal learning and tacit knowledge in professional work. *British Journal of Educational Psychology*, *70*(1), 113-136.

Ewenstein, B., & Whyte, J. (2009). Knowledge practices in design: The role of visual representations as 'epistemic objects.' *Organization Studies*, *30*(1), 7-30.

Fenwick, T., & Edwards, R. (2010). *Actor network theory in education*. London: Routledge.

Fenwick, T., Edwards, R., & Sawchuk, P. (2011). *Emerging approaches to educational research: Tracing the sociomaterial*. Abingdon: Routledge.

Goodyear, P. (1995). Situated action and distributed knowledge. *Educational and Training Technology International*, *32*(1), 45-55.

Goodyear, P. (2000). Environments for lifelong learning: Ergonomics, architecture and educational design. In J. M. Spector & T. Anderson (Eds.), *Integrated and holistic perspectives on learning, instruction & technology: Understanding complexity* (pp. 1-18). Dordrecht: Kluwer.

Goodyear, P., & Ellis, R. (2010). Expanding conceptions of study, context and educational design. In R. Sharpe, H. Beetham, & S. de Freitas (Eds.), *Rethinking learning for a digital age: How learners are shaping their own experiences* (pp. 100-113). New York: Routledge.

Goodyear, P., & Markauskaite, L. (2009). Teachers' design knowledge, epistemic fluency and reflections on students' experiences. In H. Wozniak & S. Bartoluzzi (Eds.), *Proceedings of the 32nd HERDSA Annual Conference: The Student Experience* (pp. 154-162). Milperra, NSW: HERDSA.

Goodyear, P., & Retalis, S. (Eds.). (2010). *Technology-enhanced learning: Design patterns and pattern languages*. Rotterdam: Sense.

Goodyear, P., & Steeples, C. (1992). IT-based open learning: Tasks and tools. *Journal of Computer Assisted Learning*, *8*, 163-176.

Goodyear, P., & Steeples, C. (1993). Computer-mediated communication in the professional development of workers in the advanced learning technologies industry. In J. Eccleston, B. Barta, & R. Hambusch (Eds.), *The computer-mediated education of information technology professionals and advanced end-users* (pp. 239-247). Amsterdam: Elsevier.

Goodyear, P., & Steeples, C. (1998). Creating shareable representations of practice. *Association for Learning Technology Journal*, *6*(3), 16-23.

Goodyear, P., & Steeples, C. (1999). Asynchronous multimedia conferencing in continuing professional development: Issues in the representation of practice through user-created videoclips. *Distance Education*, *20*(1), 31-48.

Goodyear, P., & Zenios, M. (2007). Discussion, collaborative knowledge work and epistemic fluency. *British Journal of Educational Studies*, *55*(4), 351-368.

Goodyear, P., Banks, S., Hodgson, V., & McConnell, D. (Eds.) (2004). *Advances in research on networked learning*. Dordrecht: Kluwer Academic Publishers.

Greeno, J. (2006). Learning in activity. In K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (pp. 79-96). Cambridge: Cambridge University Press.

Hokanson, B., Miller, C., & Hooper, S. (2008). Role-based design: A contemporary perspective for innovation in instructional design. *Tech Trends*, *52*(6), 36-43.

Horn, I., & Little, J. (2010). Attending to problems of practice: Routines and resources for professional learning in teachers' workplace interactions. *American Educational Research Journal*, *47*(1), 181-217.

Ingold, T. (2011). *Being alive: Essays on movement, knowledge and description*. Abingdon: Routledge.

Kaptelinin, V., & Nardi, B. A. (2006). *Acting with technology: Activity theory and interaction design*. Cambridge, MA: MIT Press.

Keppell, M. (Ed.) (2007). *Instructional design: Case studies in communities of practice*. London: IGI Global.

Knorr Cetina, K. (1999). *Epistemic cultures: How the sciences make knowledge*. Cambridge, MA: Harvard University Press.

Latour, B., & Woolgar, S. (1979). *Laboratory life: The construction of scientific facts*. Princeton, NJ: Princeton University Press.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Law, J., & Mol, A. (Eds.) (2002). *Complexities: Social studies of knowledge practices*. Durham: Duke University Press.

Luckin, R. (2010). *Re-designing learning contexts: Technology-rich, learner-centred ecologies*. New York: Routledge.

Morgan, M. (2011). Travelling facts. In P. Howlett & M. Morgan (Eds.), *How well do facts travel? The dissemination of reliable knowledge* (pp. 3-39). Cambridge: Cambridge University Press.

Piskurich, G. (2006). *Rapid instructional design*. San Francisco, CA: Pfeiffer.

Rabardel, P., & Beguin, P. (2005). Instrument mediated activity: From subject development to anthropocentric design. *Theoretical issues in ergonomic science*, *6*(5), 429-461.

Reigeluth, C., & Carr-Chellman, A. (Eds.) (2009). *Instructional design theories and models*. Volume 3. New York: Routledge.

Säljö, R. (1999). Learning as the use of tools: A sociocultural perspective on the human-technology link. In K. Littleton & P. Light (Eds.), *Learning with computers: Analysing productive interaction* (pp. 144-161). London: Routledge.

Sgouropoulou, C., Koutoumanos, T., Goodyear, P., & Skordalakis, E. (2000). Acquiring working knowledge through asynchronous multimedia conferencing. *Educational Technology & Society*, *3*(3).

Sorensen, E. (2009). *The materiality of learning: Technology and knowledge in educational practice*. Cambridge: Cambridge University Press.

Star, S., & Griesemer, J. (1989). Institutional ecology, 'translations' and boundary objects. *Social Studies of Science*, *19*(3), 387-420.

Steeples, C., & Jones, C. (Eds.) (2002). *Networked learning: Perspectives and issues*. London: Springer.

Sternberg, R., & Horvath, J. (Eds.) (1999). *Tacit knowledge in professional practice: Researcher and practitioner perspectives*. Mahwah, NJ: Lawrence Erlbaum.

Suchman, L. (2007). *Human-machine reconfigurations: Plans and situated actions* (2nd ed.). Cambridge: Cambridge University Press.

van Merrienboer, J. (1997). *Training complex cognitive skills: A four component instructional design model for technical training*. Englewood Cliffs, NJ: Educational Technology Publications.

Voigt, C. (2010). A pattern in the making: The contextual analysis of electronic case-based learning. In P. Goodyear & S. Retalis (Eds.), *Technology-enhanced learning: Design patterns and pattern languages* (pp. 107-122). Rotterdam: Sense.

Wartofsky, M. (1979). *Models: Representation and the scientific understanding*. Dordrecht: Reidel.

Wisner, A. (1995). Understanding problem building: Ergonomic work analysis. *Ergonomics*, *38*(3), 595-605.

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11. EMERGING PERSPECTIVES AND THE CHALLENGES FOR WORKPLACE LEARNING

LEARNING THROUGH WORK: NEW CHALLENGES AND PERSPECTIVES

The provision of learning experiences in workplaces is now commonly discussed, included in educational programs and seen as a means of addressing individuals' learning across all stages of their working lives. Yet much still needs to be understood about learning in work settings and identifying ways of improving these experiences for a range of purposes associated with working life. Contemporary workplaces require employees to sustain their employability throughout their working lives, initially developing and then maintaining their work-related capacities to respond effectively to the changing work requirements and ways of working. Moreover, workplace learning experiences are now directed to an increasingly broad set of personal, workplace, community and national purposes, and increasingly by those in educational institutions. Certainly, most of these purposes are aligned with developing skilful capacities, including those required for particular workplace performances and for responding to transformations in occupational practice. Yet, as these purposes are being considered, new ones continue to emerge that include how learning can best be supported in particular work situations, such as work-intensive practice settings in busy hospital wards, production lines, or airline scheduling facilities. In such settings experts who are usually seen as sources of knowledge and guidance are unable to engage with novices in the ways conducive to apprenticeship-style learning. Yet such circumstances need to be engaged with and learned about by novices, as they offer insights, procedures and dispositions associated with the changing requirements in occupational practice. Hence, learning to effectively practice in these types of circumstances now need to be addressed by teachers in educational institutions, who want their students to access workplace experiences and integrate them as part of the curriculum, and also by workplace supervisors, preceptors, mentors, and clinical supervisors who also want to promote learning through work. As these types of demands for and expectations of learning experiences in work environments grow, there is commensurate need to understand more fully about the pedagogic qualities of workplace learning experiences and how to realise and improve learning potential of opportunities offered in workplace settings.

Moreover, although workplace learning purposes are legitimate and worthwhile and reflect a growing enthusiasm for learning through practice, certain limitations of learning through experiences in work settings alone need to be redressed. These

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 145-160.

limitations include the difficulty of accessing and learning conceptual, symbolic, abstracted, haptic (i.e. relating to sense of touch) and embodied forms of knowledge required for work, which might not be immediately accessible to worker-learners in the practice settings. Such knowledge increasingly underpins performance of modern technologically and electronically driven work tasks, as well as acts of craft. There are also considerations about providing access to and supporting learning provisions aimed to sustain workers' employability at different stages in their lengthening working lives. Perhaps most noteworthy at this time are provisions for those classified as 'older workers,' who continue to learn and work to sustain their employability, yet whose needs are not always a priority for their employers. In these circumstances, maintaining employability in an environment of constant change and within lengthening working lives it is likely that they come together as a dual set of concerns that need to be addressed through learning experiences based in these workers' everyday activities and interactions. Many of the responses to these emerging challenges are necessarily focused on identifying, using and improving the pedagogic and curriculum practices that can enrich learning experiences in workplaces as part of everyday work, and in specific ways for particular cohorts of worker-learners.

Some emerging concepts, such as those referred to as grounded cognition (Barsalou, 2008), may be helpful for understanding why authentic work experiences are perceived to be so effective in informing and representing work activities, and how individuals' cognition is enacted and their learning shaped through these experiences. This emerging understanding then informs about learning in settings where work is practised, and where it is held to be socially authentic and representative of the circumstances in which individuals are engaged in purposeful goal-directed work. These activities, and the interactions that accompany them, have the potential to generate the learning required to develop procedural capacities, strengthen conceptual links and inform the dispositions (values, attitudes) required for effective work practice. Such considerations have long and consistently been reported as central to learning through work, and the emerging contributions help explain why workers report them to be so effective (Billett, 2001). Consequently, given these new developments and emerging challenges it is timely to consider both current progress and established agendas for improving learning through work. Some of these perspectives and challenges are set out in this chapter. Their inclusion here is premised on two sets of considerations: (i) they comprise emerging conceptual accounts of learning and make potential contributions to enhancing understanding about learning through work; and (ii) they represent emerging procedural issues associated with the potential of learning in circumstances of work.

In the following sections, emerging ideas about human cognition, learning and development are introduced and considered as means to advance understanding of the process of learning through work. This account is selective and partial, and is intended to provide an update of how the processes of learning in and through work are currently informed. Then, some considerations of the emerging

procedural issues that may assist realisation of the full potential of learning through work are advanced, including those focused on redressing limitations.

CONCEPTUAL EMERGENCE

Three emerging areas of conceptual concerns associated with human cognition, learning and development are presented here because of their direct pertinence to understanding further learning for and through work. These are: (i) changes in the requirements of work, (ii) conceptual understandings about the processes of learning, and (iii) more elaborated views about the relations between the social and personal factors. These three concerns are discussed here in relation to emerging understandings from informing disciplines.

Changes in the Requirements of Work

Firstly, as the scope of the purposes for learning through working increases and the factors shaping that learning multiply and become more complex, there is a need to go beyond existing understandings about realising those requirements. For instance, there is a growing reliance upon symbolic and abstracted knowledge (i.e. that which cannot be seen or experienced directly and has to be represented in some way to be utilised) in many occupations and contemporary forms of work, as well as the growing number of work-related factors associated with the introduction of technology and the means of working together (Billett, 2006). Then, there are requirements associated with electronically mediated forms of work; computer use, for example, requires access to understandings and ways of knowing and working that are quite distinct from mechanical processes (Martin & Scribner, 1991; Lewis, 2005, 2011). Hence, we need to know how these forms of knowledge are made accessible and understood, ways to make these more accessible for learning and how to monitor these forms of knowledge. This point was made some time ago by Scribner (1985, p. 138) when she suggested that:

> … new cultural means are being elaborated at an accelerating rate in industrialised nations. Hardly have we approached the problem of understanding the intellectual impact of the printing press, than we are urged to confront the psychological implications of computerisation.

These words seem quite prescient, given that the conduct of so much paid work is now mediated by electronic technology in occupations within health care (Cook-Gumperez & Hanna, 1997), transport (Mavin & Murray, 2010; Lewis, 2011), administrative work (Bresnahan, Brynjolsson, & Hitt, 2002; Cavanagh, 2008), and technical work (Whalley & Barley, 1997), for example. These changes extend to the conduct of work as well as the technical nature of work itself. For instance, the range of factors which now constitute effective work is likely to be broadened, and the need for adherence to occupational standards and mandated workplace requirements is expected to grow. Whether referring to the levels of hygiene now required in food processing, food service, health care and hotel settings, or for the

levels of care mandated to be extended towards clients, patients and customers, many of the ways in which work is undertaken demand a level of understanding and the effective operation of procedures that are quite distinct from earlier times. Within all this, of course, is the ongoing change in work requirements that appears ubiquitous and applicable to most forms of work. Reliance on canonical occupational knowledge is now unlikely to be sufficient for a lifetime of employment, because what constitutes the canons of the occupation is constantly changing (Dymock, Billett, Martin, & Johnson, 2009).

This range of changes raises particular issues for learning through practice. Perhaps the most common forms of learning through work are observation, memesis (i.e. imitation) and practice (Marchand, 2008). However, it is not clear how much these processes will suffice to address the changing needs of contemporary workplaces. Each of these processes, while occurring in the workplace, is premised upon the efforts and capacities of individuals as observers, imitators and initiators engaged in practice. Yet such personal efforts may be insufficient to access knowledge that is opaque and hidden from view and sensation. Moreover, learning includes tacit knowledge which is best acquired through engagement and practice because it becomes almost implicit in its use, as is the case for the kinds of haptic qualities that are important for craft work as well for work where individuals manipulate materials, bodies or other physical entities usually with their hands. It also includes acquisition of explicit procedural and conceptual knowledge from within the workplace, and from sources that are not necessarily made explicit or structured because the traditional processes of teaching, training and learning are not present at or applicable for worksites. That is, certain knowledge is hidden (i.e. force, vectors, physiology) and not readily accessible to participants, and therefore cannot be engaged with and learned about. It becomes important, then, to evaluate human processes of learning through practice (i.e. observation and memesis) that have been effective for many millennia, in consideration of emerging changes in requirements of work.

Of course, previous generations of workers have also learned through practice and found ways of developing conceptual capacities and engaging with processes that are in some ways remote from them. For instance, simple artefacts such as stones and flotsam on the beach were used to help Micronesian fishers learn to recognise star patterns and their positioning in the night sky (Pelissier, 1991; Hutchins & Palen, 1997). Yet questions remain about the degree to which current generations of workers will be able to secure these difficult-to-access forms of knowledge through individual effort in their workplaces, or whether, like the Micronesian fishermen, they will need access to experts, guides or instructional resources of some kind to bridge and allow more ready access to this knowledge. So we need to understand more about the kinds of workplace pedagogic practices that can facilitate access to and learning of workplace knowledge which is not explicit.

Conceptual Understandings about the Processes of Learning

Secondly, much current understanding about learning through work is premised on theoretical accounts of social practices and settings, which, although helpful, are insufficient to inform the process of learning in the circumstances of work. As illustrated above, contributions from anthropology and social constructivism have done much to assist understandings about social practices, and the historical, cultural and social genesis of the knowledge required for effectively practising an occupation. These theories, moreover, have also offered accounts of how more informed social partners (i.e. experts) can assist the development of individuals' knowledge, such as the suggestion that joint problem-solving with a more experienced partner can extend the scope of individuals' learning (Rogoff, 1995). That is, collaborative action and demonstration of how more experienced workers conceptualise, appraise and then respond to particular tasks can make the knowledge accessible to less experienced workers in ways that they might not learn independently. This concept was most famously presented as the Zone of Proximal Development and is usually attributed to Vygotsky by the likes of Cole (1985). It refers to the extent that the potential (i.e. scope) of individuals' learning can be extended by guidance from a more expert counterpart (i.e. proximal (i.e. close) guidance) (Cole, 1985). Yet, beyond the provision of models and support for workplace performance, it remains unclear how such shared learning processes can best occur, what makes that sharing effective, and what are the limits of their effectiveness. Increasingly, the active roles of learners and experts are emphasised by theorists, and Vygotskian accounts even suggest that the scope of the potential learning is as much about learners' agency as it is a reliance on more expert counterparts (Valsiner & van der Veer, 2000). Hence, opportunities to engage with more experienced workers form only one element of this learning process. The other is the degree to which workers are interested in, motivated by and intentionally learn through these engagements.

Certainly, the agency of learners has been shown to be able to redress limitations in the affordances (i.e. opportunities for participation, access to support and guidance) of workplace settings, sometimes out of necessity (Smith, 2004; Billett, 2009). That is, learners may be driven and motivated to learn, as was found with small business operators who needed to understand how to administer the goods and service tax (Billett, Ehrich, & Hernon-Tinning, 2003). Similarly, many workers report the importance of engaging in authentic work activities as a means of securing the knowledge required for that performance, but to understand why such experiences are perceived to be so effective, and why activities in non-authentic environments are considered less helpful, we need to draw from other fields of study. Given the enduring shortage of authentic workplace experiences for tertiary students to access, this raises questions about how substitute environments can best be organised, structured and represented for engagement by learners. It becomes important, then, to elaborate on the learning potential of these authentic practice-based experiences and understand more fully how they can be realised through other means. For instance, contemporary anthropological accounts

emphasise the embodiment of knowledge as arising through practice in ways that has implications for learning through work (Harris, 2007; Marchand, 2008). These accounts emphasise nonpropositional requirements for both workplace performance and also processes of learning at and through work, and the role of visual, auditory and somatic information as means of acting and learning. Importantly, much of what these anthropologists propose as bases for both learning and doing as being non-declarative is quite inconsistent with the kinds of premises upon which educational programs are enacted. For instance, much of the process of teaching is through interactions between teachers and students that are often premised upon declarative knowledge (i.e. statable facts, propositions and concept) as is the assessment of school learnt knowledge, which suits their institutional practices and purposes. This finding was noted much earlier by Lave (1990) in her classic studies of learning through apprenticeship in which she noted little in the way of direct teaching occurring. Instead, just as with Marchand's (2008) account of learning within minaret building, much of the learning progressed on the basis of learners being active in their engagement and utilising the experiences provided for them in the work setting. It is far more a learning, than a teaching process. Part of that engagement is premised upon how novices come to know ways to engage with others. Investigations of developmental procedures between conspecifics (i.e. same species) have found that the learning process is not only active, but it is premised on learners realising that those from whom they learn have intentionality and particular bases for progressing when electing how they need to engage with others to learn from them (Tomasello, 2004). Hence, as Tomasello (p. 52) proposes, the realisation that the other:

> … like oneself is crucial in human learning, most importantly because artefacts and practices – exemplified prototypically by the use of tools and linguistic symbols – invariably point beyond themselves to the phenomena for which they have been designed.

Through understanding of others' intentionality, the idea arises that a key basis of learning with others is what is referred to as ontogenetic ritualisation – a process whereby two individuals devise a mode of engagement and communication through repeated instances of social interaction. This concept is likely to be helpful for understanding the processes that co-workers use when working together and through which they might develop intersubjectivity (i.e. shared understanding), which is essential when individuals are working together to achieve shared work goals. This kind of consideration of active learning which goes beyond merely being proactive, and understanding how to engage with interlocutors seems central to learning through work and in workplaces. Thus, not only has anthropology offered initial understandings that shaped consideration of learning through work, but as a discipline it continues to inform this process. Consideration of active learners at work includes their need to understand and engage in ontogenetic ritualisation as a process whereby effective engagement in work-related learning can occur. Moreover, in considering the recent contributions from anthropology, it is not surprising perhaps that the work of Filliettaz, de Saint-Georges and Duc

(2010), which capture workplace interactions through images and dialogues, is so pertinent to understanding the totality of the personal and social environment in which workplace learning arises.

Thus, even foundational concepts can be strengthened through reaching out to other disciplines. Recent developments within cognitive science, for instance, provide potentially helpful concepts that illuminate why engaging in work activities within authentic practice settings appears to contribute richly to individuals' learning. These developments suggest that human cognition is premised upon a multimodal form of engagement and processing comprising perception (e.g. vision, audition), action (e.g. movement, proprioception), and introspection (e.g. mental state, affect) (Barsalou, 2008), a view that appears to be potentially richly explanatory. Such a view overturns the idea that human cognition is based upon an amodal view of semantic memory separate from the brain's modal system. Barsalou claims that in many existing psychological theories, representations in modal systems are transformed into amodal symbols that represent knowledge about experience in semantic memory. Yet, recent findings from neuroscience suggest that this is not the case. Instead, cognitive processes and acts, even seemingly abstracted and dis-embedded ones, engage a range of human cognitive processes together in a multimodal way (Barsalou, 2009). This suggests that rather than experience being narrowly codified into propositional amodal semantic systems, that experience is engaged with in a multimodal way with dimensions of perception, action and introspection (Barsalou, 2008). Through these various forms, the process of simulation occurs, comprising "a re-enactment of perceptual, motor, and introspective states acquired during experience with the world, body and mind" (p. 618). The potential importance of this account is that it reifies and extends the significance and scope of what constitutes experience as a form of cognition realised through multimodal and connected ways, rather than as a reductive and amodal process. This account may well explain why workers consistently report the importance of engaging in authentic work activities and in the circumstances of those practices (Billett, 1994, 2001). That is, the multimodal ways in which cognition arises and the semantic memory it supports utilise more than just the task undertaken and the circumstances in which it is undertaken, its purposes and its progression as a basis for cognition, learning and engagement. This kind of account may also help to explain the difficulties that individuals encounter when they attempt to transfer knowledge learned in one situation (e.g. school, college or university) to others (e.g. current and future workplaces), because embeddedness in a particular circumstance is multimodal. Importantly, these developments suggest that although explanations of learning through work need to account for the mediating contributions of the workplace, they also need to accommodate the many individual-specific constructed bases for simulation or cognitive experience. A broader understanding of these contributions to human cognition through both sensory means and ways of knowing is now likely to assist learning through work and in other settings, and may also explain current understandings about the adaptability or transfer of knowledge might be so limited.

In considering casting conceptual engagement more widely to understand the task of learning through work, Gardner (2004) makes a general point about promoting the understanding of learning. Referring to the continual changes and dilemmas that individuals must deal with in contemporary times, he also urges theorists to embrace the contributions of other disciplines:

> Little in our science of learning addresses issues of this scale; our cultural, historical and literary sciences do not make much contact with our scientific approaches; an interdisciplinary span across these broad disciplinary traits still eludes us. (Gardner, 2004, p. 11)

Although those whose starting point is the social world and its contributions may be reticent to engage with disciplines such as neuroscience that seem remote from their starting point, such engagement is now probably warranted. Others have taken this path earlier and found the journey helpful (Lakoff & Johnson, 1999). It might well be worthwhile for those investigating learning through work to take similar paths, because the project of understanding learning through work and across the working life is far too big to be dealt with by one explanatory set of concepts and theory, except in the most abstract of ways. Instead, it is likely that we need to draw upon a range of disciplines to advance these understandings. Moreover, an understanding of these emerging contributions is likely to be important because it is often the relationships among humans and the physical and social world beyond them that are at the heart of understanding human cognition, including learning and adaptability.

Elaborated Views about the Relations between the Social and Personal

Thirdly, it is important to understand further the relationships between the personal and social contributions to learning through and for work. Learning is a process in which individuals engage, not social institutions or practices. However, the mediating factors of situation, society and culture are central to understanding, learning and advancing the knowledge required for work. In essence, human learning is about cultural learning (Tomasello, 2004). Two emergent terms may be helpful in increasing understanding of these relations: practice of communities (Gherardi, 2009) and bounded agency (Shanahan & Hood, 2000). The concept of the "practice of community" is advanced by Gherardi as a means to place a focus upon and describe the actual practices of a working community. From her perspective as a sociologist it is important to understand the source and the enactment of these practices and to understand how people participate in a particular workplace setting and therefore learn. This account seems helpful as it emphasises the circumstance of practice (Jordan, 2011) as a site where the enactment of occupational activities and the learning co-occur. Many accounts view the activities and interactions that constitute a particular setting as central to understanding how learning is afforded and engaged in by individuals (Billett, 2010). Thus focus on the actual practices of learning is central to advancing that understanding, and is consistent with the kinds of ideas that have been promoted

about the array, authenticity and richness of experiences which need to be engaged with cognitively through multimodal means. Yet such means emphasise mediation: that which shapes the nature of learning in terms of both the mediating artefacts and practices and the process of mediation in which individuals engage. Learning and the ongoing development of competence are shaped through integration of these cognitive and social dimensions (Tynjala, 2008) and characterised by contextualised reasoning (Resnick, 1987), with the use of skills and principles to develop situation-specific responses. Moreover, in contemporary times, learning how-to-learn and transfer this learning into new situations is imperative, because the boundaries between manual and mental work are becoming less demarcated.

The concept of "bounded agency" also seems helpful for understanding on what bases individuals engage with, negotiate and learn through workplaces, in terms of a duality between the boundaries around what they are able to do, and how they exercise agency in engaging with those boundaries. That is, within what constitutes the accepted practice of a workplace and its constraints (e.g. its normative practices and work demarcations) individuals can exercise their agency by degree. These may play out differently across worksites and contexts and may be heavily influenced by sociocultural environments with tight boundaries. This circumstance suggests that individual agency is not without parameters or boundaries and that exceeding them could threaten work activities and their effective and safe enactment, or could lead to problems for workers and the workplace (e.g. if workers undertake tasks that are beyond their competence).

Inevitably, there are boundaries with work tasks, organisation of work and interactions that shape the nature of contemporary work practices, which in turn constrain the processes of learning about them. These boundaries may be set by others (e.g. owners, managers, unions), more experienced workers or regulations governing the conduct of the particular occupation. However, the process of boundary violation and shifting is an inevitable part of the processes of worker-learners' engagement and development. In particular, they exercise agency within both the boundaries created by others and also through transcending and extending those boundaries. As work and learning co-occur, this process of working within and extending boundaries is helpful for understanding the constrained and inherently contested nature of learning through work. Then, the question arises as to how those boundaries are extended as individuals become more knowledgeable, and how contested workspaces restrict others by creating boundaries to constrain and limit the trajectories and contributions of those perceived as threats or rivals. As more experienced co-workers can facilitate access to learning processes that are constrained by boundaries, all workers (novice and experts) need to engage in pedagogic practices that encourage sharing of experiences (Fuller & Unwin, 2002). Broader interactions offer propitious circumstances for expanding and extending ideas, which lead to innovative activities valued in the workplace. Although the concept of bounded agency is not yet fully elaborated, it reminds us that boundaries and socially organised spaces in tasks such as work exist often for good and legitimate purposes (e.g. the scope of occupational expertise), and they constrain or support the learning opportunities and experiences of those so bounded

in particular ways. Yet, at the same time, the nature of learning and development is about expanding boundaries and transforming practices and overcoming the constraints. Furthermore, crossing boundaries by participating in networks allows one to exchange, transform and create knowledge as well as integrate from different organisations and fields of study (Tynjala, 2008), thereby surpassing individual perspectives or boundaries. In this way, bounded agency seems a useful emerging concept to understand factors that shape and negotiate learning in and through work, although its contribution is yet to fully inform and contribute to improved understandings about workplace learning. The key consideration of its use here is to offer a way of understanding how individuals participate in and learn through engagement in such social practices. Through dissecting what constitutes agency in both its social and personal forms, and how this shapes their learning in terms of the construction, enactment and negotiation of the boundaries at work can be more fully understood. It is these actions that shape and exercise agency required for effective work-life learning.

In all, the above emerging conceptual challenges and contributions offer bases for understanding the process of learning through and for work, often regardless of the kind of work that is undertaken. Yet this field demands that we also look for emerging procedural contributions, that is, how the processes of learning through and for work can be enhanced. Indeed, much of the initial preparation for occupations appears to be inadequate so learning across working life is now a necessity because of lengthening working lives, the constant changes that are occurring in work, and the consequent requirements for effective work practice.

PROCEDURAL CHALLENGES

As noted, the circumstances of work practice are increasingly being used to support the initial learning of an occupation and also support individuals sustain their employability across their working lives. Yet key procedural challenges are emerging that need to be understood more fully and addressed through pedagogic, curriculum and personal initiatives.

Improving Learning for an Occupation

The initial preparation programs for many occupations, including through apprenticeships, are experiencing high levels of non-completion, often because workplace experiences are unsatisfactory or too confronting, and lacking appropriate and adequate support (Stalder & Nägele, 2008). Moreover, programs previously wholly based within education institutions are now engaging students in practice-based experiences to learn about and in some cases develop capacities for the requirements of their selected occupation. It is clear, however, that on their own, the provision of experiences for students in practice settings (e.g. placements, practicums etc.) may not achieve the goals intended by such initiatives (Billett, 2011). These goals are usually associated with realising a smooth transition to effective practice. Yet, unless students can secure a combination of experiences

and the opportunity to integrate them and learn effectively from them, these goals and expectations may not be met. The point here is that there is a need for both curriculum and pedagogic interventions to make the experiences effective. This consideration applies equally to existing workers. Two kinds of procedural response are required. The first is a more structured approach to managing learners (e.g. apprentices) and their experiences in workplace practice settings. The second is associated with attempts to enrich the quality of experiences within workplaces themselves. As these responses are focused on different groups of actors (educators on the one hand and workplace personnel on the other) they are dealt with separately here.

Firstly, to maximise the quality of learner engagement and, therefore, learning in the workplace and to assist the overall development of the capacities required for effective working lives, there is a need to support that learning before, during, and after the learners have practice-based experiences (Billett, 2011). In this section we advance some suggestions for what might happen before and after learners engage in practice settings. The subsequent section addresses experiences within practice or workplace settings.

It seems that for both vocational and higher educational purposes students and apprentices need preparation to be effective learners through workplace experience in terms of their capacities, awareness of expectations and also to be active and engaged learners in those settings. From a study of 20 work-based learning projects across six universities (Billett, 2011), the following were identified as important prior activities for those who are to learn in workplaces. Firstly, there is a need to orient students to requirements for effectively engaging in workplaces; they must be aware of expectations of them, what they are to learn and the means by which they are to learn. Many students may be understandably unaware of the occupational and workplace requirements. Explaining these requirements can help them to establish parameters for their engagement and learning. Secondly, students need the capacities to undertake activities that might be expected of them in workplace settings. It is important, therefore, to develop the kinds of capacities they will require to engage effectively in the practice settings. Hence, for instance, if journalism or nursing students are expected to perform particular procedures during their work placements, these skills should be developed prior to placement. Thirdly, it is important to clarify expectations about purposes of practice settings, support therein, and responsibilities of parties involved. Students need to be informed about activities in which they may and may not engage, and the ways in which they can expect to interact with others. For instance, if students believe they are not competent to engage in a particular activity they should be aware of their rights and have ways of declining a request that does not jeopardise their or the workplaces practices. Fourthly, it is important for students to be aware of the purposes, roles and expectations of different parties with whom they will engage. This includes expectations they might have of the workplace and workplace practitioners, their teachers, and any facilitating agents (e.g. clinical supervisors). This awareness can help students to avoid unreasonable expectations and demands, and can also help them make informed choices about with whom they engage.

