

A SELF-STUDY OF OUTDOOR EDUCATION IN SECONDARY
TEACHER EDUCATION

A thesis submitted in fulfilment of the requirements for the Degree of

Doctor of Philosophy in Education

Christopher John North

University of Canterbury

2015

Contents

List of Figures	iv
List of Tables.....	v
Acknowledgements	vi
Abstract.....	vii
Glossary of Terms	viii
Prologue.....	ix
Chapter 1: Context of the Study.....	1
1.1 Situating the study: My beliefs about teaching and learning.....	1
1.2 Situating the study: The education literature	5
1.3 Using pragmatism to cope with conflicting discourses.....	18
Chapter 2: Learning in Teacher Education	24
2.1 The importance of teacher education	24
2.2 Challenges for teacher education	25
2.3 Authentic learning	29
2.4 Developing a negative metaphor	36
2.5 Using a metaphor as a research tool	36
2.6 My negative metaphor: A back-bearing on passenger roles in ITE.....	40
Chapter 3: Methodology	47
3.1 What is self-study?	47
3.2 Trustworthiness	50
3.3 Methodological framework.....	53
3.4 Commonplace of the teacher educator.....	56
3.5 Commonplace of the pre-service teachers.....	60
3.6 Commonplace of the subject matter.....	65
3.7 Commonplace of the milieu	67
3.8 Interpretation and analysis.....	71
Chapter 4: Transparent Teaching.....	77

4.1	Transparency in teaching: Thinking aloud and open journaling	77
4.2	Teacher position and power	87
4.3	My insights from investigating transparent teaching.....	98
Chapter 5: Modelling		101
5.1	Teaching-as-inquiry: The proposed standards	102
5.2	Modelling the standards.....	105
5.3	My insights from modelling the standards	123
Chapter 6: Fatality Case Studies		128
6.1	Case studies in teacher education	130
6.2	My insights from examining fatality case studies	138
Context for Chapters 7 and 8: The Camp		144
Chapter 7: Into the Outdoors.....		149
7.1	Outdoor education as “beyond the school setting”	151
7.2	Outdoor education as “going somewhere special”	152
7.3	My insights from taking students outdoors.....	162
Chapter 8: Handing Over.....		165
8.1	Scaffolding experiences and mis-education	166
8.3	Transitioning to power sharing on camp	169
8.4	My insights from handing over control	187
Chapter 9: Eclecticism as a Framework.....		191
9.1	Aeroplane framework.....	197
9.2	Reframings: From authenticity to inauthenticity	204
9.3	Eclecticism: Working with disparate concepts	208
9.4	Education and mis-education from learning experiences	211
9.5	Developing the (in)authenticity model	215
9.6	Methodological insights.....	218
9.7	Schwab’s commonplaces.....	221

Chapter 10: Improvement from this Self-Study.....	229
10.1 Viewing change as an improvement.....	231
10.2 What is an enduring improvement?	235
Chapter 11: Representation in Self-Study	240
11.1 Self-study approaches to representation	241
11.2 Calls for persuasive representation.....	243
11.3 Persistent problems with representation	245
11.4 Concluding comments: Implications	250
Epilogue	255
Appendix 1: TECS376 Course Description	256
Appendix 2: Ethical Approval.....	257
Appendix 3: Extension of Ethical Approval.....	258
Appendix 4: Interview and Focus Group Protocols	259
References	264

LIST OF FIGURES

Figure 1: Hauora model.....	8
Figure 2: The Development of Learning to Practice.....	35
Figure 3: The Waka of Learning...Safely	39
Figure 4: The commonplaces in this research	56
Figure 5: The Teaching for Better Learning Model	104
Figure 6: Student reflection: Example 1.....	114
Figure 7: Student reflection: Example 2.....	115
Figure 8: Visual representation of transcript from lecture on Leave No Trace.....	133
Figure 9: Visual representation of transcript from a class on fatalities.....	134
Figure 10: Timeline of the camp	146
Figure 11: Learning on the beach at Okains Bay	147
Figure 12: Still moments at the edge of the lagoon	148
Figure 13: High-energy physical activity in the forest	148
Figure 14: Screen background image.....	149
Figure 15: (In)authenticity of learning experiences	216

LIST OF TABLES

Table 1: Schwab’s four commonplaces.....	21
Table 2: Overview of my critical colleagues’ areas of expertise	66
Table 3: Accessing the perspectives from the commonplaces	69
Table 4: The Teaching for Better Learning structure for session 1.....	108
Table 5: Notes to accompany the plan for session 1	108
Table 6: Assessment rubric for reflection	109
Table 7: Summary of opportunities offered by the new graduating teacher standards	112
Table 8: Categories of reflections on teaching strengths.....	116
Table 9: Categories of professional development goals.....	117
Table 10: Teaching for Better Learning form session 2.....	120
Table 11: The Teaching For Better Learning plan for session 14	122
Table 12: Learning experiences created in TECS376	194
Table 13: The properties of (in)authenticity.....	217

ACKNOWLEDGEMENTS

It takes a village to raise a thesis, and I was very fortunate in the support I received in my 'village'. Thanks first to my family who put up with my absences, even those that happened when I was at home. Ngaire and Hanna, your energy and joy were a wonderful way to rescue me from the farthest reaches of my mind and bring me back into the world with your playfulness and laughter. Emily, you had been through it all before and you kept me grounded. You are really a social scientist at heart - I can tell by your proof-reading comments! Liselotte (Mum), thanks for the pampering, the regular cups of tea and letting me spread scribbled pages throughout your spare room. John (Dad), even though you missed the deadline, this thesis owes a lot to you. Thanks to Rosemarie – my favourite sister.

I am very grateful to all the participants and collaborators in this research. Thanks to all the students in the course and in particular the six students who challenged my thinking about teaching through their insights in the interviews and focus groups. Thanks to the many colleagues who helped me understand doctoral research better: Sue McBain (one of the wisest people I know), Chris Jansen (thanks also for allowing me to use your family batch for retreats), John Kapa, Robyn Stark, Claire Sinnema, Frauke Meyer, Pip Lynch, Jeff Marion, Billy O'Steen, Jane Abbiss, Allen Hill and Brad Harasymchuk. Apologies to the many people I have left out.

I am grateful to the University of Canterbury for providing me with a semester's study leave, also the Teaching and Learning grant which allowed the collaboration with Donna and Maxine.

Finally, I thank my supervisors. Thanks to Lindsey Conner for her relentless enthusiasm over the many years it has taken me to get this far. Ronnie Davey, thank you for your patience and support as I slowly developed my 'voice' as an academic.

ABSTRACT

As a teacher educator, I was concerned at the passive roles that pre-service teachers (PSTs) seemed to take in my outdoor education (OE) courses and I believed that more authentic (teacher-like) experiences would assist PSTs to take more active roles. Early in this research I developed a metaphor of PSTs as passengers on the long distance flight (their degree) to the destination (of teaching) to explain some of this passivity.

Using a self-study methodology, I examined a variety of 'authentic' learning experiences during a semester-long course. Guided by Schwab's commonplaces, I accessed perspectives of learners, milieu, teacher educator and discipline to provide me with some certainty about the effects of my teaching.

The authentic learning experiences included my use of transparent teaching (open journaling and thinking aloud), modelling of proposed graduating teacher standards, fatality case studies and handing over control on an OE camp. As the research progressed, it became apparent that my initial framing of the problem of PST passivity was flawed. In particular, the most authentic experiences of teaching on the OE camp did not necessarily result in the active learning I had anticipated.

Through the self-study methodology, I came to realise that authenticity was impeding the learning of some students. I reframed my approach to teacher education and used Schwab's eclecticism to also acknowledge the equal importance of passive learning, inauthenticity and teacher uncertainty. I argue that this eclectic approach provides a more nuanced and fuller understanding of teaching and learning in the OE course. Finally, I discuss the criteria within self-study for demonstrating improvement and representation of results.

GLOSSARY OF TERMS

Education Outside the Classroom (EOTC) is curriculum-based learning that extends beyond the four walls of the classroom (Ministry of Education, 2009).

Adventure Based Learning (ABL) is the purposeful use of activities in sequence to improve personal and social development of participants (Cosgriff, 2000).

Risk Management refers to those collective procedures used to keep risks and losses within an acceptable range (Haddock, 2003).

Hauora is a Māori philosophy of health. It comprises taha tinana, taha hinengaro, taha whānau, and taha wairua (the physical, mental and emotional, social, and spiritual dimensions of health) (Ministry of Education, 1999b).

Biculturalism is a belief in, or promotion of, the equality of two cultures especially (in Aotearoa/ New Zealand) Māori and Pākehā cultures as based in the Treaty of Waitangi (Biculturalism, 2005).

PROLOGUE

February 19, 2013

It is the first day of the course, I look around the pre-service teachers (PSTs) in the classroom and notice a variety of body positions and behaviours. Some PSTs slump in their seats and look like they need to catch up on sleep, others appear expectant, and many are talkative and excited about catching up with friends and the beginning of their courses. Some wear the uniforms of sports teams, others jandals, shorts and singlets, a few have specialised outdoor footwear or clothing. These clothing choices show the cultures to which they belong and send signals about their experiences and aspirations. They are all here to learn about becoming outdoor education (OE) teachers for junior secondary school students and I am here as their teacher educator. We have just one semester together, twelve weeks, and only four hours per week (in addition to a two day camp). How can I help them become beginning teachers in OE with so little time?

Like most teachers, I believe my subject (OE) is a very important part of education. OE made a big difference for me as a student. I was a skinny 14 year old who was academically strong, adequate at ball sports, good at running and not very socially confident. I can still remember the school camp I went on; the rain, tyre tubing down rivers and camping under an overhang. I had been outdoors frequently with my family before. My father loved sailing and took us camping at a beach over the summer holidays and we had also completed some tramps (backpacking trips). However, the school trip opened my eyes to the possibilities of outdoor adventures and gave me the chance to mix with students who, otherwise, I would not have interacted with at school. There were uplifting moments and moments of hardship. Some of the popular students at school didn't seem so special in the new outdoors setting and some other students seemed to come out of their shells and thrive. OE seemed like a great equalizer to me.

Now at the end of this research process, I am able to look back to the first day of the course and see how my framing led me to ask certain questions. I wondered how these PSTs would cope with the challenges of taking students into the outdoors, keeping them safe under diverse conditions and providing them with high quality learning experiences. I was concerned because sometimes the PSTs didn't seem to take ITE seriously enough. Many PSTs seemed content to take a passive role in their own

learning about teaching, but passivity would not help them become better OE teachers. I had always valued the authenticity of learning in the outdoors and directly experiencing the consequences of our actions. In my teaching of teachers, I also gravitated towards more authentic learning experiences where pre-service teachers could learn about the consequences of their own teaching beliefs and actions. I felt strongly that authentic experiences would encourage PSTs to take more active learning roles in my course. These concerns raised questions about how effective authentic learning experiences were and did they sufficiently represent the complexity of OE teaching?

Certainly there is a lot of complexity in OE and many different approaches to it are promoted in the literature. Should OE be about sustainability, outdoor pursuits, bicultural approaches or teaching the normal school curriculum beyond the classroom walls? How could I present OE in a way that recognised these diverse perspectives and open up the possibilities for rich learning in the outdoors?

Such questions initiated this doctoral research and eventually set me on a pathway towards a self-study approach to find answers. However, 'self-study' was not a straight-forward choice. My background in the sciences (I had completed a Master of Science degree in botany and had taught science as well as OE for many years) had framed my thinking about knowledge and research in a scientific and quantitative paradigm. As a consequence, I was initially unimpressed by the idea of self-study as it seemed subjective and appeared to have little relevance for others. My decision to use it as a methodology came from reading some inspiring self-studies that changed my opinion.

This study set out to investigate, document and analyse the challenges in my teaching of prospective teachers about outdoor education using more 'authentic' experiences. In particular, my aim was to improve my own practice and student teacher learning in my courses. Based on my reflections and concerns as an outdoor education teacher educator, I developed two initial questions:

1. What opportunities do authentic learning experiences provide in preparing PSTs for teaching?
2. In what ways do authentic experiences result in more active learning by the PSTs?

The purpose of this prologue has been to represent my motivation for embarking on a self-study. This introduction shows my stance at the beginning of this research process and the questions that concerned me. I use this thesis to document my learning about teaching and to set out the chapters in the order of that learning. Due to this chronological approach, my literature review identifies my initial framings of the problems and in particular ideas about authenticity and PST passivity (introduced briefly here) and I draw on further literature in various chapters as I gain insights through the self-study process. At the end of the thesis I present an epilogue in which I describe my new understandings of my role as a teacher educator in outdoor education.

CHAPTER 1: CONTEXT OF THE STUDY

Self-study research is deeply contextual, and in this chapter I address the particulars of this study in terms of person, place, time and content (LaBoskey, 2004a). I articulate my beliefs about teaching and learning, provide descriptions of the research context and the literature pertinent to outdoor education and initial teacher education. Through making person, place, time and content explicit, I seek to illuminate the contested landscape surrounding my self-study. As a teacher educator, I have found making informed decisions about curriculum amongst the clamour of competing discourses within both ITE and OE extremely challenging. Yet engaging with these discourses is important, even if the tensions are difficult to resolve. I draw on pragmatic principles and Schwab's (1970/2013) requirement for insights from the commonplaces (learners, teachers, subject matter and milieu) to achieve balanced curriculum change in the contested areas of OE and ITE.

In recognising the importance of context, I have used local literature as much as possible. Due to the limited literature on OE and pertinent ITE literature in Aotearoa New Zealand I have, at times, referenced literature from neighbouring curriculum areas (for example physical education), or from Australia which has a parallel but distinct cultural background. At times I also use international literature because my context is also responsive to international trends. I begin with the personal, then move to the physical and curricular contexts of my study which could be described as a form of "zooming out" as more of the surrounding landscape is revealed.

1.1 Situating the study: My beliefs about teaching and learning

This research examines my preparation of teachers for OE positions using a self-study methodology. Because self is placed centrally in self-study research, it is fitting that this chapter begins with a brief account of some of my central beliefs about teaching and learning.

A moderate constructivist stance

My goal as a teacher of teachers of outdoor education (OE) is to facilitate the learning of OE in such a way that recognises the experience and strengths of the individual PSTs while challenging them to see diverse possibilities for learning within OE contexts. I hold a moderate constructivist view of education influenced by Piaget (1977) and Vygotsky (1978). By this I mean that learning is constructed in social and physical settings, but like Lee (2012) I do not support the extreme relativism of the more radical constructivist positions. An extreme constructivist position would consider that not only is learning constructed by learners, but reality is itself constructed. Extreme constructivism ultimately leads to a relativistic position whereby there are multiple realities, none of which can be distinguished nor a value judgement passed on which is more helpful (Lee, 2012). By contrast, and similar to Hart (2006), I believe that “every knowledge claim is not equally well warranted; we must distinguish between what is true and what people believe to be true; inquirers can be right or wrong about these things—can depict beliefs accurately or inaccurately” (p. 542). In this regard, I believe that there are better and worse choices that teachers can make and there are position claims which are more supportable. I do not wish to engage in philosophical debates about realism and relativism, because the terms arise from “an entrenched vocabulary which has become a nuisance” (Rorty, 1989, p. 45). Taking a pragmatic approach to the realism versus relativism debate, Mayo (2003) argues “it is enough to simply accept that different approaches apply in different situations, and that the choice depends on local considerations (such as contextual knowledge, epistemological belief, and the supposed purpose of the inquiry)” (p.65). Both relativism and realism can help inform a position.

Within my moderate constructivist lens are other beliefs such that:

- education should develop the whole person, not just cognitively but also socially, physically and spiritually. This approach is emphasised in the Hauora model in the *Health and Physical Education Curriculum* (Ministry of Education, 1999b). Educational experiences should therefore provide space for all of these educative outcomes;

- learning should be satisfying and relevant. By knowing our learners, teachers can better help learners to make the experiences relevant and through relevant learning, learners can gain satisfaction;
- learning is best done through authentic experiences or at least strongly linked to experience. The deepest learning occurs when students are exposed to real life experiences with appropriate (and ideally natural) consequences. For example when students leave their belongings outside overnight and as a consequence their clothes are wet with dew in the morning. Through such experiences, students learn how to take care of themselves in the outdoors;
- PSTs should engage with the educational research literature to expand their horizons. Teaching is a profession and there is a body of knowledge with which teachers must be conversant. This body of knowledge can challenge long-standing beliefs which are based on unexplored habits or assumptions.

I believe outdoor education can:

- provide a vehicle for students to learn about themselves in different physical and social settings. The outdoor spaces are able to disrupt unhelpful social dynamics and create a more egalitarian learning context. Learners can also come to see balanced risk-taking as a healthy part of life;
- build emotional connections with both human and non-human nature in order to be better citizens. Through direct experiences with nature, people will come to care for and value the environment;
- foster trans-disciplinary thinking by allowing students to see connections across subject and geographical boundaries. For example, the quality of water in streams is influenced by geological, ecological and societal factors which shows the importance of bridging subject categories when addressing the real world problem of water pollution.

By articulating my underlying beliefs early in this research, I respond to Korthagen, Loughran, and Russell's (2006) requirement that self-study researchers reveal their perspectives and interests in their research. I continue to address this requirement

throughout the following chapters in this thesis. Having provided an overview of my beliefs about learning in OE, I now turn to the context in which I work, the literature about teacher education, and the question that formed and initiated this research.

Description of the Curriculum Course

The study took place at the University of Canterbury, College of Education, Health and Human Development in Christchurch, New Zealand. The University of Canterbury is the second oldest university in Aotearoa New Zealand and has approximately 2000 staff and 12,000 students. Christchurch is a coastal city with a population of almost 400,000 and draws students from around the country to the four-year Bachelor of Education in Physical Education (BEd) degree. Outdoor education sits within the health and physical education strand of the curriculum document (Ministry of Education, 2007) and it is common practice in schools for physical education teachers to take responsibility for OE. The curriculum course I researched was an optional part of the BEd degree and was open to students in their second and third years. The study took place in the first semester of 2013, from February to May.

It is important to note that this study occurred two years after devastating earthquakes claimed 185 lives and demolished much of the city including many buildings on the university campus. The earthquakes had far-reaching implications for all staff and students, ranging from mild inconvenience to disrupted lives from the loss of family members, workplaces and homes. While this is not a focus of the research, knowing this context may help readers better understand some of my findings.

The course was titled TECS376 Outdoor and Environmental Education:¹ Years 7-10 and prepared teachers for junior high school outdoor education teaching positions. These teaching positions typically involve responsibility for school camps and organising outdoor trips but generally not for technical outdoor pursuits (although camps frequently include overnight tramping trips). As such, the course content covered aspects of adventure based learning (group initiatives and problem solving), education

¹ The outdoor education curriculum centre changed its name in the 1990s to reflect a growing emphasis on environmental education. However, for the purposes of this thesis I will use the term outdoor education (OE) because this is still how the curriculum area is overwhelmingly defined by curriculum documents, teachers and the literature. The environment is an important part of outdoor education in these sources.

outside the classroom (general curriculum learning beyond the class or school) and risk management for outdoor activities. I describe the relevant course content in more detail in later chapters.

Having provided a brief understanding of my beliefs and the context in which this study took place, I now describe the context of this study within the education literature.

1.2 Situating the study: The education literature

While this study takes place in a physical and a social context, it also takes place within an educational context which has implications for the framing of school outdoor education courses as well as initial teacher education. In order to better understand the context, it is important at this stage to turn to a variety of literature including curriculum documents and scholarly literature which describes the field of outdoor education. I then turn to literature relevant to initial teacher education.

Context: Outdoor education in Aotearoa New Zealand

Outdoor education is difficult to define, and many outdoor education articles begin with a discussion of what outdoor education is or is not. Some authors have gone so far as to state that outdoor education defies definition (Nicol, 2002). However, definitions of OE are important in determining what is privileged and what is marginalised. Within the various discourses are numerous perspectives from which to view outdoor education. In this section I attempt to shed some light on attempts to define OE. I start with a very brief historical context, then examine curriculum documents and finally describe research into OE within Aotearoa New Zealand.

Outdoor Education in history

Aotearoa New Zealand was relatively recently settled by people who came on highly risky ocean voyages. The roots of OE can be traced back to these first Polynesian and European settlers and has resulted in a focus on resilience and self-reliance (Boyes, 2011). In her research into the history of OE² in the curriculum, Lynch (2006) found that the main purpose of OE was related to social and moral education which could be

² Lynch uses the phrase “camping in the curriculum” because it better describes the broad range of outdoor activities and purposes in her historical analysis.

described as 'fitting in' and 'getting on'. According to Lynch, 'fitting in' and 'getting on' related to the socialisation of young people into particular belief systems which were valued at the time. The forms of 'fitting in' and 'getting on' have changed over the 150 years Lynch focused on, but the idea that outdoor education was a medium for development of young people remained constant (Lynch, 2000). The objectives of outdoor education have shifted with the milieu (societal and educative context) in New Zealand and since the 1970s, OE has increasingly emphasised skills and dispositions associated with employability such as leadership, teamwork and responsibility (Lynch, 2000). Inclusion of OE in curriculum documents can shed further light on how OE is defined.

Health and Physical Education curriculum document 1999

In the *Health and Physical Education Curriculum* (Ministry of Education, 1999b), outdoor education was formalised in a national curriculum document for the first time. The *Health and Physical Education (HPE)* document remains the most detailed description of outdoor education and it still influences how outdoor education is conceived and implemented both from the perspective of OE teachers and the experiences of their OE students, who have entered (and continue to enter) teacher training. Indeed while the *HPE* document has been superseded by *The New Zealand Curriculum (NZC)* (Ministry of Education, 2007), it is still used by many of my PE colleagues in teacher education because of the higher level of detail in the *HPE* document.

The *HPE* document sets out to challenge what Culpan (2008) calls traditional forms of practice, by taking a critical humanist stance. According to Culpan, the document attempts to achieve this by framing the potential of *HPE* as a socio-ecological value orientation and by using a social critique. This provides impetus for teachers and students to critically examine hidden discourses including competition, elitism, body construction, and biculturalism.

Within this context, outdoor education is defined as providing students "with opportunities to develop personal and social skills, to become active, safe, and skilled in the outdoors, and to protect and care for the environment" (Ministry of Education, 1999b, p. 46).

Advantages of OE within the HPE document

There are two potential strengths of including OE in the *HPE* document. Firstly it legitimises OE as a subject and secondly it potentially broadens its potential scope.

Cosgriff (2008) highlights a strength of inclusion of OE in the *HPE* document when she states that outdoor education now has the “luxury of a previously unavailable philosophical 'space' in which questions of legitimacy and subject status have been able to be replaced with equally pressing questions about the what, why, and how of our practice in schools” (p. 17). This seems a considerable development over Bowles, (1996) description of outdoor education as a subject still in search of what it is about or what it can claim en route to accruing some status as a viable subject. In the past, the lack of curriculum documents has limited OE and seen it as an extra-curricular activity focused on recreation (Boyes, 2000). Boyes argues that the socio-ecological-critical framework of *HPE* offers a good opportunity to open up possibilities for critical outdoor education and therefore broaden the scope of OE to address wider educational goals such as environmental education and social justice.

Potential problems having OE within the HPE document

In contrast with Boyes (2000), Cosgriff (2008) argues that outdoor pursuits and adventure activities are a natural (yet problematic) interpretation of OE within the *HPE* document. While learning to move fluidly and skilfully brings pleasure and meaning to students, potentially problematic aspects of this focus include the idea that ‘doing’ outdoor pursuits for skill and social development are the only mandates for OE within PE.

There are other potential challenges with OE sitting under the PE umbrella. While there are many similarities between the practices of PE and OE, there are also significant differences. In Australia, Martin and McCullagh (2011) state that human to non-human nature relationships lie at the heart of OE curriculum, while in PE, movement and interpersonal skills are more central. As a consequence, Martin and McCullagh argue that the disciplines of PE and OE require distinctive pedagogies and bodies of knowledge. The inclusion of OE within the *HPE* curriculum has potentially led to a marginalisation of the human to non-human nature relationships because over a decade

later, Boyes (2011) notes that “Sadly, practice has not lived up to the rhetoric with the environment being less successful in the contest for power, definition and resources” (p.33). At least within academic discourses, there is a concern that the environment has been marginalised in OE (Cosgriff, 2008, 2011; Cosgriff & Gillespie, 2011; North, 2011). From a Māori perspective, Hokowhitu (2004) also has concerns about the place of land within the Hauora model (Figure 1), which is one of the underlying concepts of the *HPE* curriculum. Hauora is defined as “the concept of well-being [which] encompasses the physical, mental and emotional, social, and spiritual dimensions of health” (Ministry of Education, 1999b, p. 31). Yet land, or *whenua*, is of crucial importance for Māori identity and is absent from the model. The decontextualisation of Hauora from the land adds weight to concerns about the place of environment within the *HPE* curriculum.