Fifthly, students (and most other learners) largely need to be independent or interdependent learners in the workplace. Hence, it is important for them to understand their roles and responsibilities in supporting their learning and how they can act to learn. In all, they need to be prepared to engage in these settings as agentic learners, because the knowledge they need to access is distributed across the worksite and among workers. They should also understand the importance of observations, engagement and interactions as contributing to their learning. Sixthly and finally, some students will encounter unpleasant, confronting and unhelpful experiences. Therefore, students need to be prepared for contestations and other concerns that might arise in the workplace, for their own wellbeing and sense of self, and to assist them learn effectively. For instance, if individuals in workplaces challenge the worth of what they know (e.g. forget everything that they have learned in university or college), students need to be able to respond appropriately and critically. This is not to suggest that such a view is right or wrong, but that students need the capacity to critically appraise the contributions of both the workplace and the educational institution, and to make judgments about how these contributions inform their learning. Here, close partnerships between the educational institution and the workplace may facilitate the kinds of understanding and intersubjectivity that can assist in realising shared outcomes, reflective competence and boundary crossing (Guile & Griffiths, 2001). Although these concerns refer to students, they also have relevance for workers who are new in a workplace or in a different part of the same organisation.

Similarly, after students have had their workplace experiences it is important to engage them in consideration of those experiences, how they relate to what others have experienced and how the totality of these experiences aligns with their educational program. In particular, when students have completed practicum experiences it is important, firstly, to provide opportunities for effectively sharing and integrating the contribution of those settings. This might be achieved in meetings, forums or symposia where students can engage with those who teach them and their peers. Secondly, these activities can be used to both articulate and share experiences and outcomes with students across a cohort. Given that students will likely have had experiences in different work settings and have experienced distinct forms of occupational practice, it is important for them to be aware of something of the scope of activities which comprise their selected occupation. Moreover, these processes can help students to evaluate the quality of their experience and their learning, through considering not only their own but also others' experiences. Thirdly, it will probably be important for educators to intervene in order to assist students to make explicit links and reconciliations between what is taught (learned) in the educational setting and what is experienced in practice settings. A common reaction is for students to claim that their learning only really began when they engaged in the workplace setting. Yet, to inform their practice more fully, they may need to be advised that the basis upon which they have come to engage and know is premised upon the knowledge that has been acquired through educational programs which, more importantly, have provided them with the foundations upon which their decisions need to be based within their

occupational practice. It is quite likely that these foundations will need to be made explicit. Fourthly, it may well be necessary to re-emphasise the importance of active and selective qualities of students' learning through practice. Again, the concern here is that emphasis on learning is central not only to their initial preparation for their selected occupation but also as a habit that can assist their learning across working lives. Fifthly, and finally, it is important to either generate or manage effectively students' critical perspectives on work and learning processes. Rather than accepting what is taught in educational institutions or learnt through practice settings, a productive and critical stance in students as learners is likely to be helpful.

Sustaining Learning for Employability and Working Life

A clear distinction between education and workplace settings is that learning and experiences that promote learning are not the explicit goals of workplaces. Workers may technically be learning on a daily basis because participation and learning are central to work, but their conceptions of learning often do not acknowledge the informal nature of learning in the workplace. However, learning through everyday practice alone is insufficient to maintain currency of knowledge and expertise. Slotte, Tynjala, and Hytonen (2008) offer three explanations for this. First, this kind of learning involves efforts that are not necessarily conscious; it generates tacit knowledge and may result in learning undesirable attributes and practices. Second, rapid generation of new knowledge in a field cannot be achieved through this kind of learning alone. Third, "formal education and planned learning situations make it possible to exploit everyday learning effectively, turn tacit knowledge into explicit knowledge and integrate conceptual knowledge and practical experience, which is the foundation for the development of expertise" (Tynjala, 2008, p. 140). Consequently, a key concern is to identify curriculum and pedagogic practices that are sustainable for workplaces to support learning for both novices and experienced workers. That sustainability extends to learning that can occur as part of everyday work activity, and not come at a cost to the delivery of services or products. However, much of what has been proposed within views about learning through and for work is consistent with these kinds of workplace constraints. That is, the activities need to be undertaken within a context of authentic practice which enriches and assists the learning of the capacities required for work. Moreover, as occupations are increasingly understood to be shaped by the requirements of the particular workplace setting and the kinds of service and production goals it achieves, the securing of situational goals emerges as an essential and worthwhile focus for learning. Yes, it is important that individuals learn the canonical knowledge of the occupation, and also they develop understandings about how the canonical practices, concepts and dispositions are enacted in different workplace settings. The curriculum task, then, is to identify the sequencing and organisation of learning experiences that are suited to the development of occupational practice, including its situational variations. Here, concepts from anthropology about the learning curriculum appear to be

particularly helpful. Moreover, it is important to identify sustainable pedagogic practices that are appropriate for (i) work-intensive environments, (ii) developing understanding through everyday practice, and (iii) engaging in simulations, when authentic activities are unavailable or difficult to access. These are the kinds of circumstances within which work is undertaken and learning needs to occur in workplace settings. Some research indicates that guided learning at work is one way of achieving these kinds of outcomes. An example is the use, by more experienced workers, of strategies that develop procedural (i.e. demonstrating, modelling, coaching), conceptual (i.e. questioning, explaining, analogies) and dispositional (i.e. modelling, coaching, practice) learning through engagement with those with whom they work. Yet the scope of pedagogic activities needs to go beyond practices that resemble teacherly activities. It is important to identify particular workplace activities with rich learning potential. For example, in healthcare patient discussions, and, in particular, handovers offer rich learning experiences.

The types of learning that worker-learners engage in are structured by the requirements of work, and therefore demand more than the processes and approaches familiar to academic learning. The skills that are useful for activities in educational settings are less applicable to sustain learning for employability and working life so that learning remains a journey, not a destination. Tennant (2000) lists a set of skills for this type of learning:

- skills in analysing work experiences
- learning from others
- functioning with incomplete information
- contemplating multiple courses of action to decide on the most appropriate action at a given moment
- learning about organisational cultures and subcultures
- expanding learning opportunities by using a range of resources and activities
- understanding various competing interests in the profession.

These skills symbolise the "situatedness" of learners, the context in which learning takes place and engagement in communities of practice (Lave & Wenger, 1991) or, as Gherardi (2009) prefers, the practice of community.

In summary, current conceptual and procedural understandings of learning in the workplace, informed by fields of cognitive science, learning and development constrain further enhancements to learning in the workplace. It is now realised that learning in the workplace is multimodal and complex, considering the sociocultural nature and boundaries that influence learning in many ways. Therefore, it is imperative that we extend the bounds of current disciplines and reach out to different disciplines such as anthropology and sociology to broaden our understandings about the potential of the workplace as a learning environment for novice as well as experienced workers. This will assist those responsible for organising learning in the workplace to prepare and facilitate the types of learning

to initiate and accommodate transformations in work practices and changing performance requirements.

REFERENCES

Barsalou, L. W. (2008). Grounded cognition. *Annual Review of Psychology*, *59*, 617-645.

Barsalou, L. W. (2009). Simulation, situated conceptualisation, and prediction. *Philosophical Transcactions of the Royal Society of London: Biological Sciences*, *364*, 1281-1289.

Billett, S. (1994). Authenticity in workplace learning settings. In J. Stevenson (Ed.), *Cognition at work: The development of vocational expertise* (pp. 36-75). Adelaide, S.A.: National Centre for Vocational Education Research.

Billett, S. (2001). *Learning in the workplace: Strategies for effective practice*. Crows Nest, NSW: Allen & Unwin.

Billett, S. (2006). *Work, change and workers*. Dordrecht: Springer.

Billett, S. (2009). Personal epistemologies, work and learning. *Educational Research Review*, *4*, 210-219.

Billett, S. (2010). The practices of learning through occupations. In S. Billett (Ed.), *Learning through practice: Models, traditions, orientations and approaches* (Vol. 1, pp. 59-81). Dodrecht: Springer.

Billett, S. (2011). *Curriculum and pedagogic bases for effectively integrating practice-based experiences*. Sydney: Australian Learning and Teaching Council.

Billett, S., Ehrich, L., & Hernon-Tinning, B. (2003). Small business pedagogic practices. *Journal of Vocational Education and Training*, *55*(2), 149-167.

Bresnahan, T.F., Brynjolsson, E., & Hitt, L. (2002). Information technology, workplace organisation and the demand for labor: Firm-level evidence. *Quarterly Journal of Economics*, *117*(1), 339-376.

Cavanagh, J. (2008). Women auxiliary workers' learning and discovering 'self' through work. In S. Billett, C. Harties, & A. Eteläpelto (Eds.), *Emerging perspectives of learning through work* (pp. 67-82). Rotterdam, The Netherlands: Sense.

Cole, M. (1985). The zone of proximal development where culture and cognition create each other. In J. V. Wertsch (Ed.), *Culture, communication and cognition: Vygotskian perspectives* (pp. 146-161). Cambridge: Cambridge University Press.

Cook-Gumperez, J., & Hanna, K. (1997). Some recent issues of professional literacy and practice. In G. Hull (Ed.), *Changing work, changing workers: Critical perspectives on language, literacy and skills* (pp. 316-334). New York, NY: State University of New York Press.

Dymock, D., Billett, S., Martin, G., & Johnson, G. (2009). Retaining and sustaining the competence of older workers: An Australian perspective. Paper presented at conference: Lifelong learning revisited: What next? University of Stirling.

Filliettaz, L., de Saint-Georges, I., & Duc, B. (2010). Skiing, cheese fondue and swiss watches: Analogical discourse in vocational training interactions. *Vocations and Learning*, *3*(2), 117-140.

Fuller, A., & Unwin, L. (2002). Developing pedagogies for the workplace. In K. Evans, P. Hodkinson, & L. Unwin (Eds.), *Working to learn: Transforming workplace learning*. London: Kogan Page.

Gardner, H. (2004). What we do and don't know about learning. *Daedalus*, *133*(1), 5-12.

Gherardi, S. (2009). Community of pratice or practices of a community? In S. Armstrong & C. Fukami (Eds.), *The Sage handbook of management learning, education, and development* (pp. 514-530). London: Sage.

Guile, D., & Griffiths, T. (2001). Learning through work experience. *Journal of Education and Work, 14*(1), 113-131.

Harris, M. (Ed.). (2007). *Ways of knowing: New approaches in the anthropology of experience and learning*. New York: Berghahn Books.

Hutchins, E., & Palen, L. (1997). Constructing meaning from space, gesture and speech. In L. B. Resnick, C. Pontecorvo, & R. Saljo (Eds.), *Discourse, tools and reasoning: Essays on situated cognition* (pp. 23-40). Berlin: Springer.

Jordan, B. (2011). The double helix of learning: Knowledge transfer in traditional and techno-centric communities. Unpublished manuscript.

Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to Western thought*. New York: Basic Books.

Lave, J. (1990). The culture of acquisition and the practice of understanding. In J. W. Stigler, R. A. Shweder, & G. Herdt (Eds.), *Cultural psychology* (pp. 259-286). Cambridge University Press.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge: Cambridge University Press.

Lewis, J. (2005). *Driver competence – understanding hidden knowledge through guided learning.* Brisbane: Griffith University.

Lewis, J. (2011). *Dynamic integrated learning: Managing knowledge development in road transport.* Brisbane: Griffith University.

Marchand, T. H. J. (2008). Muscles, morals and mind: Craft apprenticeship and the formation of person. *British Journal of Education Studies*, *56*(3), 245-271.

Martin, L. M. W., & Scribner, S. (1991). Laboratory for cognitive studies of work: A case study of the intellectual implications of a new technology. *Teachers College Record*, *92*(4), 582-602.

Mavin, T. J., & Murray, P. S. (2010). The development of airline pilot skills through simulated practice. In S. Billett (Ed.), *Learning through practice: Models, traditions, orientations and approaches* (pp. 268-286). Dordrecht, The Netherlands: Springer.

Pelissier, C. (1991). The anthropology of teaching and learning. *Annual Review of Anthropology*, *20*, 75-95.

Resnick, L. (1987). Learning in school and out. *Educational Researcher*, *16*(9), 13-20.

Rogoff, B. (1995). Observing sociocultural activity on three planes: Participatory appropriation, guided participation, apprenticeship. In J.W. Wertsch, A. Alvarez, & P. del Rio (Eds.), *Sociocultural studies of mind* (pp. 139-164). Cambridge: Cambridge University Press.

Scribner, S. (1985). Knowledge at work. *Anthropology and Education Quarterly*, *16*, 199-206.

Shanahan, M. J., & Hood, K. E. (2000). Adolescents in changing social structures: Bounded agency in life course perspective. In L.J. Crockett & R.K. Silbereisen (Eds.), *Negotiating adolescence in times of social change* (pp. 123-136). Cambridge: Cambridge University Press.

Slotte, V., Tynjala, P., & Hytonen, T. (2008). How do HRD practitioners describe learning at work? *Human Resource Development International*, *7*(4), 481-499.

Smith, R. J. (2004). Necessity in action: The epistemological agency of the new employee. Unpublished Master of Education thesis. Brisbane: Griffith University.

Stalder, B. E., & Nägele, C. (2008). *Vocational education and training in Switzerland: Organisation, development and challenges for the future*. Brisbane: Griffith Institute of Educational Research.

Tennant, M. (2000). Learning to work, working to learning: Theories of situational education. In C. Symes & J. McIntyre (Eds.), *Working knowledge: The new vocationalism and higher education*. Ballmoor, England: The Society for Research into Higher Education.

Tomasello, M. (2004). Learning through others. *Daedalus*, *133*(1), 51-58.

Tynjala, P. (2008). Perspectives into learning in the workplace. *Education Research Review*, *3*, 130-154.

Valsiner, J., & van der Veer, R. (2000). *The social mind: The construction of an idea*. Cambridge: Cambridge University Press.

Whalley, P., & Barley, S. R. (1997). Technical work in the division of labor: Stalking the wily anomaly. In S. R. Barley & J. E. Orr (Eds.), *Between craft and science: Technical work in U.S. settings* (pp. 24-52). Ithaca, NY: Cornell University Press.

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MAGGIE HUTCHINGS AND STEPHEN LOFTUS

12. PRACTICE-BASED EDUCATION OUTSIDE THE WORKPLACE

Simulations, Role Plays and Problem-Based Learning

Practice-based education (PBE) prepares and develops learners for professional practice. It is usually associated with situated workplace learning undertaken in placements but also includes practice-based learning, facilitated through strategies including simulations, role plays and case-based learning, which can take place outside the workplace. Hence we argue that PBE is not synonymous with workplace learning. PBE strategies outside the workplace offer students opportunities to engage actively, holistically and collaboratively in a variety of immersive experiences mirroring the kinds of encounters they will experience in their professional practice. PBE strategies are situated within the broader domain of experiential learning theory (Dewey, 1933; Kolb, 1984; Jarvis, Holford, & Griffin, 2003) and contrast with teaching approaches that are more "conventional" content-driven, and propositional-technical knowledge focused. For example, one particularly popular form of case-based learning, problem-based learning (PBL), was introduced in medical education in response to student and staff dissatisfaction with conventional didactic teaching approaches (Barrows & Tamblyn, 1980). More recently, simulations have become an important aspect of clinical education. They can be a complement to workplace learning by providing opportunities for practice in structured, safe and supportive learning environments (Bligh & Bleakley, 2006; Ricketts, 2011).

PBE strategies can have individual, educational, professional and social level implications, and can challenge learner and teacher conceptions and identities. Learners can be challenged by the concept of knowledge as contingent and contestable and the possibility of different ways of knowing (Eraut, 1994; Savin-Baden, 2000). Teachers' conceptions of learning and teaching can be challenged when they act as facilitators supporting learning rather than knowledge experts stepping in to lecture or give ready answers to students (Prosser & Trigwell, 1999). PBE strategies can risk failure in a conventional curriculum unless there is constructive alignment and integration of these learning activities with intended learning outcomes and assessment strategies (Biggs & Tang, 2007). Professional body requirements can challenge the nature of learning by stipulating competencies necessary to fulfil criteria for fitness to practise, skewing the curriculum towards a narrow skills-based training. Higher education institutions offering a conventional curriculum can miss opportunities for developing the practical-experiential

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 161-174.

knowledge which is grounded in a process over product curriculum more typical of PBE (Eraut, 1994; Knight, 2001).

These issues raise questions such as: What is PBE outside the workplace? Why do it? What is the value of PBE for facilitating the learning journey of our students towards employability, lifelong learning, and preparing for a world of supercomplexity, risk and uncertainty? (Barnett, 1999). In this chapter we examine PBE outside the workplace, drawing on theoretical and practical perspectives to identify its essential features and to assess its benefits and challenges. The aim is to inform critical assessment of its role outside the workplace, to highlight the value of its contribution in preparing students for professional practice and, in so doing, to help frame and draw some insights into relationships between theory and practice.

THE TERRITORY AND PEDAGOGY OF PRACTICE-BASED EDUCATION

PBE strategies are grounded in the experiential learning tradition which encompasses PBL (Barrows & Tamblyn, 1980) and transformative learning (Mezirow, 1978). Other writers also use "experience" as a starting point for learning, including Schön on the reflective practitioner (1983, 1987) and Lave and Wenger on situated learning (1991). Experiential learning opportunities outside the workplace are designed to provide experiences in the form of simulations, role plays and problematic cases as triggers for learning. PBE strategies offer a wide spectrum of possibilities, from learning technical skills, such as giving an injection or restoring a tooth, to non-technical skills like clinical reasoning and decision making, communication, team-working and leadership, facilitated in ward scenarios or intensive care simulations (Alinier, Hunt, & Gordon, 2004; Pearson & McLafferty, 2011). The resources deployed can encompass real patients, actors, online simulations and fully interactive patient simulators; hence perceptions of what is constituted by PBE strategies can be very divergent.

One of the key challenges for implementing PBE strategies outside the workplace is the degree of "realism" that it is possible to achieve. Alinier et al. (2004, p. 201) stressed that "the environment and atmosphere created have to be equivalent to reality to help students suspend disbelief and act as themselves" in simulations. This issue is becoming more prominent with moves by professional and regulatory bodies, such as the UK Nursing and Midwifery Council (NMC) and the American National Council of State Boards of Nursing, to allow clinical skills time outside the workplace to supplement and count towards the required number of practice hours for accrediting fitness to practice (NMC, 2010; Ricketts, 2011). The NMC (2010, p. 9) standard specifies up to 300 hours of practice learning to be undertaken through simulation, "allowing the student to learn or practise skills in a safe situation that imitates reality." These policy directives support increased use of simulation for practice learning and have considerable resourcing implications if investment in "realism" is directed to very costly high-fidelity patient simulators. But Bligh and Bleakley (2006) have recommended caution in wholesale adoption of medium- to high-fidelity technology-enabled simulation, recognising the

seductiveness of technology and its operation in a theoretical vacuum without the pedagogy and social interactions that are also needed.

The question of realism is not just about the environment but also about being able to engage students holistically in the learning experience, whether performing as a novice practitioner or student learner. Kolb's (1984) experiential learning model has been criticised by Jarvis et al. (2003) as an over-simplification of real life, implying that experience is purely cognitive, omitting the physical and the emotional and failing to recognise the influence of past experience; Jarvis' own model is more complex, including previous life experiences that are different from episodic experiences. The latter can be designed by teachers for learners to experience (Jarvis et al., 2003). Notwithstanding the need for further research and evaluation into the efficacy and cost-effectiveness of high-fidelity simulations, these particular PBE strategies provide safe environments where risks can be taken and mistakes can be made, and this alone is a powerful incentive for embedding them in the curriculum.

Dewey (1933, p. 12) proposed that experiential learning is triggered by "a state of doubt, hesitation, perplexity, in which thinking originates" and is the catalyst for learning, where it leads to "an act of searching, hunting, inquiring to resolve the doubt, settle and dispose of the perplexity." Experiential learning offers a means of understanding what PBE strategies are trying to facilitate. Dewey's reflective practice mirrors Aristotle's concept of *praxis* defined as informed action involving a dialectical relationship between thought and action guided by *phronesis*, or practical wisdom, a moral disposition to act truly and justly (Carr & Kemmis, 1986). It is these essential features for learning that PBE strategies are designed to accomplish and, if we accept the argument of Jarvis et al. (2003) that every experience is "real," even though it may be indirect or mediated, this opens many possibilities for creative and innovative approaches to PBE outside the workplace.

Herrington, Reeves, Oliver, and Woo (2004, pp. 11-13) argued that authentic activities are not constrained to learning in real-life practice and can be designed to provide learning benefits in both face-to-face and online learning environments if they encompass key pedagogical design features, including:

- Ill-defined, complex tasks with real-world relevance, requiring definition by students and opportunities for examination from different perspectives over a sustained period of time
- Opportunities for collaboration and for reflection by students
- Integration with assessment, allowing for competing solutions and diversity of outcome.

In similar vein, Boud and Feletti (1997, p. 2) identified PBL characteristics to include:

- Stimulus material to help students discuss an important problem, question or issue
- Presenting the problem as a simulation of professional practice or a "real-life" situation

- Guiding students' critical thinking and providing limited resources to help them learn from defining and attempting to resolve the problem
- Having students work cooperatively as a group with access to a tutor for facilitating the group's learning process.

THE PURPOSE OF PRACTICE-BASED EDUCATION OUTSIDE THE WORKPLACE

PBE strategies outside the workplace must include a range of approaches. This is because such strategies aim to help students reach a level of "competence" in their profession that will enable them to graduate at the stage expected of graduates. Students would not be expected to reach an "expert" level at graduation. Expertise is a complex phenomenon. The kinds of knowledge and ways of knowing associated with professional practice are fundamental for understanding different approaches to PBE. What then distinguishes an expert practitioner from a novice? Eraut (1994) identified three different kinds of professional knowledge and ways of knowing: propositional knowledge derived from empirical enquiry; process or experiential knowledge associated with doing things and getting things done; and tacit knowledge which describes intuitive expertise developed through practice. Greenhalgh (2002), citing Dreyfus and Dreyfus (1986), described differences between practitioners at different stages of development, namely the novice practitioner, who adheres to the rules; the competent practitioner, able to contextualise the practice but still following standardised procedures; and the expert practitioner, who no longer relies on rules and has an intuitive grasp based on deep understanding. These descriptions challenge academics and professional and regulatory bodies to name and frame the means by which learners can aspire to the goal of demonstrably mastering the tacit knowledge or intuitive expertise forged through experience where evidence is reconciled with judgment.

If, for the sake of simplicity, we consider only professional technical and non-technical skills, then expertise can be seen not as a single skill but as a collection of skills (Kahneman, 2011). These skills need to be developed in different, apparently conflicting, ways. To illustrate this tension, we look now at the development of professional intuition and the development of critical reflection.

DEVELOPING PROFESSIONAL INTUITION

Intuition can be seen as a skill and defined, in Kahneman's (2011, p. 237) terms, as "nothing more and nothing less than recognition." The idea of intuition is sometimes imbued with a mysterious quality because those with intuition seem to know things without knowing how they know, but as Kahneman (p. 237) pointed out, we "do not know how we immediately know that a person we see as we enter a room is our friend Peter ... the mystery of knowing without knowing is not a distinctive feature of intuition; it is the norm of mental life." Practitioners need to develop the ability to make professional judgments which will be based, in large part, on this form of intuition, where they know by recognition without always being able immediately to say how they know. How then do we provide students

with the opportunities to develop such intuition? Kahneman (p. 240) suggested two basic conditions:

- an environment that is sufficiently regular to be predictable
- an opportunity to learn these regularities through prolonged practice.

If these conditions are met then students can get regular practice at recognising the things their profession expects them to recognise, and intuitions based on such a background are likely to be skilled. An example is the need for many health professional students to assess a great many patients in order to gain this prolonged practice. By rehearsing the protocols repeatedly, the practical procedures such as gathering information in a formal manner can become embodied and second nature. Students no longer need to consciously remember how to do the procedures, or what questions to ask, or the order in which the questions should be asked. They can concentrate instead on achieving the overall goal which will be reaching a diagnosis. While this cannot replace the experiential value of working with real patients, the skills can frequently be learned, developed and refined outside the workplace. Many professional courses now utilise case-based approaches in their curriculum for simulations, role play, and PBL in order to provide such practice, and a great deal of repetition can be provided in this way. Such repetition also allows students to integrate scientific knowledge with the practical procedures. For example, a senior medical student was able to claim that upon entering a room to assess a (real) patient she could see immediately that the patient had "glaring cardiac signs" (Loftus, 2009, p. 141). To the layperson this skill may seem astonishing, but there is nothing mysterious about it. The student was able to recognise obvious signs, such as the presence of a raised jugular venous pressure and oedema. Students can learn about such clinical features in a classroom or online. The point is that the student had developed some professional judgment because she had been required to do many similar assessments on a regular basis.

The need for repetition and prolonged practice is especially associated with the development of technical skills like learning to give an injection or suture a wound. In dental practice, students must practise doing restorations on teeth in a simulated setting many times over and achieve a certain standard before being allowed to do the same on patients. Then the students must repeat the same procedures on many patients, and reach a certain standard, before they are allowed to graduate. The regular practice, both in simulation and in the clinic, allows the students to develop an "intuitive feel" for a range of skills, such as how much tooth substance to cut away. It is important in all of this that students receive regular and detailed feedback on their performance. In many cases, especially the practical settings found in clinical skills laboratories, much feedback can be immediate. Dental students can see straightaway the results of their activity on a tooth with a high-speed dental drill. Many simulations also provide immediate feedback to participants. These can be highly sophisticated scenarios where an operating theatre team must prevent a seriously ill patient, in the form of a manikin, from "dying," or online simulations for intramuscular injections where the chosen angle

of needle penetration is followed by immediate feedback in the form of a sound of pain emitted by the virtual patient (RLO-CETL, 2009). In such settings, the immediate, and sometimes dramatic, feedback can be especially conducive to the development of skillful intuition. In PBL sessions, one of the key roles of the facilitator is to provide regular feedback to the group of students as they work through a case. The students can also be allowed to try out different ideas and learn from their mistakes in the knowledge that because they are dealing with a paper or online case nobody will really get hurt.

While achieving the goal of expertise is fundamental to the purpose of PBE, it is important to recognise expertise as aspirational, never fully attainable and with significant limitations. Kahneman (2011, p. 241) recognised that the specialisation and differentiation in the repertoire of skills associated with any one profession could mean that "the same professional may be highly expert in some of the tasks in her domain while remaining a novice in others." The 10,000 hours of dedicated practice required to achieve expertise (Gladwell, 2008) might not be attainable in the time allotted to a program of study, with students graduating at the level of competent practitioners, fit to practice, rather than as expert practitioners. It also assumes a stable environment and regularised practice, but does not take sufficient account of the speed of developments in research, new technologies and treatments supporting the mission for lifelong learning.

Thus we emphasise the importance of students becoming aware of the limitations of their intuition. True experts know the limits of their knowledge. Judgments based on intuition can usually be relied on in routine settings but may become unreliable when the usual environmental regularities are absent and when decisions are related to less predictable outcomes, perhaps in experimental surgery using new techniques or in making long-term forecasts (Kahneman, 2011). The danger is that intuition born of practice may be confused with deliberative reasoning. This can lead to overconfidence in practitioners who may rely too much on their intuition. It may be that some professional education can even encourage too much self-confidence. For example, Light (1979, p. 313) noted that medical students often feel the need to develop the appearance of professional competence and manage the impression they are conveying to their teachers in order to be successful; the problem that can then emerge is that "trainees get taken in by their own act until the self-conscious process of role simulation becomes the real thing." This is another argument in favour of PBE approaches outside the workplace, such as well-designed and well-facilitated PBL which, if seen as a safe and supportive learning environment, allows ignorance to be admitted and mistakes to be made. Students need to develop critical reflection hand-in-hand with developing professional intuition, to enable them to judge when intuition is inadequate and when there is a need to think more deeply about an issue.

DEVELOPING CRITICAL REFLECTION

It is in this sense that intuition and critical reflection may be seen as opposed to each other. The opposition is because the two requirements appear to need

different, even contradictory, approaches to education; although we argue that the two can also be seen as complementary. If the knowledge required for practice is perceived as the exercising of skill, or Aristotle's *techne*, then this craft knowledge may be more narrowly interpreted and enacted as training or rote learning, focusing on regularised practice for developing psychomotor skills and with cognition and emotions ignored. Savin-Baden (2000, p. 55) argued that emotions and feelings are frequently neglected in PBL courses, as if "there is almost a prohibition about them intruding into educational environments." The corollary of this approach to learning for practice is that when problems are conceived as solvable by the simplistic application of standardised rules and protocols the uniqueness and embodiment of individuals experiencing professional practice encounters can be discounted, which can lead to dehumanisation of the recipient of treatment (Polkinghorne, 2004).

We contend that the same PBE strategies – simulations, role plays or PBL – can be deployed to facilitate both intuition and reflection. Critical reflection is the ability to recognise the limitations of professional knowledge and the ability to think through how professional problems might be constructed differently. There is a danger that the scenarios of a PBL course or simulation may simply replicate conventional professional knowledge in a superficial manner without challenging students to think more deeply about what they are learning. In line with Dewey's theory of experiential learning, Lyon (2009) claimed that PBL cases should aim to unsettle students in a manner that compels them to engage deeply with the underlying epistemological issues of their profession. She asserted that the cases presented to students in a PBL setting need to be ill-structured and open-ended without a single and obvious solution. Such cases generate controversy and uncertainty, requiring students to collaborate to gather the complex interdisciplinary information they may need to find a solution. In these settings, Lyon (p. 215) claimed, "uncertainties and conflicts that arise in student debate about the case should help bring to the fore and make apparent their taken-for-granted assumptions."

Lyon (2009) was particularly interested in challenging the epistemological assumptions that medical students often have. For example, because of the emphasis on scientific knowledge, medical students are often prone to falling into the trap of thinking exclusively of patients as biological machines and forgetting the effect of the personal beliefs and values of patients and their carers. These people may strongly resist what seem to the medical students to be obvious formulations and solutions to their health problems. Students are then confronted with the reality that other epistemologies and other ways of viewing the world must be accommodated in health care.

This recognition echoes Schön's (1983, 1987) insight that students learning to become professionals must plunge into the doing of professional practice, even if it is in a modified form in a classroom or simulation. Students need the experience of professional practice to make sense of all the things their teachers say to them. Without the experience of practice, the theoretical teaching they receive can have no real depth of meaning. However, to acquire depth of meaning also requires

active reflection on the practice experience, what Schön (1983) described as reflection-*in*-action and reflection-*on*-action. But Schön's conception of reflective practice has been criticised by Usher, Bryant, and Johnston (1997) as essentially individualistic and cognitively-focused, ignoring the sociocultural situated nature of practice and practitioners; this leads to an absence of reflexivity, what they call reflection-*outside*-action, which is essential for critiquing professional practice.

Ill-structured cases should compel students to adopt a more reflexive stance where disparate epistemologies need to be integrated and where their own values and attitudes may be questioned. Reflexivity, following Archer (2007, pp. 4-5) is "the regular exercise of the mental ability, shared by all normal people, to consider themselves in relation to their social contexts and vice versa" and "the means by which we make our way through the world." This means that PBE strategies like PBL and simulations need to integrate several goals at once. These goals can include the provision of the regularities and practice needed for students to develop professional intuition as well as the provision of ill-structured cases that can promote praxis and reflexivity. It is clear that PBE strategies need careful design if they are to achieve all this. It may be that earlier cases in the curriculum should be simple and straightforward, providing the scaffolding and regularities needed to develop intuition and practice at following protocols. With time, the cases can gradually become more complex and ill-structured, to support the development of expertise and reflexivity.

This also means that PBE strategies outside the workplace must be integrated into an overall curriculum where practical workplace learning of some sort is also a key component of the curriculum. The learning that arises from direct work experience is informed by what was learned in classroom PBE. Work experiences can also be reframed back in the classroom PBE to inform the learning that occurs there. A dialogical relationship is necessary between the learning occurring in the classroom and the learning occurring in the workplace, with each dependent on the other. The key is integration between what is learned in the different environments, the workplace and the classroom.

GUIDING PRINCIPLES FOR INTEGRATING KNOWLEDGE FOR PRACTICE

Some examples from courses in which experiences and critical reflection have been encouraged, in an attempt to integrate and deepen knowledge and understanding for professional practice, will serve to illustrate the pedagogical strategies that can contribute to these approaches outside the workplace. Each of the authors has been involved in courses that are relevant here; MH with an undergraduate course for full-time cohorts of 600 students in health and social work, using technology to connect learners to humanising perspectives on evidence for guiding practice; and SL with a postgraduate online course in pain management, where all students were part-time and many were in different countries and time zones. The undergraduate course provides opportunities for students to integrate understandings about conventional technical evidence, understandings about the person or service user's experience, and the student's

personal insights, through developing the imaginative capacity and ethical sensitivity for imagining "what it is like" for the person receiving human services, and how to translate and integrate all of this evidence to guide practice (Todres, Galvin, & Dahlberg, 2007). It builds on the development of Wessex Bay, a virtual community of case scenarios representing service user and carer perspectives used as triggers for PBL (Hutchings, Quinney, & Scammell, 2010). Table 12.1 identifies guiding principles for PBE strategies drawing from the pedagogical design features for authentic activities (Herrington et al., 2004) and characteristics of PBL (Boud & Feletti, 1997) for integrating knowledge for practice.

Table 12.1. Tale of two case studies: Pedagogical principles for guiding PBE strategies to integrate knowledge for practice

Course	**Exploring Evidence to Guide Practice (EE2GP)**	**Pain Management**
Academic level	Undergraduate, Year 2, full-time, transprofessional.	Postgraduate, part-time, multidisciplinary.
Mode	Online case studies and group blogs supplemented with face-to-face lectures and group work over 5 weeks.	Online asynchronous discussion board over a period of several weeks.
Aims	Integration of understanding about different kinds of knowledge for practice, emphasising human sensitivity and individual worth.	Promotion of a multidisciplinary approach to the assessment and management of patients with chronic.
Guiding Principles		
Ill-structured problems or issues as the catalyst for learning	Online case studies provided resources for imagining illnesses and conditions such as stroke, dementia, social isolation and substance misuse, using narratives, poems, qualitative and quantitative research, policy and practice issues.	Simulated assessment of paper-based patient with amount of information provided to students given in stages and restricted to what was available in the real cases.
Real-world relevance	Students were asked to imagine what a health or social condition or situation might be like for people experiencing it by reading and viewing personal stories, poems, and videos as evidence drawn from the arts and humanities.	Simulation based on real clinic expertise and knowledge where patients were assessed by a multidisciplinary team, a doctor, physiotherapist and clinical psychologist.

Table 12.1. (continued)

Guiding Principles	Exploring Evidence to Guide Practice (EE2GP)	Pain Management
Real-world relevance (cont.)		Each person formulated interpretations of the patient's problems before attending a case conference where assessments were presented and integrated.
Students as active shapers of learning	Students placed in groups of 6-9, allocated case studies relevant to their field of study, to address key questions about the experience of the illness or condition.	Students placed in groups of 5-6 and each group given role of one of the health professionals assessing a paper-based patient.
Articulating more complex ways of knowing to guide practice	Students examined published research embedded in practice issues relevant to their field through reading and comparing research papers and listening to research staff talk about their research through short podcasts.	Each group was given some initial information about the patient and then asked what further information and assessments would be required by the health professional whose role they were assuming.
Encouraging critical reflection	Students were asked to consider how these different kinds of evidence could usefully guide their practice, comparing and reflecting and sharing their knowledge in the group blogs.	Everyone in each group was expected to try and think in the role adopted by the group and each group would include one experienced member of the simulated profession to provide some guidance.
Working with others	Consideration of trans-professional issues of what is required in humanly sensitive care and associated tensions, risks and dilemmas was facilitated through inter-group discussions focused on case themes.	Further information gathered during the assessment was given to the groups who were expected to come up with a case report for presentation to the other groups in a simulated case conference.
Assessment and feedback	Students submitted individual blog entries weekly following student-managed guided learning activities and received online tutor and peer feedback. Knowledge was progressively and collaboratively developed towards a summatively assessed group blog.	Each person was asked to select four messages they had posted to demonstrate the quality of their individual input to the whole exercise.

Table 12.1 demonstrates how each of these courses adopted the principles of ill-structured problems with real-world relevance, encouraging students to shape their learning actively, through articulating more comprehensive ways of knowing, critical reflection, and working with others' perspectives, constructively aligned with formative and summative assessment and feedback.

Evaluations of the two courses identified similar findings, with students seeing the processes as challenging but extremely educational. This is reflected in student comments on the EE2GP course:

> The qualitative evidence stood out for me as I began to empathise with the patients. I was able to understand their thoughts and feelings, and began thinking of how this can be applied to practice.

> Having to read, understand and submit a blog weekly challenged me and was good for me to take in what I had learned and read and think about it.

Feedback on the pain management course showed that students were enabled to explore the limits of their knowledge. Underlying assumptions and prejudices emerged through group discussion which made members articulate their values and deal with complexity and uncertainty in a multidisciplinary world.

OPPORTUNITIES AND LIMITATIONS

PBE outside the workplace is a subject of considerable debate, with critics challenging the value of such time-consuming and resource-intensive methods. Yet there is evidence to suggest that students enjoy and are enthusiastic about such approaches. Feedback from our two case studies demonstrated that students felt challenged but appreciated the value of these educational strategies through opportunities to integrate theory and practice and see the connections. Walker and Leary (2009) noted that medical students were highly motivated in practice but were put off learning factual information. In Ricketts' (2011) literature review on simulation, some authors had reported students enjoyed learning and practising clinical skills, but others reported they did not and were not at all comfortable in undertaking role play, being unsure of the performance level expected of them and having insufficient time to complete tasks. Role play enables students to rehearse and practice scenarios designed to replicate real-life situations. It enables students to engage holistically with developing their psychomotor skills, cognitions, and emotions, but its performative nature can make it feel more uncomfortable and challenging than engaging in PBL. For role play to be an effective pedagogical strategy it needs to be carefully managed to build student confidence in the safety and security of a supportive and non-judgmental learning community that tolerates risk and acknowledges that people can learn through performance, both their own and that of others. Developing timely and effective feedback mechanisms is an essential part of this process, and students need to be encouraged to take responsibility for developing self and peer feedback to enable them to move beyond reliance on tutor feedback.

This means that PBE needs to be firmly integrated into the curriculum and cannot be simply bolted on. It also means that the notion of constructive alignment is important in the curriculum (Biggs & Tang, 2007). We often advise new academics that once the aims, intended outcomes and underlying values of a course have been articulated it is then important to ensure that the assessments are designed so that they clearly assess what the course is aiming for. Once this has been done, then the learning and teaching activities that are needed to bridge the two should become clearer. It will often be then that the need for some form of PBE will become apparent, whether this is in the workplace, the classroom, or more likely some combination of both. The attempt at constructive alignment can be used to clarify the place of PBE within the curriculum. This is particularly true when the aims and values of the course include the goals of transforming people into graduates who are capable of the "embodied relational understanding" identified by Todres (2008) – graduates who can take on the challenges of real-world practice and who can cope with a world of supercomplexity and uncertainty.

However, such an education needs to be provided by teachers who are fully aware of these issues, who can consciously integrate them into the curriculum, and who also know how to implement them. There is a growing awareness, above all, of the need for integration. For example, Sullivan and Rosin (2008) argued for "practical reason" to be an underpinning and integrating concept for education both in the professions and in more theoretical academic disciplines such as the humanities and social sciences. The educational goal is the "formation of persons who think and act through a back-and-forth dialogue between analytical thought and the ongoing constitution of meaning" (p. 104). The argument is that the professions can benefit from the critical thinking that the humanities value so highly. However, rather than developing critical thinking for its own sake, professional education uses critical thinking to aid decision and action. The humanities, in turn, can learn from the deep narrative, case-based knowing of the professions, so that critical thinking is not a goal in itself but a cognitive tool that can be used to aid human beings in making their way in the world. The term "formation of persons" is deliberately chosen to emphasise the ontological aspect of becoming and being a professional.

In conclusion, PBE outside the workplace has to be seen in the context of the overall curriculum, the experience of education. This needs to be an education that affords students ongoing opportunities to acquire knowledge and to develop practical skills, and encourages them to become professionals who can integrate the various aspects of what it means to be someone who can cope with uncertainty, risk and supercomplexity.

REFERENCES

Alinier, G., Hunt, W. B., & Gordon, R. (2004). Determining the value of simulation in nurse education: Study design and initial results. *Nurse Education in Practice*, *4*(3), 200-207.

Archer, M. (2007). *Making our way through the world: Human reflexivity and social mobility*. Cambridge: Cambridge University Press.

Barnett, R. (2000). *Realising the university in an age of supercomplexity*. Buckingham: SRHE & Open University Press.

Barrows, H. S., & Tamblyn, R. M. (1980). *Problem-based learning: An approach to medical education.* New York: Springer.

Biggs, J., & Tang, C. (2007). *Teaching for quality learning at university* (3rd ed.). Buckingham: SRHE & Open University Press.

Bligh, J., & Bleakley, A. (2006). Distributing menus to hungry learners: Can learning by simulation become simulation of learning? *Medical Teacher, 28*(7), 606-613.

Boud, D., & Feletti, G. (1997). *The challenge of problem-based learning* (2nd ed.) London: Kogan Page.

Carr, W., & Kemmis, S. (1986). *Becoming critical: Education, knowledge and action research.* London: Falmer Press.

Dewey, J. (1933). *How we think*. Boston: D.C. Heath.

Dreyfus, H. L., & Dreyfus, S. E. (1986). *Mind over machine: The power of human intuition and expertise in the era of the computer.* Oxford: Blackwell.

Eraut, C. (1994). *Developing professional knowledge and competence*. London: Falmer.

Gladwell, M. (2008). *Outliers.* London: Allen Lane.

Greenhalgh, T. (2002). Intuition and evidence – uneasy bedfellows. *British Journal of General Practice, 52*(478), 395-400.

Herrington, J., Reeves, T. C., Oliver, R., & Woo, Y. (2004). Designing authentic activities in web-based courses. *Journal of Computing in Higher Education, 16*(1), 3-29.

Hutchings, M., Quinney, A., & Scammell, J. (2010). The utility of disruptive technologies in interprofessional education: Negotiating the substance and spaces of blended learning. In A. Bromage (Ed.), *Interprofessional eLearning and collaborative work: Practices and technologies* (pp. 190-203). Hershey, PA: IGI.

Jarvis, P., Holford, J., & Griffin, C. (2003). *The theory and practice of learning* (2nd ed.). London: Kogan Page.

Kahneman, D. (2011). *Thinking fast and slow*. New York: Farrar, Strauss and Giroux.

Knight, P. T. (2001). Complexity and curriculum: A process approach to curriculum-making. *Teaching in Higher Education*, *6*(3), 369-381.

Kolb, D.A. (1984). *Experiential learning*. London: Prentice Hall.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge: Cambridge University Press.

Light, D. (1979). Uncertainty and control in professional training. *Journal of Health and Social Behavior*, *20*, 310-322.

Loftus, S. (2009). *Language in clinical reasoning: Towards a new understanding*. Saarbrücken: VDM Verlag.

Lyon, M. L. (2009). Epistemology, medical science and problem-based learning: Introducing an epistemological dimension into the medical school curriculum. In C. Brosnan & B. S. Turner (Eds.), *Handbook of the Sociology of Medical Education* (pp. 207-224). Abingdon: Routledge.

Mezirow, J. (1978). Perspective transformation. *Adult Education*, *28*(2), 100-110.

Nursing and Midwifery Council (NMC). (2010). *Standards for pre-registration nursing education*. London: NMC. Retrieved from http://standards.nmc-uk.org/Pages/Welcome.aspx

Pearson, E., & McLafferty, I. (2011). The use of simulation as a learning approach to non-technical skills awareness in final year student nurses. *Nurse Education in Practice*, *11*(6), 399-405.

Polkinghorne, D. E. (2004). *Practice and the human sciences: The case for a judgment-based practice of care.* Albany, NY: State University of New York Press.

Prosser, M., & Trigwell, K. (1999). *Understanding learning and teaching: The experience in higher education*. Buckingham: SRHE & Open University Press.

RLO-CETL & University of Nottingham. (2009). *Intramuscular injection by the Z-track technique*. Retrieved from http://www.nottingham.ac.uk/nmp/sonet/rlos/placs/nctl176_ztrack/index.html

Ricketts, B. (2011). The role of simulation for learning within pre-registration nursing education: A literature review. *Nurse Education Today*, *31*(7), 650-654.

Savin-Baden, M. (2000). *Problem-based learning in higher education: Untold stories*. Buckingham: SRHE & Open University Press.

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

Schön, D. A. (1987). *Educating the reflective practitioner: Towards a new design for teaching and learning in the professions*. San Francisco: Jossey-Bass.

Sullivan, W. M., & Rosin, M. S. (2008). *A new agenda for higher education: Shaping a life of the mind for practice*. San Francisco, Jossey-Bass.

Todres, L. (2008). Being with that: The relevance of embodied understanding for practice. *Qualitative Health Research*, *18*(11), 1566-1573.

Todres, L., Galvin, K., & Dahlberg, K. (2007). Lifeworld-led healthcare: Revisiting a humanising philosophy that integrates emerging trends. *Medicine, Health Care and Philosophy*, *10*(1), 53-63.

Usher, R., Bryant, I., & Johnston, R. (1997). *Adult education and the postmodern challenge: Learning beyond the limits.* London: Routledge.

Walker, A., & Leary, H. (2009). A problem-based learning meta-analysis: Differences across problem types, implementation types, disciplines, and assessment levels. *Interdisciplinary Journal of Problem-based Learning*, *3*(1), 12-43.

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13. THE RELATIONSHIP BETWEEN PRACTICE, THEORY AND RESEARCH

The relationships between practice, theory and research are complex, interlinked, and influenced by political, economic and social order concerns represented in policy interventions, public scrutiny, accountability, marketisation and globalisation. It is within this complexity that individuals must make their way, responding to day-to-day challenges and making sense of their experiences. As human beings we learn to act or do and as social beings we take forward our interests and values which inform our practices and directions of travel in the world. We may be curious and want to make sense of what we do by understanding how and why we do it and it is this quest that leads to theories and research on practice. Our purpose here is to examine the problematic nature of the relationships between practice, theory and research, identifying areas of complementarity, dissonance and challenges, to reveal how they can contribute to enhancing practice education. In problematising these relationships we consider three key questions:

- What is the nature of theory in relation to practice?
- What kinds of research are appropriate for informing and illuminating practice?
- What are the consequences for education for practice?

We explore the territory of practice and consider its relationship with theory, the nature of knowledge and ways of knowing as a means for understanding how individuals learn to become practitioners. Our intention is to offer alternative ways of conceiving these relationships for the benefit of practice education and empowering practitioners to engage creatively and critically with theory and research for practice.

PROBLEMATISING THE RELATIONSHIP BETWEEN PRACTICE, THEORY AND RESEARCH

Perspectives drawn from different fields of practice reveal the dynamics at work in the relationships between practice, theory and research and set the scene for considering the connections, dissonance and challenges they represent for understanding the "know-how," "know-why" and "know-that" of practice. Polkinghorne's (2004, pp. 2-3) argument for a return to judgment-based care highlights challenges for professional practice, controlled by a "technified worldview," where care interventions are directed by "empirically demonstrated technical sequences" derived from scientifically validated knowledge which holds that technique "produces change, not the caregiver." Clients and professionals are displaced by the precedence and power afforded to scientifically validated

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 175-186.

procedures. The "know-how" of practitioners is subsumed in technique which objectifies and distances human relationships, negating the need for client-centred and judgment-based care. This "technification" directs approaches to theory and research, giving authority to empirical evidence to control and regulate practice over human interactions.

Similarly in higher education, Malcolm and Zukas (2001, p. 37) have criticised the predominance of psychological models and diagnostic tools in directing the practice of learning and teaching, leading to "a narrow and technicist conception of pedagogy," with teaching portrayed as undemanding craft work and theory reduced to sets of professional rules for practice, applicable to a variety of situations. Learning style instruments, widely used for diagnosing individuals' learning needs and matching specific interventions, are criticised for leading to narrow and limiting applications (Coffield, Moseley, Hall, & Ecclestone, 2004) and labelling, "what the student is" type theories, which define student traits and excuse educators from responsibility for facilitating their learning (Biggs & Tang, 2007). These "know-why" theories oversimplify practice, prescribing ways of doing, which separate learners from their histories and disregard learning environments and relationships between students and teachers.

Beck and Young (2005) analysed changing dynamics between knowledge and ways of knowing, identifying organisational shifts in knowledge configurations and their impacts on academic and professional identities. These shifts are attributed to increasing "regionalisation" and "genericism." "Regions" define knowledge structures underpinning professional knowledge, such as engineering, medicine and architecture, compared with "singulars" such as mathematics, biology, or physics. Where higher education courses are being restructured to meet the changing demands of students, employers and government, new regions such as business studies, tourism and journalism have developed. A proliferation of new course offerings leads to increasing regionalisation. This is coupled with "genericism," which has its roots in employer requirements for education and training, strengthened by government policy, focusing on the development of "generic," skills. Beck and Young argued that genericism can lead to a loss of connection between practice and knowledge. These shifts affect both academics' and professional practitioners' relationships with their knowledge, research structures and the "know-that" of practice. Further, they open wider debates about theory and practice and the perceived dissonance between the way in which theorists and practitioners approach practice. Historically, this theory-practice gap has been associated with a social division of labour, which "is not simply functional but serves to place the practitioner in a subordinate position" (Usher, Bryant, & Johnston, 1997, p. 123). Beck and Young's analysis goes further in identifying that academics as practitioners can also be displaced from their relationship with knowledge. The crisis of identity goes deeper than a willingness to embrace new knowledge. It displaces scholars' and professionals' relationship to knowledge captured in concepts of "inwardness" and "inner dedication," highlighting questions of the moral and social purposes of academic and professional practice.

Lastly, Lash and Wynne's (1992) discussion of farmers' complaints about adverse effects of herbicides, dismissed by government on the basis of scientific evidence

from tests carried out under controlled conditions in laboratories, is an important example of the dangers of conducting "know-why" research separated from its real-world situated practice, and demonstrates how "expert" opinion based on scientific method is favoured over the realities of practitioners' experiences. These perspectives identify the challenges for practitioners in making sense of real-world practices, standing ground against the force of scientific arguments and the importance of understanding the territories of practice, theory and research to reveal their dynamics for enhancing practice education.

UNDERSTANDING PRACTICE AS MORE THAN THE SUM OF THE PARTS

Our starting point, following the work of Archer (2000, 2007) is to give primacy of place to practice as acting or doing over theory and research. Yet in asserting this position we acknowledge that the territory of practice is marked by controversy. While we act as individual human beings we are influenced by our sociality. Interrelationships between the individual and the social, between agency and structure, influence the different ways practice can be interpreted. By focusing on the primacy of practice our position explores, more deeply, the central question in human sciences about what determines actions: agency, which recognises the capacity for individuals to make choices and act on them, or the structural order which influences and constrains that choice?

We argue that agency is central to learning practice. Jarvis (in press) suggests "it is the person who learns" and quotes Taylor (1985, p. 257), describing and encompassing the essence of what it is to be a person:

> philosophers consider that to be a person in the full sense you have to be an agent with a sense of yourself as an agent, a being which can thus make plans for your life, one who also holds values in virtue of which different plans seem better or worse, and who is capable of choosing between them.

Human beings, then, are agents who can plan; they have a sense of self-awareness and values; they have intentionality. Intentionality cannot be reduced to an external stimulus to which human beings respond. The belief that human beings can be active agents enables concerns and interests to be actioned. Archer (2007, p. 7) suggested: "Action itself thus depends upon the existence of what are termed projects, where a project stands for any course of action intentionally engaged upon by a human being."

So what is it about practice that positions it as subordinate to theory and research? Practice may be considered in a number of ways:

- Practice as *technique* – regularised, consistent, stable
- Practice as *occupation* or *profession* – established, body of knowledge and skills, artefacts, codes of practice, communities of practice
- Practice as *accountable* – rules, procedures, standards to be upheld for the good of society
- Practice as *social* – relational, situated, complex, uncertain, critical, reasoned, and essentially human.

Practice as *technique* tends to be regularised through repetition and has been associated with skills development like Jarvis's (2004) observation of athletes training their bodies and musicians their arms and fingers. How then do we learn to practise? We may observe others, watch experts, be told, and have practice demonstrated to us. We try to copy, adapt and repeat the practice and as we gain confidence we may even learn to take the practice for granted. Individuals can become so proficient in the practice, such as riding a bicycle or driving a car, that the process of doing becomes semi-automatic so they do not deliberately think about what they are doing. Deliberation may only be enacted to adapt to circumstances, for example avoiding a pothole or responding to an object in the path.

When the body acts automatically and the actor acts in an almost unthinking manner, practice becomes "embodied knowledge." Archer (2000, p. 143) explained, "Procedural memories, unlike declarative, do not seem to be forgotten in the same way, suggesting that they are both learned and remembered by a very different mechanism from declarative ones." She suggested that perhaps this is because procedural modes like riding a bicycle "are not confined simply to the brain but involve whole sets of other bodily memories, encoded in muscles and sinews" and "the resilience of skills and habits implies a bodily remembering which we can call embodied practical knowledge or know-how" (p. 143). But such an understanding of *technique* could be misinterpreted and undervalued if it assumes doing without thinking and social purpose. Learning to practise may be interpreted narrowly as training or rote learning, as something that does not involve the whole person, concentrating on the psychomotor skill over cognition, emotions, past experiences and social influences.

So practice can be seen to assume two different meanings: "a practice" can refer to occupation and "to practise" more specifically to the repetition of a task or skill which we have described as technique. There are two basic kinds of practice: one we might call repetitive, or routinised practice, and the other reflective, or performance-enhancing practice. These are ideal types at the extreme ends of the spectrum and both can be at work in practice as *technique* and practice as *occupation*. For repetitive practice, if an act is merely repeated in an unthinking manner once it has been learned, then it matters not how many times it is repeated, the practitioner will not necessarily get any better at it. This is routinised practice and conformity is the outcome: this is learning from repetitive practice, which may be deliberate and directed or may be incidental, and the final outcome of this, if we keep repeating it, may be the generation of anomic or alienated states.

By contrast, in performance-enhancing practice, I practise what I have learned in order to improve performance. If every time I repeat a task, I reflect upon it and learn something new from it, then I continue to improve my practice, or achieve a little more expertise each time as a result of additional knowledge or a greater awareness of the implications of the practice itself. This is the basis of learning to become an expert (Jarvis, 2009) and moves our focus from the individual as agential in practice, whether examining technique or occupation, to considering practice as *occupation* or *profession*. Practice can be interpreted as social practice as it becomes more formalised by rules and procedures codified and standardised into social practices

that may be associated with different communities of practice, such as *professions*. The claims of any "profession," in terms of its authority with clients, wider social esteem, and exclusivity of its members' mandate to practise, are interwoven with the kinds of knowledge it embodies (Dunne, 2005). Novice practitioners are inducted into, imbued with, and protected by the nature of technical knowledge as declarative, propositional "know-that" and practical, procedural "know-how."

The process of legitimate peripheral participation for the novice practitioner entering and developing within a community of practice is a more dynamic interpretation of the learning processes at work in social settings (Lave & Wenger, 1991). Lave and Wenger described learning as a function of the activity, context and culture in which it is situated: "learning is an integral and inseparable aspect of social practice" (p. 31). But when norms and customs become institutionalised within communities of practitioners it can lead to conformity and unwillingness to challenge practices. Practitioners may hide behind the authority and expertise their professions offer, making it very difficult for the client, as outsider, to challenge practice. The Smith inquiry (2004, p. 42) into the Shipman case, a general practitioner who murdered many of the patients in his care, concluded that the UK General Medical Council placed the interests of the medical profession before the protection of patients.

The dynamics between agency and structure can be seen at work in the influences of the profession, state, and public interest on policies and practice as *accountable*, but by whom and to whom? Professional and societal interests are reflected in policies and processes to maintain and assure standards and accountability through regulated practice. But where does the responsibility for regulating practice lie: with the state, the profession, or with the idealised image of the professional? Widespread publicity concerning health and social care scandals, with cases of neglect and abuse of vulnerable clients, have contributed to pressures on professions and government to respond to poor standards of practice with inquiries, recommendations and policy interventions (Laming, 2003; Smith, 2004; Laming, 2009; Parliamentary & Health Service Ombudsman, 2011; Commission on Improving Dignity in Care, 2012).

Accountability has become increasingly prominent in public practices of education (Alexander, 2000) and health and social care. Checkland, Marshall, and Harrison (2004, p. 130) argued that the "UK government has gone further than any other in an attempt to institutionalise the concept of accountability." The power of accountability to assert control and assure efficiency can appear seductive, where, as Dunne (2005, p. 375) suggested, the system is perceived as "minimally dependent on the discretion or judgment of individual practitioners, with all the hazard and lack of standardisation that this might entail." This interpretation of accountability resonates with Foucault's (1979) concept of surveillance, where the system controls and regulates practice. But system-imposed accountability can divert practitioners away from the principles of being a professional and can have unintended consequences. Checkland et al. (2004, p. 132) identified adverse impacts where accountability processes are based on rules and surveillance; the potential for distortion when measures to increase confidence in service provision are targeted to particular priorities, de-prioritising other aspects of practice; the introduction of audit processes contributing to upward rather than downward accountability to the state rather than

clients; and an erosion of trust in favour of confidence which can reduce the "moral motivation of practitioners."

It is here that we come to the crux of our argument in understanding practice as *social*, in relation with others, situated in contexts that are often complex and uncertain, and where critical reasoning is morally informed and essentially human. Schwandt (2005, p. 327) argued: "All action is social in the sense that it is purposeful, intentional, and goal-directed and thus not merely behaviour (a response to a stimulus). Action acquires its meaning by virtue of the fact that it is situated within a larger network of relations with others." Our understanding of practice is close to that of Archer's (2000) claim that our sociality does not have to make us into society's creatures and enables our everyday practice to be focused through praxis and reflexivity. Practice starts from practical activity, not narrowly defined as practising a skill, but actions, practice, doing, in which agents operate holistically with their senses, emotion, and cognition intertwined and interacting with objects in the world, to interpret and make sense of their experiences as they engage in different practices. It is more than the ability to reflect on one's practice and thinking "how can I improve my performance?." It moves beyond Schön's (1983) analysis of reflective practice criticised by Usher et al. (1997) for not being reflexive and enabling reflection-*outside*-action, which is vitally important to enable practitioners to critique mainstream practices. It is a position of reflexivity which enables individuals to consider themselves in relation to their social, historical and epistemological contexts and it acknowledges our sociality, not as passive and accommodating individuals that things happen to, but as active agents who can exercise some governance in their own lives and transform practices from a moral disposition.

THEORY, THE NATURE OF KNOWLEDGE AND WAYS OF KNOWING FOR PRACTICE

The key to any profession's status is its claim to a particular kind of knowledge. In modern society the form of knowledge which is highly valued is scientific or technical knowledge. This is the knowledge of Schön's (1983) "technical rationality" and Polkinghorne's (2004) "technified worldview." Science-based or evidence-based practice has become the dominant discourse in professions including health, social care and education. Dunne (2005, p. 373) described how this kind of knowledge places "a premium on objectivity and detachment, suppressing the context-dependence of first-person experience in favour of a third-person perspective" to produce generalised findings associated with clearly formulated procedures, exemplified in the "gold standard" of randomised controlled trials (Biesta, 2007). This is the traditional understanding of theory – scientific and objective knowledge applicable to practical situations. But we are suggesting that the knowledge that guides practice is of a different form; it is personal practical wisdom freely enacted and gained as a result of previous experience, both formally learned and acquired in previous practice: it is both praxis and reflexivity guided by phronesis.

The question arises, what does this mean for the relationship of practice with theory and research? The significance of technical knowledge resides in its powers of prediction and control based on scientifically validated evidence which serves to justify and warrant practice. The practitioner's subjective knowledge and reasoning, hidden within the intricacies of practice, by contrast, is regarded as superficial and inferior, based on common sense, custom and practice, anecdotal trial-and-error knowledge which is unsystematic and of questionable validity (Usher et al., 1997). It is subjective, personal and apparently pragmatic whereas technical rationality proposes that the efficiency and effectiveness of practice can be assured by demonstrating scientific evidence of what works (Schwandt, 2005; Biesta, 2007). Modelled on the natural sciences, technical rationality aspires to a world that is orderly and knowable, where the benefits of promoting knowledge that is secure, reliable and applicable have become institutionalised, through policies for assuring greater accountability, routinised in organisations such as the Cochrane Collaboration (2012), advocating evidence-based decision-making, and regularised through criteria for scientific publication and research funding (Schwandt, 2005; Biesta, 2007).