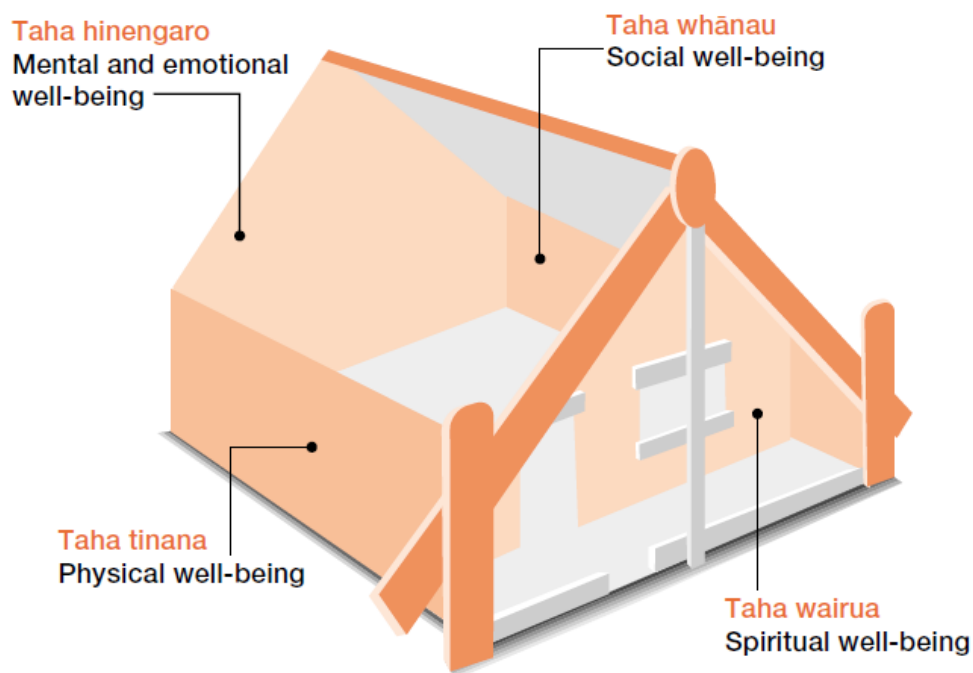


Figure 1: Hauora model (Ministry of Education, 1999b, p. 31)

On a more hopeful note, Cosgriff and Gillespie (2011) see untapped potential within *HPE* and suggest that while unstated in the document, opportunities “to critically engage with relevant issues in relation to community and environment, local, societal, and global are there ‘for the taking’” (p.17). While it seems somewhat ironic that educators need to look to the unstated in a curriculum document, Cosgriff and

Gillespie's work attempts to capitalise on the critical approach within *HPE*. For example, taking a socially critical approach reveals Māori views of environment focused on harvesting, sustainable use of resources and, as a consequence, a form of guardianship called *kaitiakitanga* (see for example the *Guidelines for Environmental Education in New Zealand Schools* (Ministry of Education, 1999a)). Māori approaches to environment are therefore quite distinct from 'leave no trace' or the minimum impact practices for outdoor recreation which are framed within the *HPE* document. Engaging with a socially critical approach reveals divergent views of environment and supports Cosgriff and Gillespie's argument that the opportunity to engage with alternative approaches to environmental education is possible within the *HPE* document.

The New Zealand Curriculum (2007)

The release of the national curriculum document (*NZC*) (Ministry of Education, 2007), covering primary and secondary school years did nothing to clarify the status of OE. Indeed the reverse was true in that OE receives no description in the *NZC* other than to state that it is an area of learning within health and physical education and a brief mention that OE "must follow safe practice and meet legal requirements" (p.22). As such, this document did nothing to define outdoor education except within the broadest terms. The *NZC* did, however, provide a framework for education including a mission statement, vision, set of principles, values, key competencies and effective pedagogies grounded in a socio-critical approach. This approach could open up possibilities for OE when combined with *HPE*, as Cosgriff and Gillespie (2011) argue. In particular, environment and sustainability received considerable emphasis in the *NZC* through the vision, principles and value statements. In summary, the *NZC* document provided *space* for OE but no dedicated *place* for it.

Education Outside the Classroom (EOTC) Guidelines

The *EOTC Guidelines* (Ministry of Education, 2009) promote an approach to OE based on learning beyond the classroom. The *EOTC Guidelines* describe education outside the classroom as

a generic term that is used extensively by schools in New Zealand to describe curriculum-based learning that extends beyond the four walls of the classroom. This ranges from a museum or marae visit to a sports trip, outdoor education camp, or rocky shore field trip. (p.4)

Within EOTC, OE is defined as “a broad term describing education *in* the outdoors, *for* the outdoors, and *about* the outdoors” (Ministry of Education, n.d.). Education *in* the outdoors uses natural environments for any curriculum area (such as learning about mathematics by estimating tree heights in a forest), education *about* the outdoors involves developing skills and attitudes necessary for competent outdoor recreation, while education *for* the outdoors focuses on the interrelationship between human beings and natural resources with the goal of stewardship. This typology of OE is extremely broad and only descriptive in the widest sense. Rather than defining OE, an EOTC approach seeks to open up the possibilities for OE. However, this does not provide a great deal of guidance for OE teachers, nor for teacher educators in the preparation of OE teachers.

Noteworthy in the *EOTC Guidelines* is the emphasis on environmental aspects evidenced by the added reference to sustainability (in addition to environmental care or minimum impact practices). While these are not a major focus of the document, there is potential to give “environmental care education a specific, acknowledged focus in outdoor education so that it receives the attention it deserves” (North, 2011, p. 41).

The *EOTC Guidelines* are also influential on OE due to the series of national workshops in 2011 and 2012, designed to introduce the document to teachers. Indeed a survey of secondary schools found almost all used the guidelines (Ministry of Education, 2011a). However, despite having a key focus on learning within EOTC, schools had “used the guidelines more often to improve safety than to improve connections between EOTC and learning” (Ministry of Education, 2011a). The *EOTC Guidelines* were intended to refocus EOTC trips on learning, however teachers used the *EOTC Guidelines* differently to the intentions of the document.

The *HPE*, *NZC*, and *EOTC Guidelines* are intended to support and define the subject matter of OE, but it seems that teachers in schools interpret these documents in different ways. As a teacher educator I need to understand as much as possible about OE in schools in order to help prepare PSTs for teaching. The following section describes attempts by researchers to examine what actually occurs in school outdoor education programmes.

Outdoor education as it occurs in schools

In 2006, Zink and Boyes published the results of a survey on the “nature and scope of outdoor education” in Aotearoa New Zealand. While this study did have significant limitations (including a very low response rate), the findings indicated that the predominant focus of OE teachers was on personal and social development. This seemed consistent with seeing OE as part of the *HPE* domain. Interestingly, there was also considerable agreement that outdoor education was the best place for environmental education.

Since this study, there was one further attempt to describe outdoor education in New Zealand nationally (Haddock, 2007). Haddock finds that EOTC is a key component of secondary school life, and that the learning on EOTC trips achieves most of the key competencies in the *New Zealand Curriculum*. In terms of subject matter, students learn safety knowledge and skills, improve self-confidence, and develop problem-solving skills. However, due to the low response rate, Haddock’s ability to generalise is limited. Cosgriff (2008) states that trying to describe what happens in OE programmes in schools is fraught because of lack of information and high levels of local variation. It appears that outdoor education is defined according to contexts and that it has diverse manifestations. As an OE teacher educator, my search for a nationally accepted definition of OE is potentially a poorly defined question and there may be better questions to ask.

What constitutes legitimate knowledge in outdoor education?

Boyes (2011) takes a different slant and asks the question “what constitutes legitimate knowledge in outdoor education?” (p. 27). Boyes responds with a further question: “is a river a playground of extreme sports or a place for slow pedagogy and sense of place?” (p.27). Through this, Boyes stresses that it is not OE that is contested but rather the underlying logic of the outcomes. Boyes suggests that there are three key fields vying for dominance in outdoor education in contemporary New Zealand:

1. outdoor education as adventure: privileging challenge and risk;
2. outdoors as learning: privileging interdisciplinary outdoor learning as promoted in the *EOTC Guidelines*;

3. environmental education or education for sustainability: privileging social and environmental justice.

Boyes concludes that adventure is currently in the dominant position followed by outdoor learning (both legitimised through curriculum documents). However, he believes that sustainability has the potential to transform OE towards a focus on environmental and social justice.

Implications of fatalities in Outdoor Education

It is informative to examine Boyes' three competing fields in the responses to two multiple fatality incidents in the last decade. In the wake of these fatalities, the attention on OE has focused increasingly on risk. Contemporary approaches to OE appear to have privileged risk-taking and outdoor pursuits (Boyes, 2011). The consequence of such 'adventure discourse' logic is that learning becomes framed through a risk focused vision of OE (M. Brown & Fraser, 2009; Zink, 2003) and as students progress, they need to undertake increasingly adventurous and risky activities. In his analysis of one of the fatal incidents, Brookes (2011) wrote "while the public might accept bumps, scrapes, discomfort or burnt toast in exchange for presumed benefits of outdoor education, preventable death is another matter" (p. 9). The critiques of OE were intensified by the fatalities and suggested that the level of risk in OE was not acceptable.

Solutions to the riskiness of outdoor education can be understood through Boyes' (2011) fields of influence. From the adventure field, the response was to emphasise risk management in order to make the adventures safer. Even prior to the recent fatalities, safety management systems and documentation requirements for teachers had increased. *Safety and EOTC: A good practice guide for New Zealand Schools* (Ministry of Education, 2003) was released with the intention of supporting education outside the classroom and helping teachers meet safety requirements. However, Sullivan (2006) considered that the safety focus of these guidelines had led to EOTC becoming a "site of anxiety" (p.6) for teachers. In response a new edition of the *EOTC Guidelines* rearranged the emphasis and foregrounded decisions about learning in EOTC before considering safety. In this way risk management was positioned to support learning experiences

and risk was not reified as an end in itself. Despite this refocusing of the *EOTC Guidelines*, the sheer volume of sample forms (e.g. 32 template forms) signals the ongoing focus on safety (Sullivan, Carpenter & Jones, 2011). The response to the fatalities from the adventure field of influence is to improve planning and safety systems, and therefore to support the continued practice of adventurous activities in OE.

By contrast, the sustainability and outdoor learning fields saw the solution as re-envisioning outdoor education. Irwin (2010), M. Brown and Fraser (2009) and Hill (2011) critique OE programmes centred on the adventure-challenge paradigm, which they argue is individualistic and outdated. The solution from these fields of influence is the transformation of OE so that adventurous activities are eliminated or at least significantly reduced because they represent a distraction from other more important learning possibilities. Rather than bringing the fields closer together, the responses to the fatalities served to pull OE discourses further apart into more entrenched positions.

These divergent visions of how OE should be constructed, combined with the lack of clarity in curriculum documents and on what goes on in OE in schools, created challenges for my work in preparing teachers for OE positions. As a teacher educator, the OE fatalities upset me greatly but the ensuing debates and discussions did not provide a clear direction to help me respond. All of these factors generated questions but not any real answers.

Outdoor Education within the TECS376 course

Drawing together the history of OE with the more recent curriculum documents and research into OE, provided a social and educational context for this study of OE. The nature of courses within tertiary settings is that they have a particular syllabus and curriculum. As such, I can draw on the course description (Appendix 1) to help clarify how OE is structured within the course. The TECS376 course description shows that OE is conceptualized as a combination of social development (through adventure based activities) and safety in the outdoors (risk management) influenced largely by the *HPE* document. Sustainability also receives considerable emphasis and reflects the *NZC* vision, principles and values (Ministry of Education, 2007). In addition, the camp is

focused on planning and implementing cross-curricular outdoor learning as envisioned in the *EOTC Guidelines*.

Missing from the TECS376 course is the development of outdoor pursuits skills. Outdoor skills in the course are limited to the context of the camp, to pitching tents, learning how to be comfortable in the outdoors and establishing quality outdoor learning experiences for school students. In the past (before my time) there was a greater focus on learning outdoor skills, but the purpose of the TECS376 course has shifted to provide more generic OE preparation for teaching due in part to constraints such as reduced hours for course delivery.

Gaps in the literature

In my discussion to date I have shown that OE is a poorly defined and highly contested discipline. As a teacher educator, I attempt to provide a balanced approach to developing an OE curriculum, however the pressures from within the field make this a difficult project. Others, including OE teachers and OE teacher educators struggle with these same dilemmas, yet there is little in the literature to help with this challenge. Research into the experiences and perspectives of outdoor education PSTs in Australia is increasing (Lugg, 1996, 2011, 2012; Martin, 2004), but there has been no research in this area from Aotearoa New Zealand. In Aotearoa New Zealand, there was some research in the related fields of experiential education in environmental education teacher education (Law, 2003) and sustainability in OE (Irwin, 2010). The preparation of teachers for OE positions remains underexplored internationally. The localised nature of OE presents an opportunity to explore contextual influences within OE in Aotearoa New Zealand. This research aims to contribute to our understanding of preparing teachers for OE positions.

Context: Initial teacher education

Similar to the development of OE, initial teacher education (ITE) has been constructed and continues to be reconstructed under the influence of different discourses. Within Aotearoa New Zealand “the complex issues of who controls teacher education, how and where initial teacher education should take place, along with the precise mix of skills

required of a good future teacher, are almost guaranteed to remain both contested and contestable” (Openshaw & Ball, 2008, p. 171). Internationally, Zeichner (2006) argues that tensions exist about the purpose of ITE, and identifies the discourses of deregulation, social justice and professionalization. Each of these influences has a specific vision for ITE and these visions are often divergent. I now briefly expand on each of Zeichner’s ITE discourses within the context of Aotearoa New Zealand and their influence on my work as a teacher educator.

Firstly, the deregulation discourses, with their focus on efficiency and accountability, have been highly influential in Aotearoa New Zealand particularly since neo-liberal politics gained political sway in the early 1990s (Boyes, 2000; Chapman, 2011). The dominance of The Business Round Table³ in establishing educational direction during the 1990s is one example of that neo-liberal influence and, during the height of this phase, teachers and teacher educators were excluded from educational debates because they were considered to have a vested interest (Chapman, 2011). Nonetheless, teacher educators and teachers were expected to follow the resultant business-influenced curriculum. In the neo-liberal view, teachers were social engineers and were, as such, crucial in creating the society of the future. Teacher educators therefore came under the purview of powerful people either in politics or industry who saw them as a means to further their ends. Eisner (2002) argues that this often results in an attempt to control education. Over the past 20 years, teacher education has been largely deregulated and there is a proliferation of ITE ‘providers’ in Aotearoa New Zealand (Openshaw & Ball, 2008). This has had the desired effect of creating competition between ITE providers and this competition in turn has resulted in pressure to reduce the financial and time costs to students. Within this context, the formerly independent colleges of education have been merged with universities with increased expectations on research outputs in addition to teaching. Deregulation and neo-liberalism have had an extensive influence on my teaching including decreased number of curriculum courses and a reduction in student contact time. More insidious is the reframing of the relationship between student and institution as client and provider. I revisit this in Chapter 2: Learning in Teacher Education.

³ The Business Round Table was a think tank comprising of successful and influential business people and convened by the government to provide advice on a broad range of issues.

Secondly, and by contrast, a social justice ideology frames ITE as an important location from which to challenge power inequities in education. The social justice agenda emphasises the ability of PSTs to adapt their teaching to the needs of disadvantaged or minority students and the students who are most marginalised in schooling (see for example Alton-Lee, 2003; Macfarlane, 2007). For example, attempts to address inequality in education have seen the Ministry of Education identifying 'priority learners' (currently Māori and Pasifika students and students with disabilities). The Ministry in turn requires schools and ITE programmes to demonstrate how they are addressing the specific needs of priority learners. Educational institutions are in turn held accountable for the improved performance of disadvantaged or minority students. This social justice agenda therefore has a significant influence on my work as a teacher educator.

Finally, the professionalization discourse sees teaching as a profession with specialised knowledge, requiring intensive preparation, a code of conduct, an emphasis on continued learning and supplying a public service (Aitken et al., 2013; Hattie, 2008, 2012; Timperley, 2013). The professionalization discourse within teaching emphasises the body of evidence-based knowledge behind effective teaching and also the ability of teachers to exercise professional judgement. Internationally, various authors argue that we should overtly acknowledge that teaching is value-laden (Craig & Ross, 2008; Dewey, 1904/1977, 1938/1972, 1998; Eisner, 2002; Grossman & Richert, 1988; Schön, 1987; Schwab, 1978; Shulman, 2004). However, teachers must enact this professional judgement within an ethical framework and within the wider expectations of the profession. For example, teacher educators must work to maintain their professional affiliations. As a teacher educator in OE, this means I must maintain my registration as a teacher, and also my outdoor instructor qualifications. These can be time-consuming and contribute significantly to my workload, yet the university does not recognise or reward this work. Even within a professionalization discourse, teacher educators must serve multiple masters who at times have divergent expectations.

I have applied Zeichner's three discourses to highlight the tensions within ITE in Aotearoa New Zealand and in particular the divergent emphases on efficiency, social justice and professionalization. Each has a contribution to make to teacher education, but each has its own definition of what constitutes an improvement. As a teacher

educator, I am in the midst of such discourses with powerful arguments pulling me in multiple directions.

The content of ITE is also determined by national expectations. The following section lays out some of these criteria and identifies how these affect teacher education.

National prescriptions for teacher education

The New Zealand Teachers Council provides a range of expectations (standards) for graduating teachers including that they will “systematically and critically engage with evidence and professional literature to reflect on and refine practice [and] critically examine their own beliefs” (New Zealand Teachers Council, 2010, p. 14). Zeichner’s professionalization and social justice discourses are represented in these standards through statements about professional literature, and critical examination of beliefs. In addition, the social justice discourse speaks clearly through the focus on cultural competency and special (inclusive) education. For example graduating teachers must “have knowledge of tikanga and te reo Māori to work effectively within the bicultural contexts of Aotearoa New Zealand” (New Zealand Teachers Council, 2007, p. 1). ITE institutions are required to demonstrate how they meet these graduating teaching standards when they report to the national body and so they exert a powerful influence on how teacher education is constructed. However, graduating teacher standards have been criticised for a variety of reasons. One critique focuses on their passive and non-applied language as shown by statements such as “have knowledge of a range of relevant theories and research about pedagogy, human development and learning” (New Zealand Teachers Council, 2007, p.1). Aitken, Sinnema and Meyer (2013) criticise standards which use terms such as “understand” or “have knowledge of” in isolation and argue that standards must have implications for practice. According to these authors the separation of knowledge and practice is rife internationally in teacher standards and is reflected in those from Aotearoa New Zealand. The isolation of ‘understanding’ from ‘application’ lies at the heart of much of the problematic ITE – school divide and I address this in the next chapter.

The *New Zealand Graduating Teacher Standards* also require that PSTs systematically and critically engage with the education literature and critically reflect on their teaching

beliefs and how these beliefs impact their learners (New Zealand Teachers Council, 2010, p.14). These standards provide effective support for approaches informed by professionalization and social justice discourses and guide my practices as a teacher educator.

As with OE, ITE is fraught with conflicting views of the purposes and directions of education. I have elaborated on Zeichner's (2006) international discourses and shown how these have also influenced teacher education in Aotearoa New Zealand and continue to exert pressure towards their often disparate ends. The *New Zealand Graduating Teacher Standards* do, however, provide greater clarity of direction for ITE than the curriculum documents provide for OE. Nonetheless there are a range of decisions that teacher educators need to make in terms what gets emphasised and what gets excluded in initial teacher education courses.

1.3 Using pragmatism to cope with conflicting discourses

At this point the pragmatic question emerges: Given all that we know, how might we choose to act, and what are the likely consequences of our various choices? (Cherry-Holmes, 1999; Mayo, 2003). Similar debates have been raging about education for some time. For example, at the time when pragmatism was developing, there were heated debates between Traditionalists who favoured a curriculum-centred approach to education, and the Progressives who believed that expression of the child's native impulses was all that needed to be attended to in education. Dewey (1934) uses a pragmatic stance to respond by choosing a middle ground and rejecting these dualities. He argues that by the time children enter the classroom, they are already intensely active, and the question of education is a question of taking hold of their activities and giving them direction. Dewey believes that the role of a teacher is as director of learning but in a child-responsive manner. He uses both Traditional and Progressive approaches to inform his stance from multiple perspectives.

Because of its focus on consequences rather than truth, pragmatic theory sits in opposition to realism which strives to create universal, or foundational accounts of the physical world (Cherry-Holmes, 1999). Yet because of its inclusiveness, pragmatic theory also works in partnership with other theories, both realist and relativist (Mayo, 2003). Rorty (1982) argues that the search for universal truth is unnecessary. He

proposes that knowledge depends on the discursive practice carried out between two or more individuals arguing over statements and attempting to convince each other. If one argument is more persuasive, then this outcome justifies the 'truth' behind the argument. The same test of persuasiveness can be applied to the competing discourses surrounding OE and ITE. It also explains how pragmatism avoids the concept of 'universal truth' because truth claims are based on convincing arguments and are therefore contextual. Indeed pragmatists suggest that a search for trans-historical 'truth' is unhelpful and impossible. Justifications of truth are only valid within a particular language community, thus abandoning the notion of certainty of knowledge as a central goal of philosophy. Truth, according to Rorty, is the expression of satisfaction at having found a solution to a problem. This solution to a problem is, however, likely to be temporary and the satisfaction someday likely to be seen as misplaced. While complex problems (such as those in education) may be enduring, solutions are only likely to be temporarily satisfying. This is not to suggest that the solutions should be enacted without deliberation simply because we understand that such solutions will be temporary.

Dewey (1933) in his book "How We Think" warns us that deliberation (converting thought into intelligent action) needs both open-mindedness and whole-heartedness. Open-mindedness requires an attitude of freedom from prejudice and therefore an active and positive desire to listen to different sides and to give full attention to alternative possibilities. Whole-heartedness describes an attitude of absorption in an activity that requires a vigorous and energetic commitment to considering the consequences of a possible action. The monumental task of considering the consequences of each of the different discourses within OE and ITE is daunting. Extending on this pragmatic approach to teacher education, Kemmis and Grootenboer (2008) state that:

We need informed and enlightened ...teacher educators, not just ones who want to produce particular outcomes and effects that may seem important at any particular historical moment, in the context of particular political issues of the day. They too must be held to account for their work in the construction of the practice architectures of schools and colleges and universities. (p. 60)

My work as a teacher educator is therefore important in establishing 'practice architectures' which may shape the work of teachers in the future. Furthermore, the

changes I make must not simply be responses to a particular historical moment or political issue of the day. This has perhaps been the problem in the past where changes in teacher education were best characterized as a “series of displacements” (Openshaw & Ball, 2008, p. 155). These authors contest that rather than an ‘informed and enlightened’ approach, teacher education has been influenced by historical and political whims and as a consequence, many of these changes have been reversed or have simply compounded the problems they were designed to address. Over a century ago, Dewey (1900) wrote about transitory fads and arbitrary inventions within education and Openshaw and Ball’s comment suggests that this criticism remains relevant to the context of Aotearoa New Zealand today.

In light of the complexity of the field and the history of inadequate responses to diverse influences, how can I attempt to improve on this situation and make informed and enlightened decisions as a teacher educator? Schwab’s (1978) work provides a way forward with his reference to the ‘commonplaces’ as a means of achieving balanced curriculum development and I turn to this next.

Applying pragmatism to Schwab’s ‘commonplaces’ framework

In this section I draw on Schwab’s work to provide a means to effect the pragmatist’s approach to problem solving in complex situations. According to Schwab (1978), one-sided influences within education may result in successive ‘bandwagon’ curricula based on an unbalanced focus on some particular area of the curriculum or one particular interest group- similar to Dewey’s educational fads.

Pragmatism provides me with a useful theory from which to launch an investigation of teacher actions. In order to explore questions about teaching from a curriculum perspective, a framework is needed that is commensurate with pragmatic principles. Schwab (1978) offers such a framework through the commonplaces. He states that balanced curriculum development and change require deliberation with representatives of four “commonplaces” of educational thinking. These commonplaces are based on the fact that education always involves someone, teaching someone, something, somewhere (Schwab, 1978). By implication the four commonplaces must be

the teacher, the learners, the discipline and the milieu. I describe each of these briefly in Table 1.