The implications of a technical-rational approach for practice and education are considerable. Where practice is equated with solving technical problems, it "comes to be seen as mere technique" (Usher et al., 1997). The uniqueness and diversity of individuals can be subsumed within standardised practice where they can be treated "as a type of technical problem that can be solved by the application of general rules" (Polkinghorne, 2004, p. 38). This approach gives precedence to technique, technology, and theory over the individual and ignores the social context because "the mental activity of human beings and their social products are now perceived as part of nature, and as such, can be explained and predicted with the same cognitive tools used elsewhere in the natural realm" (Polkinghorne, 2004, p. 18). Theory is applied to practice but does not emerge from practice. This leads to a mechanical and potentially dehumanised view of human beings and privileges scientific or technical knowledge and superiority over client and practitioner alike. The theorist, whose knowledge and expertise are based on systematic and scientifically tested knowledge, "claims an expertise with the power to override the power that practitioners feel they have through their practice-based experience and knowledge" (Usher et al., 1997, p. 123). Practitioners are distanced from knowledge of their practice and clients, whether patients or students, are treated as objects.

Scientific theory demands that the world around it is mechanical. For example, if oil is put into a machine it will run a lot easier; if medicine is put into a patient he or she will function better. This is not true of knowledge "put into" a person. In the same way, people would have to be mechanical if education and learning theory, or social science theory in general, is going to work and be valid. Some philosophies of person and mind propose a monist theory of the person: the body functions without a mind; behaviourism and the mind are perceived as a glorified computer. This has led to two major technical-rational theories of learning, behaviourist and information processing, and to behaviourist objectives. This approach has dominated in this scientific age; it is the nature of the knowledge society. We argue, however, that the act of purposeful and moral praxis should be accorded higher status than knowing a

lot. Knowing a lot can help you become a practitioner but it is not enough to make you an expert practitioner. Biggs (1989, p. 10) argued: "A quantitative change in knowledge does not in itself change understanding. Rote learning scientific formulae may be one of the things scientists do, but it is not the way scientists think."

So we have both performative and propositional knowledge. Performative knowledge demonstrates its propositional qualities in the performance itself, especially in repetitive performances. The "theory" is hidden within the practice and the propositional knowledge within the performative knowledge. These are not separate until the theorist separates them: propositional knowledge only emerges when the analyst reduces performative knowledge to propositional knowledge and in so doing depersonalises it and generalises the reduction. It is this reduced form of knowledge that can be taught, because it is the common element in repetitive performances, not because it is a reflection of any personal performance. The performance is always richer than the proposition.

The way forward for practice education is to engage with these different ways of knowing as "an understanding of theory as interwoven with and inseparable from practice" (Usher et al., 1997, p. 134). These different ways of knowing need to be separable for analysis and debate because each position holds potential powers and dangers that must be recognised and addressed. Usher et al. (pp. 124-125) went so far as to suggest that "context-independent knowledge is ascribed a superior epistemological status to context-specific knowledge," a status that becomes *normative* "where context-specific practitioner knowledge is constructed as a limited and inferior knowledge"; hence their argument why the division of labour between theorist and practitioner has social consequences and "is not just a functional difference but a difference of status and power." But conversely, a failure to problematise practice highlights dangers for practice, if practitioners see theory as divorced from reality, giving them reasons to ignore theory and remain comfortable in their customary ways of doing things, unchallenged, and "immune to questioning and change."

A praxis orientation does not deny the relevance of scientific thinking but "typically scientific considerations of valid, objective, and generalisable knowledge *follow from, rather than lead*, reflection on what practitioners actually perform and accomplish in their everyday knowing and doing" (Schwandt, 2005, p. 328). Formal theory is a resource for critiquing practice and needs to be used to *review* practice, not to be *applied* to practice (Usher et al., 1997). Here, then, practice is not rule-bound but informed by the best evidence available. This has implications for how we educate and prepare students for practice, but before we consider these we need to complete the picture by examining the relationship of practice and theory to research.

RESEARCH FOR INFORMING AND ILLUMINATING PRACTICE

We can undertake research into practice but we are confronted with at least three problems: firstly, it is necessary to research sufficient performative situations to extract from them what is common to these practices; secondly, it is also necessary to research practitioners' practical knowledge to understand the fullness of practice; and thirdly, there is a time element between undertaking the research and getting it

accepted as theory, which often makes it history. The first is frequently undertaken but the second much less frequently, and so the data utilised to construct the theory is less than complete. But even when this is undertaken the findings do not always get accepted into "the body of theory" very rapidly. This is even more true in a time of rapidly changing knowledge and technological developments. There is a sense in which theoretical knowledge is knowledge in respect to culture but only information in respect to learners and practitioners, available for interrogation, adaptation or adoption within one's own construction of knowledge. Information can be timeless but also dated. This leads to a discussion about the relationships between generalised, abstract theory as impersonal and personalised theory that comes from reflection on the experience and practice. But for the second problem to be considered research it needs to move beyond individual reflective practice to become clearly articulated, transparent and contestable by others. This leads to a theoretical position where there is a danger that, in seeking to demonstrate rigour without recognition of the personal, as learner and practitioner in interaction with others, this humanity will be discounted.

We want to question some of the technical-rational assumptions of contemporary society and place human beings, socially situated and working with others, at the heart of the theory-practice relationship. There is subjectivity as well as objectivity in this relationship. Therefore qualitative research may be more significant than quantitative, but we have seen that quantitative approaches carry more weight, especially with policymakers.

This humanistic and socially-situated position favours particular approaches to research narratively connected and particularised through ethnography, case studies, participatory, emancipatory, and action research (Hammersley & Atkinson, 1995; Stake, 1995; Jarvis, 1999). It starts with acknowledging the situational repertoire for understanding action, embedded in a whole background of character and experience and embedded social processes; described as "practice architectures" by Kemmis (2009). It combines thick description, hermeneutic discourses and notions of judgment and practitioner expertise with methods of investigation that give due weight to the social context and voices of practitioners, students and clients, as co-creators of knowledge. Dunne (2005, p. 382) succinctly summarised the dynamic interrelationships between practice, theory and research:

> If there is a sense in which the practitioner constructs the practice, there is a stronger sense in which the practice constructs the practitioner. The horizon of his or her judgments is always set by the proper ends, goods and standards of the practice and is always at least potentially directed towards, and testable by, other practitioners set within the same horizon that establishes the practice as a collaborative and communal space.

IMPLICATIONS FOR BECOMING AND BEING A PRACTITIONER

Practice knowledge is "knowledge embodied in acting-in-the-world. It is there and ongoing because we always find ourselves in situations where we have to make choices about how to act" (Usher et al., 1997, pp. 128-129). Technique is part of this,

but only one part of a more complex interaction. This means that we cannot be taught practice; we can only learn it and there is a wide variety of ways of learning it. We can be told about it, we can observe it and we can have it demonstrated. We can try to copy it, but it is always an experiment or exploration because it is essentially performative. We repeat it where possible and may even learn to take it for granted. We first gain confidence that we are able, then we know that we are able, then we have know-how knowledge, and finally we have knowledge about why. So we have developed two forms of theory: how to do it, and why we do it. In this fast-paced, pragmatic age we may be more concerned with the how than the why and we may not have time to teach the why. When the practice site is unchanging we learn about practice, then we begin to practise, and then we may conform to the established customs, with all the dangers this entails. Experts do not conform, but they take a long time to learn, maybe too long in this pragmatic age, hence the need to learn on the job. Benner (1984, p. 32) focused on the time needed to become an expert nurse. More recently, Ericsson called this learning process deliberate practice (Van der Wiel, Van den Bossche, & Koopmans, 2011), in which it takes 10,000 hours of practice to achieve expertise. Gladwell (2008) reviewed a number of studies of expertise and suggested they all point to a similar finding: expertise is attained after 10,000 hours of practice. The doing is rarely the whole picture – we practise in a social context – we have to learn to fit in. Social skills are important and many will have been learned earlier in life. But then there are always new situations, special procedures and requirements, often unique to the context.

Practising is not, therefore, just a mindless activity; it is situated, and so as a practitioner, I may ask myself how I ought to use my expertise in such specific situations. There will be different answers for different contexts. Practice is not a mechanistic exercise; there is always probability, not inevitability, although the more bureaucratic society, organisation, and procedures may be likely to produce the required result. But in so doing the nature of the person is constrained. We look for the most likely acceptable outcome and we are aware of all the sociocultural pressures that influence us. In this sense we have the ability to think beyond the social pressures that constitute behaviourism, and there is a freedom about practice, albeit limited by professional accountability and social values. When we seek to put our theoretical learning into practice we are often nervous about it; such attitudes do not enter into scientific theory. Our practice is more than just doing. It is always a combination of doing, thinking, and emotions, and an awareness of the external world. The level of our emotions changes as we become more confident of what we do, but each new situation is not routine and procedural and can be complex and uncertain, calling for interaction and deliberation towards judgment-based practice (Polkinghorne, 2004).

Our purpose has been to draw insights from examining the relationships between practice, theory and research. We have identified the nature of these relationships as dynamic, interactive and interwoven to empower practitioners to engage creatively and critically with theory and research to enhance their practice. The ultimate goal is to improve practice and there is an imperative to prepare students to be critically reflective practitioners able to cope with and excel in the messiness and complexity

of modern society. But it is vital for the aspiring practitioner to understand that this is a practice focused on the primacy of praxis as a form of practice which is both reflective and reflexive "where theory and practice are mutually interactive and recognised as such" (Usher et al., 1997, p. 137). Novice practitioners need to be encouraged to engage in reflection-*outside*-action to facilitate critique and challenge of mainstream practices. We have criticised the emphasis on science-based or evidence-based practice as an inadequate base for practice which has its own integrity, practical knowledge and reasoning. We encourage practitioners to work with accumulated bodies of knowledge, technical-rational and practical, towards judgment-based practice. Checkland et al. (2004) have argued for a return to the idea of professionalism, whose essence is intrinsic and moral motivation, to foster openness and trust between professionals and their clients and to promote co-partnering in practice as a shared project. This intrinsic and moral motivation is resonant with the "inner dedication" identified by Beck and Young (2005) and highlighted in the recommendation of the Commission on Improving Dignity in Care (2012, p. 33), which states: "Universities and professional bodies responsible for preparing the health and care workforce of tomorrow must satisfy themselves that applicants have both the academic qualifications and *the compassionate values* needed to provide dignified care."

Future practitioners must be encouraged to value the uniqueness of human encounters, appreciating knowledge as contingent and contestable, weighing up different kinds of evidence and ways of knowing, and drawing on their own experiences, for informing and illuminating judgment-based practice. It is only by appreciating the interconnections, interdependency and equality required of relationships between theory, research and practice that the pursuit of a more humanised and caring world can be accomplished through educating future practitioners in becoming and being purposeful, critical, moral and caring.

REFERENCES

Alexander, F. K. (2000). The changing face of accountability: Monitoring and assessing institutional performance in higher education. *Journal of Higher Education*, *71*(4), 411-431.

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

Archer, M. (2007). *Making our way through the world: Human reflexivity and social mobility*. Cambridge: Cambridge University Press.

Beck, J., & Young, M. F. D. (2005). The assault on the professions and the restructuring of academic and professional identities: A Bernsteinian analysis. *British Journal of Sociology of Education, 26*(2), 183-197.

Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice.* Menlo Park, CA: Addison-Wesley.

Biesta, G. (2007). Why "what works" won't work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory, 57*(1), 1-22.

Biggs, J., & Tang, C. (2007). *Teaching for quality learning at university* (3rd ed.). Buckingham: SRHE & Open University Press.

Biggs, J. B. (1989). Approaches to the enhancement of tertiary teaching. *Higher Education Research and Development, 8*, 7-25.

Checkland, K., Marshall, M., & Harrison, S. (2004). Re-thinking accountability: Trust versus confidence in medical practice. *Quality & Safety in Health Care, 13*(2), 130-135.

Coffield, F., Moseley, D., Hall, E., & Ecclestone, K. (2004). *Should we be using learning styles? What research has to say to practice.* Learning and Skills Research Centre. Retrieved from http://www.downes.ca/cgi-in/page.cgi?journal=Learning%20and%20Skills%20Research%20Centre

Cochrane Collaboration. (2012). Retrieved from http://www.cochrane.org/

Commission on Improving Dignity in Care. (2012). *Delivering dignity: Securing dignity in care for older people in hospitals and care homes.* NHS Confederation, Local Government Association and Age UK.

Dunne, J. (2005). An intricate fabric: Understanding the rationality of practice. *Pedagogy, Culture and Society, 13*(3), 367-389.

Foucault, M. (1979). *Discipline and punish: The birth of the prison*. Harmondsworth: Penguin.

Gladwell, M. (2008). *Outliers.* London: Allen Lane.

Hammersley, M., & Atkinson, P. (1995). *Ethnography: Principles in practice* (2nd ed.). London: Routledge.

Jarvis, P. (1999). *The practitioner-researcher: Developing theory from practice.* San Francisco, CA: Jossey-Bass.

Jarvis, P. (2004). *Adult education and lifelong learning* (3rd ed.). London: Routledge.

Jarvis, P. (2009). Learning to be an expert. In K. Illeris (Ed.), *International perspectives on competence development* (pp. 99-110). London: Routledge.

Jarvis, P. (in press). *Personal learning: Learning to know, to feel, to do and to be.* London: Routledge.

Kemmis, S. (2009). Understanding professional practice: A synoptic framework. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 19-38.) Rotterdam: Sense.

Laming, *Lord*, H. (2003). *The Victoria Climbié inquiry.* HM Government, UK.

Laming, *Lord*. H. (2009). *The protection of children in England.* London: Stationery Office.

Lash, S., & Wynne, B. (1992). Introduction. In U. Beck, *Risk society: Towards a new modernity* (pp. 1-8). London: Sage.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge: Cambridge University Press.

Malcolm, J., & Zukas, M. (2001). Bridging pedagogic gaps: Conceptual discontinuities in higher education. *Teaching in Higher Education, 6*(1), 33-42.

Parliamentary and Health Service Ombudsman. (2011). *Care and compassion? Report of the Health Service Ombudsman on ten investigations into NHS care of older people.* London: Stationery Office.

Polkinghorne, D. E. (2004). *Practice and the human sciences: The case for a judgment-based practice of care.* Albany, NY: State University of New York Press.

Schön, D. A. (1983). *The reflective practitioner.* New York: Basic Books.

Schwandt, T. A. (2005). On modelling our understanding of the practice fields. *Pedagogy, Culture and Society, 13*(3), 313-332.

Smith, *Dame*, J. (2004). *The Shipman Inquiry: Fifth report safeguarding patients: Lessons from the past – proposals for the future.* Retrieved from http://www.shipman-inquiry.org.uk/home.asp

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

Taylor, C. (1985). The person. In M. Carrithers, S. Collins, & S. Lukes (Eds.), *The category of the person* (pp. 257-281). Cambridge: Cambridge University Press.

Usher, R., Bryant, I., & Johnston, R. (1997). *Adult education and the postmodern challenge: Learning beyond the limits*. London: Routledge.

Van der Wiel, M., Van den Bossche, P., & Koopmans, R. (2011). Deliberate practice, the highroad to expertise: K.A. Ericsson. In F. Dochy, D. Gijbels, M. Segers, & P. Van den Bossche (Eds.), *Theories of learning for the workplace: Building blocks for training and professional development programs* (pp. 1-16). London: Routledge.

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FRANZISKA TREDE AND MEGAN SMITH

14. CHALLENGES OF ASSESSMENT IN PRACTICE-BASED EDUCATION

Assessment in practice-based education (PBE) can have many different purposes: assuring the public that graduates are safe and responsible practitioners, complying with professional accreditation bodies' requirements, certifying achievement of learning, stimulating further learning, or informing curriculum development and program reviews. Assessment and its conduct are of concern to students, universities, the professions and more broadly to our communities, as the awarding of a qualification is based on assessment and represents the legitimacy of the student to become a professional.

PBE assessments must attend to four distinct sets of demands by stakeholders interested in the outcomes. Universities focus on learning and the fitness for conferring the award. Professions are interested in graduates who are competent and fit for professional practice according to particular professional norms. Students are interested in the experience of their education and opportunities for future employment. Workplaces are interested in work readiness and that graduates fit the workplace culture. These potentially competing demands complicate the use of assessment when practice is involved.

Assessment practices in PBE affect stakeholders at individual, professional and social levels. At an individual level, assessments can hinder or enhance student learning and performance. They have a powerful impact on students' confidence, self-esteem, autonomy, professionalism, and sense of belonging to a professional group. Assessments hold power over students and this power is manifested when assessors make decisions about passing or failing. A fail can set students back, delay or even deny them gaining a university award, accreditation from a professional body and/or certification to practise. At a professional level, assessors take on the role of gatekeepers for their profession. At the social level, assessment practices shape the skill sets of graduates and the future workforce and have implications for service provision. Although there is ambiguity in the interpretation and purpose of assessment, its potency remains a certainty. Despite the varied purposes and interests, there is agreement among stakeholders that assessment is influential in driving what students learn and what teachers teach (Boud, 1995; Rust, 2007).

Critical rethinking of key questions, such as what is assessed, what can be assessed, what is the purpose of assessment, who assesses and how students experience assessment, expose theoretical and practical assumptions about the assessment of practice. Assessment of practice remains contested, under-theorised, and ill-understood (Yorke, 2011). Although practice theory has been used to

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 187-198.

understand and research practice and performance, less attention has been given to using this theoretical understanding to illuminate the challenges of assessing practice and to frame assessment in PBE. In this chapter we present a way of thinking about assessment in PBE that is underpinned by practice theory, with the aim of critically discussing the complexity of assessment and arriving at assessment principles that enhance student learning for future practice.

THEORETICAL UNDERPINNINGS OF ASSESSING PRACTICE

If PBE has the purpose of preparing students for their future practice then assessors need to ask themselves what practice is, and what kind of practice they are assessing for. It is no easy task to settle on what practice is: definitions and understandings are highly contested. Kemmis (2009) contended that practice is not self-explanatory. A sweep of practice theories highlights that practice is no simple unit of prescribed behaviour (Green, 2009; Higgs et al., 2010; Kemmis, 2009). Green, for example, listed four ways of understanding professional practice. Practice can be seen as a notion of practising a profession (such as practising law or medicine), practising professionalism (in the sense of practice identity), practising ethically and morally, and practising professionally (as opposed to lay people). Practising within a profession implies specific disciplinary knowledge and skills. Professions have social privileges and responsibilities that are conferred on the basis of competency in their exclusive practices. Professionalism implies that certain values underpin professional reasoning and decision making and that practitioners belong to communities of practice. Practising ethically and morally implies a chosen purpose and is closely related to practising professionally; both are underpinned by values and wider social goals.

Theorising about practice reveals that practice is purposive, experiential and situated within sociocultural contexts. It is a complex assemblage of individual, social and material factors. Green (2009) suggested that practice can be thought of as an interrelationship between activity, experience and context. Activity is purposeful action to achieve a goal and is embedded in structure and culture. Individuals interact with others, and practice is not just an individual activity but a social relational one. Experience is described as becoming conscious of the being, feeling, and sensing in and of practice. Practice is always experiential. And the practice context is understood as the wider arena within which practice happens.

Kemmis (2009) suggested that practice is constituted in sayings, doings and relatings. Practice is what people say they do and how they describe their practice. Practice is discursively shaped by language. The doings relate to the mode of action. Practice is action that relates to material as well as ethical matters. Finally, practice occurs not in isolation but within relationships. Relationships can be simple professional–client relationships or complex webs of connections between diverse groups of people. Practice thus can be perceived as purposeful action that results in products and productivity, as mindful and engaged critical dialogues with others that attend to ethical and moral issues, and as shaped by and shaping historical, social and political dimensions of the workplace and society at large. Practice is not a static

concept. Some aspects of practice are perpetuated whereas others are transformed. Practice is fluid and to some extent always remains uncertain (Kemmis & Trede, 2010).

This understanding of practice reveals that it is wider and more inclusive than technical skills and theoretical knowledge. Practice comprises knowledge, practical and critical understanding, moral and ethical dispositions, social and relational ability, and performance that is flexible and creative to meet contextual needs. All these aspects need to be seen in relation to each other to form a judgment on practice. Further, good practice or performance in one context does not predict good practice in another context. From this understanding of practice we suggest that assessment of fragmented knowledge and of individual skills, ignoring the wider context and the complex interrelationships that shape practice, does not do justice to assessing practice. It is not textbook knowledge but knowledge that is appropriately applied in particular practice situations that counts in social practice theory. However, and in defence of pragmatism, such wide theorising about practice makes appropriate assessment a challenging if not impossible endeavour, and speaks to the second question we posed: what can be assessed? From the above theoretical discussion we now engage with the practical issues that make resolving and developing good assessment in PBE so complex.

COMPLEXITY IN PRACTICE-BASED ASSESSMENT

PBE may be considered as a set of strategies to prepare students for practice environments (Higgs, 2011). As a set of strategies, PBE occurs in real practice contexts and in classrooms. Although the validation of learning is ultimately the graduate's performance at work, the assessment of PBE in universities often results in fragmentation of the components of practice to evaluate the achievement of its constituent elements or to adapt to the practical concerns of assessing large numbers of students. Some examples of assessment tasks used in PBE include written examination of the theoretical knowledge underpinning practice, objective structured clinical examinations, performance, vivas, simulated practice scenarios, reports of performance in the work environment, reflective portfolios, project reports, presentations and written essays. These vary in the degree to which they can predict how a student might actually perform in the context of future work practice. Assessment of students' performance during workplace learning appears to best fulfil the expectation of authentic assessment of practice capabilities.

Purpose of Assessment in Practice-Based Education

There are several purposes of assessment in PBE, with many parties interested in the outcomes. Assessment can be a mix of assessment *of* learning, or learning as a product, and assessment *for* learning, or learning as a process. PBE, and the workplace learning components of PBE in particular, might be considered the most authentic conditions in which to derive assessment of students' potential capabilities in the workplace (Crossley & Jolly, 2012).

Fish and Coles (2005, p. 169) defined assessment as "an all-embracing term for the educational activity of recognising and recording learners' achievements and their development within a specific context and in the light of the quality and scope of the education provided for them." This definition confirms that assessment is about the learning process as well as its achievement and that it occurs in socially-situated contexts. Hodges (2011) identified two main purposes of assessment, summative and formative, which reflect this duality of its purpose. Summative assessment certifies achievement, with a focus on the end-point of learning and limited emphasis on how assessment can shape and guide future learning. Summative assessment is needed to affirm preparedness for practice at the point of entry into graduate practice, but certification that individuals are capable of the practices society expects is not necessarily a dependable prediction.

Formative assessment emphasises developing performance and helping students learn by providing feedback (for the purpose of learning as distinct from defending grading decisions). Formative assessment is more clearly linked to assessment for learning. Recent work of Boud and associates (2010) on "Assessment Futures" clearly depicts formative assessment as assessment for learning. The seven propositions developed in the Assessment Futures initiative articulate the type of reform needed to move assessment back into learning. They are:

1. Assessment is used to engage students in learning that is productive
2. Feedback is used to actively improve student learning
3. Students and teachers become responsible partners in learning and assessment
4. Students are inducted into assessment practices and cultures of higher education
5. Assessment for learning is placed at the centre of subject and program design
6. Assessment for learning is a focus for staff and institutional development
7. Assessment provides inclusive and trustworthy representation of student achievement.

These propositions reconceptualise the roles of teacher and student as partners in learning; they focus on feedback and learning through assessment, and they place assessment in the centre of subject, program, curriculum and even institutional development. If these propositions can be realised they will stimulate, motivate and challenge learning. The propositions are useful for PBE because they provide a framework that can help us to map student learning for professional practice to a more appropriate mix of formative and summative assessment strategies. However, the massification of higher education and industry demands for work-ready graduates make the goal of integrating formative assessments more difficult to achieve. Lecturers are pressed to look for time-efficient solutions that simplify assessment for practice, such as using competency checklists to assure standardised and transparent approaches to assessment, which risk leading to fragmented elements of skills. Focusing on competencies in assessments will be to the detriment of meaningful learning.

Assessment both of learning and for learning is needed, but their complex coexistence needs to be appreciated and well engaged with by all assessment stakeholders. Unfortunately, tensions can arise between these different assessment

purposes, and one can undermine the other. We contend that the boundaries between the different intended purposes of assessment are blurred when enacted in PBE. For example, assessors in workplaces may also be supervisors, teachers or mentors, who blend instances of formative assessment with their summative assessment as they guide students in their developing practice. Using assessment for learning can be at odds with using assessment to determine the outcome of learning. Assessors can struggle to separate the two assessment purposes, because assessing for learning potentially influences assessment of learning.

The challenge for those designing assessment is how to judge performance, the concrete activity, without weakening the focus on developmental processes. Hodges (2011) suggested that the solution lies in making assessment purposes clear to those involved, and urged assessors not to blend the two at the level experienced by the student. The distinction between assessment of performance versus assessment for learning might be clear to teachers but not to students. Students might doubt that assessors make a clear distinction between the two purposes, particularly when they experience little distinction between the two approaches to assessment. Although making a distinction between assessment for learning and assessment of performance is desirable, we acknowledge that it is difficult to achieve in practice.

Authentic Assessment of Students' Practice Capabilities

Authentic assessment embraces many complexities. Here we discuss the complexity of assessing reliably in unique practice situations and assessing individuals when practice is a social rather than an individual activity. Effective assessment of practice must be true to the practice context and must allow assessors to make judgments of students' achievement of learning "practice." As we have argued, practice as it occurs in real world scenarios is inherently uncertain, complex and diverse, and therefore requires sophisticated ways of knowing, doing, saying and relating that are difficult to assess validly and reliably. The need to make assessment fair, objective and consistent has resulted in attempts to perceive it as a science (Fish & Coles, 2005). Assessment standards and criteria have been designed to objectify assessment, but instead of enhancing assessment for learning they underscore management and regulations. A course curriculum that focuses on assessment of learning and on teaching for assessment would measure competencies, skills, knowledge, and performance but could neglect the understanding, dispositions and reasoning that underpin measurable performance. Further, it would not encourage learning from assessment.

We need to gain more trust in judgment in assessment and let go of the belief that assessment in PBE can be objective and scientific. Frameworks for competency-based skills training attempt to reduce the assessment of practice to checklists of achievements of skills. Such approaches misrepresent the complexity of assessing practice, simplistically viewing it as a technical skill informed by propositional knowledge specific to the profession and assessed by observing performance and behaviour. Assessment practices that target behaviours and technical skill performance can also encourage students to replicate practices they

have observed without promoting depth of understanding. These approaches are likely to poorly represent students' capability in practice unless the professional reasoning that informed decisions and actions is not articulated and concurrently assessed. Practice includes reflecting, learning from actions, and responding to contextual practice situations. There would be little indication that students could translate their assessed skills into different work situations if their underlying principles and reasoning processes have not been scrutinised.

If practice is understood as an activity of integrating cultural, relational and collective ways of knowing, this needs to be reflected in assessment. The dominant assessment practices in use in PBE focus on individual autonomy. As we have discussed, practice is relational and collective, and hence requires integration of self within social and team-based practice models. Boud and associates (2010) have suggested that collective assessment practices are needed rather than assessment of individual competency. Individual performance is influenced by workplace culture, unforeseen situations and other people who contribute to practice, which makes reliable assessment of individual performance questionable (Yorke, 2011). Performance is influenced by others in the setting, and a student's individual performance might be difficult to distinguish from that of the team.

Educators as Assessors

Assessment practice is fundamentally a reasoning process, requiring those planning and conducting assessment to integrate many inputs and to problem-solve to generate decisions and judgments on the quality of student learning relevant to the intended plan and the required practice. A distinguishing factor in PBE is that in professional entry courses that include workplace learning, practitioners located in the work setting become involved in assessment. In such situations the professional authority to make decisions about students' performance may be delegated by higher education institutions to practitioners. These practitioners have a primary responsibility towards their workplace and employer, but assume the secondary responsibility of mentor, trainer, and assessor for students undertaking workplace learning. Potentially stressful work conditions can create tensions for workplace educators performing both roles, undermining their sense of agency and professionalism and their capacity to assess students, in turn profoundly affecting what and how students learn and what type of future professional is produced.

Workplace learning educators typically have strong backgrounds as professional practitioners but may have limited preparation and support for their education and assessment roles. They are not necessarily involved in curriculum development. Further, the pool of workplace educators may change rapidly in a workplace, and maintaining close partnerships can be difficult. The diverse, transient and disparate nature of assessment practitioners makes developing and maintaining quality assessment in PBE more complex. Universities have limited capacity to adequately prepare external assessors for their assessment role and to moderate the assessment process. It is too difficult to even try to ensure the reliability and validity of externally assessed performance when a large number of assessors are used who

each see a limited sample of the whole cohort. Johnson (2008) argued that greater reliability and validity are achieved by increasing the sample and controlling conditions. Grading can have a negative effect on assessors, who might be pressured to engage in finer discrimination of marking with insufficient time and experience to support them to engage in detailed assessment practices. However, practice cannot be dissected into the exact elements demanded by some objective assessments. For these reasons, we concur with Amin (2012, p. 5) that there should be "a higher tolerance for subjective value-based judgment."

Harman and McDowell (2011) investigated the discourses of assessment used by academics who taught design and found that the chosen dominant discourse shaped the practice of the assessor. They identified five discourses:

A discourse of *apprenticeship* is used when assessment through feedback is used to guide learners to be able to practise to the level expected by experts or custodians in the field. In this discourse the student is encouraged to converge to expectations. This discourse particularly applies to the application of convergent formative feedback, as described by Pryor and Crossouard (2007, p. 5), where assessment "starts with the aim to discover if the learner knows, understands or can do a predetermined thing."

A discourse of *personal development* is used where the assessor is concerned with the use and impact of assessment on the wellbeing and confidence of the student. Assessors may be concerned with the impact of their judgments on students' careers, access to their profession, and self-esteem.

A discourse of *regulation* is applied where assessment is used to measure students' achievement of certain behaviours. In regulated professions, particularly the health professions, it is a requirement to assess that students achieve competency in the practices of their profession.

A discourse of *objectivity* is applied where the assessor focuses on the desire to judge against determined criteria. This is a dominant discourse for those seeking to achieve notions of consistency and reliability in assessment.

A discourse of *vocationalism* encompasses the discourse of assessors as judges of students' suitability for the workforce and the profession. Notions of gatekeeping, protection of professional standards, protection of the community and job-readiness are encapsulated in this discourse.

Harman and McDowell (2011) contended that an individual's assessment practices could be dominated at any point in time by one discourse to the exclusion of others. They also identified that assessors negotiated and felt the tensions between these discourses. At some point, the balance between an external judgment of fitness for practice may need to be contested against students' internal judgments of their own capability and self-esteem.

The authors suggested that the means to enhance assessment practice was not to promote a dominant discourse but rather to assist assessors to reconcile and work within these tensions. Their discussion also reveals that understanding assessment practices by PBE assessors requires acceptance that there is not one single practice; multiple discourses shape and influence the assessment. A dominant discourse can undermine other discourses, even in contexts where they might be more relevant.

These findings reveal a need for a programmatic and systematic approach to assessment, to reconcile the identified discourse tensions.

Of note in the findings of Harman and McDowell (2011) is that the range of identified discourses position the assessor as a decision maker and judge exercising power over the student. The discourses of student learning, student agency and self-assessment were absent in their study. This is of concern, since one assessment purpose in PBE is to promote assessment for learning. Boud's (2010) recent work highlighted that it is vital that students learn to self-assess, because poor self-judgment has more serious implications than knowledge gaps for the development of future work capability.