Table 1: Schwab's four commonplaces

Commonplace	Description
Learners	Teachers must be familiar with the aspirations and concerns of their learners; the generalities but also the particularities of the learners in the class.
Teacher	Teachers are the active creators of curriculum and must be curious and knowledgeable about different approaches. Teachers must critically reflect on their beliefs and actions.
Milieu	The influences on students of their families, neighbourhoods, and the wider society are crucial to the act of teaching.
Subject matter	This directs teachers to address the bodies of knowledge in their particular curriculum area.

Defensible decisions about curriculum require all four of the commonplaces. Schwab states that without such deliberation, we risk the kind of unbalanced curriculum bandwagons which resulted in the 'series of displacements' that Openshaw and Ball (2008) criticised. Deliberation with representatives from all the commonplaces appears to be the key to avoiding the pitfalls of short term and uninformed changes.

While deliberation is important, it is not infallible. Kemmis and Grootenboer (2008) warn us that

We cannot know with certainty how everything will turn out. And so we are obliged to deliberate, drawing on our knowledge and experience, before deciding what to do-

and in the knowledge that things may turn out in ways other than we would wish.
(p.19)

Schwab's work in general has become increasingly important, perhaps because of the compelling case that A. Clarke and Erickson (2004b) make for a renewed recognition of Schwab's influential and foundational writing. Based on Schwab's commonplaces, A. Clarke and Erickson argue that there is a missing fifth commonplace implicit in Schwab's framework: self-study. They state that "for teaching to occur, there must be somehow, a way for an educator to know, recognise, explore and act upon his or her practice" (p. 207). In this regard, self-study is the way in which the deliberation with the commonplaces can be enacted. Balanced curriculum development depends on many voices from different perspectives deliberating and co-creating the changes. The role of self-study is to promote full participation from all commonplaces within this process. The fifth commonplace (the process of self-study), conceived in this way, must facilitate a conversation that results in a curriculum that is both rich and rigorous (A. Clarke & Erickson, 2004b).

Within the literature there is a growing body of research referencing Schwab's commonplaces (Attard, 2014; Craig, 2008; Lighthall, 2004; Misco, 2012; Pyle & Luce-Kapler, 2014; M. J. Reid, 2010; Ross & Chan, 2008). Craig (2008) specifically focuses on the commonplace framework to research her role as a teacher educator. In so doing, she makes a number of modifications to the commonplaces to shift from her role as teacher researcher to teacher educator researcher:

1. milieu is extended to include local and national policies specific to teacher education;
2. subject matter is extended to include content and processes of teacher education;
3. the learner role is taken by the PSTs;
4. the teacher role is taken by a teacher educator.

In response to Craig's modification, I have included policies specific to teacher education.

Schwab's framework of commonplaces is helpful for exploring teaching teachers about outdoor education and ensuring that the research design takes into account the key perspectives to ensure rich and robust curriculum development. This approach is developed further in the methodology chapter.

Summary

In this chapter I have covered a range of important context-specific information, ranging from my beliefs about teaching to those discourses which influence both OE and ITE. The contestations are profound and the dangers in any response to such contestations bring the risk of being arbitrary or faddish. Pragmatism provides me with a useful approach in its rejection of Truth, its acceptance that different discourses have a contribution to make, and its emphasis on the consequences of my actions. Furthermore, Schwab's commonplaces point towards the perspectives I need in order to work towards balanced curriculum development. This chapter has brought these frameworks and approaches to bear on the problems facing me as a teacher educator in outdoor education and given initial direction to this doctoral research.

In the next chapter I examine the literature pertinent to creating quality learning experiences in ITE.

CHAPTER 2: LEARNING IN TEACHER EDUCATION

In Chapter 1: Context, I examined the contested definitions and purposes for both outdoor education and initial teacher education as a way of locating my research within the context of my work as a teacher educator in outdoor education. Negotiating the competing fields was complex and I drew on pragmatism and Schwab's commonplaces as a possible path towards achieving a balanced response. In this chapter I examine the learning theories that inform my approaches to initial teacher education. I begin by establishing some criteria for quality teaching and learning, and I argue that active roles are critical for learners and that this requires that teachers provide authentic learning opportunities. In the second part of the chapter I bring these concepts together to build a metaphor of PSTs as passengers on a long-haul international flight. I argue that, like aeroplanes, the structures of classrooms and many education experiences make PSTs passive. By articulating my metaphor, I am establishing a baseline from which to measure the success of my teaching in drawing PSTs out of passive roles and into actively learning about becoming teachers.

2.1 The importance of teacher education

A variety of researchers have found evidence supporting the influence of teacher education on prospective teachers (Darling-Hammond, 2006; Darling-Hammond, Holtzman, Gatlin, & Vasquez Heilig, 2005; Grossman & Richert, 1988; Malmberg & Hagger, 2009), and on the consequent achievement of their students (Darling-Hammond et al., 2005). According to Lunenberg (2010), teacher educators are "the linchpin in educational reforms of all kinds" (p. 676). Philpot and Smith (2011) examined the influence of grounding physical education teacher education (PETE) in critical theory and found significant changes in the way PSTs think about their role as teachers over the course of a degree programme. ITE can be influential but there are limitations to its influence.

2.2 Challenges for teacher education

The challenge for teacher education (and indeed education in general) is to prepare our youth for active citizenship in society. As discussed briefly in the previous chapter, the complexity of decision-making in the future is likely to increase and as such, working with conflicting opinions where all actions are value-laden will be crucial. Topics such as social justice and sustainability are prime examples of complex issues facing us both locally and globally (Hipkins, Bolstad, Boyd, & McDowall, 2014). In order to prepare our youth for such a future, teacher educators must engage with pedagogies that are aligned with contemporary understandings of teaching and learning. What might this new approach to teaching look like?

In 1996, Loughran and Northfield identified five aspects of learning, linked to quality:

1. quality learning requires learner consent;
2. learning is done by rather than to students;
3. students' prior experiences are crucial and often do not fit the learning demands expected (when responsibility for learning is overtly being encouraged);
4. effort and risk taking are critical for learning;
5. understanding is rarely experienced, and not expected, by many students.

Almost 20 years later, these aspects of quality education still resonate and have implications for teaching. For example, Hogan (2011) builds on the work of Hattie (2008) to state strongly that it is not what the teacher does, but rather what the teacher gets students to do that has the greatest effect on the quality of student learning. This emphasises that the teacher's work is to create experiences that enhance and direct the attention of their learners. In addition, it requires firstly, that the learner consents to learn and then applies her/himself to the experience in a way which exposes her/him to risks and requires her/his effort. It is only through engagement in all aspects of learning that it is possible for quality learning to occur. There appears to be a clear link between Loughran and Northfield's points three and five because students' prior experiences may well establish no expectations of understanding. Students' expectations are that they will simply comply with their teacher educators' demands and complete the expected tasks. Here Loughran and Northfield (1996) identify pre-

existing beliefs about education as a key problem in education and particularly in teacher education; that is, expectations that learning will be passive.

Challenging unhelpful beliefs of PSTs

A PST is not simply a tabula rasa, but rather comes with her/his own life experiences and expectations. One man I met who found out I was a teacher educator told me “that was the year I learnt how to sleep with my eyes open” indicating he felt his teacher education was irrelevant. Research into PETE (Graber, 1995; O’Sullivan, 2005) suggests that PSTs enter ITE with strong beliefs about teaching that are resistant to change.

PSTs beliefs about teaching are formed well before entering ITE through thousands of hours spent in classrooms as students during an “apprenticeship of observation” (Lortie, 1975, p. 61). There has been critique of aspects of Lortie’s apprenticeship of observation theory, for example, learning in a school is considerably different to an apprenticeship because schooling is not intended as training for teaching (Mewborn & Tyminski, 2006). Nevertheless, the apprenticeship of observation has continued as a powerful metaphor for framing the influence of schooling on teachers’ beliefs about teaching and learning.

Discussions on the passive nature of learning environments are not new. Socrates criticises the way in which authorities produce passivity in their citizens and promotes inquiry as the best way of creating active thinking (Teloh, 1986). Dewey (1938/1972) also argues that schooling places great restrictions on the freedom of students through its military regimes, rows of desks and control of movements. It is little wonder after 13,000 hours of schooling that PSTs have learnt certain coping mechanisms and been socialized into certain behaviours. In ITE, the same applies because campus courses are theoretical in content and student teachers are largely passive learners (Beck, Freese, & Kosnick, 2004; Lunenberg, Korthagen, & Swennen, 2007; Russell, 1997/2012; Schwab, 1970/2013). While there are many structures including the physical setting, power structures and social structures which promote passivity in students, there has been a persistent murmuring of teachers and teacher educators seeking ways to enable students to take more active roles in their learning.

PST passivity has have proved resistant to change. For example, Russell (2012) notes that pre-existing beliefs are significant barriers to the learning of PSTs through his teacher education programmes, in particular that:

1. teaching can be told;
2. learning to teach is passive;
3. discussion and opinion are irrelevant;
4. personal reactions to teaching are irrelevant;
5. goals for future students do not apply personally during teacher education;
6. 'theory' is largely irrelevant to learning to teach;
7. experience cannot be analysed or understood. (p.16)

Interestingly, when he asked the PSTs directly, Russell found that most denied adhering to these beliefs. Russell persisted with his analysis of PST beliefs because it was the best way to explain the types of behaviour that he witnessed in his classes. Russell's work suggests that there are undercurrents within ITE that teacher educators may be unaware of and that PSTs have strategies for limiting the impact of learning.

PSTs' pre-existing beliefs filter how they view and understand teaching (Borko & Putnam, 1996; Rovengo, 2003). PSTs are often mainly concerned with acquiring routines for behaviour management and have little time to consider other compelling issues (Dall'Alba & Sandberg, 2006). For this reason, teacher education is viewed as a weak intervention (Darling-Hammond, 1997).

Unhelpful beliefs of teacher educators

Many authors argue that ITE has exacerbated a sense of irrelevance through its reliance on teaching as telling (Dewey, 1938/1972; Korthagen et al., 2006; LaBoskey, 2004a; Myers, 2002 ; Russell, 2012; Schön, 1987; Schwab, 1978; Shulman, 1987). Teaching as telling, frames learning as passive and does not take account of students' experiences and needs and is therefore less and less successful (Darling-Hammond, 1997). In Chapter 1: Context, I described the neo-liberal focus on efficiency in ITE. Greater 'efficiencies' are relatively easily achieved by increasing the number of PSTs in each class and reducing the time for each course. The resultant large scale and condensed course structure tends to support a lecture-style delivery which often involves teaching as telling. It was such lecturing which led Schwab (1978) to state that "teachers often provide an incomplete curriculum whose shortcomings could be defended only by the

hopeful assertion that “life” (as opposed to “school”) will supply enough and to spare of the active and the moving” (p.107).

The arguments I have presented conclusively show that teacher educators must invent new ways of teaching, ones that do not simply measure success through the amount of content delivered in the briefest period of time to the maximum number of PSTs. Therefore we need a shift from quantity to quality in teaching and learning generally (Hogan & Gopinathan, 2008).

Quality Learning

Having examined some challenges facing ITE, I now return to the five points (Loughran & Northfield, 1996) I used at the beginning of this chapter to frame quality learning. These five points focus the pedagogical endeavour firmly on the teacher’s role in structuring experiences for learners. It is the design of the learning experiences and the intellectual demands of those experiences which influence the degree of student engagement and learning rather than what the teacher does (Hattie, 2012; Hogan, 2011).

Rather than a revelation, this is an echo of many educational researchers, including Dewey’s (1938) work relating experience and education and, in particular, his assertion that it is the learner who makes meaning from experiences. Heidegger (1968) also argued that the role of teachers is to ‘let learn’ (p.15) rather than instructing and controlling. But the structure of our classrooms with the podium at the front creates a practice architecture (Kemmis & Grootenboer, 2008) that draws the teacher towards telling and seats the PSTs in rows as passive recipients. The front therefore seems like an unhelpful place for quality teaching.

The key to quality “teaching is a matter of occasioning...the way that things and events ‘fall together’” (Davis, Sumara, & Luce-Kapler, 2000, p. 144) and these ‘falling together’ are important for learning. ‘Falling together’ conjures images of a somewhat chaotic object which somehow collapses into a useful form. This is consistent with Davis et al.’s engagement with complex learning theory. They present the case for viewing teaching organically and creatively. In their view, teachers must be very responsive in order for

the complexity of classrooms to result in quality learning. Using language from a different paradigm, Hogan and Gopinathan (2008) state:

if student-teachers are going to learn how to become 'effective' teachers, let alone expert teachers, they need to learn from expert teachers in authentic teaching contexts, on the one hand, through close observation and a gradually expanding supporting role in the classroom, and, on the other hand, being coached and mentored, and their learning being appropriately scaffolded by expert teachers/mentors. (p. 378)

For Hogan and Gopinathan, teacher educators should closely observe PSTs and gradually expand their role as supporting agents in the classroom; the role of teacher educators is couched in the language of quantitative and scientific research. My reading of both of these accounts is that the underlying message is similar, even though the approaches are very different. PSTs should have learning experiences in 'authentic' settings which are designed by teacher educators. Grossman et al. (2009a) call these learning experiences representations of practice and approximations of practice. In representations of practice, teacher educators design learning experiences for PSTs to observe teaching practices, learn about teachers' interactions, and also the tools that teachers use. On the other hand, approximations of practice involve PSTs actually engaging in more authentic aspects of teaching practices. These requirements define quality learning experiences for PSTs as active and authentic and thereby present a number of challenges for ITE-based courses.

In the next section I expand on the notion of quality learning using authentic experiences for teacher education.

2.3 Authentic learning

Clandinin and Connelly (2004) state that knowledge is experiential, is learned in context and is expressed in practice. Therefore, in order for learning to be effective, practice should be situated in a particular time and place that is relevant for the learners (Schwartz, Bransford, & Sears, 2005). For example, it is untenable for students to learn to swim prior to entering the water (Light, 2008). In the same way, I argue, it is untenable for PSTs to learn to teach by sitting passively in lectures.

If learning is always situated in a social context (Lave and Wenger, 1991) and makes use of the tools within that context (Borko & Putnam, 1996), then what is the role of teacher education institutions in preparing PSTs for teaching? The situated nature of authentic learning means that learning within an ITE institute college will have limited relevance beyond that particular institutional context. Indeed the fact that teacher preparation takes place in colleges of education and not within schools is likely to amplify the divide between what PSTs learn in their ITE and what they will do in school settings (Grossman, Hammerness, & McDonald, 2009b). The implications for ITE are considerable, potentially detrimental and have resulted in calls for a schools-based ITE.

we are convinced that student-teachers need to spend substantial amounts of time in schools learning by observing and doing and that they need far more coaching and mentoring than they currently get. Such an approach is strongly indicated by contemporary community of practice theory and, broadly, by theories of situated cognition and socio-cultural theories of learning. (Hogan & Gopinathan, 2008, p. 377)

At the extreme of such calls for schools-based ITE, are those who would dispense with ITE institutions altogether. Such programmes are often thinly disguised political attempts to discredit the benefits of ITE and create efficiency by rapidly transitioning PSTs to “classroom ready” teachers (Zeichner, 2006) and have been largely discredited (Darling-Hammond et al., 2005). Nonetheless, the authentic learning approach demands that ITE respond in some meaningful way.

One approach is to design more authentic learning experiences within ITE because although most professional education includes direct clinical experience in field settings, practice must be taught at the university as well (Grossman et al., 2009b). I discuss this in the next section.

Authenticity defined

“We call something authentic when it is ‘worthy of acceptance or belief by reason of conformity to fact and reality’” (Petraglia, 1998, p. 15). Newmann, Marks and Gamoran (1996) argue that education is authentic when it is closely connected to ‘real world’ activities or, according to Barab, Squire, and Dueber (2000), approximates the eventual practice communities. Many experiences in life can be characterised as the opposite of authentic; artificial and fake. For example, the work of students in schools is predominantly the production of things which end up in the wastebasket (Quay &

Seaman, 2013). A worthy goal for learning is to be authentic (genuine, bonafide or trustworthy) whereby the products of learning are aligned and are useful for the students. *The New Zealand National Curriculum* states it is important to provide “opportunities for students to be involved in the community, and have authentic learning experiences” (Ministry of Education, 2007, p. 41). Furthermore, within EOTC “The links that students are able to make, between the classroom and real-world experiences can be critical to their long-term learning” (Ministry of Education, 2009, p. 4). This literature and the curriculum documents demand that teachers create authentic learning opportunities for their students, and indeed that teacher educators do the same. Authenticity maintains a focus on ‘real life’ and context and, I argue, is crucial for PST learning about teaching.

In order to be authentic, learning experiences must be based on ‘real life’ professional practice as much as possible and confront students with situations that require them to demonstrate the competencies professionals would use in the same situation in their daily practice (Grossman et al., 2009b; Gulikers, Sluijsmans, Baartman, & Bartolo, 2009). Within teacher education, schools based experiences are a common way to introduce authentic experiences into ITE. Teaching practicums provide opportunities for exploring what it is to be a teacher, including developing theoretical commitments, technical skills, practical wisdom and common-sense, and critical perspectives on the improvement of students, society and schooling (Kemmis & Grootenboer, 2008). There are many benefits to accessing the authentic experiences of the practicum. The practicum is also problematic within ITE because it props up the

assumption that the university-based components of teacher preparation offer the theoretical under-pinnings of teaching and that school teaching experience (practicum) offers a situation in which those previously learned principles of teaching are practiced. This view creates many difficulties, including the fact that the “expertise” of teaching practice is often assumed to reside largely in schools with teachers. This view diminishes the rich possibilities that can be made available at the university site. (Korthagen et al., 2006, p. 1029)

While the practicum has its place in ITE, I note the point by Korthagen et al., that teacher education has a responsibility to provide some of the rich possibilities for learning within ITE courses. It is not enough for ITE to provide the theories and hand over the complex task of applying theories in practice to the PSTs. Indeed isolated ideas, pre-specified sequences, and contrived boundaries on experience are harmful to

effective learning. Such over-simplified experiences are similar to a deprivation of sensory engagement and “lead to underdeveloped abilities to note relationships, to predict, to act” (Davis et al., 2000, p. 26).

Another potential problem in a schools-based practicum is that PSTs may not get the opportunity to participate in rigorous and critical debate within the school’s discourse community. “It is difficult for teachers to break out of routine ways of teaching, especially as schools do not always value or support critical and reflective practice” (Wallace & Loughran, 2012, p. 302). PSTs need authentic experiences, but schools may not provide the best opportunity for some important types of learning about being a teacher. Therefore there is a role for ITE in creating authentic learning experiences for PSTs.

Having established the argument for authentic learning, I now look at how scaffolding contributes to quality learning environments.

Scaffolding

Scaffolding is now a well-established requirement for quality learning (Hogan, 2011). Scaffolding is the interactive process by which a more knowledgeable person supports a less knowledgeable person to increase his or her competence. It was first used by Bruner (1966). Scaffolding is related to Vygotsky’s (1978) idea of the ‘Zone of Proximal Development’, whereby a student’s potential is realised through the guidance of a more experienced other. This allows students to do more than they could by simply choosing their own experiences. The first stage in the process of learning as conceived by Vygotsky is the stage of assistance (by more capable others) where the more capable person guides students forward in their thinking and action. In the second stage of assistance (by self) the more capable person has taught the students a series of questions and statements that they then use to guide their action and thinking when they work in isolation. The zone of proximal development requires that, in each stage the learning experiences are not too advanced or removed from the student’s current learning and therefore the learning is proximal. The implications of Vygotsky’s zone of proximal development for teaching and learning have been labelled ‘scaffolding’ (Dewey, 1904/1977) or ‘decomposition of practice’ (Grossman et al., 2009a). Both scaffolding and decomposition of practice involve breaking down complex practice into

its constituent parts for the purposes of teaching and learning. In this thesis I use the term 'scaffolding' because like Alton-Lee (2003), I find that scaffolding is supported by a more significant body of research than other alternatives. According to Dewey (1904/1977), scaffolding addresses one of the enduring problems of learning from experience; learners must know what to look for, and how to interpret what they observe (Dewey, 1904/1977; Grossman et al., 2009a). The provision of scaffolding should therefore enable students to see and enact specific aspects of practice more effectively. But Grossman et al. (2009a) warn that scaffolding must only be a temporary measure and, over time, the learning experience must get closer and closer to the demands of authentic practice.

Just as scaffolding around a building is temporary, freedom and responsibility must be gradually transferred from the teacher to the learner in order for the learner to progress (van de Pol, Volman, & Beishuizen, 2010). One such example from OE is learning to eskimo roll a kayak. In the eskimo roll, the learner is not immediately tipped upside down and required to roll back up, because of the complexity of the entire action. Instead, the learner needs to master a range of intermediary steps gradually increasing in complexity until they are able to complete the eskimo roll autonomously. For the first exercise the students do not even hold the paddle, but rather practice pushing themselves up using the side of the pool. Once the basic body movement is correct, students are given the paddle but still not tipped upside down until they can successfully combine both paddle movements and body movements. Even then, the teacher stands close by to monitor, support and critique the attempts at rolling. The end point of this progression is that students are able to perform an eskimo roll in white water rapids or in the surf. Thus an important part of the work of teachers' lies in identifying components that are integral to practice and that can be improved through targeted learning experiences (Grossman et al., 2009a). Scaffolding is used extensively within outdoor education to provide learning experiences which help prepare students for less constrained and increasingly complex situations.

Scaffolding is also relevant for learning to teach. Teacher education programmes generally provide progressions that effectively limit the exposure to the full complexity of the teaching experience (Timperley, 2013), helping novices focus in on aspects of practice that otherwise might get lost in the overwhelming demands of teaching. It also allows for PSTs to take risks in 'safer' settings where the consequences of a mistake are

not so serious. Schön (1987) describes the teacher roles in constructing learning experiences as focusing on the level of risk, the freedom to learn, and the kinds of coaching students will need for professional learning.

Scaffolding experiences for student teachers presents some problems - in particular how to limit an experience without over-simplifying it. If PSTs are presented with learning experiences which are too constrained, they may master the particular practice easily but it potentially teaches student teachers that there are simple answers to the complex questions of teaching and learning. For example, developmental descriptions of student teachers follow a general pattern of a phase of survival and rule-following, then a stage characterised by experimentation and a final phase of mastery and fluency (Dall'Alba & Sandberg, 2006). In the initial phase, tasks are simplified by providing the student teachers with a set of teacher behaviours which they learn to implement. By the final stage, the beginning teacher's rule-following has solidified into mastery of a set of teacher behaviours in which problems are identified intuitively and teaching strategies are selected and implemented to solve these problems. In this description the emphasis is on efficiency (Hatano & Oura, 2003) and limits the future growth of teachers because they become established in a set of familiar routines (some of which may be unhelpful to student learning). It certainly does not prepare student teachers for the reality that teaching is never routine, and that multiple goals must be addressed simultaneously (Darling-Hammond, 2006). At the same time, habits and routines are important because "mindful practice often relies on well-developed abilities to let other worries slide to the background" (Davis et al., 2000, p. 11). Clearly there is a tension here between too little scaffolding which can result in students feeling overwhelmed, and too much scaffolding which reduces the opportunity for meaningful learning experiences.

Timperley (2013) provided "The development of learning to practice" model (Figure 2), which represents a form of scaffolding as a guide for teacher educators.

The Development of Learning to Practice

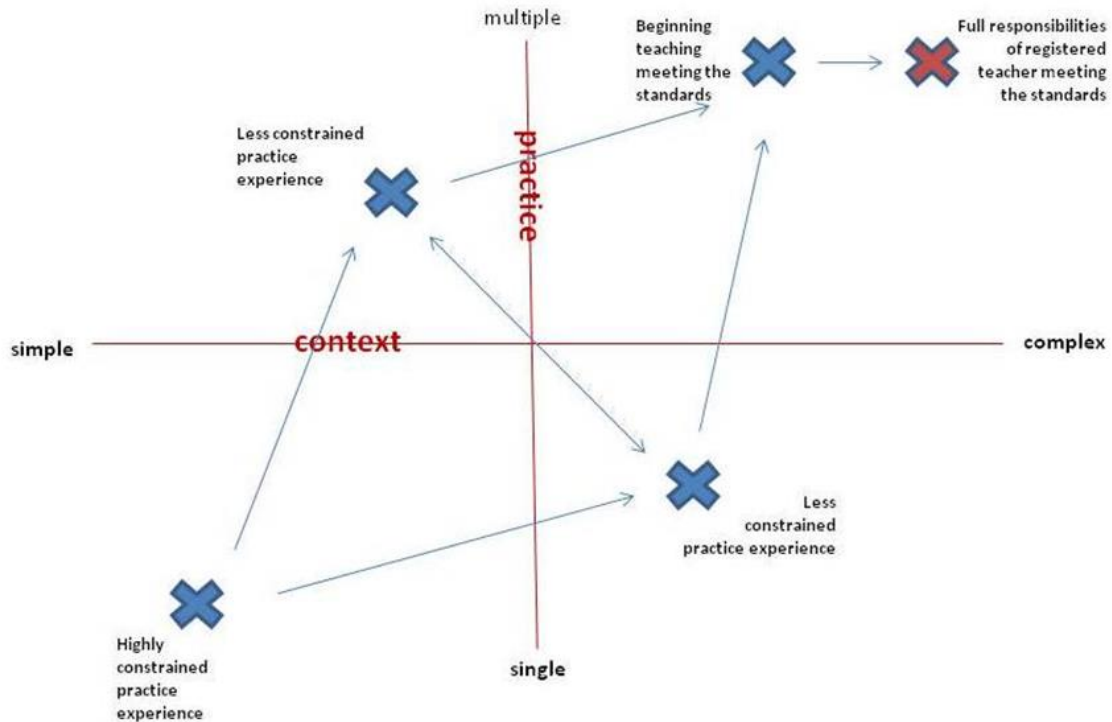


Figure 2: The Development of Learning to Practice (Timperley, 2013, p.34)

Timperley's model represents two axes of teaching experiences, from simple to complex and from single to multiple. In her model, single and simple (highly constrained) is viewed as the starting point and through a series of increasingly complex or repeated teaching practices, student teachers move into more and more complex (teaching-like) contexts. My reading of this model indicates that each successive opportunity to practice must move both towards the more complex and towards the multiple ends of the spectrum. This would certainly reduce the possibility of too many repetitions of a simple task, which, as mentioned above, might lead to overlearning an aspect of practice. For example when PSTs overlearn behaviour management routines, they may come to view compliance as the end rather than the means of teaching (Alton-Lee, 2003). Teacher education must therefore find a balance between providing sufficient opportunities for repetition so that PSTs can become familiar with practices, and too much focus on a particular practice to the point where it becomes the sole focus of the PSTs. PSTs must learn that teaching is not simply about routines.

Section Summary- Authenticity and Scaffolding

I began this chapter by outlining some of the key challenges facing teacher education. In particular I identified that ITE was perceived as a weak intervention when it did not challenge the PSTs' passive learning roles in becoming teachers. Using current learning theories, I then developed an alternative approach (quality learning) in contrast to teaching as telling. Quality learning approaches re-envision the importance of teachers as designers of learning experiences for their PSTs. I framed these learning experiences first through authenticity, in order to counter student perceptions of the irrelevance of ITE. Secondly, I used scaffolding to adapt the learning experiences so that PSTs were able to direct their attention to the relevant learning and not be overwhelmed by the complexity of highly authentic experiences.

I now turn to the implications of my understanding of authenticity and PST passivity on my framing of this research.

2.4 Developing a negative metaphor

Based on the literature on quality learning experiences, I have established that teaching as telling positions PSTs in passive roles. By contrast, authentic learning experiences offer a compelling alternative which positions PSTs in active learning roles. I now present a metaphor which makes the framing of this research explicit. I begin by discussing metaphors in the literature in general. I then propose my metaphor of PSTs as passengers on the flight to their destination as teachers.

2.5 Using a metaphor as a research tool

Metaphors are used widely in the research literature. Lakoff (1995) states that "we may not always know it, but we think in metaphor" (p. 177). Metaphors are powerful ways in which we (consciously or unconsciously) view the world or parts thereof. As researchers, we live in a reality constructed from a variety of metaphors and "metaphors are the most primitive, most elusive, and yet amazingly informative objects of analysis" (Sfard, 1998, p. 4). The elusive and influential nature of the metaphors we

live by indicates the importance of making them explicit. Pinnegar, Mangelson, Reed, and Groves (2011) agree and state that “the metaphors teachers hold for teaching shape and give form to the plotlines they enact as teachers” (p. 640). Metaphors, according to these authors, are not only important for our research and teaching, but are an integral part of our everyday lives. They are framing and sense-making tools that all people use.

Using metaphors: Some benefits

Metaphors can provide a framework which is open to interpretation in a variety of helpful ways. For example, Bullough and Pinnegar (2004) argue that self-study itself is an attractive metaphor. These authors warn that in closely defining self-study and finalising the conversation over what constitutes self-study, self-study risks losing its “metaphoric and seductive quality that gives it life and inspires engagement” (p. 340). Through this, Bullough and Pinnegar are suggesting that the openness of “self-study” as a metaphor provides a shared vision, rather than a recipe for conducting research. Should our definitions of self-study become too tight, then self-study may lose its appeal. Metaphors can therefore help provide a coherent vision without creating unnecessary restrictions.

There are multiple benefits of using metaphors in research and scholarly literature. For example, Alton-Lee (2003) invokes a jigsaw puzzle metaphor to help readers understand the puzzle of drawing on evidence from different sources to make justifiable teaching decisions. As a teacher, the evidence from research appears contradictory and the jigsaw puzzle metaphor promotes an understanding of teacher roles as fitting together pieces of a puzzle in a way that creates a complete picture.

Another benefit of using metaphors is to help make the framing of research clear to readers. Loughran and Northfield (1998) argue that in self-study, data representation, and the analysis that informs findings and interpretations, needs to be transparent to others. Allard and Gallant (2012) use metaphors to address this need stating that “The metaphors helped to make transparent the teaching and learning theories and philosophies we individually have adopted over time.” (p.271). Therefore, I have chosen to use metaphors to make my unstated theories visible to readers, and to build the trustworthiness of self-study research based on the criteria developed by Loughran and Northfield (1998).

In addition to making the research visible to others, the metaphor can also make our developing theories visible to us as researchers. This is demonstrated through researchers explicitly examining their own metaphors and thereby gaining access to their own thinking and emotions (Allard & Gallant, 2012). These authors argued that the same insights would not have been possible without the use of metaphors.

Using metaphors: Some challenges

On the other hand, Sfard (1998) advises us as researchers to accept that the metaphors we use may be good enough to explain small areas of our fields, but none of them are able to explain the entire field. In other words, metaphors are helpful only for local sense-making, not for creating universal theories. Implicit in this advice is the idea that, when viewed as world-conjuring or universal, our metaphors may become impediments to our growth. While emphasising and highlighting some helpful aspects of a problem, metaphors can hide other aspects of a problem or even promote harmful perspectives.

Within ITE, metaphors have been implicated in creating unhelpful approaches by framing PST thinking and defining PSTs actions (Martinez, Sauledua, & Huber, 2001). In a study on the connections between identity and metaphors, Pinnegar et al. (2011) identify 12 metaphors which PSTs adhere to. Each of the metaphors has its strengths but all are limited when it comes to a complete picture of teaching. For example the “teacher as nurturer” metaphor results in a role that emphasizes “the importance of teachers leaving a lasting, emotional impact on each student as they “inspire a love of learning”” (p. 643). While there are many benefits to this metaphor, it limits the role of students to “Respond positively to [the] teacher’s support and motivation... [and to] remember [the] teacher as someone who loved and cared for him/her” (p. 643). The nurturer metaphor places responsibility for learning and creating a learning environment firmly on the shoulders of the teacher, leaving the students to ‘respond’ and ‘remember’. This is problematic in terms of contemporary understandings of how students learn (as discussed earlier in this chapter).

To this point, I have shown that metaphors can enable and reinforce certain views and obscure other views. Metaphors must therefore be treated with considerable caution, while acknowledging that, like it or not, we all think in metaphors (Lakoff, 1995). With the awareness of some problematic aspects in using metaphors, I turn now to the

process of building my metaphor. I first examine a visionary metaphor before developing my own negative metaphor.

An aspirational metaphor – EOTC Guidelines

The *EOTC Guidelines* present the following metaphor (Figure 3) showing how all the stakeholders in the learning process are engaged in the ‘waka of learning’; from the government and national bodies to the activity leaders and students. The waka is the traditional Polynesian vessel by which most of the Pacific Islands were colonized. Acknowledging the bicultural roots of Aotearoa New Zealand, the waka metaphor also invokes an integrated team with shared goals and common purpose. The learners provide the impetus for the voyage of the waka of learning, they are depicted as the main-sail, and a driving force for learning, while activity leaders (teachers) are involved in setting the course.

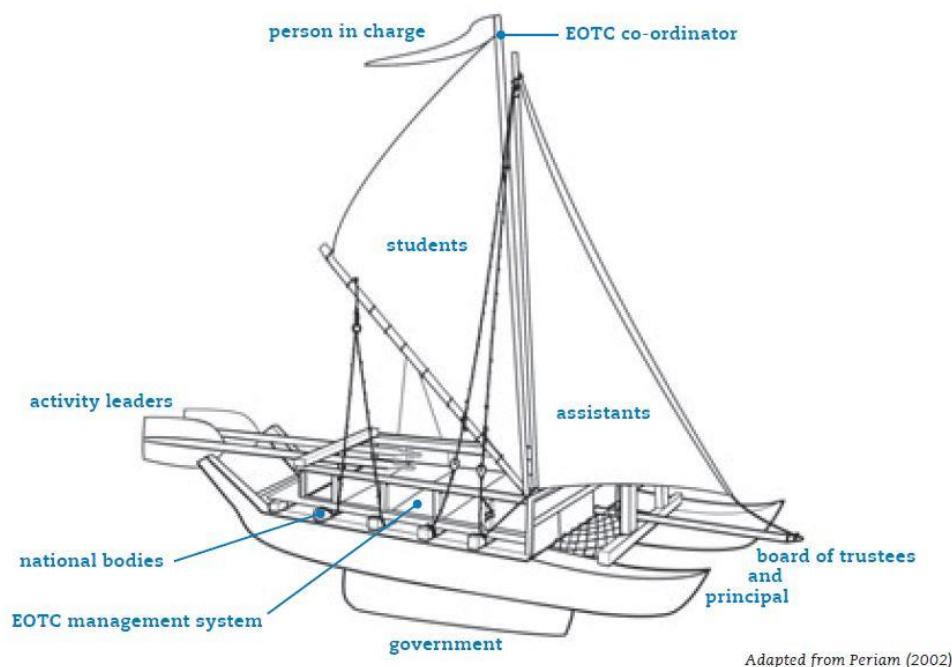


Figure 3: The waka of learning...safely (Ministry of Education, 2009, p. 18)

It is always possible to critique a model or metaphor, as every model highlights some aspects while hiding others. For example the waka is silent on the ways in which some

stakeholders constrain the opportunities for learning outside the classroom. School and education systems “may create learning architectures in such pervasive ways that they may even suffocate the very practices they aim to nurture” (Kemmis & Grootenboer, 2008, p. 57). This can occur through policy or administrative practices which regulate, control and often limit the opportunities for learning outside of classrooms. For example the National Certificate of Educational Achievement (NCEA) in the final three years of schooling has focused students’ attention strongly on the number of credits which a unit involves (often relative to the effort required). For teachers, the time and effort to organise, implement and then evaluate an EOTC programme is significant and potentially disruptive for students (Haddock, 2007b; Haddock, Thevenard, Reddish, & Phillips, 2009). Through the NCEA focused lens, the extra effort required for an EOTC trip would be better spent gaining additional NCEA credits or improving a student’s performance level within NCEA. Therefore government involvement in education tends to marginalise outdoor experiences which are often slower, deeper and more diverse than a classroom learning experience (this is discussed further in a later chapter). The opportunity for students to linger (Davis et al., 2000, p. 34) with their learning is counter to the neo-liberal ideas of efficiency and credit accumulation. In this regard, the government could be viewed more as the storm raging around the waka, than the keel. As discussed earlier, metaphors are limited and not universally applicable. While glossing over some problematic aspects, the waka metaphor provides an aspirational vision of learning beyond the classroom.

2.6 My negative metaphor: A back-bearing on passenger roles in ITE

Within outdoor education settings, navigation with a compass is a fairly standard practice. In order to confirm the direction you have been traveling, it is helpful occasionally to sight back at your point of departure with your compass. This is called a back-bearing. Through my discussions with colleagues and observations in classes, I began to develop the opposite of an aspirational metaphor. My metaphor was a negative metaphor, a back-bearing, something I was moving away from.

This metaphor developed towards the outset of this research and was grounded in my frustration with student passivity. This passivity reminded me of passengers on long distance flights (a standard experience when going overseas from New Zealand). Passengers on long distance flights have bought a ticket to a destination and the

travelling time is generally spent watching movies or whiling away the time as best as possible. I argue that there are similarities between passengers on planes and students in ITE degrees. When students enrol in a four year PETE degree, they are often starting directly out of school. The decision in their professional learning is whether to enrol in a PETE degree, or not. Once enrolled they may consider that they have bought a ticket to their destination: a career in teaching. The job of getting them to that location is now in the hands of the pilots (teacher educators) and the students' task is to avoid getting off the plane, but otherwise the travel is largely assured. The intervening four years on their way to their destination seems often spent listening to music, watching inflight movies or otherwise recovering from the real experiences of being a student (parties and recreation). Some PSTs seem to even arrive at class with a "wake me when we get there" attitude. The problem with being a passenger is that in a few short years the passengers will be expected to fly their own educational planes.

This is a very negative and deficit-based metaphor with which to describe the roles students take. I understand that pilots in training are prepared in a variety of ways including flight simulators, observation, coaching and *not* by seating them in the passenger seats of planes. I use this metaphor to describe what it is that I am working against. There are days as a teacher educator, when like Russell (1997/2012), I feel that PSTs have expectations not dissimilar to passengers on long distance flights; they appear passive and disinterested. In addition, in a neoliberal climate, students are often framed as clients and the educational institutions as providers of a service to these paying clients (Harvey, 2005; Sleeter, 2008; Zeichner, 2010). All of these factors work to frame PSTs as passengers on a journey controlled by experts to a destination. As a teacher educator, I consider that disrupting this passenger status and get students out of passive roles is one of my most crucial goals.

Implications for this thesis

Through this thesis, I bracket the chapters using this aeroplane metaphor as a way of maintaining my back-bearing. Each results chapter begins and ends with the metaphor and I use the metaphor as a measure of the effectiveness of the different learning experiences I create for the PSTs. The regular reference to the metaphor ensures that I am staying on my bearing, seeking to bring PSTs towards more active learning in the process of becoming OE teachers. My method to this end is to avoid the passivity of

teaching as telling and to provide authentic learning experiences. This approach is also informed by the literature on scaffolding. I revisit this metaphor in the discussion to evaluate the strengths and weaknesses of this approach.

Opportunities to investigate authentic learning within my course

Grossman et al. (2009a) reveal that the preparation of students for professions such as teaching requires both representations of practice and approximations of practice. Representations of practice create opportunities for PSTs to observe teachers, their interactions, and the tools they use. By contrast, approximations of practice are opportunities for PSTs to engage in practices that are closer to the practices of a teacher. As Putnam and Borko (2000) argue, learning through experiences such as representations and approximations of practice, fosters the types of thinking and problem-solving skills needed by teachers. As such these activities fulfil the criterion of authenticity. Adopting the approach described by Grossman et al. (2009a), I structure the results chapters in an order; from representations of practice to approximations of practice, with a focus on increasingly authentic experiences of teaching OE.

Representations of practice chapters

Chapter 4: Transparent Teaching

This chapter examines the strategies I used to make my teaching decisions transparent. Through both my open journal and my think-aloud moments, I provided a representation of my teaching to the PSTs in my course. I designed these representations of practice to “make the unseen clear, the taken for granted questioned and the complex engaging... and it is only through this that teacher education can provide an alternative to the ‘tyranny of talk’” (Loughran, 2006, p. 173). Korthagen et al. (2006) also recommend transparency because “at the heart of this principle is the need for student teachers to see into their teachers’ thinking about teaching so that they can access the ideas and feelings associated with taking risks and learning about teaching in meaningful ways” (p. 1036-1037). As such, transparent practices offer an opportunity to bridge the distance between ITE and school settings, creating spaces for authentic learning.

Chapter 5: Modelling

Teacher educators can also help represent the authenticity or relevance of learning theories by role-modelling. When a teacher educator models a particular theory or strategy, it allows PSTs to see how these theories might play out in practice. The proposed Graduating Teacher Standards (Aitken et al., 2013) are based on a teaching as inquiry model and modelling these standards present an opportunity to provide PSTs with insights into authentic teacher behaviour, indeed “modelling their own professional learning to the beginning teachers in their classes may be one of the most powerful teaching strategies available to the teacher educator” (Russell, 2004, p.1203). Modelling the theories and pedagogies I am espousing helps to demonstrate the authenticity of the content of ITE.

Chapter 6: Fatality Case Studies

Case studies of teaching dilemmas have long been used in teacher education. In the ‘real world’, school students have died on outdoor education trips and Brookes (2011) recommends that PSTs should study fatalities in order to learn from past mistakes. Through analysing case -studies of fatal incidents, I represented the importance of safety to the PSTs in my course. The authenticity of these case studies was beyond doubt and meant that PSTs should be engaged in active learning about becoming safer OE teachers.

Results Section 2: Approximations of Practice

Chapter 7: Into the Outdoors

It is difficult to represent the settings of outdoor education within an ITE context. Through going on a camp, PSTs experience an approximation of OE teaching because they must themselves respond to the environment. This chapter examines my framing of the OE camp and the responses of the PSTs to the environment.

Chapter 8: Handing Over

On the second day of the camp, PSTs approximated teaching by providing an OE day for the students from nearby schools. During the first day of camp my role was to step back and let the PSTs make choices and prepare to teach real school students in an authentic outdoor setting. While the camp took place during an ITE course, it was not on the grounds of a university nor was it on school grounds. In addition, the PSTs were 'in control'. As such, the camp presented an interesting opportunity to explore PSTs' experiences of authenticity in a context that was unfamiliar and possibly free from many of their usual routines and constraints.

Discussion Chapters

The discussion chapters bring the themes from the results chapters together and develop a coherent framework for analysis from this body of research.

Chapter 9: Eclecticism as a Framework

Schwab (1971) developed an eclectic approach which recognised multiple perspectives. I extend this approach to describe my learning about my metaphor, active learning and authenticity in ITE. I draw on the disparate perspectives and look to the benefits of passive learning and inauthenticity to provide a more nuanced understanding of my role as a teacher educator.

Chapter 10: Improvement from this Self-Study

A central concern within self-study research is to demonstrate improvement. I examine the different ways in which this research has or has not revealed improvements for me as a teacher educator.

Chapter 11: Representation in Self-Study and Closing Comments

In the final chapter I turn the focus onto the challenges of representing my research so that it can be influential. There are several pitfalls which I identify and analyse, in

particular the dangers of resorting to the persuasive narrative of a romantic hero. I finish with the implications for this research.

Epilogue

Having begun with a prologue, I finish with an epilogue which describes where I find myself now, at the end of the doctoral research process.

Summary

'Teaching as telling' has framed learners as passive and has created a rift between schools and ITE. Due to this, PSTs sometimes view ITE as irrelevant as preparation for teaching. This in turn positions PSTs as passive in their learning about teaching. In response, I proposed to structure my OE course around authentic experiences of learning to teach.

This focus on authenticity must be tempered by an understanding of scaffolding. In particular, scaffolding helps PSTs to know what to pay attention to in their learning experiences. By scaffolding the experiences, the complexity can be managed so that the learning experiences are not overwhelming.

I have structured this thesis based on a framework of authenticity as a response to PST passivity. In addition, I have drawn on complex theories of learning and scaffolding to define quality learning in ITE. This requires that teachers design learning experiences for their learners, because learning arises from what learners do, not what teachers do.

Based on these arguments and the literature on metaphors, I developed a negative metaphor to steer this research. The literature suggests that metaphors underpin all that we do and it is important to make them explicit. I therefore developed and articulated a metaphor of PSTs as passengers on an aeroplane flight. The passivity of PSTs in their teacher education seemed similar to the roles that passengers take on international flights. The aeroplane metaphor represented my experiences as a teacher educator in attempting to engage PSTs in the active process of becoming teachers.

Having examined the context of OE and ITE, and the types of learning that provide quality teacher education, I now turn to the methodology and how I investigated quality learning in my teaching.

CHAPTER 3: METHODOLOGY

In this thesis thus far, I identified that both OE and ITE are highly contested. I argued that pragmatism offered a way forward because it took action into account, especially when such action was deliberated on with Schwab's commonplaces. I then outlined a complex theory of learning which recognised the importance of learners in creating their learning, and highlighted the role of teachers in designing learning experiences rather than 'telling'. Through these complex learning theories, it seemed that more authentic learning experiences offered a way to address the passivity of PSTs and simultaneously helped bridge the ITE – school divide. Here I repeat the questions which arose from the literature review and my reflections as a teacher educator:

1. What opportunities do authentic learning experiences provide in preparing PSTs for teaching?
2. In what ways do authentic experiences result in more active learning by the PSTs?

This chapter describes the methodological approach I took in order to explore these questions. Self-study research is supported by a growing body of literature and I examine both the definitions and purposes of self-study. Through the structure of Schwab's (1978) commonplaces, I address the challenges of trustworthiness in my research. Finally I describe my interpretation and analysis through identifying and interrogating puzzles of practice.

3.1 What is self-study?

Research on teaching, conducted by teachers, has generated important new knowledge about teaching and learning. In recent decades, teacher researchers have gained access to a growing range of accepted methodologies with which to research their practice including action research, teacher research, life history, phenomenology, narrative, auto-ethnography and practitioner research, and all of these have shaped how self-study is conceived and conducted (Loughran, 2004; Pinnegar & Hamilton, 2009). Each of these types of research shares a focus on the researcher as a crucial component of the research, seeking the perspectives of others, and a commitment to making an improvement in the world (Pinnegar & Hamilton, 2009). Because the researcher is integral to the process in each of these methodologies, there are implications for the

way the research is reported, in particular with regard to the presence of the researcher in the research. In response to such calls for the centrality of the researcher in the representation, I wrote myself explicitly into this thesis, from the first pages. I also recognise the importance of my presence through the use of “I” statements and present the thesis through the use of my personal voice as recommended by Elijah (2004).

While it shares commonalities with these other methodologies, self-study has made a distinctive contribution. Ken Zeichner states that “the birth of the self-study in teacher education movement around 1990 has been probably the single most significant development ever in the field of teacher education research” (Zeichner, 1999, p. 8). According to Pinnegar and Hamilton (2009) the defining feature of self-study is “a focus on neither the self, nor the other, but both as well as the space between them” (p. 77). Through this statement, they indicate that self-study examines self always in relation to the other, and neither in isolation.

Self-study researchers are, therefore, not only the selves doing the research, they are the selves being studied, which does not mean the self is the sole focus. Nor does it entail the opposite extreme – the study of our practice or our students’ learning without also attending to our personal role in that process. (LaBoskey, 2004a, p. 843)

The self in self-study is therefore always seen in relation to the other and in the generative space which is created in between people. For example, self-study research often includes the “autobiographical, historical, cultural, and political and takes a thoughtful look at texts read, experiences had, people known and ideas considered” (Hamilton & Pinnegar, 1998, p. 236). This is because self-study researchers understand that knowledge production is influenced by our subjective experiences and researchers should therefore seek to identify the histories in their conceptions of knowledge. However, the autobiographical turn is not seen in isolation, rather it must be analysed for its relevance for teaching practice and action, in other words, the generative spaces between people. Within self-study research, subjectivity is not a deficit; rather, it serves a common purpose of “finding power in practice” (Allender & Allender, 2008, p. 145) because its inclusive nature encourages practitioners to be researchers and constructors of knowledge. The self-study approach therefore lies in contrast to research undertaken by external observers of the education field, or those who research the practice of others. The personal involvement and insights of teacher researchers are considered a strength in self-study.

'Getting beyond the self' in self-study is considered another crucial and defining feature. While other methodologies may involve relevant others, self-study researchers require a critical friend in order to demonstrate rigour and move beyond self to examine practice (Tidwell & Fitzgerald, 2004). Critical friends or colleagues are a necessary requisite for authority claims with regard to ontological understandings and actions (Pinnegar & Hamilton, 2009). The irony of self-study is that while it often starts with a teacher identifying puzzles of practice, it must ultimately and intimately involve others. I further address this requirement later.