Here we have argued that assessors' intended purposes of assessment shape their enactment. We have also introduced into the discussion the notion of collective assessment and student participation. The student's experience of assessment is another complex layer of PBE assessment, which we explore next.

Students in Assessment

Assessing learning for future practice requires engaged, transparent learner-assessor relationships that empower students to learn genuine self-assessment and self-regulation. Reflection, feedback and assessments that stimulate learning need to be grounded in a spirit of truthfulness, criticality and transparency, underpinned by a desire to learn and improve practice. The development of future practice and its assessment are based on the ability of all involved to respond to and learn from mistakes, to engage with practice observations and critical insights, to consider others, to meaningfully connect theory with practice, to ask curious and innovative questions, to search for possibilities, and to find good solutions in given practice contexts. These pedagogical approaches are intended to develop students' capabilities for practice and for imagining other possibilities. Most importantly here, they relate to the processes required for students who are preparing to join, contribute to, and develop a sense of belonging to relevant practice communities.

What assessors think they are doing may not be congruent with how students experience it (Mentkowski and associates, 2000). The potential for conflict between assessors and students arises when both parties privilege and expect different outcomes, particularly if those outcomes are not articulated and negotiated prior to assessment. Assessor and student perceptions of assessment experiences can differ and even contradict each other.

According to Boud (2010, p. 252), "assessment is not only something done to students but a necessary process in which they need to develop expertise, if they are to continue learning throughout their careers." A good assessment culture challenges students and encourages their active participation (Price, Carroll, O'Donovan, & Rust, 2010). Some assessors might invite students to choose their own grade, with the intention of encouraging student self-assessment. That, however, is a naive view of self-assessment if it does not include a respectful, open and critical dialogue between student and assessor. Students may deliberately underrate their achievement to avoid being judged as arrogant and over-confident.

Failure to openly discuss assessment judgments and perceptions represents a risk to assessment that is intended to develop students as critical, agentic learners.

Assessment practices of assessors are often underpinned by best intentions to adhere to principles of justice such as fairness, equity and objectivity, as well as assessing what was taught. Complex issues are often debated, such as making reference to the learning achievements of the individual to desired standards of performance or compared with their peers. Assessors need to concede to the situated and subjective nature of learning achievements and of peer comparisons in PBE. Rather than appealing to the non-defendable objectivity in assessment, assessors could preempt this debate by drawing on their professional judgment in assessments. Assessment tasks may be inconsistent, ill-defined and non-controllable, due to the diverse and changing contexts of practice. In practice settings, the conditions of assessment may change frequently and not be replicable, raising important concerns regarding the academic traditions of parity and objectivity of assessment across cohorts. With students exposed to such variable conditions of assessment, concerns over fairness and the value of providing grades suggest a rethinking of performance ratings among peers.

IMPLICATIONS

We began this chapter by discussing practice theory and framing it as a relational, discursive, contextual activity that requires participation in order to be learned and developed. Workplaces, work roles and professional relationships strongly shape practice. Such a framework of practice calls for judgment-based assessment. Further, we identified key tensions in assessments: assessing for learning versus assessing of learning; focusing on assessing individual practice rather than collective and team-based practice; assessors occupying the dual role where they are also mentors; and the power-laden relationship between students and assessors. From this discussion we imply that assessment in PBE is no easy task. A simplified approach is to assess what is measurable, but what is measurable is not necessarily important in practice (Crossley & Jolly, 2012). Rather than succumbing to simplistic and unsustainable solutions that ignore lifelong learning and self-assessment, we contend that assessment requires purposeful engagement with its accompanying complex and contextual issues. That engagement is based on multi-layered designs which include assessment input from students, assessors and others involved, as well as consideration for the learning and practice environment.

> Taking a holistic view of the role of assessment can reveal serious inconsistencies but can be used to engender greater consistency in practice by taking into account and managing the interconnected factors that support the assessment process. (Price et al., 2010, p. 12)

For example, educators may feel tension if they seek to assess cohorts of students under identical and controlled conditions in an effort to obtain consistency, but when doing so may create assessment conditions that poorly represent the normal variation in client conditions to which students must adapt. Instead, we argue, there

are times when educators need to value the consistency of authenticity and complexity inherent in managing the conditions of real practice more highly than the need for consistency across students. We assert that there is no room for shallow compromise and there is no other way for assessors than to engage with the identified complexities. Failure to do so can lead to students contesting their assessment results because they perceive them to be biased and unfair; students exiting degrees with statements of competency but being unable to form judgments of their own skills to guide their practice in situations of low or absent supervision; students whose capability for practice has been only partially assessed and inappropriately judged as acceptable to the standards of the profession; workplace learning educators who decline further involvement in student placements due to discomfort with their role as assessor. The question needs to be asked whether assessors are fit for assessing practice.

Three key principles can be crystallised from our discussion that underpins good assessment practices in PBE: dialogue, participation and critique. We suggest that all three need to be engaged with before decisions are made about assessment tasks.

Dialogue is the stimulus for learning and engaging constructively with assessment. Assessment tasks as monologues without reference to the understandings of assessment by students, workplace educators and the professions will contribute to ongoing contestation and contradictions in the use of assessment. It is important for students and assessors to at least accept each other's position if mutual understanding and agreement about assessment judgments cannot be reached. Talking about assessment and discussing its challenges together can engender appreciation of the difficulty of assessing practice. Articulating these difficulties together enhances purpose and potentially reduces appeals about the outcomes of assessment, such as students questioning the validity of workplace assessment. The conditions for constructive dialogue are mutual respect – which needs to be earned, willingness to listen, to speak up and to reconsider (Habermas, 1987). Dialogues help stakeholders to clarify their own expectations and those of others and to reduce misunderstandings. Dialogues on their own, however, are not sufficient. They need to be closely interwoven with active participation. Dialogues require participation from all stakeholders (Boud & associates, 2010). Learning for practice is a joint enterprise between students and assessors. Students need to be agentic learners (Billett, 2006) and actively contribute to their assessment. Self-engaged students who ask questions and learn from assessment experiences are more likely to learn for future practice. We stress here that it is important to ensure that the student voice, the voice of the inherently less powerful player in assessment, is not only heard but integrated into the assessment. If the student voice is attenuated there is the risk of students assimilating and perpetuating the practices of their assessors rather than developing their own practice capabilities. Decisions about assessment practices need to be based on critically understanding the complexity and power of assessment. Assessment drives student learning, and assessors have power over students in assessments. We suggest engaging with these power relations by reversing roles, which means that as well as being assessed, students assess their assessors. Playing both roles, assessor and learner, is

helpful to appreciate the role of the other. This reverse can contribute to balancing power relations and to better understanding judgments of performance. Such mutually reciprocal participation in assessment is closely linked to critique. All assessment stakeholders need to be enabled to question and challenge assessment practices (Phelan et al., 2006). This is no easy task, and due to the inherent power relations it is best instigated through the assessors. Those assessors also need to see themselves as learners who are reflexive and responsive. Reflexivity is the ability to self-assess, to see self within the social practice context with others, and to see self from others' perspectives. The ultimate purpose of these strongly interdependent principles of dialogue, participation and critique is to learn through assessment about what and how to develop one's practice further. Assessment practices are most meaningful and helpful in making judgments of student learning when they reflect the demands of real practice. The ultimate goal of assessment in PBE is to purposefully use assessment as a constructive pedagogical tool for assessors to judge student learning and to help students learn for future practice. Students should be at the centre of assessment and assessments should help students to stay committed, to keep asking questions and to learn from practice experiences. Practice-based assessments need to integrate student participation within practice contexts.

PBE evokes a paradigm shift for assessment in higher education and could be the impetus for such a shift (Yorke, 2011). We argue that the greatest challenge of assessment in PBE is to redesign university assessments to become PBE assessments. They would then be assessments not for knowledge but for practice knowledge, not for individual achievement but for relational interprofessional capabilities, not for being competent within practice norms but for actively contributing towards the social common good. Such assessments include recognising a commitment to learning. Our proposed assessment framework identifies the key purposes of assessment as student transformative learning and professional preparedness for practice beyond graduation.

Enhancing PBE pedagogy may strengthen learning and teaching but we contend that as long as assessment is not engaged in the pedagogical discourse of PBE students may falter in authentically learning for practice. The most well-intended curriculum and learning and teaching design will fail as long as its assessment does not incorporate and reflect student experiences. To contribute to education, assessment needs active engagement with learning from all.

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REFERENCES

Amin, Z. (2012). Purposeful assessment. *Medical Education, 46,* 3-12.

Billett, S. (2006). Relational interdependence between social and individual agency in work and working life. *Mind, Culture and Activity*, *13*(1), 53-69.

Boud, D. (1995). *Enhancing learning through self-assessment*. London: Kogan Page.
Boud, D. (2010). Assessment for developing practice. In J. Higgs, D. Fish, I. Goulter, S. Loftus, J.-A. Reid, & F. Trede (Eds.), *Education for future practice* (pp. 251-262). Rotterdam: Sense.
Boud, D., & Associates. (2010). *Assessment 2020: Seven propositions for assessment reform in higher education*. Sydney: Australian Teaching and Learning Council.
Crossley, J., & Jolly, B. (2012). Making sense of work-based assessment: Ask the right questions, in the right way, about the right things, of the right people, *Medical Education*, *46*, 28-37.
Fish, D., & Coles, C. (2005). *Medical education: Developing a curriculum for practice*. Berkshire: McGraw-Hill Education.
Green, B. (Ed.) (2009). *Understanding and researching professional practice*. Rotterdam: Sense.
Habermas, J. (1987). *The theory of communicative action (vol. 2): The critique of functionalist reason*. (Trans. T. McCarthy). Oxford: Polity Press.
Harman, K., & McDowell, L. (2011). Assessment talk in design: The multiple purposes of assessment in HE. *Teaching in Higher Education, 16*(1), 41-52.
Higgs, J., Fish, D., Goulter, I., Loftus, S., Reid, J.-A., & Trede, F. (Eds.) (2010). *Education for future practice*. Rotterdam: Sense.
Higgs, J. (2011). *Practice-based education: A framework for professional education*. Sydney: Australian Learning and Teaching Council.
Hodges, D. (2011). The assessment of student learning in cooperative and work-integrated education. In R. K. Coll & K. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 53-62). Hamilton, New Zealand: Waikato Print.
Johnson, M. (2008). Grading in competence-based qualifications – Is it desirable and how might it affect validity? *Journal of Further and Higher Education*, *32*(2), 175-184.
Kemmis, S. (2009). Understanding professional practice: A synoptic framework. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 19-38). Rotterdam: Sense.
Kemmis, S., & Trede, F. (2010). Practice and developing future practice. In J. Higgs, D. Fish, I. Goulter, S. Loftus, J.-A. Reid, & F. Trede (Eds.) *Education for future practice* (pp. 29-39). Rotterdam: Sense.
Mentkowski, M., & Associates. (2000). *Learning that lasts: Integrating learning, development, and performance in college and beyond*. San Francisco, CA: Jossey-Bass.
Phelan, A. M., Sawa, R., Barlow, C., Hurlock, D., Irvine, K., Rogers, G., et al. (2006). Violence and subjectivity in teacher education. *Asia-Pacific Journal of Teacher Education*, *34*(2), 161-179.
Price, M., Carroll, J., O'Donovan, B., & Rust, C. (2010). If I was going there I wouldn't start from here: A critical commentary on current assessment practice. *Assessment & Evaluation in Higher Education*, *36*(4), 479-492.
Pryor, J., & Crossouard, B. (2007). A socio-cultural theorisation of formative assessment. *Oxford Review of Education*, *34*(1), 1-20.
Rust, C. (2007). Towards a scholarship of assessment. *Assessment & Evaluation in Higher Education, 32*(2), 229-237.
Yorke, M. (2011). Work-engaged learning: Towards a paradigm shift in assessment. *Quality in Higher Education*, *17*(1), 117-130.

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15. INTERPROFESSIONAL PRACTICE-BASED EDUCATION

All pre-licensure education courses for the health professions prepare their students for practice. Most complement practice learning in the classroom with that on placement and sometimes in virtual learning environments, as other chapters explore. Many include interprofessional practice learning in one or more of those settings. Consistent with the title of this book, we use the term "interprofessional practice-based education" (IPBE). We focus, within the constraints of a single chapter, on IPBE during clinical and fieldwork placements, while regarding it as mutually reinforcing in all three of the above settings. We treat IPBE as a subset of interprofessional education (IPE) defined as:

> Occasions when two or more professions learn with from and about each other to cultivate collaboration and the quality of care. (CAIPE,[i] 2002)

We start from the premise that building IPBE into placements depends for its success on:

- Shared understanding and commitment by educators in university and practice settings across the professions
- Compatible ways to introduce
  - IPE within and between pre-licensure courses
  - IPBE complementing uniprofessional placements
- Joint planning and partnership between universities and practice agencies
- Preparation of the facilitators.

We present three models for IPE during placements, along a continuum in ascending order of complexity regarding their implications for resourcing, planning and delivering:

1. Interprofessional learning between students from different professions within their concurrent uniprofessional placements, e.g. capturing opportunities for collaborative practice with clients;
2. Interprofessional learning between students complementing, but external to concurrent uniprofessional placements, e.g. organising lunchtime meetings, study days and events;
3. Interprofessional learning in dedicated interprofessional team-based placements providing planned interprofessional interventions with clients.

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 199-212.

Model 1 may well be combined with Model 2. Model 3 best builds on Model 1 and/or 2.

We focus on IPBE during pre-licensure courses for the health and social care professions, leaving aside learning for practice during post-licensure interprofessional courses and continuing interprofessional development.

TOWARDS A SHARED UNDERSTANDING OF IPE

Antecedents for IPE can be traced in many countries over many years (Barr, 2005). Progress towards establishing coherence and consensus is most marked in Australasia, Canada, Japan, Scandinavia, the United Kingdom and the United States, reinforced by national and international collaboratives and networks and by the long-standing engagement of the World Health Organization leading to a seminal report (WHO, 1988), reaffirmed subsequently (WHO, 2010). CAIPE complemented its definition (see above) with a set of IPE principles (Barr & Low, 2011) later incorporated into a guide for commissioners and regulators (Barr & Low, 2012). Outcome-led, competency-based frameworks have been formulated in Canada, the United Kingdom and the United States (Canadian Interprofessional Health Collaborative, 2010; Combined Universities Interprofessional Learning Unit, 2010; Interprofessional Education Collaborative Expert Panel, 2011) in terms which are also applicable, subject to critical appraisal and adaptation, in other countries (see e.g. Brewer & Jones, 2011 for Australia).

Evaluations of IPE have become more rigorous. Many have been included in systematic reviews of international databases to help establish the evidence base (Zwarenstein et al., 2001; Barr et al., 2005; Hammick et al., 2007; Reeves et al., 2008, 2011). Theoretical perspectives have been introduced critically and comparatively from educational, psychodynamic, social psychological and sociological perspectives (Barr et al.; 2005; Colyer, Helme, & Jones, 2005; Hean, Craddock, & O'Halloran, 2009). Even so, teachers are at different stages in their understanding of IPE from their different professional perspectives. Diversity needs to be acknowledged and celebrated before differences can be resolved or accommodated.

COMPARING PROFESSIONAL PRACTICE-BASED LEARNING SYSTEMS

Provision for practice learning differs between professional education systems, depending on requirements set by governmental, professional or regulatory bodies in each country, and between universities depending on their policies, practices, partnerships with practice agencies and the professional programs they deliver. Doel and Shardlow (2009) systematically described practice learning for nine health and social care professions in the UK. The outcome is an indispensable source of reference for all who are involved in designing and delivering IPBE in that country, and its format suggests ways in which similar comparisons might well be conducted in other countries. All professions included by Doel and Shardlow used placements, but identifying similarities across the professions proved elusive.

Constructing a generally applicable framework for practice learning into which to dovetail IPBE would plainly be impossible. Requirements regarding the qualifications and experience of the practice educators differed. Comparable data were lacking regarding the duration and scheduling of placements. Regulations for some professions required a 50/50 split between placement and university-based learning (without providing a rationale); others had no such requirement. The notion that students progressed through a series of learning stages did seem to be generally accepted, although it was less clear how those stages were delineated in terms of observable and assessable behaviour.

UNDERSTANDING IPBE

All uniprofessional placements include opportunities for interprofessional learning which may be taken or missed. Students encounter situations beyond the responsibilities and resources of their own profession; situations demanding responses from a number of professions. They may observe how other professions work together, with or without opportunities to talk to the practitioners about their roles and relationships. They may sit in on team meetings or case conferences, with or without briefing and debriefing. Serendipitous interprofessional learning can be valuable but its benefits are limited by the absence of planning and supervision. It is dependent on chance occurrences, often implicit without help from an interprofessionally attuned educator in making them explicit and in exploring lessons for collaborative practice.

IPBE, on the other hand, is a purposeful and planned component of IPE. It augments uniprofessional practice learning and complements university-based practice-related IPE. Moreover, it is facilitated.

All uniprofessional placements for all the health and social care professions should, in our view, include IPBE appropriate to the stage that the student has reached in his/her practice learning, plus a dedicated interprofessional team-based placement as discussed below. This combination of learning experiences will ensure that students have ample opportunity to develop the interprofessional collaborative practice capabilities required to be "industry ready" for the demands of the current health care workforce.

SOME EXAMPLES

We illustrate the three models with examples from Australia, Denmark, South Africa and the United Kingdom.

Model 1: Interprofessional learning between students from different professions within their concurrent uniprofessional placements in the same setting

We have chosen two examples to illustrate this first model. In both, IPBE was instigated by practice educators working together across their uniprofessional fields to identify situations where two or more students from different professions could

learn from collaborative practice to respond to multiple needs.

Flagging interprofessional cases An interprofessional team of practice educators from dietetics and physiotherapy at the King Edward Memorial Hospital, Western Australia, collaborated to identify "interprofessional" cases which they believed would benefit from an integrated service provided by both professions. The initial focus was on clients with both incontinence and obesity problems. Any referral received for a client meeting these criteria while students from those professions were concurrently on placement was referred to the students for assessing, planning and delivering the appropriate services as a team under supervision from the practice educators. Benefits reported for students including enhanced scope of practice and confidence to make appropriate referrals to other professions, along with opportunities to reflect on the values, beliefs and culture of their own and other professions and on the different roles each profession has in client care. Clients reported a clear understanding of how the different professions intervened in their care and the time saved with appointments (Sivakumar, 2010).

Observing clinical assessments Pairs of speech and language therapy students from the University of Sheffield conducted assessments of clients in the stroke unit at a local hospital. The initial client examination was observed via a one-way mirror by the practice educator along with students and qualified professionals from nursing, physiotherapy, occupational therapy, pharmacy and medicine. Following the assessment the students and staff gathered as a group to discuss the client's communication abilities, how different professions saw the client, the client and family involvement in the treatment program, and priorities for ongoing care from all perspectives. The students who conducted the session then compiled a care plan. Thirty six students from 11 health professions participated in this pilot program. Evaluation consisted of a written feedback form, the Readiness for Interprofessional Learning Scale (Parsell & Bligh, 1999) and a group discussion with some speech pathology students. Feedback from all participants was positive but some challenges were identified including the demands on staff to coordinate the learning experience and the students' desire for more "hands on" contact with clients (Baxter, 2004).

Model 2: Interprofessional learning between students complementing, but external, to concurrent uniprofessional placements

We have chosen two more examples to illustrate the second model. Both entailed meetings between students outside their placements to situate their uniprofessional learning in an interprofessional context. The timeframes have been selected to highlight that practice-based IPE has been in existence for many decades.

a) Learning during the lunch break
Practice educators in Thamesmead, then a new town south east of London,

originated a model which we celebrate as a classic ahead of its time. They invited medical, health visiting and social work students concurrently on placement with them to share their learning experiences. Lunch time meetings were convened between 1976 and 1979, augmented by half-day workshops and, for one group, a weekend retreat. The idea was to experiment with different ways to introduce the experiential cycle. Passive provision of information was out; icebreakers were in. Students interviewed each other before introducing their partner(s) to the group, played games, and joined in role plays, sentence completion exercises, case discussions, joint home visits, joint supervision sessions, peer teaching, topic groups and community action projects. Evaluation took the form of participant observation, students' diaries, trainers' notes and interviews. Students were positive about the learning opportunities, but generalisations were avoided given the diversity of the activities (Jaques & Higgins, 1986).

b) Engaging with Aboriginal health

The Geraldton Interprofessional Education Project focused on Aboriginal health in rural Western Australia. It was initiated and developed by the Combined Universities Centre for Rural Health, and involved partnerships with the Geraldton Regional Aboriginal Medical Service and the Rural Clinical School in Geraldton, with input from Curtin University's Faculty of Health Sciences. Students from medicine, nursing, physiotherapy, occupational therapy, social work and health science on placement in the town of Geraldton attended three half-day workshops that utilised experiential and reflective learning. Students received a lecture on cultural security, communication with Aboriginal clients and the clinical encounter. Aboriginal people and their families were engaged as "community teachers" who shared their narrative of living with a chronic condition and their experiences of health care. This was facilitated by an interprofessional team of health professionals (teachers and practitioners). The students then worked in interprofessional groups to discuss those narratives and the role of each profession in providing health care. At the conclusion of the final workshop students presented a reflection on the aspects of the illness narrative they believed were most relevant to their own practice. Following the pilot program involving 28 students, significant increases in the students' self-reported ability to work as part of an interprofessional team, their cultural competency behaviours, and their attitude towards Aboriginal people were found (Green & Lin, 2011).

Model 3: Interprofessional learning in dedicated interprofessional team-based placements.

To illustrate the third model we have chosen four examples, all of which brought students from different pre-licensure courses together to comprise a learning team to develop both their professional and interprofessional competence. The first client-centred learning example focuses on seeing health, wellbeing and the services received through the clients' eyes in the neighbourhood where they lived (Lennox & Anderson, 2007). The second is set in a rural community in South

Africa. The third is an interprofessional student training ward in Denmark (Jacobsen et al., 2009) similar to others in Australia (Stewart-Wynne & Brewer, 2011), Sweden (Fallsberg & Hammer, 2000; Ponzer al., 2004) and the UK (Reeves & Freeth, 2002). The fourth transposes such learning opportunities from hospital into a community setting enlivened by transcripts of interviews with one of the students and her practice educator.

a) Entering into the client's experience

Triads of medical, nursing and social work students from the University of Leicester in England visited clients by invitation in their homes. Each client talked about health and social circumstances, focusing on living at home in a deprived downtown neighbourhood and the services that they received. In class the following week students compared and contrasted perspectives within and between the triads, facilitated by the teacher. Each triad identified a key health professional working with their client and requested an interview with him/her regarding the client's needs and the services provided. This was then reported back in class. Finally, the class was assigned the task of preparing a report on the services available in the neighbourhood in which they had been visiting and conducting a half-day meeting to which all the key workers were invited to receive feedback and to explore with the students how services might be improved (Lennox & Anderson, 2007). Anderson and Lennox (2009) reported findings from the analysis of questionnaires completed by 2,000 students who participated in this "Leicester Model" as it evolved over 10 years, augmented by findings from focus groups comprising randomly selected students. Feedback was positive year after year and consistent across the professional groups. Knowledge students reported they had gained included the ability to relate environmental factors to health and health care, to critique multidisciplinary care delivery and the impact of service delivery in the community, and to analyse the central role of the client and the importance of team working.

b) Living and learning in a rural community

The University of the Western Cape has a long-standing partnership with the rural communities of Grabouw and Genadendal where students on placement live in rented accommodation during the week, returning to the campus for lectures on Fridays. Nursing students began by hosting a one-off event on "Women's Day" at the Grabouw day hospital, offering free health testing plus gift packs. The success of the day led to year-round activities by three rotations of students from nursing, physiotherapy, natural medicine and social work. The students also met weekly as an interprofessional team to plan future Women's Day events, during which each promoted their profession: nurses offered blood pressure, pregnancy, HIV/AIDS and pap smear tests; natural medicine students offered cupping (an ancient form of treatment used to promote healing), acupuncture, immune boosters and lavender products; physiotherapy students offered massaging and fitness testing; and social work students educated women on their rights and promoted services in the community related to abuse, marriage counselling and social grants. The students also organised face-painting, arts and crafts activities and a modelling show for

children so that their mothers were free to attend the education, treatment and pampering sessions. All participants were fed, through various sponsorships and donations by local community businesses. Typically, more than 300 women and 100 children attended. A local motivational speaker started each day off, followed by various musical events. Students met with fellow team members from the community – the nursing clinic, fire brigade, police, child welfare, library, Elgin Learning Foundation, municipality, primary and high school, youth committee, local ministers and media – to organise the events.

Each rotation of students was arranged by the university's Practice Manager and briefed by the Fieldwork Co-ordinator who (as a resident in Grabouw contracted to work with the university) helped them to connect with key people in the community, prepared periodic presentations to community members to encourage their participation and to new students to help them to build on what the previous group had put in place (Filies, 2011).

c) Learning as a team on an interprofessional training ward

Students from occupational therapy, physiotherapy, medicine and nursing comprised teams during their 2-week placements arranged in cooperation with Ringkjobing County and the University of Aarhus from 2004 to 2007 at the eight-bed interprofessional training unit on an orthopaedic ward at Holsterbro Hospital in Denmark. Each group consisted of four to six nursing students, two occupational therapy students, two physiotherapy students and one or more medical students who staffed morning and afternoon shifts on the ward for the duration of their 2-week placement. Each profession had its own clinical tutor who was a member of the staff team responsible for the patients and the students' supervision. The initial evaluation was qualitative, including focus groups with senior staff, clinical tutors and students and an interview with the project manager. Students from all four professions learned more about interprofessional teamwork, gained a better understanding and strengthened their own roles, and learned to work together in an organisational context. Subsequent evaluations found positive changes in reciprocal attitude between the student groups (Jacobsen & Lindqvist, 2009) and greater cost-effectiveness compared with another orthopaedic ward in the same hospital (Hansen, Jakobsen, & Larsen, 2009).

d) Responding to multiple needs in a community setting

Curtin University students from occupational therapy, physiotherapy, speech pathology, nursing, social work, psychology and dietetics provided much-needed health and social care services to the school community at the Challis Early Childhood Education Centre (ECEC) in Western Australia under the supervision of an interprofessional practice educator. Between March and December 2011, 77 Curtin students completed a clinical placement at the Challis ECEC, with an additional 82 students completing a half-day visit to the site. The clinical placements varied in duration, with no fewer than three different professions being on placement at any one time. Referrals to the service were generated by parents, teachers and other staff working within the school. Specific activities undertaken by the students included individual and interprofessional team assessment and

intervention sessions, team meetings, case conferences and project work. Health promotion and education activities were also delivered by the interprofessional student teams via parent and teacher workshops, development of information pamphlets, and embedding of education into playground and parenting sessions.

The students received additional support from their profession-specific practice educators who visited the school at regular intervals or at the request of their student(s). Close collaboration with the school teachers and other community service providers was critical. Evaluations included student attitudes towards interprofessional collaboration, assessment of students' interprofessional capabilities, individual student interviews, written staff surveys and a staff focus group. The results were positive from both student and staff perspectives, with the most pleasing outcomes being the improvement in the students' demonstrated collaborative practice capabilities, the increase in the teachers' skills in embedding therapeutic activities within the classroom, and the pupils' attainment of therapy goals (Tomlinson, Brewer, Bolte, & Robinson, 2011).

The following reflections by Samantha, a final year placement occupational therapy student, bring the learning experience to life.

> We are all health professionals collaborating together. For example, if the speech pathologist had not been working with me I would never have realised that one of my client's had a stutter and receptive and expressive language difficulties. Together we were able to break down how I could incorporate speech goals in to my plan so their therapy was more holistic …
>
> In other "pracs" you don't want to ask for help 'cos you don't want to look stupid or non-professional. Here you can ask. You feel professional. You can work together rather than feeling like you're expected to know it all.

Congruence between Samantha's reflections and those of her practice educator is striking.

> The best thing about the students being on placement together is that it breaks down the hierarchies and barriers. When they first come I notice they refer to each other as "the physio is going to do this, the speechie is going to do that." But then they start to see each other as health professionals with the background knowledge of a speech pathologist or a physio. Then they start to say "oh you might be able to help me with this 'cos you know a lot about communication."
>
> After they've seen their individual kids at the end of the day we will sit down and talk about how their sessions went. And that's an opportunity for everyone to put in their two cents on what they could do from now. For example, when [the child] was in here and [the speech pathology student] was working on her speech goals she wasn't concentrating. The OT [occupational therapy] student said maybe she needs some deep pressure sensory stimulation beforehand. So the next day the OT and speechie tried it

> together and it worked and the child performed much better. So it's a holistic approach and with that comes an increased respect for the other professions.
>
> It works well that their supervisors aren't here all the time and they feel comfortable asking each other for support. I notice when their supervisors are here they don't ask that many questions. I think it gives them more confidence at – well, working with each other. They are all at the same level.

COMPARING THE MODELS

The first model has the advantage that it can be introduced readily at minimal additional cost whenever students from two or more professions are co-located on placement, provided that there is a shared understanding and commitment to client-focused interprofessional learning opportunities among the practice educators and their students. The interprofessional learning is, however, largely dependent on securing client-focused opportunities as they arise.

The second model can also be readily introduced where students are co-located, with minimal disruption to placement routine and marginal claims on resources. Effectiveness does, however, depend on the readiness of students from each of the professional groups to attend regularly and engage positively in interprofessional group activities over a sustained period with variable degrees of client-focused activities.

The third model depends upon the agreement of the host practice agency and careful planning within its policies and practice, which can lead to protracted negotiation. These constraints may account for its limited adoption thus far and militate against its general introduction. It is, however, the only model of the three which establishes client-centred interprofessional team-based practice as the high ground and the end-point of IPBE.

PLANNING AND PARTNERSHIP

Universities will already have agreements with practice agencies for the provision of uniprofessional placements, into which an agreement to promote and develop one or more of the IPBE models may be written. Implementing Model 1 depends on agreeing which practice learning settings take sufficient students from different professional groups for practice educators to be in a position to facilitate interaction between them, and the staff's readiness to take on the role of the interprofessional facilitator alongside their uniprofessional roles. Implementing Model 2 depends on the readiness of all or some of the practice educators to convene and facilitate meetings, as well as finding a suitable venue and covering the cost of catering (good enough to provide an incentive for the students to come!). Building in preparation and ongoing support for students and staff is critical for both Models 1 and 2. A case may be made for an additional practice educator to lead and support the others in facilitating the IPBE. Such an appointment has much to be said in its favour when student numbers justify it and

funds permit. Preparation for practice educators may well be combined for Models 1 and 2.

Implementing Model 3 requires more collaboration between the education and practice organisations during the planning stage, including concurrent scheduling of students' placements, preparation of students, and the engagement and recruitment of practice educators with well-developed skills in interprofessional learning. Additional preparation and support are necessary, with reference to the organisation, dynamic, and setting for the particular project, beyond that provided for practice educators for Models 1 and 2. Time needed to reach an agreement between the university and the practice agency is likely to be significantly longer than for Models 1 and 2, with relatively few examples on which to call. It is, however, justified to develop IPBE at the cutting edge beyond the relatively modest scope of the other two models.