Why self-study?

Within my own field, T. D. Brown (2011) argues strongly for the use of self-study to enhance the professional learning of physical education teachers and teacher educators. He states that PE teachers are inherently practical people and often concerned with problems of practice, and therefore self-study is a suitable methodology. In particular, self-study research offers a way to achieve multiple goals, including professional development and the improvement of our teaching. Because self-study problematizes practice, it enables teaching and learning to be seen as a site for inquiry (Cochran-Smith & Lytle, 2004). By contrast, teachers are too often expected to implement the research and innovations of others (A. Clarke & Erickson, 2004a; Schwab, 1978; Shulman, 1987). I found T. D. Brown's arguments resonated with my own goals and approaches to teaching OE. As a consequence, I chose the self-study methodology to examine my practice as a teacher educator firstly because it was action oriented (Russell, 2010) and secondly because I was motivated by research that had tangible results for me, my identity as a teacher educator and my practices. As a colleague once said to me, "if you are researching your teaching, then your teaching is informing your research and your research is informing your teaching".

If my goal is improvement in teaching and learning in my courses, then self-study not only offers a way to research this, it also offers a means to achieve this improvement. Loughran and Northfield (1998) state there must be congruence between what occurs in teacher education programs by teacher educators and their teaching practice and that of the expectations of their student-teachers in how and what they practice. Because 'teaching as inquiry' is considered important for professional learning of teachers (Aitken et al., 2013; Timperley, 2013), then teacher educators should model

teaching as inquiry for the PSTs. Likewise, because I had concerns about the passive roles PSTs took in their preparation for teaching, I needed to investigate how successful my strategies were in getting PSTs into active roles. Self-study results in collaborative and personal research (T. D. Brown, 2011) and therefore provides meaning in my research for me, my PSTs and the wider community, bringing means and ends into alignment. As such, self-study was a logical approach to find answers to questions about my teaching and PST learning for OE.

3.2 Trustworthiness

When judging research, we need to examine the methods used, the data obtained, as well as the inferences, interpretations and conclusions drawn in order to gauge worth or trustworthiness (Greene, 2007; Scott, 2014). There are a range of terms for trustworthiness used in qualitative research. For example Charmaz (2005), uses credibility, originality, resonance and usefulness, while Teddlie and Tashakkori (2009) use credibility, transferability, dependability and confirmability. In self-study, trustworthiness has been described as integrity (Loughran & Northfield, 1998) and fidelity (Shulman, 1998). Ultimately these terms are ways of identifying the quality of our research. I draw on the self-study literature to provide a framework for establishing trustworthiness.

In order to address concerns about trustworthiness, self-study researchers need to be explicit about their data, analysis, and interpretations (Loughran & Northfield, 1998). Within self-study, a high level of transparency is required as it will be the readers who assess the trustworthiness of the qualitative data, re-framings, and analytical interpretations (Bullough & Pinnegar, 2001; Loughran & Northfield, 1998). However, Scott (2014) cautions that “Transparency can only be valued for its transparency if what is being made transparent is epistemologically sound. If what is being made transparent is flawed, then the attribute of transparency has no value” (p. 429). It is therefore crucial that research be systematically built on a robust and coherent epistemology.

There are two main ways to achieve rigorous and systematic research within self-study. Firstly, LaBoskey (2004a) argues for the use of multiple, established data gathering techniques. Secondly, researchers must demonstrate scholarship by showing how personal theories are challenged in ways that help the researcher and the audience see

beyond the personal alone (Loughran, 2007). In the following section I show how I use these two approaches build trustworthiness into this research.

Trustworthiness through the use of multiple, established data gathering techniques

Some of the unique tensions for self-study researchers are to ensure that the data is not just a fiction despite acknowledging that our own views affect our research. Multiple data gathering techniques are important to provide a form of triangulation and we need to demonstrate that significant themes emerge from multiple sources in order to build credibility (LaBoskey, 2004a). Drawing on multiple sources and multiple perspectives through collaborative self-study supports the credibility of the work, providing simple triangulation and also a context for mutual critique that becomes part of the self-study (Manke, 2004).

In addition to accessing multiple data sources, data gathering techniques should be well-established and widely accepted within the self-study research community in order to gain trustworthiness. The techniques which I employed such as interviews, group interviews (focus groups), video recordings of lessons, critical incident questionnaires, classroom observations and autobiography are all well-established. Reflective journals (both private and open) have also become more common over the last decade (Berry, 2004; Korthagen et al., 2006; LaBoskey, 2004a; Samaras & Freese, 2009; Trumbull, 2006). My research addressed the criteria for well-established methods in this way.

Not all self-study authors agree that established and trusted methods are the best. Practitioner research requires creating our own unique way through our research by trusting our own methodological inventiveness, according to Whitehead (2004). Further, Whitehead states that the nature of our methodological inventiveness can be clarified in the course of its emergence in the practice of our inquiry. Thus, how we as practitioners choose to research and our control over this research can be equally important to our motivation, to our sense of identity within the research and to our research outcomes. Unlike LaBoskey (2004a), Whitehead (2004) asks that we “imagine the possibilities” (p. 892) in terms of unique and creative data gathering methods.

This divergence of opinion needs to be negotiated. As an emerging researcher, the more inventive methods appear riskier in terms of trustworthiness and I have chosen to limit these to a large degree, preferring to rely on more established methods.

Credibility beyond the self-study community

Various authors discuss the challenges to self-study by the academic research community (Kincheloe, 1991; Cochran-Smith & Lytle, 1993; Anderson & Herr, 1999). In particular, self-study, in the past, has been marginalised by academic institutions due to its inherent subjectivity as some consider the closeness of the researcher to the topic a disadvantage. Darling-Hammond and Snyder (2000) articulate this view when they state

Sceptics may be concerned that highly contextualized accounts of seemingly idiosyncratic situations may fail to add up to more principled understanding of teaching concerns, or that the use of cases may add only to the lore of teaching decisions based on personal opinions uninformed by broader profession-wide knowledge. (p. 530)

Self-study (like much qualitative research) is not generalizable. In the past there have also been difficulties getting practitioner research (such as self-studies), published in academic journals and taken seriously by academic promotions boards (Brookfield, 1995). However, these discussions appear to have largely abated with the publication of two international handbooks of self-study, a rapidly growing body of research books and articles, a dedicated journal (*Studying Teacher Education*) and the largest special interest group in the AERA. These accomplishments suggest that self-study has come of age as an accepted (if not quite mainstream) methodology.

Critiques from within the Self-Study Community

Within self-study there are also critics. For example Kuzmic (2002) argues that self-study has been marred by failure to challenge boundaries, marginalisation and relations of power and privilege. Kuzmic believes that this can be addressed by ensuring that self-study is not just about our lives, our practices and our histories. Self-study in teacher education must also understand those in relation to, and through, the lived realities, experiences and perspectives of students. The self in relation to others allows us to

move beyond binary oppositions of teacher educator versus teachers, theory versus practice, universities versus schools.

The key seems to be in knowing that our context is politically, socially and culturally constructed. As a teacher educator or a teacher I cannot change all of these factors, however hard I try. Brookfield (1995) strongly puts the case that self-laceration is the result of not seeing our practice as situated in a particular milieu and therefore blaming ourselves for failing to create a utopian microcosm in our classrooms. I have found it is easy to fall into the trap of self-blame for issues that are beyond my control. However, it is important for research to be able to 'speak back' and have a voice in policy making.

the field of self-study research has developed an international cadre of proponents who are engaged in serious and important investigations of teacher education, but who have not yet begun to address their connectedness to the county, the state, the nation, or the world. (Clift, 2004, p. 1363)

It is indeed a challenge for self-study research to have implications for national policy. Yet education needs vocal advocates who can speak from their fields of expertise and offer informed and constructive opinions.

3.3 Methodological framework

In the following section I describe how I address the requirements for self-study through my methodology. I begin by reintroducing Schwab's commonplaces and then describe the data sources I have used based on the commonplaces framework.

The researching practitioner is valued for their insider knowledge but self-study also requires the insights of knowledgeable others. I have at times felt that the language of self-study has been taken unadapted from more dominant research traditions. For example the use of 'data sources' established a metaphor for me which was difficult to reconcile with the 'knowledgeable others' and the types of knowledge generation arising from self-study research. To me 'data source' invoked an extractive metaphor rather than a collaborative and generative metaphor. In addition the word 'data' held much of the objective solidity and durability which lay in contrast to my understanding of knowledge and experience as adaptive and situated (Davis et al., 2000). I believe there are two reasons that the literature of self-study remains permeated with terms such as 'data sources' (see for example the 2014 proceedings from the Castle

Conference). Firstly, I argue it has arisen from the many years of needing to articulate and justify the importance of self-study to academics steeped in other traditions, and secondly, because a suitable language has not yet been established within self-study research. Bullough and Pinnegar (2001) suggest that the methods self-study research are borrowed and come with their own forms of authority. Building on my discussion of metaphors, I argue that the term 'data sources' serves to frame (however subtly) the knowledge of others in our research as solid and extractable. My analysis of the problem of borrowed terms is as yet inconclusive. The comment LaBoskey (2004b) makes with regard to approaches and methods, applies equally to such positivist language:

the borrowed approaches and the rationales for them is the question. But this issue will not be resolved here. I do think, however, that we need to continue to explore these and related questions because this deliberative process should help in the refinement, clarification, and strengthening of the methodology of self-study. (p. 1174)

As a result of my analysis (outlined above) I chose to use 'perspective' wherever possible instead of data source unless I was directly addressing quotes from the literature.

Schwab's commonplaces: Self-study with others

It is important to search out independent evidence that the widely accepted routines of teaching are in fact serving the purposes for which they are enacted. We need to find a critical vantage point from outside the routines and their supporting myths. (Nuthall, 2005, p.925)

The irony that self-study requires collaboration with others is well articulated within the self-study literature. Collaboration is one of the defining characteristics of self-study (Lighthall, 2004). Loughran and Northfield (1998) also argue for collaboration and the involvement of others:

there is always a danger that individuals will interpret situations in ways that reinforce existing perceptions. Genuine study of classrooms is associated with a willingness to consider alternate frames of reference, and colleagues are an important source of ideas and support as the teaching and learning are reviewed. (p. 16)

Critical colleagues can challenge us in our framings of problems, our interpretations as well as our actions and thereby also enhance the trustworthiness of the research (Whitehead, 2004).

A second important reason for needing others in self-study is that through the process of making our puzzles explicit, we ourselves can gain a better understanding. Connelly and Clandinin (1988) state that the more we are able to articulate to another “why we are what we are, do what we do, and are headed where we have chosen, the more meaningful our curriculum will be” (p.597). Thus the perspectives of colleagues are critical both for the trustworthiness of our research, but also for the development of our understandings.

As described in chapter two, Schwab (1978) developed the commonplaces framework in order to achieve more informed (balanced) curriculum change. Here Schwab expands the notions of self-study’s ‘beyond self’, from seeking critical colleagues, to ensuring that all four commonplaces are represented in deliberations. The commonplaces of examining the practice from different perspectives is what Craig (2008) calls “walking around the tree” (p.1994), a metaphor quite appropriate for OE. According to Craig (2008), walking around the tree and examining the trunk from different angles is a metaphor for gathering insights into teaching from multiple viewpoints in order to gain a better understanding of the whole. Through the commonplaces, my self-study is able to refute or assert understandings and test educational practice in a more robust manner. In addition, including representatives from the commonplaces in self-study research results in building a practitioner research community (Craig, 2008). I was able to achieve this by inviting others into the self-study research as co-researchers and thereby providing them with an example of professional learning. Indeed the conversations which began through my self-study continue to this day for some of my PSTs and critical colleagues.

While engaging with the commonplaces invites different perspectives into this self-study, the commonplaces are not immune from what Brookfield (1995) describes as groupthink. For example, Sandretto (2009) highlighted that experience is a difficult construct that is culturally, historically, politically and socially situated. Sandretto’s point is that the perspectives of others are influenced by the same, or similar, milieus to my own and thus may not truly offer a view from ‘outside’ but rather reinforce assumptions. Lave and Wenger (1991) suggest that communities actively construct knowledge of practice. The commonplaces could be considered such a community and there is a danger that all communities have the potential to reinforce existing beliefs and unhelpful practices (Coburn, 2001; Timperley & Robinson, 1998). While an

approach based on the commonplaces does not guarantee that I will be able to question foundational discourses, or all aspects of the ‘taken-for-granted’, engaging with the commonplaces has greater potential to enable me to become aware of the limitations of my understandings than a solitary undertaking.

My methodology was therefore informed by Schwab’s commonplaces (adapted by A. Clarke and Erikson (2004b) and Craig (2008)) to examine my practices as teacher educator. I turn now to how my research includes the commonplaces.

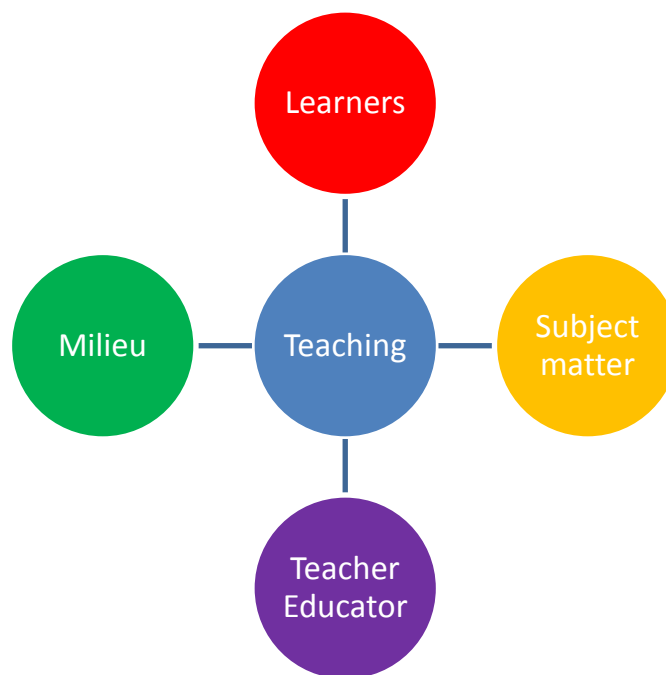


Figure 4: The commonplaces in this research

3.4 Commonplace of the teacher educator

According to Schwab, the perspectives of the teachers are essential to the success of the deliberation because it is important to understand our strengths as well as our limitations. In particular, Schwab feels strongly that treating teachers as agents of education, and not just agents of subject matter is the only way towards sustained improvement of practice (Craig, 2008). Teacher educators hold expertise in a variety of the commonplaces, but most importantly, teacher educators understand the context in which any actions resulting from deliberation must be enacted.

Participant description: Myself as teacher educator in this study

At the time of the study, I lectured part time at the University of Canterbury College of Education, Health and Human Development in the curriculum area of outdoor and environmental education. At the commencement of this research I was 44 years old, Pākehā (European New Zealander) and had been a teacher educator for seven years. Previously I had been teaching science and OE at a variety of schools and educational institutions for 13 years.

Methods which illuminate perspectives of Teacher Educator

Autobiography

The purpose of my autobiographical journal is to examine my past experiences and analyse how these experiences influence my beliefs and practices as a teacher educator. Carter (1995) recommends reflecting on significant events from schooling and tertiary education, followed by an analysis of the meanings of each of these events for our teaching.

Autobiography is a written reflection on my experiences that influence my actions and, through autobiography, can thus be made available for analysis (Bullough, 1997). Teaching is grounded in experiences of learning, and bringing these experiences to light is an important step towards understanding my actions. There are few boundaries for autobiography (LaBoskey, 2004a) so my autobiographical writings include a broad range of life experiences. However, as mentioned previously, autobiographical narrative must always be connected to consequences which are relevant to this research.

Whitehead (2004) argues that autobiographical studies should ring true and enable connection. I have written myself into this thesis from the first page in order to make connections. I have revealed autobiographical information to critical colleagues and been a participant in some of their studies (Hill, 2011; Straker, 2014). This has resulted in colleagues challenging aspects of my beliefs by pointing out tensions, contradictions and limitations in my autobiography and they have sought out fuller explanations of my beliefs and practices as recommended by Brookfield (1995). This in turn has helped me

to clarify the influence of diverse factors on my role and identity as teacher educator. For example as a participant in Straker's (2014) doctoral research, Straker questioned my focus on more extreme adventures in my autobiography. Straker's research helped me to see that I had been influenced by presentations on my expeditions to the climbing community where more extreme adventures made more compelling narratives. In this regard, I had neglected my childhood visits to the local creek in my neighbourhood, and the sense of mystery beneath the creek's quiet and dark waters. Through sharing with others, autobiographies can be exposed and explored collaboratively.

Similarly, Berry (2005) described her use of an autobiography in her doctoral research as a baseline, and for her to explore her approach to pedagogy in this way:

My purpose for engaging in these autobiographical activities was: i) to produce an autobiographical narrative that established my pedagogical framework and hence would serve as the beginning point of this self-study... and, ii) to identify a set of assumptions about practice that I could use as a frame for analysis of my practice throughout the substantive data collection period. (p. 16)

Berry therefore views her autobiography more as a personal reference point in her research. However, while Berry includes an entire chapter on her autobiography, in this thesis I have chosen to thread pertinent autobiographical information through the chapters. This has the advantage that it makes my personal histories transparent at the time when I am discussing a particular topic. However, it does mean that there is no extensive block of autobiographical information and so risks a more superficial coverage. I have tried to be cognisant of this risk as I include relevant aspects of my autobiography.

Journal writing

Journal writing provides necessary distance and abstraction from the immediacy of teaching and therefore allows us to return to practice more thoughtfully (Adler, 1993). I kept two journals: one open and one private. The open journal was similar to a blog and was available to all students in my course. It documented my learning priorities and teaching strategies for each class as well as my observations from the class. The purpose was to provide students with some insights into how the course was unfolding in my thinking and my actions, and to give them the opportunity to disagree or agree

with my comments. Over the course I reflected on almost every teaching session and completed 26 entries.

The private journal was also a reflection on each class but it allowed for more openness about my thoughts and feelings. Having this private space allowed for less constrained reflection and provided me with longer term evidence of change (or lack of change). During this research I completed 104 private journal entries ranging between 90 to 1200 words. Generally my journal entries were brief and limited to four to ten sentences.

The private journal gave me the space to give vent to my frustrations and emotions which I would not have shared in public. I also used the journal as a means of processing and reflecting on puzzles of practice. Through articulating a particular puzzle, I came to see a possible solution (I describe puzzles of practice further in the analysis section). The process of completing my private journal was therefore helpful in several different ways.

Video recording of my class

There is a substantial body of literature on the use of video recordings in education. Video has been used by a variety of authors in self-study (Berry, 2005; Brandenburg, 2008; Hoban, 2004; Korthagen et al., 2006; Mitchell & Weber, 1999) and in wider education research (Arya, Christ, & Chiu, 2014; Blomberg, Stürmer, & Seidel, 2011; Ermeling, 2010; Grossman et al., 2009b; Hattie & Timperley, 2007; Taylor, Low, Lim, & Hui, 2013; Youens, Smethem, & Sullivan, 2014) and is considered a powerful means of improving teaching. Tripp and Rich's (2012) review of the use of video for teacher reflections shows that teachers' written reflections with video are more focused and accurate than teacher reflections without them. Teaching experiences recorded on video also have the advantage that they can be replayed as many times as required. Also, there is more detail in videos – there are pictures and sound which have the ability to capture experiences more fully. Video helps teachers to analyse aspects and details of their teaching more specifically. In my case, it gave me opportunities to revisit what were often fleeting moments in teaching and to unpack them further for meanings either on my own or with others.

Tripp and Rich (2012) note a strong link between video observation and changed practice; all the studies they review report that teachers make changes or improve their teaching practices after using video to reflect on their teaching. Among the evidence most relevant to this self-study is that teachers appreciate the input of their peers, supervisors and colleagues during reflection with videos. This reaffirms Barber's (1990) assertion, and that of Griffins (2002), that the paradox of self-evaluation (or self-study) is that it is best done in collaboration with others.

Video recording is not without its ethical issues. In particular, non-consenting students can feel marginalised by requirements to sit in particular areas of the class in order to avoid being videoed (MacLean & Poole, 2010). This is also potentially in breach of ethical confidentiality requirements as non-participating students are clearly identifiable by where they sit. MacLean and Poole (2010) conclude that while video recordings are very valuable for teaching and learning research, it is necessary for researchers to sensitively negotiate the ethical implications. In my study I chose not to video the camp, in part due to such ethical concerns. The dynamic nature of outdoor learning meant that PSTs who wished not to be filmed might find it potentially awkward to participate fully yet stay out of the filming. In addition, the disruption to the flow of learning by moving the camera each time we changed location seemed cumbersome. Instead I audio recorded aspects of my teaching on the camp although I may have missed valuable insights as a consequence. However the potential ethical complications and interruptions to teaching and learning flow merited this decision.

3.5 Commonplace of the pre-service teachers

Schwab (1978) argues that knowing the abilities, interests and needs of learners is critical for a meaningful curriculum and this knowledge includes the unique qualities of individual PSTs and the influence of family and community on their future. This is a challenge and one which I was bound to fall short of because of the comprehensiveness of the requirement to understand my learners. As such I viewed it as an aspirational goal. I now describe the demographics of the PSTs in my class and then describe how I endeavoured to access the perspectives of my learners (PSTs).

Participant description: Learners

As described in the prologue, the PSTs were enrolled in TECS376 “Outdoor and Environmental Education for years 7-10” during the first semester of the academic year of 2013 (February to June). All the PSTs were either in year two or three of the four year Bachelor of Education (Physical Education) degree. My course was optional but many PSTs chose to enrol as outdoor education is an important part of schooling in Aotearoa New Zealand. The class of 24 was made up of 14 males and 10 females. Ages ranged from 19 to 42 and ethnicity of the class included 21 Pākehā (New Zealand European) and three Māori and Pasifika PSTs.

Of this group, a sample of six PSTs were interviewed and participated in focus group discussions. These six PSTs were a convenience sample of volunteers (I had originally aimed to have eight PSTs, however only six consented). The PST sample provided a range of age (20-42), gender (two female and four male) and ethnicity (three PSTs were born overseas and moved to Aotearoa New Zealand, one as a child, the other two as adults and two identified as Māori or Pasifika students). The PSTs also had a range of previous outdoor education experiences (one participant had only ever attended one school day camp, three had some personal outdoor experiences but limited outdoor leadership, while two had been working as instructors or leaders in the outdoors for several years). The learners were framed as ‘experts’ of learning in my research and have important insider knowledge of my teaching and their learning.

Methods to illuminate the perspectives of Learners

I sought insights from my learners in order to access perspectives from subject matter and learners’ commonplaces. The following are some methods that I used to access this information.

Interviews

Interviewing is one of the most common and powerful ways that we use to understand others. Interviews are “active interactions between two people leading to negotiated, contextually based results” (Fontana & Frey, 2005, p. 698). This negotiated space between people becomes a source of creativity and reflects the self-in-relation to others

required of self-study researchers. Indeed, Kvale (1996) breaks apart the term “interview” to highlight it as an exchange of views between two people conversing about a theme of mutual interest. Interviews may act as reflective conversations according to Davey (2013) who states that researcher involvement which was seen as a vice within a positivist view of the interview has been reframed as a virtue from a constructivist perspective. Interviews are productive sites for co-construction of meaning. In fact, it is this aspect that renders interviews as creative processes where discovery is possible in qualitative research (Beer, 1997).

However, because of this negotiated aspect, Holstein and Gubrium (1995) caution researchers to be reflexive, not only about *what* the interview accomplishes, but also *how* the interview is accomplished, thereby uncovering ways in which we go about creating a text. The presence of the interviewer is important in creating the interview and is implicated in the knowledge generated by the interview. As a researcher I must grapple with many complex and competing roles: as researcher-self, as participant in a dialogic relationship and ultimately as writer and re-teller of others’ stories (Davey, 2013). Feldman (2009) argues that as a researcher, I need to confront issues regarding power relations, reflexivity, subjectivity, reciprocity, process, voice and the co-construction of “self” and “other”. This is especially true when working with students in one of my own courses, where I am ultimately responsible for their grade at the end of the course. A reader of my research will need to be convinced that my students did not simply provide the ideas and information that they thought I expected, thus supporting my own fiction.

Learner Interviews

I initially conceived of interviews conducted and recorded with the sample of six PSTs three times during the semester. Three interviews allowed for the development of rapport, for sufficiently detailed accounts, and also for reflection and member checking between interviews (Seidman, 1998). As the research progressed and I began to analyse and interpret the results, I realised that there was an opportunity for a further interview. I sought and gained ethical approval and conducted a fourth and final interview with each PST 16 months after the end of the course. Each interview took between 45 and 80 minutes. The purpose was to explore their experiences of my TECS376 class. I adapted a semi-structured interview protocol based on the work of

Berry (2005) (Appendix 4). Interviews, once completed, were transcribed and then member checked. Member checking occurred through emailing the interview transcripts to participants. Participants generally did not respond to the emails which I took as indicative that they had not completed a member check. As a consequence I introduced the transcripts and my summaries of the transcripts at the beginning of the following interview. As such, the final interview was the only one that was not member checked by interview.

Focus Groups

Kruegar (2000) provides a guide to focus group methods and argues that focus groups allow participants to respond in a more natural setting than a one-to-one interview. Just as learning is constructed in social settings, so too is discussion. There are greater issues with safety in focus group settings than individual interviews and I established some communal ground rules although the PSTs demonstrated what I considered was a good understanding of respectful yet challenging discussions. According to Kruegar, the small number of participants (six) and their shared experience in my course is an advantage for focus groups. These aspects allow each participant more opportunities to contribute to discussions and enhanced group compatibility and feelings of safety. Because of their synergistic potential, focus groups offer perspectives that are seldom produced through individual interviewing and observation (Kamberelis & Dimitriadis, 2005). Kamberelis and Dimitriadis also state that ‘real world’ problems, cannot be solved by individuals alone, and as my research was based on my teaching in the real world, these group interviews or focus groups were important. Through the focus groups students responded to comments each other made and often raised unexpected issues for exploration and “within a common and shared set of experiences, the biographical trajectories of each participant steered an individualised pathway” (Ovens & Tinning, 2009, p. 1127). I initially framed the focus groups as exploring diverse responses to my teaching and I often found them confoundingly successful in this regard.

There were also processes of meaning making that occurred in the group settings that added complexity but also value to this aspect of data gathering.

Critical incident questionnaires

In order to access a broader class-wide response, I used anonymous critical incident questionnaires (CIQs). Brookfield (1995) describes CIQs as central to his understanding of classroom dynamics and the different worlds which can exist within the same classroom. The opinions of the less verbal PSTs are frequently missed in classrooms, and CIQs offer a way to access diverse perspectives and gain a broader sense of PST experiences in my classes. For example, after the first class in an in-service teaching course, Brookfield describes feeling despondent due to the obvious resentment the teachers felt at having to attend his class. Analysing CIQs after his class, Brookfield finds the majority of the teachers actually value the opportunities in his course. He realises that the vocal minority do not represent the wider group and this encourages and illuminates his approach to teaching.

In my research, I was also interested in what might be revealed through CIQs. I therefore administered CIQs at the end of class (exit slips) at five points in the semester. Each CIQ was adjusted to a particular timeframe (a week, the two day camp, a term or the entire semester). PSTs responded to the following questions in a CIQ based on one particular week:

1. At what moment this week did you feel most engaged with what was happening?
2. At what moment this week did you feel most distanced from what was happening?
3. What action that anyone (teacher or student) took this week did you find most affirming and helpful?
4. What action that anyone (teacher or student) took this week did you find most puzzling or confusing?
5. What about this week surprised you the most? (this could be something about your own reactions to what went on, or something that someone did, or anything else that occurs to you). (Brookfield, 1995)

Following Brookfield's protocol, I collated the CIQs and presented the summaries back to the class in open journal entries but also verbally in classes. While the CIQ comments were often brief, they gave me an idea of the experiences of the broader class and those who might be less vocal about their opinions.

Assignment analysis

Student work provided another insight into students' responses to my teaching, documented through assignments such as essays and reports. These assignments were directly related to the learning outcomes of the respective courses which the students were enrolled in and provided evidence of shifts in thinking.

Student assignments and non-assessed work has been used by other researchers (see for example Irwin (2010)). Using student assignments for research can be problematic as students' work was not intended for this purpose. In this research, I kept the roles of marking and using assignments for research distinct. Indeed, I only discovered which PSTs had consented for me to use their work after the grading for the semester was completed. This was also made explicit to the PSTs in the consent process. In this way I attempted to manage the problematic power issues that may arise in using student assignments.

3.6 Commonplace of the subject matter

Schwab (1978) defined subject matter as the knowledge from the disciplines, their underlying systems of thought, and curriculum materials. But it was more than this to Schwab; subject matter was also the development of cognitive processes for the growth of the self and for service to others.

As a teacher educator in OE, I have had a wide range of experiences and over the years have developed expertise in the areas of ITE and OE. However, I was also very aware of the limits of my own perspective, and also the limits of my learners' perspectives. In accordance with Schwab and the requirement of self-study to be with others, I sought the perspectives of colleagues. Seeking out colleagues with expertise greater than mine as a way to learn and grow is aligned with ideas of Vygotsky's (1978) zone of proximal development and Fenstermacher's (1994) learning through the use of a more informed other.

Participant description: Subject matter

Participants included three colleagues from the College of Education (Steven, Sarah and Bronwyn), one from the wider university (Geoff) and two from another university (Maxine and Donna). I provide a summary of their areas of expertise (Table 2).

Table 2: Overview of my critical colleagues' areas of expertise

Colleague	Areas of expertise
Steven	Outdoor Education and Experiential Education within ITE
Sarah	Physical Education and Outdoor Education within ITE
Geoff	Outdoor Education and Māori studies
Bronwyn	Māori studies within ITE
Donna and Maxine	Teacher Professional Practice and Graduating Teacher Standards

Methods to illuminate the perspectives of subject matter

Observation of my classes by curriculum experts

The critical colleagues in my study provided insights into my teaching informed by their research and engagement with their fields. As such, they may be considered experts in the subject matter commonplace (Schwab, 1978). In accessing their perspectives, I originally intended that they all observe my classes, in particular the classes in which they had expertise. However, timetabling and other constraints meant that only two of the six were able to do so directly. One of my immediate colleagues (Sarah) became my critical friend (Brookfield, 1995) and observed four of my classes with an interview after each one. Of the other subject matter experts, only Steven was able to directly observe my class. Maxine and Donna were able to observe the class via my video recording and Geoff and Bronwyn's interviews were centred on the OE camp experience

where I chose not to video record but instead, during the course of the interview, gave them context-rich details verbally.

A framework to guide reflection during video analysis can be helpful to focus the discussion (Tripp and Rich, 2012). However frameworks and standards can put “constraints on professional autonomy and can, if they become too detailed and limited, hamper professional creativity and development” (K. Smith, 2005, p. 190). In the observations of my classes and the videos, I had my colleagues mainly use unstructured observation of my classes in order to allow themes to emerge and in order to give free reign to insights from their areas of expertise. Donna and Maxine provided one structured observation session based on the proposed graduating teacher standards and the Teaching for Better Learning Model (Aitken et al., 2013). In this way I attempted to benefit from the strengths of both approaches.

3.7 Commonplace of the milieu

According to Schwab, milieu means the communities from which our students come to us. They are the classroom, school environments and the influences on them. Milieu also represents the context of learning, the school social structures, and influence of families, and the values and attitudes arising from the community and culture surrounding the school (Schwab, 1978). Craig (2008) adds national prescriptions and standards to Schwab’s milieu which I have already presented in Chapter 1: Context.

I explored different approaches to making milieu visible and these came out particularly in Chapter 7: Into the Outdoors, and Chapter 8: Handing Over where societal influences were shaping teaching and learning in the course. For example the constraints on the amount of time available to go on camp were significant, and related to our current milieu. Goodson (2011) argues that when we gather perspectives of ourselves or others, we have captured a mediation between the personal voice and wider society. In this regard, milieu was present throughout the research process, in the literature, in the perspectives of learners, myself as teacher educator and my critical colleagues. Accepting the influence and movements within milieu in my research means that I acknowledge milieu as a participant in this study. My challenge, because of the

pervasiveness of milieu, was to make it visible. Through reflexivity and engaging with my critical colleagues, I believe I was at least partially successful in this endeavour.

The role of literature in this research

I treated the literature as a participant in my research because, as with other perspectives from the commonplaces, the literature represented different perspectives of distant colleagues. I draw on the literature from outdoor education, education for sustainability, teacher education and the wider education research body.

Having covered considerable ground in this methodology chapter I now summarise the commonplaces and the methods I used.

Table 3: Accessing the perspectives from the commonplaces⁴

Commonplace	Method	Main location in Thesis
Teacher educator	Open Journal (26 entries) Private journal (105 entries)	Mainly in Chapter 4: Transparent Teaching Throughout the results chapters
Teacher educator	Video of teaching (36 hours) Audio of teaching (extra 5 hours at camp)	Transcribed extracts included in all results chapters
Teacher educator	Autobiography	Threaded through the chapters
Subject matter	Curriculum experts (4 observations and interviews with critical friend and 4 interviews with 5 critical colleagues)	Body position (facilitation)- Chapter 4: Transparent Teaching PETE and OE pedagogies – critical friend – all results chapters Environmental responsiveness- Chapter 7: Into the Outdoors Graduate Teacher Standards- Chapter 5: Modelling, and Chapter 6: Fatality Case Studies
Learners	Core group of 6 PSTs (4 interviews each + 2 focus groups)	Throughout the results chapters

⁴ Note that the literature is absent from this table as it may pertain to any of the commonplaces.

Learners	5 Critical Incident Questionnaires for all the classes	Chapter 5: Modelling and Chapter 7: Into the Outdoors
Learners	Analysis of student assignments	Chapter 6: Fatality Case Studies and Chapter 8: Handing Over
Milieu	Analysis	In all results chapters I attempt to identify the influence of milieu

3.8 Interpretation and analysis

The methods described above generated significant quantities of information. I accessed perspectives from the focus groups, interviews, critical incident summaries, online journal, private journal, autobiography, sections of my teaching recordings and the literature and treated all of these as text for analysis. I then used the software 'NVIVO 10' to assist in managing the volume of information and clustering it around puzzles of practice (Munby & Russell, 1990). Munby and Russell's (1990) puzzles of practice were derived from Schön's work which described problem setting as:

the process by which we define the decision to be made, the ends to be achieved, the means which may be chosen. In real-world practice, problems do not present themselves to the practitioner as given. They must be constructed from the materials of problematic situations, which are puzzling, troubling, and uncertain. (Schön, 1983, p. 40)

In my analysis, I focused on identifying and exploring puzzles of practice. These puzzles became known to me by their troubling nature – a sense of confusion or dissatisfaction often prompts practitioners to reflect (Korthagen, 1992; Schön, 1983). Seeking to take an informed and enlightened approach to these puzzles of practice required that I deliberate with the commonplaces. These deliberations invariably turned the investigation back onto my own assumptions and caused me to reframe my initial question (Schön, 1983, 1987).

Challenging personal theories and seeking other plausible explanations

I have included this section in the methodology, not because I set out to challenge my personal theories, quite the opposite; I intended to examine what balanced curriculum development would look like in OE teacher education and how my design of authentic teacher education engaged PSTs in active learning. However, through all of the chapters, what I increasingly discovered was that self-study was not just about examining the curriculum of my course and the learning experiences of my PSTs; it was fundamentally exposing aspects of my-self as a teacher educator through my practices. Because this research revealed my approaches to teaching and my unexplored personal theories, as the research progressed, I came to draw heavily on Schön's work on framing and reframing and often re-reframing my personal theories. I therefore take this opportunity in the methodology to discuss this technique. Within the chapters, I

generally begin by investigating a particular pedagogical approach and then show the insights that the particular investigation yielded for my understanding of my personal theories.

Perhaps more so than in some other methodologies, there is a danger in self-study that our research simply confirms our current personal theories. Trumbull (2004) cautions that as researchers in self-study, we must strive to examine our data systematically, to make sure that we do not solely focus on the findings that support our hopes and wishes. There is the potential for “a narcissistic, self-indulgent exercise in vindicating my position” (Hamilton, 2002 p.182) and Anderson-Patton and Bass (2002) agree that there is a hint of self-absorption in self-study “I was caught between my belief that the self is intrinsic to transformation and my aversion to narcissism” (p.112). Clearly there is a tension in self-study research. Because one wants to portray oneself as competent there is the potential to selectively skew the research to support this view.

Schön's (1983, 1987) notion of reframing provided a way forward. According to Schön, the reflective approach requires analytic and methodological rigour in order to value the knowledge that emerges in such studies, by linking theory with practice, and framing and reframing practice (Schön, 1983). Framing is the process of naming the things to which a practitioner will attend and then framing the context in which one will attend to them. By contrast, Schön defines reframing as an attempt to make use of examples, images, understandings and actions in order to create a new way of 'seeing' the problem. Reframing is therefore not a new answer, but rather finding a different question to ask. Reframing turns the focus of the research back on the researcher to examine her or his framing of the question and seek alternative perspectives. Reframing lies in stark contrast to “action based on habit, tradition, or impulse” (Samaras & Freese, 2009, p. xiii) and therefore offers a way of approaching research which requires that we confront our personal theories.

Schön's work on reflection was highly influential. Indeed Jay and Johnson (2002) stated that reflection was “the current grand *idée* in education and plays a central role in the preparation of many new teachers” (p.73). This statement remains true today in my experience. Schön's work was extended by Mackinnon (1987), who contends that framing and reframing was insufficient and there needed to be some resolution or action that followed. While stating that solutions are not often forthcoming, this step is

considered crucial by Mackinnon. Furthermore, Mackinnon recommends that framing be overtly named “initial framing” to emphasise the ongoing and adaptive nature of the process. Making our initial framing explicit then allows these framings to be analysed and reframed (Mackinnon, 1987; Tairab, 2003).

In this research, I combined Schön’s work on reflection with Schwab’s concept of the commonplaces. There were several ways in which I explored my puzzles of practice with the commonplaces. I number my different deliberation strategies below, not in order of significance, but simply for clarity.

Firstly, at times I constructed a puzzle through my reflection on my own, then presented it to critical colleagues, the PSTs and searched the literature in order to gather insights from diverse perspectives. This can be seen through my development of the problem of PST passivity, and the way in which I developed the aeroplane passenger metaphor.

A second approach occurred when critical colleagues, PSTs or the literature gave me a sudden insight by presenting puzzling aspects of my practice to me. This approach was exemplified when PSTs identified their fear in the fatality case studies chapter, or when my critical colleagues presented me with evidence that I had modified the wording of the Teaching for Better Learning model. I then took the puzzle to the other commonplaces for further deliberation.

Thirdly, the puzzles often emerged in dialogue with a commonplace (similar to Kvale’s (1996) ‘inter-view’) and I cannot attribute the emergence to any of the individual parties involved. For example in Chapter 7: Into the Outdoors, through interviews both the PSTs and I came to understand that rainy weather created a generally positive experience for us in the outdoors. In this regard, the puzzles emerged as a form of co-creative process.

A fourth approach was to repeatedly explore a puzzle (which may have been manifested in any of these ways) with the same commonplaces. The advantage of this was that a shared dialogue developed and evolved based on a theme and over a longer period of time. This can be seen in the theme of physical position and how I repeatedly explored this with the PSTs and my critical friend.

As shown by these different approaches, my analysis process was quite organic and dynamic. My approach lay in contrast to some approaches and reflects the contested nature of data analysis:

Common platitudes proclaim that data speak for themselves and that the researcher is neutral, unbiased, and "invisible". The data reported tend to flow nicely, there are no contradictory data, and there is no mention of what data were excluded, and why. Improprieties never happen, and the main concern seems to be the proper (if unreflexive) filing, analyzing, and reporting of events. (Fontana & Frey, 2005, p. 713)

Here Fontana and Frey criticise the myth of objective data analysis. I heard echoes of this objective approach when LaBoskey (2004a) argued that themes should be identified based on frequency, significance and those that arise from multiple data sources. In this writing, LaBoskey is addressing valid concerns about trustworthiness in self-study research. However, her recourse is to seek credibility through quantitative language, which views themes as quantities which can build on each other to provide greater levels of trustworthiness. In contrast to LaBoskey's statement, I took a puzzles of practice approach and thereby placed my discernment at the centre of the research; I was responsible for identifying research topics which were important to me as a teacher educator. In other words, this thesis constitutes the issues which I found relevant and interesting within this study. At times, the perspectives from the commonplaces did not coalesce in support of the importance of my puzzles, yet, I chose to pursue these puzzles in direct contravention of LaBoskey's statement. I took heart from other researchers in self-study who faced similar dilemmas:

It would be irresponsible of me not to include contradicting evidence or contradicting accounts by other participants into my account. However, the contradicting evidence and accounts by others do not automatically mean that my account is wrong either but that I am responsible for addressing these contradictions to myself, the participants of the events, my critics, and my future and undetermined readers... Ultimately, this quest is about the search for and construction of human meaning. (Matusov & Brobst, 2013, p. 133)

Here Matusov in particular (as the author of the vast majority of their book) argues that contradictory evidence or accounts do not indicate the wrongness of his account, but rather that it is firstly important to include these contradictory accounts, and secondly to address them. These contradictory accounts do not detract from the meanings he has made from his research.

Nonetheless, similar to Davey (2013) I attempted to manage my insider status through frequent participant checking, discussions with the commonplaces and other reflexive techniques. I was constantly cautious in my interpretations knowing that I needed to actively place strain on my ideas and seek disconfirming and alternative interpretations and explore alternate readings of the puzzles I was experiencing. In some accounts of research there is a "tremendous if unspoken influence of the researcher as author" (Fontana & Frey, 2005, p. 714), but in this account, I have made my influence apparent. My responsibility was still to interpret my data honestly, ethically and as transparently as possible. While "There are no rules, methods, or guidelines that can ensure our responsibility - it requires our judgement, deed, authorship and dialogue" (Matusov & Brobst, 2013, p. 133).

Ethical considerations

For self-study, there are particular ethical aspects which needed careful navigation. I gained ethical approval for this research from the University of Canterbury Education Research and Human Ethics Committee in 2013 before the self-study commenced (Appendix 2) and I successfully applied for an extension for a final interview (Appendix 3). Key parts of the ethics process included information and consent procedures. The purpose and aims of the inquiry along with requirements such as approximate dates, amount of time, and work that might be required were outlined to participants via an information letter. This included making clear that they would be able to withdraw from the project at any time for any reason without any negative consequences. A colleague distributed information letters and collected consent forms on the first day of class. This occurred in my absence so as to emphasise voluntary participation. In addition, my colleague withheld the information on which PSTs consented to my use of their assignments until after the final course marks were completed. Critical colleagues provided me with consent forms directly because there was little risk to them for either consenting or withholding consent to participate in my research.

I have used pseudonyms throughout the research in order to maintain confidentiality. I also avoid using any particular identifying aspects of the PSTs. Within the focus group, anonymity could not be guaranteed because other members of the group were present and knew who had said what. As a consequence I established and maintained ground

rules for confidentiality; any comments made in the focus group were not to be shared beyond that group.

There were no criteria in the ethics forms which required researchers to list the potential benefits to participants, however MacLean and Poole (2010) find that participating in research often enriches students' experiences. This was a common theme within my research and I revisit this again in the discussion chapters.

All evidence I gathered was securely stored and will be destroyed after five years.

Summary

This chapter has presented the rationale for choosing self-study as a methodological approach to investigate my teaching and the learning of my PSTs. Self-study has a focus on the self, but in relation to others because "simply put, no individual scholar working alone can possibly discover or integrate the knowledge he or she needs" (Shulman, 2004, p. 305). Self-study is also required to demonstrate trustworthiness through multiple methods and perspectives. I justified my selection of perspectives based on Schwab's (1978) commonplaces and included myself as teacher educator, PSTs as learners, and critical colleagues as representatives from the commonplace of subject matter. Milieu has proven more difficult to establish and I argue that it will be present throughout the research because it represents our culture, and is largely invisible because it is our 'normal'. My analysis was based on puzzles of practice (Munby & Russell, 1991; Schön, 1983) which emerged in different ways through the various commonplaces. The analysis of the different perspectives required a nuanced approach that included a high degree of reflexivity as I was aware of the danger of self-affirmation and finding what I was looking for. However, by deliberating with Schwab's commonplaces, providing my guiding metaphor to frame my research, then actively seeking disconfirming experiences to frame and reframe my puzzles of practice, I have addressed this element of trustworthiness in this thesis.

CHAPTER 4: TRANSPARENT TEACHING

The Aeroplane Metaphor

An aircraft is designed to fly aerodynamically and is built like a long hollow tube to minimise wind resistance. This structure means that passengers sit in rows of seats and the pilots and whatever they do in the cockpit is effectively isolated. Passengers are blind and powerless in the flight of the plane. As a consequence of this blindness, passengers are unprepared for the expectation that they will become the pilots at their destination.

Through my aeroplane metaphor, I suggest that there are similarities between aeroplanes and classrooms. Like passengers, PSTs sit in rows and the decisions and thinking of teacher educators are hidden. Furthermore, through educational structures and pedagogies such as teaching as telling, PSTs are positioned as passengers in their educational journey towards the final destination of teaching. This results in a passive approach to learning to teach. Teacher educators need to prepare PSTs to ‘fly the plane’. An important step is to reveal our thinking and decisions so that the PSTs can gain insights into the complexity of thinking required to teach and thereby move into more active learning roles.

In this chapter I begin by examining the pedagogies involved in making teacher decisions transparent to PSTs. Using ‘Think-aloud’ (Loughran, 2006) and ‘Open Journaling’ (Trumbull, 2006) pedagogies, I attempted to engage PSTs in the active process of learning to teach. I interrogate each of these pedagogies in turn. In the second part of the chapter I explore my learning about the influence of my physical position on classroom discussions. This provides a context-rich example of my transparent teaching pedagogies.

4.1 Transparency in teaching: Thinking aloud and open journaling

Russell (2009) suggests that teacher educators rarely explain why they teach in the way that they do. Perhaps this is because the tacit nature of teaching means that they do not consciously ‘know’ themselves or perhaps it is because they do not know how to explain why they teach in the way that they do. In either case, PSTs are left to interpret the reasoning behind the pedagogies as best they can, by observing and inferring. Lortie

(1975) argues that this process of learning by inference constitutes an “apprenticeship of observation”. As a result, the long history of sitting in classrooms frames and limits PSTs’ understandings of teaching.

By contrast, Mewborn and Tyminski (2006) argue that apprenticeships involve a range of opportunities for students to become autonomous and competent at their craft. They suggest that “apprenticeship of observation” is a misnomer as a student in a classroom misses key aspects of apprenticeship (such as learning to teach) and this phrase is demeaning to apprenticeships, which are a worthy form of preparation for a variety of careers. Nonetheless, sitting in a classroom for upwards of 12 years (13,000 hours according to Lortie (1975)) conveys powerful messages about teaching, often without our realising what we are learning and “the quality of what is learned is left entirely to chance” (Russell, 2009, p. 80). Or as Bullough (2014) states “Having long been the recipients of teacher classroom offerings, they tend to assume that teaching is a simple matter: One dispenses what one knows and disciplines recalcitrants” (p.80). In effect, without access to teachers’ thinking and decisions, the pedagogy remains tacit, invisible and this limits the possibilities for students of teaching. Grossman et al. (2009a) suggest that it is important for PSTs to have representations of practice, such as access to the thinking processes of teachers, in order to learn to teach. Ultimately, as Berry and Loughran (2012) suggest “Articulation of practice and purpose is at the heart of a pedagogy of teacher education” (p. 410).

Using an open journal

The use of an open journal provided me opportunities for reflection after action in a way that made my reflections overt and explicit to students. There were two important strengths of this approach. First, as Berry (2004) states “I needed a quiet space to sort through my experiences, somewhere that was removed from the ‘noise’ of competing concerns that interfered with my thinking” (p.23). I also found that journaling allowed me time to sort through my teaching so that I could then make a more considered analysis of events and teaching and learning moments. The fact that I was presenting this information to my students put pressure on me to reflect on my teaching more deeply. In other words, my ‘reflection-on-action’ (Schön, 1983) was enhanced through open journaling. This is mirrored by Berry (2005)

The expectation that the Journal would be published forced me to articulate my thoughts before and after a class, and to sort carefully through issues, concerns and questions related to my own or my students' learning. (Berry, 2005, p. 147)

Also, Loughran (2006) analysed Berry's journal work and suggested that students valued seeing common teacher problems and concerns. In my own online journal, I was able to edit and articulate my thinking in ways that should provide clarity for my students.