Such a placement might replace an existing uniprofessional placement, subject to negotiation between educators for the pre-licensure courses and approval of modifications, but the model may have a better chance of gaining acceptance if it is additional to existing placement provision. Whichever the model, planning needs to include representation from each of the organisations and each of the professions whose students will be involved. The involvement of clients and caregivers is good practice.

PREPARING THE PRACTICE EDUCATORS

Practice educators, in common with some of their university colleagues, may well be accustomed to facilitating uniprofessional learning. If so, that provides a foundation on which to build, but interprofessional facilitation demands more. Effective interprofessional facilitation enables students from different professions to enrich and enhance each other's learning in a supportive small group setting. Facilitators are sensitive to the perspectives, perceptions and particular needs of each individual and profession; able to turn conflict into constructive learning; and aware of ways in which their own attitudes, values and behaviour can impact positively or negatively on students' experience (Freeman, Wright, & Lindqvist, 2010). They assist the student group to optimise its learning by calling on resources within its members while resisting pressure to assume the teaching role, unless and until the group has expended its own learning capacity (Howkins & Bray, 2008).

Some practice educators feel underprepared and undervalued for that role. They find it daunting to be confronted by students from diverse backgrounds with different perspectives, expectations, assumptions and styles of learning. IPBE does indeed entail working with students and teachers from other professions in fields of practice beyond the familiar milieu of the practice educator's own profession. Some practice educators may already be attuned to the dynamics of small groups. If so, they will be on their way towards understanding how students may behave in an interprofessional group, the roles they may play in leading or obstructing its work, assisting or impeding the learning of others, and the conflicts and rivalries which may intrude, for example, when differences are played out in power and

status which mirror those between the students' professions. The facilitator can encourage the members of the group to view the learning experience as a microcosm of collaboration in working life, a test-bed under safe and controlled conditions to develop their collaborative capabilities, an opportunity to review what can get in the way and to explore more productive ways of working together.

Facilitation enables students from different professions to enhance each other's learning. It is sensitive to their different perspectives and perceptions, above all enabling them to translate problems into opportunities as they focus on the client and ways to improve health and social outcomes. Co-facilitating can be an especially helpful way to learn, enabling you and a colleague from another profession to compare your evaluation of the group's progress, complement each other's insights and interventions, and offer mutual feedback. Candid feedback from the students on this process will be a bonus.

Preparation for the facilitating role is essential, preferably in a group including practice educators (and sometimes university teachers) from the range of relevant professional backgrounds, building on, but extending beyond the range of knowledge, skills and attitudes required for uniprofessional practice teaching. Anderson, Cox, and Thorpe's (2009) evaluation of the impact of a masters level 2-day course designed to prepare teachers for their facilitating role supported their hypothesis that participants needed tailored professional development opportunities. Our interview with Samantha captured many of the qualities in facilitation.

> It is how she operates that helps the atmosphere or team culture. She's not intrusive. I think that is the most important thing, especially for last pracs where as a student you feel independent. She's there for assistance if you need it but she's not gonna watch everything you do or spy on you. She has the knowledge about all of the disciplines 'cos of her work experience. She's organised and structures stuff. You feel that you can do the job and you're not being evaluated all of the time. She's approachable. She's friendly. She's organised. She can see the big picture. She's very supportive. She's like a colleague but also like a supervisor. She will sit with you when you need it. She will step back when you need it. She trusts you. She is very open to questions and relaxed.

EVALUATING IPBE

The three models merit different levels of investment in evaluation, for different purposes, employing different methods. Isolating, much less evaluating, interprofessional learning incidents in examples of Model 1 is problematic. Evaluation is likely to be qualitative, capturing the experience of students and practice educators and inviting feedback on their IPBE during the placement. Evaluating examples of Model 2 is more manageable, but the different constituent learning activities may require separate evaluation, as findings may not lend themselves to aggregation (Jaques & Higgins, 1986). Given its innovative

character, the investment necessary and the potential dividends, Model 3 plainly merits more substantial and more systematic evaluation. Some of the interprofessional training wards have, indeed, been subject to such evaluation. Optimal evaluation would include the perspective of all stakeholders: students, staff, clients and management within the organisations. It would also move beyond just measures of reactions and attitudes to include students' interprofessional collaborative competencies or capabilities (Brewer, Gribble, Robinson, Lloyd, & White, 2011).

CONCLUDING THOUGHTS

We began by exploring the development of IPBE within and between uniprofessional placements to demonstrate how, given the will, progress can be made readily, inexpensively and productively. We cited the earliest examples of Model 2 pioneered in the UK with a more recent one in Australia, confirming its place in an IPBE strategy. Acknowledging the groundbreaking contribution of the interprofessional training wards as exemplars of Model 3, we were mindful that few have been launched and even fewer sustained. If, as we conclude, team-based placements have an indispensable place in students' practice learning, ways must be found to establish them in a range of affordable hospital- and community-based placements. Therein lies the challenge.

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NOTES

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REFERENCES

Anderson, E. S., & Lennox. A. (2009). The Leicester model for interprofessional education: Developing, delivering and leaning from student voices for 10 years. *Journal of Interprofessional Care, 23*(6), 557-573.

Anderson, E. S., Cox, D., & Thorpe, L. N. (2009). Preparation for educators involved in interprofessional education. *Journal of Interprofessional Care, 23*(1), 81-94.

Barr, H. (2005). Learning together. In G. Meads & J. Ashcroft (Eds.), *The case for interprofessional collaboration in health and social care* (pp. 135-150). Oxford: Blackwell.

Barr, H., Koppel, I., Reeves, S., Hammick, M., & Freeth, D. (2005). *Effective interprofessional education: Argument, assumption and evidence.* Oxford: Blackwell.

Barr, H., & Low, H. (2011). *Principles of interprofessional education.* London: CAIPE.

Barr, H., & Low, H. (2012). *Developing interprofessional learning in pre-registration education programmes*. London: CAIPE.

Baxter, S. K. (2004). Perspectives and practice: Speech and language therapy student views of an interprofessional learning experience. *Learning in Health and Social Care 3*(2), 102-110.

Brewer, M., & Jones, S. (2011). *Client centred care: The foundation for an interprofessional capability framework.* Paper presented at European Interprofessional Education Conference, 14-16 September, Ghent, Belgium.

Brewer, M., Gribble, N., Robinson, P., Lloyd, A., & White, S. (2011). *Interprofessional collaboration in practice: The assessment of students' interprofessional capabilities in clinical placements.* Paper presented at Collaborating Across Borders III Conference, 19-21 November, Tucson, Arizona.

CAIPE. (2002). *Interprofessional education – A definition.* London: CAIPE.

Canadian Interprofessional Health Collaborative. (2010). A national competency framework for interprofessional collaboration. Retrieved from http://www.cihc.ca/files/CIHC_IPCompetencies_Feb1210.pdf

Colyer, H., Helme, M., & Jones, I. (2005). *The theory-practice relationship in interprofessional education.* London: Higher Education Academy Health Sciences & Practice. Occasional Paper No. 7.

Combined Universities Interprofessional Learning Unit. (2010). *Interprofessional capability framework 2010 mini-guide.* London: Higher Education Academy Subject Centre for Health Sciences and Practice.

Doel, M., & Shardlow, S. M. (2009). *Educating professionals: Practice learning in health and social care.* Farnham: Ashgate.

Fallsberg, M. B., & Hammer, M. (2000). Strategies and focus at an integrated interprofessional training ward. *Journal of Interprofessional Care*, *14*(4), 337-350.

Filies, G. (2011). Personal communication.

Freeman, S., Wright, A., & Lindqvist, S. (2010). Facilitator training for educators involved in interprofessional learning. *Journal of Interprofessional Care*, *24*(4), 375-385.

Green, C., & Lin, I. (2011). *Listen to your patients*. Paper presented at 2011 Annual Primary Health Care Research, Education and Development WA Research Conference: Looking to the Future**.** October 21, Perth, Western Australia.

Hammick, M., Freeth, D., Reeves, S., Koppel, I., & Barr, H. (2007). A best evidence systematic review of interprofessional education. Dundee: Best Evidence Medical Education Guide No. 9. *Medical Teacher*, *29*, 735-751.

Hansen, T. B., Jacobsen, F., & Larsen, K. (2009). Cost effective interprofessional training: An evaluation of a training unit in Denmark. *Journal of Interprofessional Care*, *23*, 234-241.

Hean, S., Craddock, D., & O'Halloran, K. (2009). Learning theories and interprofessional education: A user's guide. *Learning in Health and Social Care, 8*(4), 250-262.

Howkins, E., & Bray, J. (2008). *Preparing for interprofessional teaching: Theory and practice.* Oxford: Radcliffe.

Interprofessional Education Collaborative Expert Panel. (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel.* Washington DC: Interprofessional Education Collaborative.

Jacobsen, F., Fink, A. M., Marcussen, V., Larsen, K., & Hansen, T. B. (2009). Interprofessional undergraduate clinical learning: Results from a three year project in a Danish interprofessional training unit. *Journal of Interprofessional Care*, *23*, 30-40.

Jacobsen, F., & Lindqvist, S. (2009). A two-week stay in an Interprofessional Training Unit changes students' attitudes to health professionals. *Journal of Interprofessional Care*, *23*, 242-250.

Jaques, D., & Higgins, P. (1986). *Training for teamwork: The report of the Thamesmead interdisciplinary project.* Oxford: Oxford Polytechnic Educational Methods Unit.

Lennox, A., & Anderson, E. (2007). *The Leicester model of interprofessional education: A practical guide for implementation in health and social care.* Special report 9. Newcastle: Higher Education Academy: Medicine, Dentistry and Veterinary Medicine.

Parsell, G., & Bligh, J. (1999). The development of a questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS). *Medical Education*, *33*, 95-100.

Ponzer, S., Hylin, U., Kusoffsky, A., Lauffs, M., Lonka, K., Mattiasson, A. C., et al. (2004). Interprofessional training in the context of clinical practice: Goals and students' perceptions on clinical education wards. *Medical Education, 38*, 727-736.

Reeves, S., & Freeth, D. (2002). The London training ward: An innovative interprofessional learning initiative. *Journal of Interprofessional Care, 16*(1), 41-52.

Reeves, S., Zwarenstein, M., Goldman, J., Barr, H., Freeth, D., Hammick, M., et al. (2008). *Interprofessional education: Effects on professional practice and health care outcomes.* (Cochrane Review). Retrieved from http://www2.cochrane.org/reviews/en/ab002213.html

Reeves, S., Zwarenstein, M., Goldman, J., Barr, H., Freeth, D., Hammick, M., et al. (2011). Interprofessional education: Effects on professional practice and health care outcomes. *The Cochrane Database of Systematic Review.* Retrieved from http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD002213.pub2/full

Sivakumar, P. (2010). *Intake + output = dietetic and physio integrated approach to incontinence*. Paper presented at Curtin University's Heath Interprofessional Education Conference, 1 August, Bentley, Western Australia.

Stewart-Wynne, T., & Brewer, M. (2011). *The Royal Perth Hospital – Curtin University Student Training Ward – an Australian interprofessional education perspective*. Paper presented at Showcasing innovation and evidence based clinical skills evaluation and practice conference, 22-25 May, Prato, Italy.

Tomlinson, K., Brewer, M., Bolte, K., & Robinson, P. (2011). *Challis Early Childhood Education Centre Annual Report.* Retrieved from http://healthsciences.curtin.edu.au/faculty/ipe-placements.cfm

WHO. (1988). *Learning together to work together for health.* Geneva: World Health Organization.

WHO. (2010). *Framework for action on interprofessional education and collaborative practice.* Geneva: World Health Organization.

Zwarenstein, M., Reeves, S., Barr, H., Hammick, M., Koppel, I., & Atkins, J. (2001). *Interprofessional education: Effects on professional practice and health care outcomes*. (Cochrane Review). Retrieved from http//www2.Cochrane.org/reviews/en/ab000072.html

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WILL LETTS

16. TRANSLATING PBE STANDARDS INTO CURRICULAR STRATEGIES

A Case from Teacher Education

This chapter examines what emerges when a group of colleagues work together as a course team to embed and then bring to life practice-based education standards within a course – in this case primary teacher education – in the form of curricular strategies. Key features of this intentional work are that it occurs over time and must be continually revisited and benchmarked against the standards to ensure that the program is on target and aligned with the very standards that underpin it. I will examine both the preconditions for such work to happen, and also the results of engaging in benchmarking against a set of enacted standards. Although this work relates specifically to the field of teacher education, I encourage readers to think about what broader lessons can be drawn out that would apply to the field and profession they are (educating) within.

In the Ontario School of Education, Charles Sturt University (CSU), we were afforded the opportunity of crafting a graduate-entry teacher education program from scratch as our university established a campus in Ontario, Canada. This necessitated responding both to Ontario ministerial and professional accreditation requirements in the Province, and drawing upon a proud tradition of teacher education at CSU.

This "green fields" scenario offered us more flexibility and latitude to innovate, as we were in the establishment phase of the program, compared to our Faculty's other well-established teacher education programs that had histories, were deeply engrained in and entwined with their contexts, and required different strategies to take advantage of opportunities and respond to challenges. Articulating a program in this new context meant that despite the need to respond to regulatory and professional requirements, we could be more agile and responsive both to the needs of the field of practice we were working with/in and towards, and also to issues, trends and developments in the field that our course team of practitioner-scholars discerned.

Initially, as we crafted a framework for our program that embedded both conceptual and programmatic features, we designed a visual representation which took account of values, capabilities of graduates and the structural components of the program – but not of standards. But a program built on values alone ran the risk of not getting graduates to achieve the capabilities that they were intended to possess when they had finished their course. So we soon realised we were missing an acknowledgment of standards, and remedied this by building in a layer, or

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 213-226.

"ring," that contained both the standards of our professional accrediting body, the Ontario College of Teachers, and our university's own Standards for Professional and Practice-based Education (EFPI, 2011) (see Figure 16.1).

The Ontario College of Teachers has both Ethical Standards for the Teaching Profession (2006a) and Standards of Practice for the Teaching Profession (2006b), but for the purposes of this chapter I set these to the side and focus solely on how we have marshalled to take up and enact CSU's Standards for Professional and Practice-based Education (P&PBE) within our Bachelor of Primary Education Studies (BPES) course.

We have created a curriculum framework that is focused on a central question around which the BPES course is built: How do we create and sustain an inclusive classroom as a learning community? Not only is this question set as a challenge to our teacher candidates (students) to think through deeply and respond to through their own classroom practice, but it also doubles as a question that all of the university and site-based teachers on the course work to enact in relation to our teacher candidates.

Figure 16.1 is a helicopter view of the program framework. In the ring around the central question are eight of the ten subjects that the teacher candidates study across two semesters. These subjects are then surrounded by the school-based practicum ring, to indicate that all of the subject study is really in the service of allowing the candidates to be successful on practicum. It is also significant that the prompt in the "Values" ring says, "Critical perspectives of:" to denote that these values are not meant to be taken as received wisdom, but rather that we are always "in conversation" with them, identifying their affordances for our work and addressing the challenges they suggest.

Note as well that all the lines between the rings are perforated, indicating a connection and flow between each of them, signalling their porous rather than discrete natures. This interplay and flow between layers is important, for it approximates what happens in practice.

Studying the subject Language and Literacy, for instance, is not just about learning about the content and pedagogies of this subject, but also about imagining how it will play out on practicum, working towards graduate capabilities, translating the standards into strategies that bring them to life, and enacting our collective values.

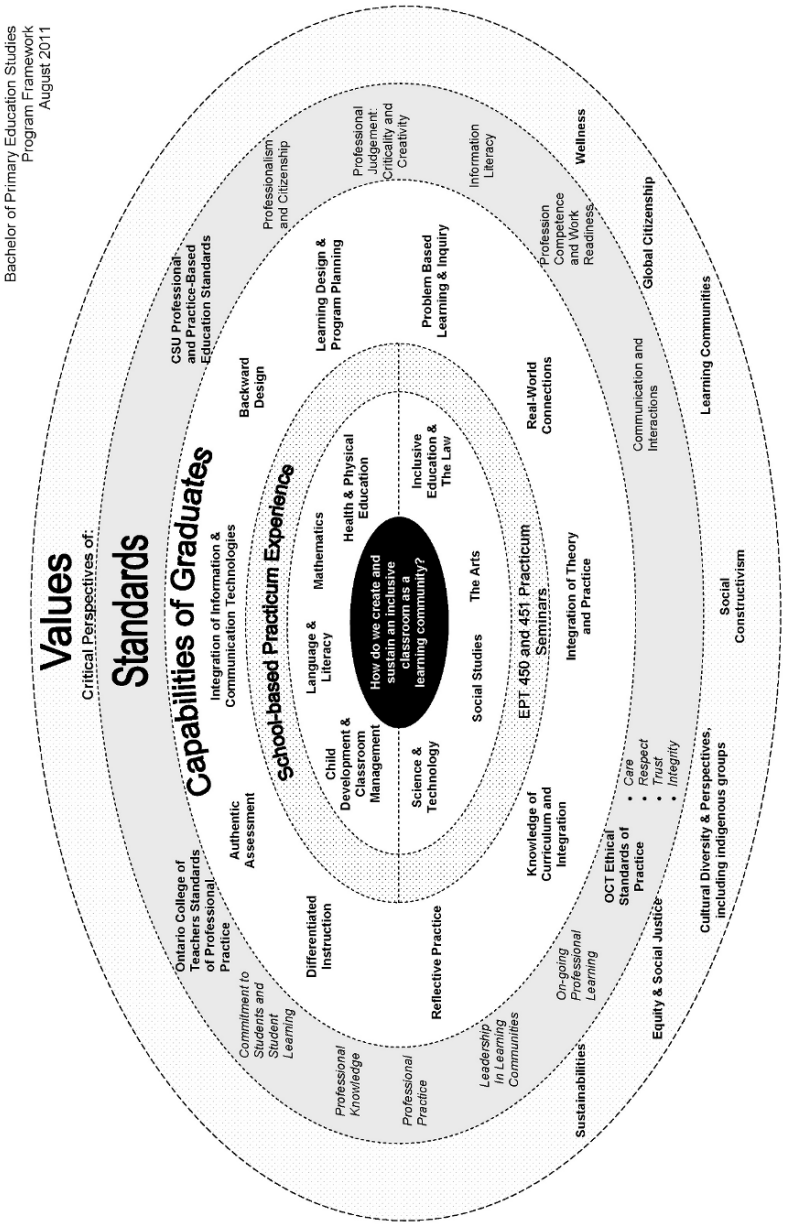

Figure 16.1. The program framework for the Bachelor of Primary Education Studies

We view our program framework as a series of 3-dimensional rings stacked vertically in a pyramid (see a cross-sectional representation of this framework in Figure 16.2). Each ring forms part of a connected whole (framework), with the layered rings imbuing and informing each other. The standards ring sits on top of the values ring. On top of this is the capabilities of graduates ring, upon which sits the entire structure of the course: school-based practica and subjects. Running up through the centre, like a post, is the central question towards which this whole framework is oriented, and which every layer touches. The spatial relations of the rings convey important information, not only about interrelationships but also about scale and scope – the values are foundational, upon which are layered the standards which frame and guide our work, which in turn lead to the capabilities we aim for our graduates to possess, which are reached by working through a course of study structured by the subjects teacher candidates take in a particular order, and in relation to one another. The values ring portrays, most broadly, our commitments to our students (and to one another) and the central question is the most focused manifestation of what the BPES program strives for our teacher candidates to understand and achieve.

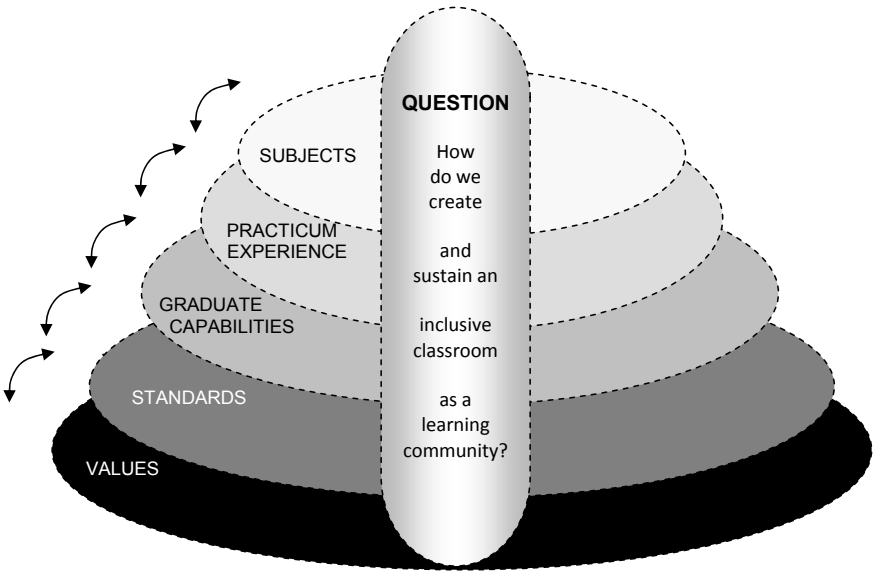

Figure 16.2. Curriculum framework

CHARLES STURT UNIVERSITY'S STANDARDS FOR PROFESSIONAL AND PRACTICE-BASED EDUCATION

The Education For Practice Institute (EFPI), one of two education institutes at CSU, was created with a mandate to inform and enhance education for professional education at the university. EFPI's work is enacted through education, research, strategic development, and workplace learning networking. To those ends, the EFPI led CSU's endeavours to articulate a set of standards that could be used to benchmark practice-based learning, which "refers to grounding education in strategies, content and goals that direct students' learning towards preparation for practice roles post-graduation" (Higgs, Loftus, & Trede, 2010, p. 3).

As such, the standards are "a set of statements or criteria defining the characteristics of good P&PBE (professional and practice-based education) at the course level" (EFPI, 2011, p. 2). They are focused on future practice, but take account of the fact that within professional education are moments of being in practice, or practising, so that not all of what students are learning is for some time in the future. The aims of the Standards for P&PBE are to:

- enhance the quality of education using the PIRI (plan, implement, review, and improve) cycle of continuous quality improvement
- support course teams in curriculum development
- provide a common frame of reference across P&PBE undergraduate and graduate-entry courses at CSU to help in course design, delivery, and review
- identify the information required to be entered into course and subject profiles on CASIMS (our internal course administration management system)
- provide a means for accountability in the delivery of professional courses
- provide a means of reflection for course teams and individuals on their performance and contribution to the quality of CSU professional courses (EFPI, 2011, p. 2).

Woven through all of these aims is attention to the student experience, closely addressing how the standards will have an impact on student learning, and considering the affordances and barriers to learning in administrative systems, curriculum design and development, teaching, accountability regimes and continuous improvement processes. Because "practice lies at the intersection where knowledge, reflection and action come together … practice is understood as continuously coming to know and to be" (Higgs et al., 2010, p. 4).

The P&PBE Standards themselves are articulated along four dimensions – course learning outcomes, teaching and learning activities, course infrastructure, and university infrastructure. Again, for the purposes of this chapter I will examine how in the BPES course we translated course learning dimensions into curricular strategies, picking up on some of the teaching and learning activities along the way. Because of this it must be understood that what I am offering is only a partial mapping of the ways that these standards translate into strategies, only part of the full picture. But what I offer here will provide both insights into and examples of

what the fuller articulation of this mapping looks like across all four sets of P&PBE standards.

The five course-level learning dimensions articulated in the P&PBE Standards that I examine here as indicative of this broader project are: professionalism & citizenship, professional judgment, communication and interactions, information literacy, and profession competence and work readiness. Below I explore and unpack these dimensions in relation to the BPES, but first I want to stress the importance of articulating a case for a pedagogy of teacher education.

ARTICULATING A PEDAGOGY OF TEACHER EDUCATION

The work of underpinning our course with practice-based standards could only happen after we had worked as a course team to explore and make explicit a collective pedagogy of teacher education (c.f. Russell & Loughran, 2007). As John Loughran wrote (2007, p. 1):

> Enacting a pedagogy of teacher education is enmeshed in the ways in which teacher educators knowingly and purposefully create opportunities for students of teaching to see into teaching. It is about how teacher educators are able to make teaching a site for inquiry. In doing so, students of teaching might see into practice (both their own and that of their teacher educators) in such a way as to gain a genuine appreciation of the skills, knowledge and abilities that shape practice. Such inquiry opens teaching to questioning, probing, reflection and critique that goes way beyond the technical. Enacting a pedagogy of teacher education matters so that practice is not simplistically viewed as just "doing teaching."

In this rich and generative formulation of why articulating a pedagogy of teacher education is important, Loughran (2007) pointed out that to better understand the practice that students are studying in preparation for entering into and engaging in, they need explicit insights "into practice," to reveal it as a complex, multi-layered, and contested sociocultural phenomenon. These insights into practice come from the close and ongoing study of teacher education, for which there is a growing research literature (e.g. Grossman, 1990; Grossman & MacDonald, 2008; Green, 2009b; Grossman, Hammerness, & MacDonald, 2009; Reid, 2010).

And attention to future practice needs to take account of both education *in practice* and education *about practice*. As Jo-Anne Reid (2010, p. 285) has pointed out, "educating *for* teaching practice is not something that can be successfully achieved by focusing only on educating *in* practice. It also involves education *about* teaching practice." Because any initial professional education, in this case initial teacher education, is temporally distributed to both focus on the here and now of pre-service education (education *in* practice gained through such activities as practicum or workplace placements), but also on the future of one's practice that will be (education *about* (one's future) practice), initial professional education has to orient students towards both temporalities.

Also, as Reid (2010, p. 287) noted, because teacher education is never completed, this "places the bulk of the process of and responsibility for teacher education OUTSIDE formal university-based ITE [initial teacher education]." As well as acknowledging that one's professional learning occurs over an entire lifetime, such a view also recognises the scale and scope of what preparing for professional practice means. Bill Green (2009a, pp. 6-7) described four understandings of the notion of professional practice: it can refer to practising a profession, like practising medicine; it can refer to practising or enacting professionalism; it can refer to or evoke a moral-ethical disposition; and finally it can also designate practice that is professional, as opposed to amateurish. So initial teacher education needs to anticipate a lifetime's worth of learning and be future-focused in order to provide frameworks that will facilitate and support such learning as people enter and work within their career of teaching, their chosen field of practice (Green & Reid, 2008; Reid, 2010).

Because knowledge in any field or profession (in this case teacher education) is always partial and problematic, developing a pedagogy of that field "means developing ways of delving into, and working with, the problematic nature of practice in order to highlight that teaching (in this case) is much more than well-rehearsed scripts and routines" (Loughran, 2007, p. 3). At least in part, this "requires a deep understanding of practice through researching practice" (p. 1). This is often a central part of initial teacher education, most commonly by engaging students in action research, to critically examine their own practice by seeing practice itself as a form of inquiry.

Teacher education serves as an interesting profession to think deeply about its pedagogy/ies, for, as Loughran (2007, pp. 7-8) noted, "students of teaching are influenced by the *dual nature* of learning about teaching, for their experience involves being learners and teachers at the same time." I want to take this dual nature further, to point out the several other instances of "doubleness" that exist for students of teaching. They learn about teaching, both their own teaching and that of their teachers, while they are engaged in teaching (*in* practice) and they learn about learning, their own and that of other students, while they are engaged in learning (*in* practice). There's also the doubleness of both learning *about* teaching, and learning *while* teaching, or *in* practice. These multiple layers of doubleness afford unique opportunities from which to fashion a pedagogy of teacher education, for they suggest an endless, iterative spiral of learning and teaching that extends beyond one's initial teacher education throughout one's entire career. Discerning and articulating a pedagogy of teacher education is vital in order to perceive the rationale for teacher education as a field of practice and to understand the terrain of that field of practice and to teach others about how to successfully enter it and remain in it.

If you are not in teacher education, think about your field of practice and profession. What parallels can you draw out here, and why might articulating a pedagogy of nursing, or physiotherapy, or engineering, or social work or accounting be important and necessary work?

TRANSLATING STANDARDS TO CURRICULAR STRATEGIES IN THE BPES

So let us turn back to the BPES course and how we as a course team worked to translate the course-level dimensions of the P&PBE standards into our practice as a teaching team, and thus brought them to life in the learning of the teacher candidates. Before we examine each of the five dimensions in these standards, I want to describe what work needed to be done to ensure that we were well positioned to translate the standards into strategies. We engaged in course-level mapping of the values, skills, attitudes, content and pedagogies that we wanted the course to be composed of, to ensure that there were opportunities for our teacher candidates to learn about them. We did the same in relation to all the assessment items across the course, ensuring we had crafted a variety of germane and authentic tasks that the teacher candidates could see would serve their learning and inform their practice.

We took the entire course as our unit of analysis, rather than the more common approach of seeing individual subjects as the units of analysis. This latter stance is understandable when histories, arguments for academic freedom, and egos dominate, and can end up crafting a course as somewhat less than the sum of its individual subjects. In the former approach, with the course as the unit of analysis, each subject is serving both means and ends in the course, as it is accountable for achieving what is needed so that the course coheres and synergises into something greater than the sum of its individual subject parts. It's not that as an academic team we were somehow above these limiting factors, we just had to explicitly make a different set of commitments to background these contextual issues and foreground what could be achieved for the course, and ultimately for our teacher candidates, when we continually addressed the question, "How will this advance or interfere with the aims of the course?." We also had the relative freedom of not being tied into a previous curriculum with team interests potentially limiting and new curriculum vision.

For each of the five course-level dimensions from the P&PBE standards that are described below I offer some examples of the planning decisions that our course team took in order to bring the standards "to life" within our BPES program. The first dimension of the course-level standards is *Professionalism and Citizenship*. This dimension is aimed at addressing capabilities and attributes such as ethical conduct, commitment to professional values, social inclusion and acceptance of diversity, a global perspective on practice, and being a reflective practitioner. An example of how the BPES course team mobilised this dimension is by offering two day-long conferences to our teacher candidates, one in each semester of their study.

The first conference was an "equity and social justice" conference, and the second was an "integrated curriculum" conference. Both were open only to our students and alumni, and both invited speakers from the profession to offer a range of sessions on topics related to the conference themes. As well as modelling for our students the importance of being a lifelong learner, the conferences also gave our candidates a taste of professional learning that was not framed by a formal assessment regime. They also offered in-depth examinations of issues from

multiple points of view, inviting our teacher candidates both to accept multiple perspectives and to weigh evidence for choosing particular perspectives over other perspectives.

Another example of how this dimension was addressed in the course was an assessment item around a community agency study that was included in the subject Child Development and Classroom Management. Small groups of teacher candidates collaborated to learn about and support the work of a community service agency, which gave them the opportunity to situate education more broadly than in the more narrow institutional framing of schooling. This assignment allowed our candidates to conceptualise their own roles more broadly as educators, not just as school-teachers, and to start to conceptualise how even from school classrooms they can work to connect with other community agencies to advocate for the wellbeing of children more broadly rather than just in terms of their academic success.

The second dimension is *Professional Judgment*, and it encompasses critical reflection, constructive criticism of one's own practice, creativity, and practice according to the law. This standard was operationalised most broadly in relation to the teacher candidates' practice teaching, or practicum, which was structured to take place for two full days each teaching week of the semester, and then in a 3-week block after the first semester, and a 4-week block after the second semester. Thus, as the candidates noted, they "were always on prac" throughout their course. Such sustained time on practicum throughout their course gave them ample opportunity to bring to fruition and reflect on their own teaching practice. It also provided opportunities to receive extensive feedback from the Associate Teacher whose classroom they were sharing to engage in their professional experience, and from the Faculty Supervisor, a staff member from the university who also observed lessons and offered critical, improvement-oriented feedback. With all of this feedback, teacher candidates could benchmark their own professional judgments and work to improve their ability to make such judgments in light of the feedback from more experienced others.

This dimension was also addressed in the subject Inclusive Education and the Law, where candidates worked through case studies about the inclusion of students with special needs into mainstream classroom activities, and articulated differentiated lesson plans to accommodate and include these students. Such exercises again called on the candidates to marshal and apply their professional judgment for the benefit of all students.

The next dimension is *Communication and Interactions*, which encompasses communication according to professional values and boundaries, cultural competence (particularly in relation to Indigenous and multicultural Australia), collegiality and collaboration. Teacher candidates had lots of classroom activities and assignments that required work in small teams. This mirrors the collaborative nature of the field of practice and requires them to develop skills in conflict resolution, or at least mitigation, and compromising, as well as collaboration and team work.

This dimension was also addressed in the course by taking a course-wide focus on issues related to First Nations, Métis and Inuit histories, perspectives and contemporary realities. Here we customised the Australia-generated standards' focus on Aboriginal peoples to account for the First Peoples of Canada. This initially necessitated that the teaching staff undertake a professional learning journey (detailed in Clancy, umangay & Letts, in press), so that we were more knowledgeable and thus better positioned to facilitate these journeys with other teacher candidates. The focus in the activities that ran across individual subjects was to build cultural competence and to position such competence as integral, rather than supplemental, to effective practice. The aim of this newly emerging competence was to improve the schooling experience and outcomes of indigenous children, and also to benefit their families and communities.

The fourth dimension, *Information Literacy*, comprises the ability to assess new information, the ability to judge the applicability of information in a given work situation, and the ability to synthesise information from multiple sources. Although the BPES is delivered as a face-to-face course, there are ample opportunities to engage in more blended and flexible approaches to student learning, in both synchronous and asynchronous modes. The course is supported by a Sakai-derived online learning platform that has a suite of learning technologies to assist teacher candidates with information exploration and presentation. Candidates are invited to explore a range of these learning technologies and to use them not only in presenting their assignments but also in their practicum work with primary-aged children in their classrooms. Candidates are urged to become critical consumers of these technologies, so that they can articulate pedagogical rationales for why and when they would use these technologies, eschewing the notion of learning technologies as merely fad or fetish.

Candidates also engage in classroom activities and assignments that require them to situate their own professional philosophy and beliefs in context with the research literature, and with what they are seeing in practice when they are engaged in practicums in school classrooms. Thus they are asked to consider several often conflicting or contrasting sources of data, and to make sense of them by offering evidence as to how all the pieces fit together. This allows them to engage explicitly with issues of experience, authority and the persuasiveness of arguments.

The final dimension, *Profession Competence and Work Readiness*, entails competence in discipline/profession knowledge and skills, the ability to integrate theory and practice, initiative, and the ability for independent work. Although in one sense the entire course is structured and taught to achieve this standard, a more specific manifestation of it is the Practicum Seminar subject that the students take each semester to accompany their school-based practicum. This subject intentionally focuses upon and explores issues of professional competence, and each semester it culminates in the production and presentation of a professional portfolio to capture and highlight the candidates' burgeoning competence as novice teachers (cf. Reid, 2010).

The structure of the course, as mentioned earlier, with 2-3 days per week on campus for university-based classes and 2 days per week in the school classroom on practicum, is designed to foster a year-long "conversation" between theory and practice as they manifest in the university and school classrooms. We take both to be the sites of theory and practice, but each site offers a different positioning of the teacher candidates (refer to the earlier discussion of the "doubleness" of their experience) and therefore different opportunities within which to envision theory and practice as inter-implicated and mutually dependent. The aim of the intentional proximity of both learning contexts so close together in time is to facilitate insights into this mutual dependency, and to foster a dialogue between the two domains that can be sustained because each is at play as candidates move through the program.

WHAT THIS WORK HAS MEANT TO US (AND WHAT MIGHT IT MEAN FOR YOU)

Several important points for consideration and deliberation have emerged from our attempts in this work that are worthy of highlighting, both to foreground their importance and also to flag them as warranting further discussion and development. Throughout the entire process of formulating this model and enacting it, we paid close attention to articulating the utility of having standards to guide and shape practice, but not wanting those standards to "fix" practice in either sense of the word. That is, having and enacting standards, alone, does not ensure that the subsequent practice that emerges will be "right," "good" or "successful" practice, or practice better than we had before.

Where practice is found wanting or in need of improvement, a turn to standards alone is no guarantee of a "fix." For practice, and the standards that frame it, still have to be enacted in broader contextual landscapes that require consideration of additional factors, such as those that frame our work in morally and ethically viable ways. Standards alone won't help us move to praxis, "morally-committed action, oriented and informed by traditions in a field" (Kemmis & Smith, 2008, p. 2). As Higgs, Loftus, and Trede have noted, "one of the greatest benefits of adopting a practice-based approach to higher education is that it fosters a strong ethical stance where professional practice and educational practice are founded upon clearly articulated values that are regularly questioned and explored" (2010, p. 6).

The second meaning of "fix" that also must be avoided with a turn to standards is having them rendered static or sedimented, such that they are fixed in time and never change or evolve. We do not want to convey an image that practice is fixed, as if it ever could be. Instead want to conceptualise it as evolving, responding and innovating, and thus, like the standards that frame it, reinventing itself to anticipate and respond to this ever-changing context.

Because professional practice "is a sociocultural process that is negotiated among multiple stakeholders" (Higgs et al., 2010, p. 3), it is built upon and is successful because of relationships. Internally, we recognised and needed to deal with the relationships among the course team, which treated the course as the unit of analysis and therefore made decisions about individual subjects with the integrity of the course in mind. Such close and collegial collaboration was essential

to being able to strengthen course coherence and to be responsive to internally and externally generated critical feedback. The other important internal relationships were with our teacher candidates, with whom we worked in rigorous, respectful and ethical ways to animate our teacher education program grounded in its field of practice.

Externally, because "the development of praxis is a collegial venture" (Russell & Grootenboer, 2008, p. 125) important relationships were fostered with the school-based teacher educators (Associate Teachers) who played an integral role in the learning of the teacher candidates on practicum and therefore needed to be partners in enacting and reviewing our program. They were aware of what content we were teaching and what the assessment items were, so they too could help facilitate connections, offer provocations that extended learning, and assist in trouble-shooting challenges, turning them into opportunities to learn. A second critical group of external partners were the people from the professions – both school education and teacher education – that serve on our advisory committee and offer critique, deep thinking and advice about how to shape the program, keep it current and stay responsive to the needs of the profession. We also maintain close, more informal contact with the field of school education by inviting practitioners in to guest lecture in classes, by meeting regularly with Site Coordinators, who are the point people in each school around issues related to the practicum, and through our faculty members seconded from local school boards.

As mentioned earlier, both the course mapping exercises undertaken annually to chart the values, skills, attitudes, content and pedagogies and the assessment mapping exercises that enabled us to ensure a variety of relevant and authentic assessment tasks across the course have allowed for the intentional repetition of material in an iterative fashion that builds upon what was learned earlier. This also enabled the BPES course to simultaneously maintain a here-and-now and a future focus to the teacher candidates' emerging and still yet-to-be practice.

CONCLUSION

Because "education for future practice involves the pursuit of clarity of shared purpose in the midst of turbulence" (Higgs et al., 2010, p. 11), professional and practice-based education standards are useful in providing a map of our shared purpose, from which we can discern and articulate strategies to animate a course of professional education.

In this chapter I have examined the preconditions for the translation of P&PBE standards into curricular strategies. In the case of our BPES course, this entailed crafting a larger program model into which the standards are embedded and enmeshed. This illustrates the point that the standards do not stand alone; they are not decontextualised; rather, they are informed by and interact with a variety of other "rings" or layers. In our case those rings included the values that underpinned all of our collective work, the capabilities we wanted to ensure graduates had by the time they left us, and the various aspects of the course structure – not just the

individual subjects, but also how they fit together to make the course greater than the sum of the individual subjects.

I have also mounted a case for the importance of articulating a pedagogy of one's field/profession, for such an articulation undergirds the course framework and offers a rationale for a particular focus on practice development. A pedagogy of one's field/profession makes explicit the parameters and commitments of the field and informs how one would educate with and in that profession.

After unpacking these preconditions, I have offered examples from our BPES course to illustrate ways in which standards, in this case specifically the dimensions of course-level P&PBE standards, can be translated into curricular strategies that move them from merely (though importantly) framing the course to being enacted and learned within it. As such, this chapter offers insights into a partial mapping and translation of the standards, describing this work for one of the four dimensions of CSU's Standards of P&PBE (EFPI, 2011). Other work will need to address the remaining dimensions. I conclude with a call to readers in other professions to think about what parallels can be drawn between the case from teacher education elaborated here and their own professions and fields of pre-service teaching and study.

In all, robust education for practice can be benchmarked against standards, which serve as criteria to help appraise successful P&PBE, and assist us to push for increasing quality and care in our attempts to prepare professionals for their present and future practice.

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REFERENCES

Clancy, S., umangay, u., & Letts, W. (in press). Developing indigenous perspectives in practice-based education. In J. Higgs, W. Letts, D. Sheehan, J. Baldry Currens, & G. Jensen (Eds.), *Realising exemplary practice-based education*. Rotterdam, The Netherlands: Sense.

EFPI. (2011). *Standards for professional and practice-based education*. Sydney: The Education For Practice Institute, Charles Sturt University.

Green, B. (2009a). Introduction: Understanding and researching professional practice. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 1-18). Rotterdam: Sense.

Green, B. (2009b). The primacy of practice and the problem of representation. In B. Green (Ed.), *Understanding and researching professional practice* (pp. 39-54). Rotterdam: Sense.

Green, B., & Reid, J.-A. (2008). Method(s) in our madness? Poststructuralism, pedagogy and teacher education. In A. Phelan & J. Sumsion (Eds.), *Critical readings in teacher education: Provoking absences* (pp. 17-31). Rotterdam: Sense.

Grossman, P. (1990). *The making of a teacher: Teacher knowledge and teacher education*. New York: Teachers College Press.

Grossman, P., & McDonald, M. (2008). Back to the future: Directions for research in teaching and teacher education. *American Educational Research Journal*, *45*(1), 184-205.

Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching: Theory and Practice*, *15*(2), 273-289.

Higgs, J., Loftus, S., & Trede, F. (2010) Education for future practice. In J. Higgs, D. Fish, I. Goulter, S. Loftus, J.-A. Reid, & F. Trede (Eds.) *Education for future practice* (pp. 3-13). Rotterdam: Sense.

Kemmis, S., & Smith, T.J. (2008), Praxis and praxis development. In S. Kemmis & T. J. Smith (Eds.), *Enabling praxis: Challenges for education* (pp. 3-13). Rotterdam: Sense.

Loughran, J. (2007). Enacting pedagogy of teacher education. In T. Russell & J. Loughran (Eds.), *Enacting a pedagogy of teacher education: Values, relationships and practices* (pp. 1-15). London: Routledge.

Ontario College of Teachers. (2006a). *Ethical standards for the teaching profession*. Toronto: OCT.

Ontario College of Teachers. (2006b). *Standards of practice for the teaching profession*. Toronto: OCT.

Reid, J.-A. (2010). Educating for teaching practice: Practice development in pre-service teacher education. In J. Higgs, D. Fish, I. Goulter, S. Loftus, J.-A. Reid, & F. Trede (Eds.) *Education for future practice* (pp. 285-295). Rotterdam: Sense.

Russell, H., & Grootenboer, P. (2008). Finding praxis? In S. Kemmis & T. J. Smith (Eds.), *Enabling praxis: Challenges for education* (pp. 109-126). Rotterdam: Sense.

Russell, T., & Loughran, J. (Eds.) (2007). *Enacting a pedagogy of teacher education: Values, relationships and practices*. London: Routledge.

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17. REVEALING, SHARING AND EXPANDING PRACTICAL KNOWLEDGE OF WORK-INTEGRATED LEARNING

Work-integrated learning (WIL) is a form of practice-based education. This chapter describes how practical knowledge about WIL was developed among academic staff through a university-wide project to embed WIL into educational practice. In this project, the model of distributive leadership was applied within a "communities of practice" framework, with a focus on *doing* WIL. Throughout the process, openness to the dialectic between practice and theory was continuous. The author's reflections on the project, from the position of project leader, and other empirical data are analysed to describe the processes of WIL undertaken by university staff during the change period.

THEORETICAL FRAMEWORK

Skills shortages in the public sector, in areas such as information technology (IT), financial management, accounting, human resources, project management, legal, high-level policy research, and communications/marketing, as well as education and health, motivated the University of Canberra to pursue a WIL development program. A funded program of organisational change focusing on developing WIL as a key educational theme across the university (supported by a Diversity and Structural Adjustment Fund Grant from the Department of Education Employment and Workplace Relations) began in December 2009.

Using Elkjaer's work (1999), situated learning theory informed the overall project structure. In the situated learning framework, social structures and processes are continuously reified, regulated not through social structures and processes but through continuous production, reproduction, interpretation and reinterpretation (Elkjaer, 1999). As such, continuous change is the focus of the organisation, and the concept of trajectory or continuous improvement is valued (Senge, 1992). In this framework, leadership is distributed through the members of communities with shared practice interests rather than tightly held by senior managers.

An interactionist perspective on organisations was adopted, where it was assumed that individual actions and interactions contribute to the evolution of the organisation. Opportunities for individuals from across the university to engage in activities that related to their day-to-day work were essential for learning and organisational development. Specifically, practice-based theories of distributive

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 227-238.

leadership and communities of practice were used to plan and evaluate the university-wide WIL Project.

Lefoe, Parrish, Hart, Smigiel, and Pannan (2008, p. 2) defined distributive leadership as:

> the distribution of power through a collegial sharing of knowledge of practice, and reflection within the socio-cultural context of the university.

The aim of distributive leadership is to build leadership capacity among members of an organisation (Brown & Littrich, 2008), in this case to build leadership capacity among academic staff with an interest in WIL. Distributive leadership requires an organisational structure that is collaborative rather than hierarchical, with members sharing a purpose, accountability and responsibility (Brown & Littrich, 2008).

Zepke (2007) argued that the concertive action meaning of distributive leadership provides a broad conceptual framework for Wenger's (1998) constructs of situated learning and "communities of practice." Developing communities of practice from across the university provided opportunities for academic staff to work with colleagues from other, often quite different, disciplines. Through these opportunities, the situated nature of learning was revealed to the participants as they discussed their implementation of WIL.

Wenger (1998) posited that within communities of practice, learning is expressed as meaning, delivered through social participation. Characteristics of a community of practice include:

- Shared goals, meanings, and common history among members;
- Location within a larger system; and
- Practice being reproduced as older members leave and newer ones join.

When individuals from different cultural geographies – in this case different academic disciplines – come together in a community of practice focused on teaching and learning practice, they are well positioned to learn knowledge while using that knowledge to address real problems emerging from their work (Moss, Grealish, & Lake, 2010). The differences in perspective among the community members are instrumental for learning. In this way, gaps between practice and theory are used to inform action.

Bringing these ideas together theoretically, Schulz (2005) suggested that social learning theories, such as "communities of practice" and "distributive leadership," can be grouped within a "theories of practice" paradigm. Schulz (p. 494) identified five assumptions underpinning this paradigm:

- The individual is seen as embedded in social situation.
- Knowledge is experience-based and there is a difference between theoretical knowledge and practical knowing.
- Context and situation have high relevance in terms of knowing, acting and learning. The social situation reflects the context.

- Knowing can be made partially explicit and decontextualised as theoretical knowledge through reflection.
- Learning processes are situated; they take place within a specific context.

In this chapter, the knowledge of WIL for academic staff in the implementation of a university-wide WIL Project is made partially explicit, as a contribution to the discourse around WIL.

PROJECT OVERVIEW

Like other higher education providers, the University of Canberra operates as a learning organisation. Thus, during the implementation of the WIL Project, it was assumed that the academic staff who participated in the project were positioned to learn more about WIL by *doing* WIL. The way academic learning occurs in social settings of meetings, seminars, classrooms, and field placements was conceptualised as a social as well as a cognitive process, and with social action/activities required to promote learning.

The empirical evidence for this chapter comes from the author's experience as project leader for a two-year funded project that aimed to embed WIL across the courses in one university. The project was conducted in two phases (Table 17.1). Phase 1 was a scoping phase to determine the nature of change required and Phase 2 was the implementation phase.

Table 17.1. Two phases of the WIL Project 2009-10

Phase 1: Scoping (6 mths)			**Phase 2: Implementation (18 mths)**					
Data collection	WIL week	Expert report	Working group	Expert guide	Faculty-based incubator projects	Roundtable	Research network	WIL conference

Data collection began in the first few months of the project and included a literature review of international best practice in WIL and identification of organisations that promoted WIL, such as the World Association for Cooperative Education and the Australian Cooperative Education Network.

WIL Week provided a forum for staff already using WIL in their curriculum to share their experiences with others. During WIL Week, two internationally recognised scholars, Professors Billett and Wedgewood, worked with faculty staff to identify areas for development.

During Phase 1 there was often debate about the definition of WIL, and as the project progressed and the community continually reproduced itself through recruitment of new members, the problem of definition persisted. In this university, the diversity of WIL experiences defied one single operational definition. This lack of single definition made measurement of WIL – for the monitoring purposes

associated with quality improvement – elusive. In the end, for the purpose of the University's WIL policy, it was defined:

> Work-integrated learning (WIL) is deliberate and intentional learning in work supported by appropriate induction of students and supervisors and imaginatively embedded assessment.

This definition was drawn from Orrell (2004). Although the university required a single definition, it became clearer to me as project leader that WIL was an event – it was made to happen by several people and lots of things. As identified by Mol (2002), in these events words also participate, as do paperwork, rooms, buildings, insurance systems and "an endless list of heterogeneous elements that can either be highlighted or left in the background, depending on the character and purpose of the description" (Mol, 2002, p. 26).

The various individuals – academics, students, employers, the Careers Office, the Vice-Chancellor – were using the term in a way that related to their own experiences and histories, making visible those aspects that were meaningful to them and to their social worlds. It was important for the project's widespread success that all these definitions were loosely held together, and that there was never collapse into singularity. For example, the WIL brochure produced from the Phase 1 data did not provide a singular definition of WIL. Rather, it illustrated the many ways that WIL was enacted in different disciplines.

At the end of Phase 1, Professor Marilyn Wedgewood of Manchester Metropolitan University in the UK produced a report that provided the framework for Phase 2 of the project. Specifically, it recommended establishment of a project leader and a WIL subcommittee of the University Education Committee, as well as the range of projects subsequently implemented in Phase 2.

A Reference Group managed the project and was reviewed in light of the Wedgewood Report. Many of the seven faculty representatives had limited experience of university-level committee work. Other members represented service areas such as Careers Office, Office of the Dean of Students, Students Association, Office of Innovation and Engagement, Marketing and International, Occupational Health and Safety, and the Teaching and Learning Centre.

This group met monthly with the mandate to:

- Provide advice on current and developing WIL models across the university;
- Provide input into a new university WIL policy and other related policies, such as assessment policy;
- Monitor funded faculty-based WIL projects; and
- Identify necessary resources, processes and systems to support WIL on completion of the project.

Seed funding was provided for 10 internally competitive faculty-based WIL development projects, known as "incubator projects." Faculty-based project team leaders worked to develop a collaborative approach to WIL within the university. The project teams shared their works-in-progress with national experts, disciplinary colleagues from other universities and industry stakeholders in a one-

day Roundtable on WIL, held in August 2010. The faculty-based project leaders planned, implemented and evaluated the one-day roundtable as a leadership activity.

An interdisciplinary research network was developed, meeting four times per year. Several of the faculty-based project leaders joined the research network.

The final event of the WIL Project was a Showcase event. This one-day event was advertised nationally and attracted academics from over 25 universities and vocational education institutes. At the Showcase, examples of successful WIL were shared, as well as early research findings into WIL.

REVEALING

In Phase 1 of the program, the focus was upon developing in-depth understanding about WIL generally, and in specific contexts of educational theory and research, as well as employer or stakeholder views. Revealing the nature of WIL was a broad agenda and included activities such as:

1. Establishing a WIL advisory committee with faculty-based membership
2. Conducting a series of interviews with faculty-based staff to determine current university practice strengths and areas for improvement within the first 6 months;
3. Searching the literature on WIL theory and research
4. Reviewing WIL from the grey literature, including national and international government reports and a range of professional and educational websites
5. Conducting an external expert review of the university's WIL program, by Professor Wedgwood
6. Producing a showcase of WIL practice at 6 months into the project, where staff involved in WIL met staff who were interested in developing WIL opportunities
7. Developing a WIL brochure that could be used to stimulate discussion about WIL internally and with external stakeholders and students
8. Conducting a "Stuff that Works" seminar series focused on WIL in the second 6 months of the project.

Through the work of interviews, meetings, and various presentations, staff from across the seven university faculties met in cross-disciplinary groups to discuss the practice of WIL. This group became familiar with each others' work, achievements and challenges and formed a community of practice. Many of these same staff members volunteered for more formal roles, subsequently joining the university's WIL Working Group, a subcommittee of the Education Committee, and/or undertaking a faculty-based project (discussed in the next section).

In this early stage of "revealing," the empirical data collected during the first 6 months was analysed and two reports were published, momentarily reifying WIL at the University of Canberra in 2009. The first was the Wedgewood Report on the University's performance in WIL. The second was a promotional brochure that featured the different models of WIL being implemented in the faculties. Through this work, academic staff from across the university reflected on their own practice, in light of the practices of others and the evidence emerging from the literature,

other universities, and government. This reflective phase was formative for staff who later participated in the faculty-based projects and associated leadership program.

During the first 6 months of the project, organisational strengths and areas for development were revealed and debated. Shared goals and meaning were being established: a community of practice around WIL was taking shape.

SHARING

Over the last 12 months of the program, based on advice from the external reviewer, a faculty-based program of development or "incubator projects" was initiated. The projects were internally competitive, with each faculty guaranteed funding of at least one project. Ten projects were funded, with three projects combined into one across three faculties (see Table 17.2).

Table 17.2. Faculty incubator projects by faculty

Faculty	**Title**
Business & Government Arts and Design Information Studies & Engineering	Cross-faculty project to develop a generic WIL model for internship placements
Applied Science	Embedding e-learning platform in the servicing of WIL for the medical sciences
Arts & Design	Providing authentic work-based experiences for students in arts degrees
Health	Strategically positioning WIL for health professions in a changing health environment (placements)
	Mapping practice to inform interdisciplinary standards of student performance for an innovative approach to assessment for learning
Information Studies and Engineering	Articulation of jobs and skills in IT
Education	Student use of e-portfolios to document outcomes of WIL in postgraduate education
Law	Investigating an integrated approach to clinical legal education in law

Each project had a nominated leader, with three leaders in the combined faculty project. The 10 selected project leaders agreed to participate in a distributed leadership program, in which they met as a group to:

- Share project plans and proposed evaluation methods
- Collaboratively develop the WIL Roundtable program

- Undertake shared critical reflection of their projects in scheduled seminars with (a) other project leaders, (b) the external scholar, and (c) academics from other universities who were challenged by similar issues in different contexts.

Each of the faculty incubator projects was conducted with a team of staff. Through these projects, academic staff with an interest in WIL could engage colleagues in processes of curriculum design to enhance graduates' ability to undertake professional work. Using Wenger's (1998) communities of practice theory, these projects engaged faculty-based groups of academic and general staff to explore and imagine curricula in new ways that could support graduates' readiness for the workplace. In terms of leadership development, the Incubator Project Leaders were in authentic leadership positions whereby they were working with multiple systems and processes to achieve success in their projects. They were embedded in a social situation designed to support their learning about leadership, as well as about WIL, by leading WIL projects.

Undertaking the incubator projects within the situated learning environments of faculties as well as a single university might not guarantee in-depth learning; engagement with the broader world (such as literature, research) is necessary (Elkjaer, 1999). As in the models of communities of practice (Wenger, 1998) and distributive leadership (Lefoe et al., 2008), learning occurs when the work is situated in a broader, global environment. Regular visits from the external scholar provided opportunities for project leaders to receive feedback on their projects from the scholar and from their colleagues in other faculties. Peer review and consultation across faculties was supported in new ways for this university community. Through the WIL Roundtable, colleagues from around Australia came to review the projects and engage in discussion about the practical know-how required to deliver WIL programs. Through this experience, project leaders were sharing their views and listening to others' views, providing rich opportunities for the development of practice theory (Schulz, 2005).

During Phase 2, Incubator Project Leaders undertook leadership training in a program modelled on distributive leadership. Two meetings with Professor Billett and two sessions with university leaders in education provided training and development in leadership. In these sessions, Incubator Project Leaders had opportunities to dialogue with each other as well as with experts. Further, they developed leadership skills through their work in planning, implementing and evaluating the WIL Roundtable session. These strategies are consistent with the distributive leaders model (Smigiel, Pannan, Szorenyi-Reischi, & Donnan, 2011).

Through activities and events designed to promote sharing, a learning community and culture around WIL began to emerge. How this community could be sustained required consideration.

EXPANDING

In the last 12 months of the project, the focus shifted to how WIL could be expanded across the university. Following advice from the external review, the

membership of the WIL Working Group was changed and the reporting structure to the Education Committee was formalised. The University's Senior Management Group and the Education Committee supported these changes. Securing high-level support was considered essential to the subsequent implementation of recommendations. The Working Group monitored the project and members worked collaboratively between meetings to develop policy and collect evidence for consideration by the group.

Through monthly meetings, members of the group shared information, debated issues, identified areas for further development, and monitored change at the faculty and university levels. This group had also formed a community of practice, whereby their active involvement in the mutual process of negotiating meaning, their imaginations about how WIL might be enacted across the university, and their aligning of this vision with broader university structures were consistent with Wenger's (1998) modes of belonging. In these meetings, by valuing their disciplinary differences, Working Group members were able to identify strategies and activities that they could undertake with colleagues from outside their faculty, thereby expanding their personal networks and increasing their influence not only in the faculties but also more broadly within the university. Participation in the Working Group led to expanded networks, a key element of distributive leadership (Lefoe et al., 2008).

A second group of faculty staff, whose projects had been selected for internal funding, also worked collaboratively in a distributive leadership model. As identified in the previous section, the purpose of this group was to share ideas about WIL as they developed their faculty-based projects. The networks of this group were expanded through seminars for sharing information about their projects, thereby lifting their network out of the faculty and into the university, many for the first time. All the project leaders had the opportunity to reflect on their work with the support of the external scholar, Professor Billett, thus expanding their frame of reference.

Like the Incubator Project Leaders, another group of academic staff, with an interest in researching WIL, met with Professor Billett and worked together across disciplinary boundaries to develop research interests. This group continues to meet to discuss potential projects, with several members presenting at the national WIL Showcase held at the university near the end of the project.

Through revealing, sharing and expanding, WIL became structurally embedded as a signature educational theme across the diverse settings of the university and its stakeholders.

REFLECTIONS FROM THE PROJECT LEADER

Embedding WIL across a university with strong and diverse disciplinary interests is challenging. The WIL Project at the University of Canberra was successful in that it:

1. Created new relationships, both formally and informally, across the university and between the university and its stakeholders;
2. Increased capacity of the university to deliver and continuously develop WIL programs through staff development and implementation of new policy and systems; and
3. Contributed to leadership development of academic staff, ensuring organisational and sector sustainability in light of a potential future shortage of academic staff.

The outcomes of the project are outlined in Table 17.3.

This chapter described how Wenger's (1998) communities of practice theory, the distributive leadership model of Lefoe et al. (2008) and Elkjaer's (1999) situated learning model worked effectively together to effect widespread, systematic change.

Through participation in several communities of practice negotiated for situated enterprises, academic staff from across the university engaged in the development of innovative WIL models to support student learning and graduate capability. Through this work, many staff developed leadership capacity that will continue to develop and support the university and the sector. In this 2-year WIL Project, learning about WIL was conceptualised as more than information processing and transferring the "right" knowledge to the wider community. Consistent with the suggestion of Elkjaer (1999), in this WIL Project learning was based on the social practices of organisational life, in this case the practices related to collective education. Organisational reform was achieved through active engagement in projects, among people with different histories and interests, rather than through passive reception of the "right" information.

Distributive leadership has been demonstrated as an effective model for organisational change (Lefoe et al., 2008; Smigiel et al., 2011). As with the two previous studies, the sustainability of the WIL Project, and in particular the Incubator Project Leaders' activities, was dependent upon the support of senior management in the university. To secure high-level support, the project plan for Phase 2 was approved by the Senior Management Group of the university before implementation. Despite these efforts, some of the projects were limited at times by local faculty-based requirements unrelated to the projects. As evidenced in the final outcomes, formal leadership ability was developed, with positive outcomes for the University.

The individuals who participated in the incubator projects undertook a program of leadership awareness and skill development with the National Scholar and university leaders. Through sharing opportunities, they could reflect on their work to date and continuously shape their projects. The Incubator Project Leaders led authentic projects in their disciplinary communities and participated in meetings and sessions where they could engage and dialogue with others. Through these and other networking activities, such as the Roundtable, they could foster and develop practice identities as leaders in WIL in the higher education context.

Table 17.3. Outcomes of the University of Canberra WIL project

Engagement	Education	Leadership
Establish placement office in Faculty of Health & Careers Office Implement a university-wide placement management system Develop and undertake an employer survey Develop new placements in: – Non-government organisations and charities for information technology students – Professional practice for design students (through new relationship with the design professional body) – An on-campus clinical law service	New WIL Policy & Procedures Assessment Policy revisions incorporate WIL Course Development Policy revisions incorporate WIL A new Unit Outline Template makes WIL activities explicit so implementation can be monitored over time An online portfolio model, developed for postgraduate education students, is available for other disciplines New simulated biomedical laboratory activities Curriculum redesign in information technology A generic WIL model for internships in business Revised assessment practices for WIL in health	Three project leaders, now Associate Dean (Education) in the faculties of Business & Government, Education and Arts New position created called Associate Dean (Engagement) in Health One project leader has continued a WIL interest group in the Faculty of Law Two Working Group team members are now co-editing a book on WIL.