A second strength of the open journal is that it was an excellent way of disseminating my reflections because the online forum was emailed to all students in the course, and was therefore accessible to all students.

The following is an example of an open journal entry after a class where we developed a group agreement for the course. A group agreement is a common part of adventure based learning because it establishes the ground rules for group behaviour and goals. Group agreements therefore require the involvement of all members of the group. As a consequence, I experimented with slowing down the process in order to generate more participation:

Kia ora,

I had a lot to think about after our last session. It was really interesting for me to slow things down during the group agreement session of the class and to see how things unfolded. I am definitely less comfortable allowing more time but think there are good things that can come from allowing more time, such as hearing more voices from different students. Thanks for your feedback, your written comments [from a critical incident questionnaire] were split evenly on letting the discussions run and wrapping it up earlier. Slowing things down for a longer discussion leads to a drop in energy and whether this is effective depends on the group and the individuals in it. It clearly worked for some of you and less so for others. (Open Journal 24 February, 2013)

I shared this open journal entry with a colleague, who suggested it was bordering on the confessional and I should focus less on my emotional responses and more on my teaching decisions for learners. Bullough and Pinnegar (2001) warn against the temptation for solipsist or confessional accounts of self-study research. From the perspective of the teacher educator it can also be uncomfortable to allow PSTs to see us as someone who makes mistakes and misses opportunities (Garbett, 2014) and Brookfield also warns about "Going public with stories about critical moments in our practice - especially if these highlight poor judgements and missed opportunities on our part - can damage our reputation..." (p. 228). However Sarah, my critical friend stated:

Does it hurt the students to know that you are emotional? Teaching is an emotional experience. You are taking a risk and risk causes anxiety...It could be creating empathy. (Interview 2)

Supporting Sarah's comments, Brookfield (1995) writes "The kind of personal and autobiographical disclosure I had always tried to avoid in my teaching (seeing it as a self-indulgent form of therapy) was valued by the students as an authentic depiction of who I really was" (p. xii).

The choices of what to include or exclude from these online journal entries is a complex area that involves some risk to the teacher. Berry (2004) states that her choice about what to make explicit in her online journal was a constant dilemma. It was therefore important to access the perspectives of my PSTs to further interrogate my use of open journaling.

Andy- Most of it I can relate to and think back on the lesson, it's very rare that I think, "Oh I can't really remember that at all, I'm not sure what you are talking about", so in terms of that I am on a similar page to where you are doing those reflections. (Focus Group 1)

Andy found little that was contradictory or unsettling about my journal.

Greg- Um it's interesting to read where you are at and what you are thinking about during a session and what you are planning for the next session. It helps me to be more prepared for the path you are heading down. And then in the sessions I can see if you are happy with it and where it is going. It is good having the insight it's almost like you are talking to us as co lecturers. Lots of communication is good, as opposed to other courses where it is entirely up to you. (Focus Group 1)

Greg sees the online journal as more akin to power sharing. I found this comment particularly interesting as my aim was to include PSTs in this process as if they were peers.

Asking further PSTs revealed more:

Chris- I don't know if you read my reflections?

Mel- [pause] Sometimes (laughs)
(Interview 2)

I take Mel's answer to mean that she rarely, if ever, read the online journal. At one stage in the fourth week of the course, I inadvertently placed information about the next

session's reading in the middle of my online reflection. In the next class, none of the PSTs had completed the reading or even knew about it. While this is not conclusive, it suggests that my online journal had a low, or perhaps at best variable, readership.

Berry (2005) quoted a PST saying that "he and his peers regularly discussed the content of the entries when they met for drinks after classes!" (p.147). My online journal entries spurred no online comments and I doubt that they formed points of discussion for my PSTs outside of class.

There are several possible contributing factors to this lack of success. PSTs indicated that they received upwards of 40 emailed items from their courses each week. This was a startling amount and showed that PSTs needed to prioritise their time carefully. Indeed, one of the problems with online provision of course resources is information overload (Johnson & Aragon, 2003). It is small wonder that PSTs are overwhelmed and at times did not read my open journal.

As an online discussion, my attempts were ineffective and reflect my inexperience and lack of preparation in this pedagogical space. It is possible, that for a highly motivated student group, my online journal may have provided an opening for discussions. For my PE students, the online environment may have been less appealing because like PE teachers they enjoy being physically active and also having direct interaction with others (T. D. Brown, 2011). My experiences communicating with PSTs to coordinate teaching placement visits suggests that texting PSTs or using the course Facebook page is a far better way to contact them. While I did not employ alternative social media or group texts, this could be an intriguing means for improving communication with PSTs. It may however result in information overload via the new channels. Either way, the open journal did not stimulate the discussion I had hoped.

While the open journal was not particularly successful in my opinion, it did provide me with the structure that required that I reflect and articulate this reflection after each lesson. This in itself was a useful planning tool and ultimately, even if it was of no use to my PSTs, "Recording events of the class soon after they occurred was an excellent way to formulate a plan for the next day, particularly in terms of how to begin the class to revisit issues that required further attention" (Russell, 2009, pp. 72-73). Russell's comment resonated with my experiences. The process of summing up the previous

lesson helped develop priorities for future lessons, which was a benefit distinct to my goal of transparency for my PSTs.

The lack of PST engagement with my open journal was concerning to me because I saw it as an important means to represent teacher thinking to PSTs and thereby to provide the PSTs with learning experiences which were more authentic according to the argument I developed in the literature review. Trumbull (2006) initially had similar problems of low engagement with her online journal and argued that teacher educators need to make reflection a shared and public activity rather than a private and individual matter. I now turn to an alternative approach to transparency in teacher education that did not require use of computers and indeed turned my reflections into a shared and public activity.

Thinking aloud

Think-aloud techniques have a rich history in qualitative research as a tool for understanding thought processes. Charter (2003) acknowledged the work of Vygotsky (1962) which underpins our understanding of the links between thinking and speech. Charter claimed that think-aloud techniques allowed researchers access to the 'inner speech' of participants and thereby access a representation of the participant's thinking. While there are numerous caveats to this link between thinking and speech, it will suffice for this research to state that in its original form, think-aloud was "a natural reflection of the purpose of inner speech, which is not meant to be communicative to anyone but the thinker" (p. 69). Since its original form, think-aloud has been recognised as a useful tool, particularly in the area of understanding reading comprehension. For example, in reading comprehension studies, participants think-aloud while reading texts in order for teachers or researchers to gain an understanding of the process of their reading comprehension (Meijer, 1999).

Thinking aloud has also found favour within teacher education research but with an almost diametrically opposed purpose. Instead of the researcher interpreting the students' think-aloud, the teacher educator is encouraged to think-aloud in order for their PSTs to have access to their thinking processes. For PSTs, it is important that teaching decisions become overt so that they can learn about teaching in more authentic ways rather than as passive students. Loughran (2006) therefore recommends that

teacher educators make the tacit explicit by “thinking aloud” and highlights “the professional knowledge of practice in practice for students of teaching” (p. 47). Think-aloud provides PSTs with the reasoning behind our teaching actions and is an important addition to the repertoire of transparent pedagogies. A number of self-study researchers have used think-aloud as a way to provide PSTs with access to their thoughts (Berry, 2007; Garbett, 2011; Korthagen et al., 2006; Loughran, 2006; Russell, 1997/2012). With my PSTs, think-aloud offered a means to provide transparency in my thinking in the teaching setting and to make reflection a public act (Trumbull, 2006).

Early on in the OE course I began to think-aloud about what I was noticing in class and to consider the options available to me as a teacher. However it wasn't until later in the term that I became more confident with this technique. Immediately after camp, I used about 15 minutes to describe my thinking prior to camp. This think-aloud represented a reflection-on-action because it was conducted in retrospect. The full transcript is too long to provide here but the following is a summary of my ‘thinking aloud’:

I am always anxious before an OE trip or camp. I have grown used to these feelings and now understand that they are helpful in motivating me to consider all the things that could go wrong and doing everything in my power to ensure that everything goes well. This year the camp preparations were more difficult for me than usual for a number of reasons. Firstly, in a particularly dry summer, a deep frontal system was moving onto the country and heavy rain was predicted for both days of our camp. While I enjoy being outdoors with relatively inexperienced people in fine weather, I find it challenging personally and professionally when the weather is wet and cold. Secondly on the evening before the camp, the vans that we had booked for transport to the camp were not returned. Nor were they back on the morning when we needed to leave. From 6am on Sunday morning I began calling PSTs to see if they had vehicles that they could bring. Fortunately we were able to organise enough cars to get us to camp, but there were additional risk management issues with PST drivers that I needed to address. The weather on the camp was as rainy as predicted on the Sunday and after a night of heavy rain I called the school early Monday morning expecting the coordinator to cancel the day. To my great relief and amazement, they confirmed that their school students were coming. The school students arrived and the weather on Monday was only drizzly so the camp was very successful in my opinion. Before the camp I kept my thoughts focused on the idea that

on the Monday night I would go home tired and satisfied. This helped me deal with the anxiety at the time.

Many teaching experiences are emotional, involving passion and commitment, caring, hope and occasionally elation and despair. According to Hargreaves (1998) teaching is a profession in which feelings and emotions play an essential role but these emotions are often left out of teacher education. This is because of the value that academia places on the objective and rational arguments which ultimately alienate the self (Lighthall, 2004). Korthagen (2010) argues that if we are to see education as in need of fundamental change then we need to be dealing with the natural emotional reactions of human beings to the threat of losing certainty, predictability or stability. Emotions are therefore central to teaching and understanding teaching.

This think-aloud was my attempt to make my experience and emotions as overall camp organiser transparent. I wanted them to see that such preparation which involved bringing many people together in outdoor settings could produce anxiety and I tried to convey that it is what we do with these feelings of anxiety that make the difference. Either we cower under the load of stress, or we use anxiety as a spur to think critically and systematically about all aspects of an undertaking, while knowing that many aspects are beyond our control. In many ways this mimics what happens in the unpredictable world of teaching and learning.

The camp was a significant event in the course and one that had caused me considerable anxiety. Later⁵, I replayed an extract from this 'think-aloud' moment and asked the PSTs for their responses:

Mel- it was good to think it wasn't just me being paranoid, I was silently stressing and it was good for you to be verbally like, 'I'm not sure how to deal with this', and all that sort of stuff, it gave us an opportunity to think how are we going to deal with this. (Interview 2)

Mel's comment was gratifying and indicated that my goal of linking the learning in ITE with school practice was indeed effective for some PSTs.

⁵ This extract comes from the second focus group except for Mel who was unable to attend. Her comment comes from her second interview.

Andy- I think maybe it was a little long, I started to zone out, I think I was listening to the first bit, I do that quite a bit and stress out and think of everything that could possibly go wrong and thinking about how I do that sort of stuff and just need to let it go.

Jenny- I'm the complete opposite, when you talked about the power of negative thinking it is OK

Greg- just listening, it was about thinking about everything that can go wrong but the example you gave was about thinking ahead to the end and imagining that everything has gone fantastically. It was like 'oh everything will go fine'...

Peter- I wrote down the quotes and passed them on to my wife who was organising a conference. (Focus Group 2)

There were diverse responses to my 'think-aloud' moment. Jenny, Mel, Rob and Peter found it insightful, but for Andy and also Rob it went on too long. I had intended to show that anxiety was a likely consequence of organising an OE trip, and that anxiety could be helpful in motivating me to plan for every contingency. But for Greg my 'think-aloud' was somewhat contradictory, as I was discussing how I use anxiety to improve quality and take extra care in planning, but then I went on to recommend visualising success so as to reduce this anxiety. Greg's was an interesting observation and in hindsight I can see the pertinence of it. I was experiencing a complex mix of emotions and it is little wonder that I had trouble putting words to my "inner speech" (Charter, 2003). It is also little wonder that Greg felt that my 'think-aloud' moment sent mixed messages.

Like Andy and Rob, other PSTs indicated that they 'zone out' in classes and I believe I often saw this happening (among many PSTs at times) when I was reviewing the video of my teaching. Zoning out is something that I also experienced as a student. There is considerable amount written on student attention spans with 10-15 minutes as the accepted norm for adult learners. However Knight et al. (2012) examined the evidence base for this claim and found little to support this generalisation. They found student attention span was highly variable and depended on individual student factors as well as lecturer characteristics. They concluded that "teachers must do as much as possible to increase students' motivation to pay attention as well as try to understand what students are really thinking about during class" (p.89). This self-study also suggests that PSTs' attention span was indeed highly variable.

The research into attention span comes largely from the field of cognitive psychology, and sometimes frames the problem as “how to maintain learners in a state of alertness so maximum information transfer is possible” (for example Manning (2003)). However, others have also examined attention span as a predictor of engagement and questioned assumptions that people - even as listeners - are passive in the learning process:

With attention, the perceivers are more than passive receivers of information. They become active seekers and processors of information, able to interact intelligently with their environment. (Chun & Wolfe, 2001, p. 273)

Peter was one such “active seeker” in my opinion and a highly reflective PST who frequently made connections, and not only for his own learning; he found my think-aloud moment helpful for his wife who was organising a conference at the time. Knight et al. (2012) recommend seeing learners as active and suggest that teachers should investigate learners’ experiences in our classes. These suggestions align closely with my constructivist views and my focus on the commonplaces.

Through this research I was able to respond to these calls and found that the variable responses of my learners suggest that I must be mindful of remaining concise and to the point in my think-aloud moments otherwise at least some, if not many, of my PSTs’ are likely to find their attention wanders.

Others have also struggled with student responses to think-aloud moments:

I anticipated that through the process of ‘thinking aloud’ that my purposes for students’ learning would be made clear, however I recognise in hindsight, that there is an important difference between providing access to an experienced teacher’s thinking and student teachers recognising why this is being offered or how this was linked to what I expected students to learn about their own teaching. (Berry, 2005, p. 77)

This has implications for non-“active seekers” in my class and how to bring them to a point where think-aloud moments can have some meaning.

Interestingly, there were no comments from the PSTs supporting Brookfield’s (1995) concern that exposing vulnerability and emotionality was potentially undermining my authority. So, while there were positive impacts from the sharing of my emotions and anxieties, and there were some PSTs who were not really affected, there was no evidence of negative impacts of think-aloud practice. I do not doubt that transparency

presents a real risk for teacher educators, in particular the risk of losing credibility with learners when exposing emotionality of teaching or vulnerability. However, in the context of this study, these negative impacts did not manifest.

In summary, both the open journal and the think-aloud strategies had their strengths and weaknesses. None appeared disastrous but it is difficult to ascertain whether they were worth the effort and potential risk.

In the next section I provide a context-rich example that brings both transparent teaching techniques together for a deeper analysis of my learning about teaching teachers and the learning of my PSTs.

4.2 Teacher position and power

In this section I analyse my insights into the power of how I stand and where I stand and the influence of my position on my PSTs. Through my transparent teaching approaches and deliberation with Schwab's commonplaces I identified three stages of my learning about physical position and power through first infatuation, then disillusionment, and eventually to a more nuanced understanding of power within teaching settings. I begin by introducing my infatuation phase.

Phase 1- Infatuation

Early in the course, a colleague who had extensive experience in facilitating experiential education courses (Steven) observed my teaching. The learning priorities for this lesson were to build positive group culture and identify diversity in the group in preparation for developing a group agreement. I asked Steven to make notes on my facilitation of the process with a particular focus on moving towards a more shared ownership of the teaching and learning process.

After the session, Steven and I discussed a variety of topics including the influence of my physical teaching position which was to become a theme for me. Steven made the following comment:

You do a nice job. This was happening naturally, due to positioning, you create this when you are outside, there is no stage. You stand in a circle with them or beside them, they do this [discuss with each other] almost immediately. In classroom mode people have learnt behaviour...

Here Steven illuminated for me that my position was influential and that was one of the benefits of being outdoors.

Two big cues would be- if you find yourself asking too many questions, and body position- if you want there to be an equal conversation, then make sure you are at their level or lower. Move away from the stage [front of the classroom].

Based on this observation I began to think more carefully about how my physical position in the class was constraining or promoting my goal of shared teaching and learning.

Within teacher education, making my teaching decisions transparent was an important pedagogy for preparing pre-service teachers. Therefore I discussed my learning with my PSTs in class and my focus on power and position can be tracked through several online posts in my open journal such as this one:

My goals were to position myself more as part of the group (move away from the front of the class) to allow for more equal discussions within the group...I also think that moving to a more circular seating position would have helped our group agreement discussion. (Open Journal 28 February, 2013)

As I focused more on physical position it began to dawn on me how simply placing myself in the class in a particular way was stopping the kind of active learning I wanted to develop. These insights were often brought about by reviewing the video of my class after the lesson, as recommended by Tripp and Rich (2012). The video recording was a helpful tool for me to reflect on my teaching. I was learning a lot about the way I went about teaching. I was beginning to see that “Through self-study, a teacher educator may then become better informed about not only the nature of learning from a given pedagogic situation but also the possibilities for developing appropriate alternatives for future experiences” (Loughran, 2006, p. 174). But while Loughran lauds the learning from a given pedagogical situation, I was learning about my teaching in retrospect. In other words, it was difficult for me to see these things happening in action and respond in real time. There are so many pressing decisions that a teacher needs to make that it is little wonder that the extra cognitive space for reflection in action is not often available. Regarding the teaching act:

It appears that drawing conscious attention to specific aspects of these sorts of interactions can actually cause them to fall apart- in just the same way that a musical recital or an athletic activity can falter when the performer's attention is deflected (especially when it is deflected onto the performer). (Davis et al., 2000, p. 7)

It may therefore be that reflection-in-action requires a level of attention which then disrupts the teaching act. However, Schön (1987) has pointed out not only is "reflection in-action" possible but it is also often more desirable and effective, than "reflection on action" because it enables changes to be made in the act of teaching. Russell (1997/2012) also privileges reflection-in-action and conceives of the learning happening within the experience:

If we think of learning as something that 'happens later,' then we short change ourselves and those we teach. The 'here and now' is what we share and what we have to work with. What we learn can always be reinterpreted later, but it is important that people leave any and every class with a sense that they have learned something. (p. 15)

In my case, because of my inability to reflect-in-action, it seemed that PSTs left the class without having learned about my thinking. It was only later in the open journal that they were able to read about my thinking in hindsight.

In the second week of the OE course, I was reviewing the group agreement (contract) in class and was struggling to find the level of engagement I was seeking. I had to keep asking questions and the discussions were not forthcoming. It suddenly dawned on me where I was standing and how I had inadvertently arranged the class. I stopped, and verbalised my thinking:

Chris- Can anybody tell me the kinds of things I'm doing that's maybe stopping you guys being as involved in this? [pause] Something I am working on hard [pause]

Student- putting us on the spot?

Chris- Putting you on the spot isn't so helpful is it? What's between you and the contract?

Student- a desk

Chris- A desk, and who's holding the contract? - Me

Who is asking all the questions? - Me

Who has got a whiteboard marker in their hand? - Me

And who is in the power position in the front of the classroom? - Me

Yeah, I was looking at this and thinking, this is really hard work. Let's switch it up, OK come up over the top of the desks, can you put your hands on your handprints on the contract,

[Noise levels rise and students climb over the desks and get down on the floor with the paper the group agreement is written on, after explaining the next steps, I go and sit down off to the side of the class and leave the student group to continue without my input] (Lesson Transcript, March 4)

This extract from my lecture began when I noticed a lack of PST engagement. I then looked around the room and the hours I had spent reflecting-on-practice helped me identify that my physical position and the arrangement of the room were stopping the type of active learning I wanted. I attempted to have the PSTs also identify what I have noticed but end up answering my own questions. Nonetheless, I rearranged the class and left the PSTs to continue on the project while I sat off to the side.

My critical friend (Sarah) was observing in this session and her presence provided the opportunity to get a different perspective on my experience. It was interesting to see the coherence between Sarah's observations and my reflections.

Sarah- you said some thinking out loud and making it transparent and then you asked the students the question, you said to them "why the big silence?" then you proceeded to answer your own question...You are saying you wanted to make transparent to the students your thinking processes. Well you certainly did that.

Chris- in some ways it's making overt what's inside my head and I had reflected on Steven's feedback on body positioning. And I realised as I was getting this [pause] silence, this is really hard work, what am I doing? Then thought what am I doing? I thought DUH! I better get on with this because my goal is to be reflective, you know (Interview 2)

Sarah's perspective on my transparent pedagogy was reassuring and helped to confirm that there was some coherence between my teaching intentions and my actions. Sarah continued:

Sarah- you know what? I thought it was absolutely awesome for one your honesty, quite brutal honesty with students and I thought what wonderful modelling for them...

... all of a sudden they are down on the floor, you've stepped out ...when you remove yourself then it's quite clear that they have to take responsibility and so you are stepping right out of that role (Interview 2)

I felt as Sarah had answered the question “Do teachers of teachers have the courage to think-aloud as they themselves wrestle with troubling dilemmas...and the human mistakes that even experienced teacher educators make from time to time?” (C. Clarke, 1988, p. 10) with a strong “Yes!” I felt pleased that I was able to take this step and that Sarah considered it to be valiant.

Where did my courage to take such a risk come from? I consider myself a risk-taker in some settings (notably outdoor adventures) and Deni and Malakolunthu (2012) state that risk takers naturally take on more challenges. But risk-taking is inherently social and highly influenced by those around us (Boyes, 2008). I argue that there were three significant aspects that enabled me to take risks in this particular setting. I allude to them in this same interview

Chris- It's interesting thinking about the sequencing thing [adventure based learning scaffolding model], being with students through that also makes me feel safer as a teacher. And ultimately I have also got a research goal, to try this out, and that means that I am pushing out over my comfort zones to try that and see what it feels like. (Interview 2)

Firstly, the class had only 24 PSTs. Other teacher educators are far more courageous when they reveal their uncertainties because they have many times the number of students (Brandenburg, 2008; Garbett, 2011). Secondly, as a class we had completed several stages in a sequence of adventure based learning including activities designed to reduce inhibitions and build trust within the group. I considered the process of developing positive group culture to include myself as teacher. I found myself feeling confident enough in the group to expose my thinking and make myself vulnerable in this setting. Therefore social and situational factors were influential on me and my approach to teaching and learning. Thirdly, my research provided further motivation. In this interview with Sarah, I stated that “I have this research goal” and the self-study methodology prompted me to take the chance, step out of my comfort zone and make myself vulnerable by revealing my thinking to my PSTs. I argue that these three aspects in concord were significant in this event.

Sarah identified the two extremes of my physical positions effectively to me, showing that being in the “power position” initially was holding the group process back and finally that stepping completely out of the group allowed them to take leadership.

Others shed light on position and power in discussions:

The circle is regarded as a physical manifestation of democracy, a group of peers facing one another as respectful equals. Everyone has the same chance of being seen and heard, and everyone can see everyone else. That the teacher is not placed apart from the rest of the participants sends a clear message regarding the value of students' opinions and experiences. Their voices are front and centre, and there is an obvious expectation that they will be active contributors to the session. (Brookfield and Preskill, 2005, p.78)

Later I wrote about the experience in my open journal:

There is a time to hand over control and these classes are leading up to the camp where you have high levels of control. Some habits of my teaching (like me wanting to be upfront) are not helpful in handing over control, this is becoming more obvious through feedback from others and [my] personal reflections. I am curious if you felt the change when we shifted the physical arrangement, (it was really obvious on the recording how much more engaged you as a group were when I stepped back). (Open Journal 5 March, 2013)

My PSTs were so much more engaged in active learning, I could hear it in the rise in volume and the number of voices contributing to the discussion. My learning about how physical positioning was influencing my teaching was very exciting for me. It felt like a very important step in learning about teaching teachers. During the next while, I continued to think a great deal about my position and this is shown again in the following journal entry where I discuss transitions and handing over:

Aspects of my teaching that I was pleased with included the progression from teacher centred to group centred activities. I think I could have improved the flow by changing the classroom arrangement during those different sections. This could have been as simple as changing my position in the class and the seating arrangement. (Open Journal 11 March, 2013)

From the quantity and diversity of data I was collecting it is clear that this topic was occupying a large amount of my thinking about teaching and learning. While it is not accurate to say that it was my sole pre-occupation, I felt like I was learning a great deal about the influence of my position.

There was another ground for my excitement with this learning; self-study is expected to have an improvement focus. As a self-study researcher, I had been challenged to demonstrate that my self-study resulted in changes, and these changes represented an improvement (T. D. Brown, 2011; Russell, 2002). Through my focus on physical position I was finding changed practices and a significant improvement in the coherence between my intentions and my practice.