This WIL Project provided a case study of organisational learning in WIL. In reflecting on this project, I have come to see that Elkjaer's (2004) "third way" of promoting organisational learning may be a useful framework for future work. In this model, "thinking is instrumental in action, and theoretical concepts and ideas act as 'tools to think with'" (Elkjaer, 2004, p. 429). From this perspective, an organisation might not consist of communities of practice, but may be a boundary object for many social worlds. This more recent model provides space for innovation and continued development in WIL theory and practice, extending communities of practice theory.

My experience of leading the project was reminiscent of my work with nurses and midwives who came from different cultural geographies in New Zealand. In a course on cultures of learning in the workplace, people with different histories working within the same health system came together to learn about practice development. Through a dialectic of practice and theory, the tensions and differences provided rich opportunities for learning and valuing the process to negotiate meaning (Moss et al., 2010).

Finally, the term "work-integrated learning" continued to challenge many academics searching for a singular operational definition with which to ground their work. This project has led me to reflect on the meaning of "organisation," "WIL," and other concepts that are so useful to people from so many different social worlds. Like Elkjaer (2004), I believe that understanding organisational learning can only be achieved by mapping the trajectory and networks associated with specific events, rather than the traditional focus on structure and process. This is an area for future research in the WIL field.

CONCLUSIONS

This project confirmed that the world is messy and complex, with singular concepts, such as WIL, representing multiple, often fragmented, practices. During this project, the semantics of WIL initially distracted many academics. I came to see that WIL could be only momentarily defined – in the situation in which it was used. Rather than spend discussion time on definition work, the participants in this project learned to operationally define WIL for the context within which they were working at that time.

Through this WIL Project, the synergy of two practice-based models for organisational learning has been demonstrated confirming Zepke's (2007) position that these two frameworks provide a concertive action learning framework for organisations. The analysis of the University of Canberra WIL Project has made a contribution to organisational learning theory and provided a framework for future organisational change. Although only partially explanatory of the WIL Project, the model of distributive leadership was consistent with communities of practice as a framework for this project, and through this the dialectic between practice and theory was continuous and produced actions.

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REFERENCES

Brown, N., & Littrich, J. (2008). Using a cross-institutional collaborative model to deliver a national roundtable conference on assessment: A case study, *Journal of University Teaching & Learning Practice*, *5*(1), article 2.

Elkjaer, B. (1999). In search of a social learning theory. In M. Easterby-Smith, J. Burgoyne, & L. Araujo (Eds.), *Organizational learning and the learning organization* (pp. 75-91). London: Sage.

Elkjaer, B. (2004). Organisational learning: The 'third' way. *Management Learning, 35*(4), 419-434.

Lefoe, G., Parrish, D., Hart, G., Smigiel, H., & Pannan, L. (2008). *The GREEN Report: The development of leadership capacity in higher education*. University of Wollongong: CEDIR.

Mol, A. (2002). *The body multiple: Ontology in medical practice*. Durham: Duke University Press.

Moss, C., Grealish, L., & Lake, S. (2010). Valuing the gap: A dialectic between theory and practice in graduate nursing education from a constructive educational approach. *Nurse Education Today*, 30, 327-332.

Orrell, J. (2004). Work integrated learning programmes: Management and quality. *Proceedings of Australian University Quality Forum 2004*. AUQA Occasional Publication.

Schulz, K. (2005). Learning in complex organizations as practicing and reflecting. *Journal of Workplace Learning*, *17*(8), 493-507.

Senge, P. (1992). *The fifth discipline – The art and practice of the learning organisation*. Sydney: Random House.

Smigiel, H., Pannan, L., Szorenyi-Reischi, N., & Donnan, P. (2011). *Sustaining distributive leadership in learning and teaching: Cascade and perpetual effectiveness of the faculty scholar model*. Adelaide: Flinders University.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.

Zepke, N. (2007). Leadership, power and activity systems in a higher education context: Will distributive leadership serve in an accountability driven world? *International Journal of Leadership in Education*, *10*(3), 301-314.

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SECTION 3: THE FUTURE OF PRACTICE-BASED EDUCATION

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18. PRACTICE-BASED EDUCATION

Future Possibilities

"Future possibilities" is a subtly ambiguous term (having been suggested for the title of this closing chapter). It could open simply a projection of present developments or it could imply a space for thinking quite imaginatively as to possibilities, almost independently of the present situation; a realism–imaginative axis in short. It could also open the consideration that our concluding conjectures work to endorse contemporary developments or to be critical of them; an endorsement–criticality fault-line, in other words.

At once, therefore, in this finale, a quite large landscape opens with different paths within it. Is the responsibility in this final chapter to try to glimpse where practice-based education is likely to go, given its current situation and patterning? Is it to try to bring into view an imaginative picture of what it might be, perhaps in an ideal world? Would such an imaginative picture – either implicitly or explicitly – amount to a critique of the present situation, or would it amount to an endorsement of the ways matters are developing? And might any such critique be a constructive critique or might it rather wallow in a self-inflicted bleakness, offering a rather dismal dystopian vision? Might it even offer a fantastic utopia, deliberately non-realisable, but put forward so as to provoke (in all the senses of being provocative)?

In what follows, I venture a little in the direction of each one of these options. Accordingly, optimism and pessimism, empirical projection and imaginative vision, and critique and fantasy may all be glimpsed in this concluding essay. It will also amount to a personal reflection on the volume as a whole. Many of the chapters will make a final entrance here, therefore [links to those chapters being shown in square brackets]; and if they are not allocated major speaking lines, so to speak, the other chapters are still on stage, contributing to the overall scene and assisting and prompting the argument.

REDRESSING THE BALANCE

Far from being radically innovatory, far less revolutionary, practice-based education could be said to redressing an imbalance long characteristic of higher education. It is simply returning higher education to a proper understanding of what it is to be educated. Both in its medieval origins [Kemmis] and in its Greek predecessor, a higher education was bound up with a preparation for life, whether as orator, draftsman of legal documents for the court or in the professional arena

J. Higgs et al. (Eds.), Practice-Based Education: Perspectives and Strategies, 241-252.

(characteristically in law and medicine). Becoming educated was a mark of being able to function well in the world, possessing certain kinds of qualities and being self-evidently a bearer of virtue. Practice-based education, accordingly, reminds us of an interconnection between a higher education and both a high level of cognitive functioning and its display in the world; and the idea, even of Greek origins, that a genuine encounter with knowledge bequeaths action-oriented "epistemic virtues" (Brady & Pritchard, 2003).

But the world moves on and with it, higher education [Orrell & Higgs]. There is no repetition without difference (as Deleuze, 2001, might have said); no identity between situations, however similar they might appear. The contemporary interest in practice-based education emerges against a horizon of mass higher education, and attempts on the part of the state to promote a growing and indeed a tight connection with the labour market and to enhance the economic value of programs of study. Whereas the education of the medieval universities and their Greek predecessor had a metaphysical flavour—being concerned with the largest issues of the relationship between human beings and God and the universe, and engaging with quite abstract studies—practice-based education is now rooted in, and even restricted by some writers to, the here-and-now. To some extent, this matter is linked to the breadth of vision attaching to the concept of practice: to what extent might it have a future orientation and interest in ethics and citizenship beyond preparation for an occupation? Or, rather, are its horizons drawing in, bounded by considerations of more or less immediate utility?

There is, therefore, not merely an instrumentality attaching to the modern forms of practice-based education but also a parochialism lurking in its policy and curriculum framing. Practice-based education is now intended by some to wed students as graduates firmly to the real world, in particular settings and at the current moment. Graduates from practice-based education are obviously intended to hit the ground running as they enter the labour market.

One understanding of the emergence of this modern form of practice-based education must surely take the following path. It is a pedagogical solution to a problem, that of the excessive other-worldliness of liberal education, as it had developed since roughly the middle of the nineteenth century. It is not, of course, the first time that a greater connectivity between higher education and the world of work has been seen. Indeed, for the last 50 years or more, a major story of higher education has been that of the growth of professional education. But whereas the story of the development of professional education as a project was largely that of a conjunction of the academic and professional estates working with each other on a piecemeal (profession-by-profession) basis, the story of practice-based learning is that of a cross-sector and cross-field project set against horizons of the state and the world of work as such. The sociopolitical hinterlands of the two projects – professional education and practice-based education – are surely quite different.

In turn, we are entitled to ask, in this new alignment of academe, state and work, about the presences and the silences in the emerging discourse. The most significant presence is that of "work" (and various derivatives, such as "work-integrated" and "workplace") [Evans & Guile]. Work may be justifiably

contrasted, indeed, with "profession" or with that even more old-fashioned term "vocation." In itself, work is activity largely shorn of an ethical horizon; but it has horizons of effectiveness and even efficiency. A practice "works" when it produces its desired outcome and is preferably not wasteful of resources. Both a profession and a vocation, in contrast, are activities that are inherently virtuous. They point to activities that are worthwhile in society and characteristically call for dispositions of care and concern (for the client; for the activity; for its effects in and on the wider world), and they call up a sense of a possible identity formation (a person *is* a doctor or a lawyer; and inhabits the habitus that accompanies the role).

But yet the idea of practice, as in a "practice-based education" surely goes beyond work, as the chapters here testify. A practice has its routines and demands that have ethical qualities to them. (So we speak comfortably of a "doctor's practice" or a "lawyer's practice.") The term has its own subtleties. There is here, as remarked, a reference to the daily routines that mark out the practice (as being in this or that profession). And these routines have their own demands, of being on time, of regular attendance to one's duties and even responsibilities, and of being on call to some extent. And further, the idea of a practice conveys a sense of a wider hinterland of occupational norms and values, ethical standards, community expectations and a concern for (indeed, duty towards) the other, as well as cognitive and social demands that are inherent in the practising of the practice.

This turning to a domain of action beyond academe that is represented by practice-based education can, therefore, be seen in different ways. It can be seen, somewhat instrumentally, as a means of aligning higher education with and even integrating it into the workplace; it can be seen as bringing the domain of action into a close association with higher education; it can be seen as carrying over ethical values inherent in higher education into the world of work; it can be seen as an educational vehicle for effecting a relational view of higher education, helping students to grasp that, beyond the university, they will develop their identity in all manner of collective networks and human contexts [Higgs, 6]; and it can even be seen as a project helping to realise (in the "real world") the emancipatory and transforming pedagogical potential of higher education. In other words, practice-based education – as this volume surely attests – can be seen through a variety of perspectives and can be interpreted as furthering quite different and even conflicting ends. Emancipation and instrumentality, individuality and collectivity, theory and action: all these apparent polarities coalesce under the umbrella of practice-based education, albeit in inchoate ways; and so emerges a sense of both the complexity and the challenge of practice-based education.

FEASIBLE UTOPIAS

At this point, we may return to our opening remarks, for it is evident that the very idea of the "future possibilities" for practice-based education is radically open. That is to say, its possibilities are open to multiple perspectives as to what is to count as a possibility. The idea of a possibility could point to a kind of meteorological scanning, looking ahead so as to try to discern an evolving pattern

of events in order to try to forecast where practice-based education is likely to be in say a few years' time. Or it could herald a quite different kind of project, namely that of staking out a vision as to how practice-based education might be imagined and also it might be put into effect. How, in other words, might practice-based education be practised? In what follows, I essay a few considerations and thoughts as to the second path.

Another way of putting this task is to enquire into the space for utopian thinking about practice-based education. But to invoke the category of utopia, it should be noted, is not to escape the "real world." On the contrary, it is to glimpse possibilities for the real world. The idea of a feasible utopia beckons (Barnett, 2010); the idea of a utopia that is not with us yet, but could just be realised. Far from being an escape from the real world, a feasible utopia starts with the real world (attending closely to its detail) and, even if it then ventures forth imaginatively, perhaps soaring into distant and unknown regions, still it shows itself capable of returning to earth and of its coming on earth.

Here, then, we can start with the real world but in an admittedly paradoxical way. For we can inquire into the absences that might be seen to characterise the contemporary debate around practice-based education. For example, we could inquire into the extent to which the following categories are present or absent: power, professionalism as such, unemployability, joblessness (amid a turbulent economic era), psychological overload, work/life balance, the handling of multiple communication codes, ever-changing technologies, multiple presentations of self, the individual as an economic unit, human resources (that is, as means to ends), manipulation, personal development, criticality (as a mode of becoming) and values. To the extent that categories such as these are missing from the debate or are only thinly present, we are entitled to infer that we are in the presence of a somewhat limited discursive regime. And further, to the extent that this is so, we are entitled to wonder – as already implied – whether the contemporary movement towards practice-based education is being driven in part by particular interests that are looking towards a realignment of higher education and the economy (whatever its educational potential).

If, on a close reading of the contemporary texts on practice-based education (when taken as a whole), such a set of discursive absences could be detected, then we have an insight into the direction of travel of this movement. We can then invest some effort into discerning other directions of travel. Perhaps other lands can be spotted for this voyage. Perhaps some future possibilities can be identified that are not simply to be attained by continuing in the present direction.

DISCURSIVE COMPLEXITY

It may be responded that the idea of practice-based education, despite any absences that its current unfolding secretes, is in itself a complex, as this volume clearly testifies. Indeed, we may consider that a volume such as this demonstrates that the idea of practice-based education constitutes a space of potential reasoning about practice-based education, in which views and counter-views may be put and in

which conceptual connections may be ventured. To anticipate some of the later remarks here, we can observe in this volume – for instance – ideas such as "wisdom" [Kemmis], "sustainability" [Billett & Choy], "epistemic fluency" [Goodyear & Markauskaite], "praxis" [Kemmis], "situated, capability development" [Higgs, 6] and "global pedagogy" [Kemmis] coming into view. In other words, the domain of practice-based education is a territory of "multiplicities," in which various "lines of flight" are available (Deleuze & Guattari, 2004). In entering the domain, we are not constrained to go in any one direction.

Are there any structuring principles or axes of this discursive space that this volume opens for us? In my reading of the contributions here, I detect the following axes:

- A practice as a site in itself – practice as interconnected with other sites
- Action as such – action as a form of knowing in/ through the disciplines
- Living in the real world – critiquing the real world.

If we were to bring these three axes into a relationship with each other, we would open a three-dimensional space (configured by these three axes). To speak of axes perhaps unduly suggests a degree of structure and containment, when what is opening here is a fuzzy three-dimensional cloud-like space, without clear boundaries, either internally or externally. It is a kind of ethno-epistemic and practical melange (Irwin & Michael, 2003), but one in which different orientations can be detected.

Conceiving of the debate around practice-based education in this way, as a discursive space structured by certain fault-lines, permits us to interrogate a viewpoint – the individual chapters in this volume, for example – and see if it can be allocated a position in this space. We could then go further, and see if the positions now picked out are clustering in any way. Perhaps they are tending to cluster in the region of our three-dimensional space that at once sees practice-based education as a zone that is (a) intimately connected with a disciplinary field, (b) relational in some way, and (c) oriented towards effective action in the real world. But even if this is the case, it is evident that a range of alternative perspectives is on view here, seeing a practice-based education variously as a site in its own right, as multi-disciplinary, and as a site of criticality. The contributions to this volume demonstrate that practice-based education is not so much a contested field but an open field, permitting of alternative stances, values, hopes and opportunities.

The three-dimensional space just opened also raises the question: is there an optimal position to be held by practice-based education? But what, then, might be meant by an optimal position? Would it not be one that promoted the largest vision of human and professional flourishing? One that promoted an open, democratic and critical society? Self-evidently, an optimal position in our space would be one that conceived of practice-based education as oriented to practices that are interconnected (with other practices), intimately related with disciplinary fields – and so constitute a form of practical and cognitive interdisciplinarity – which are characterised by criticality [Trede & McEwen; Hutchings & Jarvis]. Such a view of

practice-based education – at once seeing practice as relational, interdisciplinary and critical (and therefore in that zone of our space) – would amount to a feasible utopia (on which we touched earlier). It is a conception and a form of practice-based education that is only embryonically evident, if at all, but it is conceivable that it could come much more into view.

In what follows, I want to press at the edges of just some of the ideas either explicitly present or implied in this volume, to further discern "future possibilities" for practice-based education which, at the same time, fill out the utopian conception just identified. En route, I shall play up a role for the imagination, both in conceiving of ideas of practice-based education and in helping to realise their instantiation in the real world.

ON LIVING IN THE REAL WORLD

Behind the movement towards practice-based education surely hovers a murmuring of the "real world." There is a charge levied at conventional higher education – and the academy more broadly – that it is "not living in the real world." In his recent book *What Are Universities for?*, Stefan Collini (2012) includes a riff that deals precisely with this charge. "The real world," Collini (pp. 144-145) observes, turns out to be a largely fictional place "inhabited by hard-faced robots who devote themselves single-mindedly to the task of making money. They work and then they die." This fictional world, Collini goes on, is "the brainchild of cloistered businessmen, living in their ivory factories and out of touch with the kinds of things that matter to ordinary people … They should get out more." This Cambridge wit wins its skirmish perhaps a little too easily. I'd make three points here.

There is, firstly, the matter as to what is to count as the real world. Whose world? Which world? Is the real world the present world with its inequalities, environmental degradation, imbalances in power and resources, and its undue focus on economic and personal gain? Perhaps this is an unreal world, marked as it is by distortions and corruptions and unfulfilled potentials; and a world that can be (and even should be) combated. In turn, therefore, there are questions to be asked of any practice-based education as to the world – or worlds – that it is living in; or, more accurately, the world that it has as its horizon. It just may be that a practice-based education can be a vehicle through which to help to bring about a better world. Of course, such a stance brings in its wake further questions as to values, justification, and empirical readings of the contemporary world (especially in and around the set of practices in question).

The second point here is implied in that last domain of further questioning, that of empirical readings. To construe practice-based education as, in part, an educational project of worldly improvement must – if it is to have legitimacy – start from understandings of the world as it is currently constituted. Such an understanding would not rest at the surface level of phenomena but would seek to peer beneath into the deep structure of events, activities and experiences to form a sense as to the deeper social and environmental forces at work, to understand how

it is that practices have come to be as they are [Orrell & Higgs]. Practice-based education, therefore, would live both in this world and against the horizon of possible better worlds.

To put it somewhat grandly, practice-based education may be construed, in its interest in the real world, not just as critical realism in action (Bhaskar, 2010) but also, in its interest in bringing to bear multiple and imaginative interpretations of the world, as a kind of imaginative critical realism (Barnett, in press).

The third point is actually a dual set of points, of optionality and criticality. Practice – if it is a real practice and not merely a set of routines – takes place as a set of intentions oriented towards goals. It contains a sense of trying to achieve certain ends. Ends, however, are not given but are negotiable, even contestable. To what extent is a practice intent on simply playing the game, and on sustaining historic assumptions about professional-client relationships, and about the distribution of material and cognitive resources and to what extent is a practice opening up possibilities of change and even improvement? In whose interests are the activities of a practice being framed? There are, therefore, options in front of the practising of a practice. But then there arises scope for criticality, for bringing critical perspectives to bear on contemporary practices in discerning possible forms of a practice.

Optionality and criticality, therefore, are co-joined and gain strength from each other. The optionality gathers an edge from the criticality; from a sense that conventional practices might be falling short of their potential. And the criticality gathers point from there being spaces for optionality; from a sense that matters could be other than they are.

If it is fully to realise its potential, therefore, a practice will be placed against the three horizons of (a) what is the case (in the real world), (b) what might be the case (in the best of all possible worlds) and (c) what might be practicable in this world (given the situation in and forces behind (a))? A practice is always falling short of what it might be; it is always the art not so much of the possible or even the impossible, but the art of the improbable. It is a matter of closing the gap between (c) a utopian imaginary practice, and (a) the contemporary practice in this world, so far as is possible. A genuine practice is always a matter of "… and what else?" A genuine practice is always falling short of its possibilities.

BEING WISE BEFORE THE EVENT

It is easy enough to be wise after the event but how can one be wise before the event? That, surely, is one of the central and largest challenges for practice-based education [Kemmis]. It is a central challenge in that the concept of wisdom precisely bears in on practice, on living and being in the world, and in worthwhile ways. It is a large challenge in that the concept of the wisdom also points to a complex of judgmental rationality, of imagination, of a unity between cognition and action and between action and values. Wisdom is, in part, the bringing to bear on practical situations of a discernment born of disinterestedness, a discernment that grows out of the perspicacity afforded by empirical and ethical frameworks. In

turn, wisdom is the art of forming judgments as to right action in a supercomplex situation (Barnett, 2000); in other words, in a situation where there are multiple, expanding and competing accounts of the situation. The challenge of imparting wisdom in practice-based education, therefore, is considerable.

The concept of wisdom directly connects with our earlier observations on living in the real world. Wisdom is both in this world and yet beyond it. In part, wisdom is a matter of anticipating a possible unfolding of events. It calls for an "if … then" imagination: If I do (a), what then might follow? Is it (p) or (q)? And if I do (b), what then might follow? Is it (x) or (y)? And what other actions and consequences might flow from them? And how might p, q, x and y (and all the other possible consequences) be weighed? Which values, which interests, and what range of considerations might come into play in their evaluation? And what might be their scope? Can a quite different form of action be discerned that may yet do better justice to the values and the facts of the matter that might be pertinent to the situation? Determining such a (wise) course of action, therefore, is a complex of imaginative and judgmental capacities, and of living in this world but out of it as well. It is to imagine different worlds, both as speculations (if (a), then I can imagine that (p) might follow) and as utopia (what is the best possibility in all possible worlds?).

Here comes into play the idea of "epistemic fluency" [Goodyear & Markauskaite], for adeptness in work practices calls for a capacity to be at home both among multiple forms of knowing in the world (propositional, existential, communitarian, kinaesthetic and process knowing and so on) and multiple ways of knowing in a "multimodal" world (Kress & van Leeuwen, 2001) [Billett & Choy]. Wisdom calls for no less than this. But wisdom calls for more besides, for it inserts an element of values into knowing practices.

Bernard Williams (2006) drew our attention to "thick concepts," concepts that simultaneously have both factual and value elements to them. Those who are adept in complex practices, probably without realising it, are adroit at handling such thick concepts. For the skilled practitioner lives simultaneously in worlds of fact and of values. This is not always an easy situation in which to be. In difficult professional situations, facts can threaten to render values redundant or powerless; correspondingly, values held inflexibly can threaten to blind one to the facts of the matter. Facts and values are intertwined, charging and energising and compromising each other.

However, values and knowing are by no means necessarily separate, antagonistic towards each other. On the contrary, it has been understood since the Greeks that knowing the world can bring with it edifying effects. Seriously coming to know the world – especially given the multiple forms of knowing called for in complex practical situations – calls for persistence, patience, courage, respect for others, an openness to the world, a willingness to keep going and so forth. These "epistemic virtues" (Brady & Pritchard, 2003) arise naturally from wanting to understand the world in which a set of practices are played out. But these virtues, it will be noticed, are far from being a kind of ethical gloss on practice, for they provide a kind of ontological energy that enables the practitioner to keep going,

even amid the considerable challenges that contemporary practice presents. They propel the practitioner forward; they impel the practitioner to engage with the world.

Wisdom is not, thereby, to be striven for as an end-point. Rather, it is always in the making; it is always a matter of "becoming-wise," as we may term it. Wisdom is the accompaniment of perpetual striving for understanding of the world of practice and for action that furthers wellbeing. If the world is never static, but presents continually with challenges of knowing and acting and valuing, wisdom is even elusive; there is always a better judgment, a better course of action, or a more subtle interplay of values that can come into play. Or at least, the chosen path is always contestable.

IMAGINING THE WORLD

If "being" is always being-possible (Heidegger, 1998), then practice is always "practice-potential." That is to say, the very idea of a practice has deep within it a sense of potentiality. A practice, if it is a practice, is open; it could be other than it is. It is always bending this way and that, always undergoing subtle (and sometimes not so subtle) changes, as new understandings, technologies, interconnectivities and insights emerge. A practice is thus always more than a mere assembly of skills. It is an inherently emergent field of activity – an uncontrollable "bundling" of activities indeed [Schatzki] – always containing within it new possibilities [Boud]. It always contains thereby possibilities for critique, understanding and action oriented towards enhancing wellbeing (however that might be construed). It is always never completed; it is always a becoming-practice.

Such possibilities, combining interdisciplinary, ethical and practical insight, are not already hovering, waiting to be discerned. On the contrary, they have to be formed in the mind; they have to be imagined. Through the imagination, new worlds may be summoned; and through the imagination, practical paths towards realising those possibilities may also be identified (cf Murphy, Peters, & Marginson, 2010). Imagination is itself a complex: it may be utopian, conservative, anarchic or instrumental in character (Barnett, 2013). So imagination is not a good in itself; it may help to usher in worlds that warrant our critical judgment if not our condemnation. The imagination must, therefore, be exercised against a horizon of its responsibilities. Its exercise is itself an ethical matter.

More prosaically – and picking up on our earlier classification of ideas of practice-based education – an imagination may be more or less practical, more or less fantastical, more or less drawing on multiple forms of knowing and more or less anchored in an explicit sense of values. Its exercise, accordingly, is highly demanding and triply so. It is demanding in its having such wide scope to its many horizons, and so is epistemologically demanding. It is demanding in that it moves on different planes and in multiple time horizons, and so is ontologically demanding; and it is demanding in that it lives in the horizon of possibilities for the world, and so is conceptually and poetically demanding. The full potential of

practice-based education looks to graduates as practising epistemologists, as practising ontologists and as practising poets.

A practice-based education, therefore, should surely pay some attention to encouraging the student's imagination. To say this is not to privilege an individualistic pedagogy, for a student's imagination can be stimulated through the student being expected to collaborate with other students in group projects and collective pedagogical tasks. Nor is it to privilege the enhancement of the imagination relative to other facets of the student's cognitive processes and nor is it to encourage unwittingly a severing of thought from action. The imagination can and should be enhanced in situations of practice; that is, in fields of action. Part of the imaginative task, indeed, is that of encouraging glimpses of alternative courses of action. There is nothing outré here; for a long time, students in various forms of professional education have been encouraged to articulate their cognitive processes in identifying and choosing between multiple options in the practical situations that they face. It is simply to insist that a practice-based education should have built within it an orientation in favour of the imagination.

The very idea of "the reflective practitioner" (Schön, 1983), after all, contained within it the idea of "reflection-in-action," but once this scenario comes into view, questions can – and should – arise as to the boundaries within which that reflection is to take place. Is it the immediate situation as it presents in professional and practice-based activity? Is it to reach for an understanding of that situation against a larger perspective of the place of the activity in society and its shaping over the previous decades? And/or is it to reach for a critical set of insights into the activity, informed perhaps by concepts of power, justice, liberty, openness and emancipation and so on?

Here, imagination can help to do justice to the placing of practice-based education in the profile of institutions of higher education. For such reflection, at once cognitive and practical, demands that the imagination work at the highest level. John Henry Newman, in his nineteenth century thinking as to the idea of the university, spoke (1976) of an "ascent" into a philosophical outlook that was to be the epitome of liberal education. Now, here, much of the educational value of that philosophy can be carried into the twenty-first century through practice-based education. It can offer and indeed require that the student enters a space of unfolding levels of reflection and informed action, at once ever deeper, going into the deep structure of the shaping of activities and their institutional and inter-personal infrastructure and, in a way too, going ever higher, as this way of approaching practice-based education opens a space for a reaching towards transcendent modes of thought and action. In this transcendence, students may approach their own authenticity; their own "authentic engagement" [Goodyear & Markauskaite].

The transcendent possibilities of practice-based education lie in its power to help students glimpse alternative ways of engaging in the practices in question at ever higher levels of generality. Ever higher levels of generality would be informed – as stated – by universal concepts such as wellbeing, democracy, justice, liberty, fairness, empathy, and understanding. This is not to say that the meanings of such

concepts are fixed; to the contrary, they are open to continuing debate. But they can provide a horizon in which existing practices can be examined and even critiqued, and alternative ways of conducting those practices can be imagined. The imagination can provide quite specific ideas and even visions as to how practices could be developed, but those imaginative ideas can be informed by universal concepts (cf. Butler, Laclau, & Zizek, 2000). It is in this sense that we can speak of practice-based education offering an opening into transcendent spaces. The exercise of the imagination in the context of practice-based education can be a way of imagining the world.

CONCLUSION

Practice-based education could become a parochial form of education, in which students were encouraged to focus on the here-and-now, on the way in which particular practices are conducted in particular situations. It could unwittingly encourage a non-critical mode of understanding, in which students were oriented to focusing on the world as it presents to their immediate perceptions and experiences of the world. It could confine students to living just in this world. But, as this volume surely indicates, a practice-based education need not be confined in any of these ways. On the contrary, in practice-based education, students may be encouraged to see into the world, to peer beneath the skin of practices and to become critical of them through bringing to bear vistas opened by large concepts and wide horizons.

This is a highly demanding form of education, in that students would not only be acquiring complex skills and understandings inherent in practices but also be able to stand back and form judgments of those practices, and begin to discern ways in which they might be improved. This would be cognitively demanding of students, for they would have to take on the forms of understandings characteristic of a set of practices and the capacities to reach into wider horizons of interpretation to enable judgments and imaginative new possibilities to form in the mind. It would be emotionally demanding, as students were in effect being encouraged to take on the capacity to live in multiple time-frames and spaces, which is characteristic of organisational and professional life in the twenty-first century. And it would be intellectually demanding, in that students would be forming multiple horizons of understanding and living within those multiple and even conflicting horizons all at once. Practice-based education, accordingly, offers no less than the prospect of a higher education for the twenty-first century.

REFERENCES

Barnett, R. (2000). *Realising the university in an age of supercomplexity*. Buckingham: Open University Press/SRHE.

Barnett, R. (2011). *Being a university*. Abingdon: Routledge.

Barnett, R. (in press). *Imagining the university*. Abingdon: Routledge.

Bhaskar, R., with Hartwig, M. (2010). *The formation of critical realism: A personal perspective*. Abingdon: Routledge.

Brady, M., & Pritchard, D. (Eds.) (2003). *Moral and epistemic virtues*. Malden, MA: Blackwell.
Butler, J., Laclau, E., & Zizek, S. (2000). *Contingency, hegemony, universality: Contemporary dialogues on the left*. London: Verso.
Collini, S. (2012). *What are universities for?* London: Penguin.
Deleuze, G. (2001/1968). *Difference and repetition*. London: Continuum.
Deleuze, G., & Guattari, F. (2004/1980). *A thousand plateaus*. London: Continuum.
Heidegger, M. (1998/1962). *Being and time*. Oxford: Blackwell.
Irwin, A., & Michael, M. (2003). *Science, social theory and public knowledge*. Maidenhead: McGraw-Hill/ Open University Press.
Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication*. London: Arnold.
Murphy, P., Peters, M.A., & Marginson, S. (2010). *Imagination: Three models of imagination in the age of the knowledge economy*. New York: Peter Lang.
Newman, J. H. (1976). *The idea of a university* (Ed. I.T. Ker). Oxford: Clarendon.
Schön, D. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
Williams, B. (2006/1985). *Ethics and the limits of philosophy*. Abingdon: Routledge.

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