Through my 'in the moment' reflection, I had just demonstrated changed practices that aligned with demands from the self-study methodology. I had shown how I had been attentive in the moment and changed my practice based on my observations. As a consequence PSTs had become more active and engaged. It was important then to follow through on Sarah's recommendation and see what the PSTs' experiences were.

Phase 2: Disillusionment

Greg- and also that discussion from that little sound bite, it was like the group contract is all about our group, and it felt like you were, you were trying to step back, but you were still telling us what to do, you were saying I'm in the power position, I'm holding this I'm holding that, then you were like alright, everybody get on the floor [pause] and talk about it (pause). As opposed to ...[laughs]

Peter- I'm still going to be in the power position but I'll be in the power position in a circle (laughs) (Focus Group 1)

From my focus group it became clear that some PSTs took very different interpretations of my 'epiphany'. While everyone appeared to remember that situation, their responses were very diverse, some agreed with my interpretations but Greg and Peter were critical of the role of "power position" and suggested that regardless of where I stood in the classroom I was still in the power position as lecturer. Berry (2005) also found that when she moved from the front of the room, her students simply changed their positions so as to better see her which did nothing to change the classroom dynamic. This was also true for Brandenburg (2008) who found that "modifying routine, beliefs and behaviours...particularly in relation to the more equitable distribution of power is a more challenging task than it ostensibly appears" (p. 142).

In a later interview, another colleague encouraged me to be mindful of the power of teachers in educational settings and commented

Eric- Power is at play in ways that we can't even see. We hold a lot of power, we can pass or fail students.

Certainly, I am responsible for marking assignments and giving out grades in this class. I am also responsible for learning priorities and teaching strategies. It was no wonder that some PSTs viewed my 'stepping back' sceptically. What did become clear to me was that I had been taking an uncritical 'stance' on power position. I had been seeing

my physical position as something of either a silver bullet or at least a tangible indicator of the coherence of my practice and philosophy.

Chris- if I want a democratic, constructivist learning environment, then I want them to be engaged in power [sharing]. Here is the rub, we are not just a vacuum sealed container (Interview 3)

My class is “not just a vacuum sealed container” where the rest of PSTs’ lives, wider societal influences and histories were ‘left at the door’ and they suddenly engage whole heartedly and democratically in my class discussions.

Chris- the more I do this the more I think of milieu coming into it more and more, I started off with Steven’s feedback on body position

Sarah- now we are talking about philosophy and theories of learning (Interview 2)

During this interview, Sarah pushed me to see beyond my own class, into wider influences and the constraints and limitations on what is possible in a teacher education setting. My private journal entry reflects this:

... Perhaps because it is so tangible and because it is something that I have control over, it made position so alluring to me, rather than this idea of challenging educational structures... (Private Journal 25 June, 2013)

It is possible that my focus on position was so alluring because it was an aspect of teaching over which I did seem to have some control and in contrast to so many other more powerful structures under which we all operate in society.

To someone with a hammer, every problem looks like a nail. My reification of physical position resulted in a focus on it as the solution to problems to do with power and PST engagement. Loughran and Northfield (1998) warn that “a high level of self-confidence is necessary as ‘successful’ experiences have unintended outcomes and closely held assumptions and ideas are queried” (p.6). I certainly felt disillusioned and Brookfield’s (1995) comment of “teachers as unwitting puppets perpetrating practices and values that serve the interests of unidentified string pullers” (p.212) seemed to sum up my situation. Brookfield (1995) continues, critiquing power relationships stating that even in a discussion where the teacher says little and the discussion flows, where there is little silence, and the discussion is sophisticated, we may just as well be reinforcing existing power structures. For example, PSTs may hold back for fear of being brow

beaten by more powerful or privileged PSTs. In these discussions between PSTs, there are power circulations going on underneath what might seem to be engagement and spontaneity. Even the 'egalitarian' circle can be painful and humiliating for the shy PSTs while the confident and extroverted find it liberating and authentic (Brookfield, 1995).

In the scenario where I left the group and sat at the side of the classroom, I felt that I had effectively removed myself from any power position. However Brookfield (1995) critiques such an approach stating that a teacher's presence even when it is removed, still defines the situation and rules. Even my reflection-in-action which I had considered effective and insightful was probably just reinforcing the status quo.

I am not the first to develop an infatuation with a particular pedagogy. Matusov writes of his own obsession with dialogic pedagogy:

I became very infatuated with the idea of dialogic pedagogy, to the point where I began to believe that it might be a sort of "silver bullet" that could solve all of my problems and aid me throughout all aspect of my academic pursuits and perhaps even my life in general. This transformed into a zombie-like focus upon the importance of dialogic pedagogy... (Matusov & Brobst, 2013, p. 141)

While a focus on dialogical pedagogy is far more complex than my focus on physical position, I believe there are parallels. Others have also experienced an infatuation with certain techniques. It may be part of the human condition to seek and find what we perceive as a definitive answer to the complex and challenging problems that face us as teachers and teacher educators. For example, Korthagen et al. (2006) state that "Teacher education practices that support the search for 'the recipe' for how to teach or that make it appear as though teaching is simple and unproblematic reduce the impact of the conflicting demands associated with learning to teach" (p.1026). Definitive answers have an element of allure in that they offer a relatively defined, bounded and tangible pathway out of our otherwise ill-defined, unbounded and intangible conundrums. There is yet another layer of complexity to add; our solutions are problematic but even what we consider to be a problem is problematic.

Our conundrums are defined by our own prejudices and assumptions. Some of these conundrums, while important to us and therefore to our immediate classroom settings, are potential distractions. In the children's book "The Phantom Tollbooth" (Juster,

1961), a trivium demon sets the heroes tasks that are endless and pointless and the heroes happily work away because they have something tangible and practical to do. They do not question whether removing the water from a well with an eye dropper or digging a tunnel with a needle are worthwhile ends. In much the same vein I discovered that my infatuation with physical position was an easy distraction from complex questions about teaching and learning.

How we think about our work, the categories and criteria we use to specify what constitutes good and bad teaching, how we choose which aspects of our teaching to focus on- these are culturally formed choices, even if we think otherwise...It is easy to remain at the level of an individualistic concern with the microsystems of particular classrooms. We forget that change in our individual situation is often crucially dependent on wider structural alterations fought for collectively...Gitlin and Smyth's (1989) words, "because most teachers do not have the opportunity to reflect critically on practice with others, the inadequacy of those practices often remains hidden and analysis remains fixated at the level of technical problems. (Brookfield, 1995, pp. 217-218)

Our milieu, the societal expectations, norms and structures which surround us, are pervasive and powerful. These authors and their discussions provide insights into my fixation at the level of my physical position and the microsystem of my classroom. It also shows why my attempt to share power was viewed sceptically by some of the PSTs. Brookfield (1995) sympathetically suggests that it can be easy to see our struggles as our own fault rather than the consequences of trying to do something that is complex and unpredictable within a system that operates on the assumption that this activity can be split into discrete and manageable units of curriculum and time. Recognising the absurdity of this situation stops us blaming ourselves for not being able to work an inherently unworkable machine.

Initially I felt despondent about the responses of my learners to my think-aloud and open journaling about physical position because I had based my research on making teacher education more authentic through active learning for our PSTs. "Theories underpin all we do in education, whether or not they are made explicit. The challenge is to find useful analytical tools to make those theories explicit, consider the effects of those theories and consider new ways of practice" (Sandretto, 2009, p. 98). Through my research I felt that perhaps I had found such an analytical tool.

My initial theory of creating a more democratic learning environment through moving myself into a different place in the classroom proved inadequate and I needed a more complex theory. This new theory incorporated my understanding that position was important to some extent, but that position had its limits as a pedagogical approach. As I reflected and reframed my problem (Schön, 1983), new and more nuanced possibilities arose in the creative space between infatuation and disillusionment.

Reframing the power of physical position

While it is unbalanced to label my learning about physical position as ‘inspired’, it is also unbalanced to frame it as ‘meaningless’. Power is present in all interactions and “power is always negotiated. It moves around the classroom and it demands vigilance” (Coia & Taylor, 2013, p. 6). In the following section I set out how my learning about physical position and power has yielded modest benefits both in my teaching directly and indirectly for my PST experiences.

Sarah- today I noticed that you were a lot quieter, avoiding eye contact and it really changed the dynamic a lot. You used silence a lot more. I had a sense of a calm inclusive, thoughtful energy...And students were stepping up and saying things, although it was mainly the same students (Interview 3)

While in my infatuation stage I may have just used my position, but in Sarah’s observation, I was using eye contact and silence in addition. I also felt satisfied with the level of PST engagement, even though not all PSTs were vocal in the discussions. I acknowledged that on any given day some, perhaps many, PSTs would not participate for a variety of reasons. Some of these reasons have to do with teacher power or PST power. Other reasons may be far more personal and specific. I took care to offer a range of opportunities to participate in discussions as I believed these were valuable, but I was mindful of the myriad reasons for participation or lack thereof. My learning about my physical position had been beneficial but not revolutionary. The following extract identifies the more nuanced understanding that I came to:

Chris- for a while I saw physical position as the panacea, I can resolve all my problems by sitting down and avoiding eye contact

Sarah- It does work

Chris- It makes a difference,

Sarah - All these things are good to play with (Interview 2)

Through this chapter I have shown my learning and relearning about the power of my physical position. This same learning was happening in my philosophical position. I had initially viewed my research as investigating PST learning experiences in my courses and how I could improve or enhance that through my teaching. I did not consider that seeing *my* practice through my PSTs' eyes would be helpful, but rather that the PSTs would represent the 'learner commonplace' in deliberations as I adjusted and modified the course curriculum in a 'balanced' manner.

4.3 My insights from investigating transparent teaching

I argue that my learning about my teaching documented in this chapter, was only possible through the self-study methodology, accessing the commonplaces and combined with my transparent practices. Without all of these, I would not have learned about framing and reframing my learning (Schön, 1983), and what it meant for my PSTs. Quite possibly I would have remained infatuated with power and position.

My framing and reframing of my learning is informed by a moderate post-modern stance influenced by pragmatism. From a pragmatic perspective, my learning is not finished, and my successes are at best temporary, satisfactory solutions (Rorty, 1982). Post-modern perspectives are also helpful here as we must present "This view of ourselves as incomplete and working in uncertainty as central to what it means to be a teacher was, perhaps paradoxically, a relief and a release" (Coia & Taylor, 2013, p. 14). The complexity of the teaching and learning environment can feel overwhelming at times. Accepting the uncertainty and complexity of living in a post-modern world can help to build resilience, and avoid taking responsibility for things that are beyond our control. As Brandenburg (2008) suggests, perhaps it is best to acknowledge the authority of teacher educators and making this explicit, so that all learners can then explore ways to deal differently with the ways on which this perceived authority might impact learning.

Did my transparent practices result in more active learning for my PSTs?

Some PSTs responded positively in particular to the think-aloud moments. There were various times when the shared language of power and position resulted in good

discussions about what teachers could do to improve classroom interactions. On camp, I noticed one group of PSTs was deliberately avoiding standing next to each other in a circle with their students. When I asked the PSTs about this, they commented that as soon as they stood together, they created a power position and the school students would change the circle to a semi-circle with a gap between them and the PSTs and thus adapt to this 'power position'. All of these conversations suggest that my transparent practices were yielding some benefits for the PSTs in learning about becoming OE teachers.

Summary

In the first section of this chapter I provided insights into my learning about transparent teaching through my use of open journals and think-aloud moments. I investigated the importance of these practices for PST learning, and discovered that my open journaling was largely unread but it was very helpful to me as a reflection tool. By contrast, think-aloud was a public sharing of my reflections and addressed some of the deficiencies of open-journaling. PSTs had greater engagement with my think-aloud moments although I needed to be mindful of the length of these reflections as PSTs 'zoned out' if I talked for too long. The challenges with think-aloud were that it was very difficult for me to separate myself sufficiently from my act of teaching to have the cognitive capacity to articulate my thinking 'in the moment'. As such, my think-aloud moments tended to be reflection-on-action and arguably less powerful than reflection-in-action.

In the second part of this chapter, I provided a context-rich example where I brought both of these techniques together in my learning about my physical position and my influence on PST engagement. Initially I intended for these transparent practices to illuminate the process of actively learning to teach for my PSTs. The main subject under illumination however, became my assumptions about my physical position. I identified three stages in my learning about power and position: infatuation, disillusionment, and eventually a more nuanced understanding of the influence of my physical position.

I suggest transparent teaching is an improvement on 'teaching as telling', because it invites PSTs into the complex world of teacher decision making. However, the roles of PSTs in transparent teaching are to listen or read about teaching decisions, which are not particularly active.

The Aeroplane Metaphor Revisited:

When the pilot explained through the intercom that he was learning on the job it was quite disturbing. The passengers had paid good money to be taken to their destination by someone with expertise and experience but the pilot claimed that he wasn't exactly sure about where we were going and how we would get there! The pilot suggested that perhaps if we moved the seats back and all sat in a circle we could gain a shared understanding of how to fly the plane. No wonder the passengers became sceptical when the pilot made these announcements, because in aeroplanes, pilots are responsible for flying the plane and landing it at least closer to the destination for all passengers.

CHAPTER 5: MODELLING

The Aeroplane Metaphor

The passengers on the flight have listened to announcements on the intercom. Now they get to see the pilot modelling how to fly the plane. This allows passengers to see into the cockpit and watch the actions of the pilot in different situations. Modelling flying draws on ideas that seeing is an important addition to hearing or reading about flying a plane and is a step closer to an authentic experience of flying a plane themselves.

In the previous chapter on transparent teaching, I concluded that while important for a variety of reasons, making my thought processes transparent was insufficient preparation for teacher education. Through my exploration of transparent teaching, however, I had learnt a great deal about my underlying assumptions. In this chapter, I document my learning through my research into my modelling of teaching.

There is a significant difference between learning about what a teacher educator is thinking, and watching a teacher educator constructing, responding *and* enacting their teaching. I use the definition developed by Loughran and Berry (2005) who state that modelling gives PSTs “access to the pedagogical reasoning, feelings, thoughts and actions that accompany our practice across a range of teaching and learning experiences” (p.104). Based on this I draw a distinction between transparent teaching and modelling. While there is some overlap between these concepts, I argue that modelling is distinct from transparency on the grounds that modelling is action-based in addition to transparency which is largely dialogic (I discuss this further below). Lunenberg, Korthagen, and Swennen (2007) also draw this distinction stating “When their teacher educator models certain behaviour, PSTs not only hear and read about teaching, they experience it” (p. 589). Modelling by teacher educators is therefore a ‘representation of practice’ (Grossman et al., 2009a), and it is a powerful litmus test for the alignment between my espoused beliefs and my practice.

In this chapter I begin by introducing the Teaching for Better Learning model (TfBL) which Aitken et al. (2013) propose as a replacement for the current Graduating Teacher Standards. Next I describe how modelling by teacher educators fulfils the criteria for

quality learning. Then I bring the two together to analyse my modelling of the TfBL model for my PSTs.

5.1 Teaching-as-inquiry: The proposed standards

In order to understand the Teaching for Better Learning model (TfBL), it is helpful at this point to provide a brief background to the teaching as inquiry model upon which it is based.

Drawing on Dewey's work on inquiry (1986), and Schwab's (1970/2013, 1971, 1978) focus on the practical, Schön (1983, 1987) developed a convincing argument for reflective practice. According to Jay and Johnson (2002), Schön's work was so influential because it encapsulated the zeitgeist of the mid-late 1980s. At this time, educators generally were becoming disenchanted with the offerings of external experts and were seeking viable alternatives. This resulted in a variety of shifts and among them was a growing focus on reflection within ITE in the 1990s (Jay & Johnson, 2002; Korthagen & Russell, 1995).

In the 2000s, the emphasis on reflection shifted subtly but significantly towards teaching as inquiry (Cochran-Smith & Lytle, 2004; Timperley, Wilson, Barrar, & Fung, 2007), because in addition to reflection, inquiry demands that teachers link their inquiries to the work of others and the wider context (Cochran-Smith & Lytle, 1999). In many ways the evolution of inquiry is similar to the roots of self-study, but inquiry does not require the same level of academic rigour.

Teaching as inquiry became part of the *New Zealand Curriculum* when it was included in the section on effective pedagogies. As envisioned within the *NZC*, teaching as inquiry strongly emphasised engagement with outcomes-linked research evidence and this, in turn, influenced the development of the proposed graduating teacher standards and the Teaching for Better Learning model (Figure 5) (Aitken et al., 2013).

The Proposed Graduating Teacher Standards

Aitken et al. (2013) released a discussion document arguing that teaching as inquiry (the Teaching for Better Learning model (TfBL)) offered a way to address deficiencies in current Graduating Teacher Standards including:

1. the non-active and non-applied nature of standards;
2. the de-emphasis on practice through foregrounding knowledge;
3. the discrete treatment of the domains of standards – professional practice, knowledge and dispositions or values;
4. the obscured, deficit and non-responsive treatment of diversity and culture;
5. the detached positioning of both values and ethical considerations in standards;
6. the tendency for standards organised around a career progression to limit the demands on graduating teachers.

The TfBL model claimed the ambitious goal of addressing these deficiencies in the existing standards by using a holistic teaching-as-inquiry based model as the standard against which all graduating teachers would be measured. There is an inherent complexity in the model - in particular the expectation that teaching resources (education's body of knowledge, competencies, dispositions, ethical judgements and social justice) must be used in each step of the model and decisions must be justified. Justifiable decision making is central to this model because there are multiple approaches to teaching problems and as Schwab (1970/2013) argues, a defensible and informed decision is likely to yield a better solution than one based on habits.

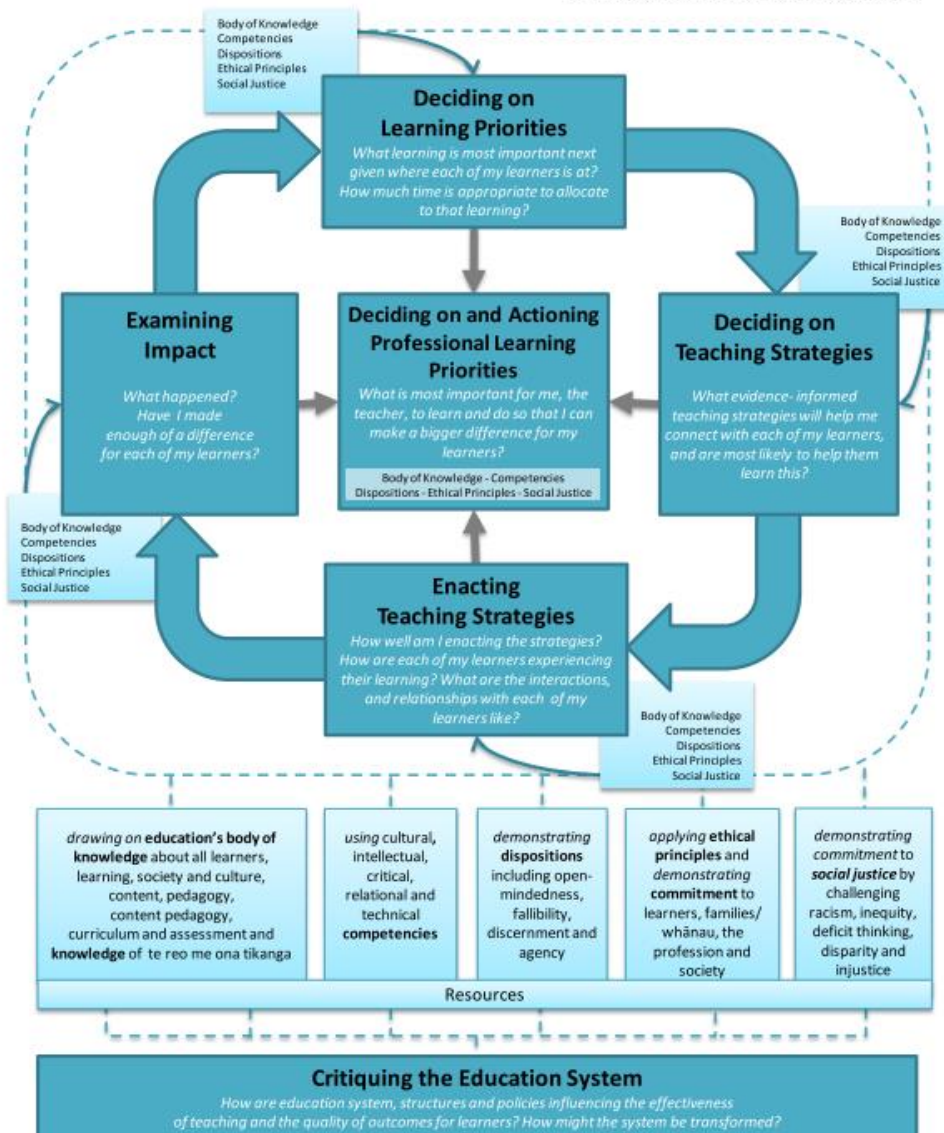


Figure 5: The Teaching for Better Learning Model (Aitken et al., 2013, p. 21)

I found Aitken et al.'s arguments compelling and this raised the question "If this model was to be useful in improving teaching in schools then what role could teacher education play in preparing teachers for these new standards?" In the companion document "learning to teach", Timperley (2013) provides guidance for teacher educators and suggests they help the teacher candidates to analyse their practice through the Teaching for Better Learning Model (Figure 5). She argues that when teacher candidates start asking themselves the questions in each of the dimensions of the model and collect evidence to support their answers, it is likely they will improve as teachers. But there were caveats. In particular, Timperley cautions that "if answering the questions is seen as hoops to jump for graduation purposes, it is unlikely the model

will perform this role” (p. 21). The use of the model will then simply result in PSTs superficially engaging with the expectations in order to pass their courses. With similar concerns about superficiality, LaBoskey (2004a) warns that teacher educators “are not simply presenting a ‘model’ of practice for our students to imitate; we are engaging in the process to improve ourselves, as much as we are to improve them”(p. 840). But if the model of practice is a way of representing teaching as inquiry, then this would move past LaBoskey’s concern about imitation. Imitation is an important aspect of learning and Davis et al. (2000) argue that “Providing students with opportunities to copy already existing forms and processes is an excellent strategy for helping them to ‘get inside the mind of an expert’ . In teacher education these copying practices are used a great deal” (p. 204). The model provides not only a structure through which to analyse my teaching, but also to invite PSTs to analyse their own practices.

5.2 Modelling the standards

While there has been a focus on teaching as inquiry in ITE for a number of years, Loughran (2004) suggests that teacher educators do not generally apply inquiry principles to themselves. If this is the case, and modelling by teacher educators is important, then the practices of teacher educators may indeed work against efforts to encourage inquiry in our PSTs.

In effect, the pedagogies we practice in teacher education provide a form of immunity to such investigation. We both anesthetise the students from challenging their own education and ensure theory is disconnected from everyday practice because it becomes content to be learnt rather than lived. (Ovens, 2013, p. 21)

Teacher educators must therefore engage with different pedagogies, and I argue these should include pedagogies of modelling.

Russell (1997/2012) titles his article “Teaching teachers: How I teach IS the message” (emphasis in original) indicating his focus on modelling. A decade later, Lunenberg et al. (2007) state that “On the basis of the literature search and our exploratory study, there appears to be little or no recognition of modelling as a teaching method in teacher education” (p.597). These authors suggest that the lack of publications reflects a lack of awareness amongst teacher educators of the impact they may have on their PSTs, by teaching the way they do and being who they are. Four years later, Bronkhorst, Meijer, Koster, and Vermunt (2011) contend that “Within teacher education literature, there is

an expanding body of work that references modelling” (p.589). While there are still limited publications on modelling, there seems to be growing interest by teacher educators in this area, at least in journal publications.

Modelling Proposed Graduating Teacher Standards

Lunenberg et al. (2007) provide four criteria to teacher educators undertaking research into pedagogies of modelling. These are that:

- a) teacher educators need to make their modelling explicit;
- b) this explicit modelling must then be linked with student practice;
- c) exemplary behaviour must be linked with theory;
- d) research into modelling should provide some form of external evaluation.

In this second part of this chapter, I examine how I attempted to address each of these criteria about role modelling by using the Teaching for Better Learning model (TfBL) (Aitken et al., 2013).

a) Making the modelling explicit

The first of the criteria is for teacher educators to make their modelling explicit. Comments about modelling and “walking the talk” appear common amongst teacher educators (Davey, 2013; Lunenberg et al., 2007). However, Wubbels, Korthagen, and Broekman (1997) find when teacher educators do not make their selection of pedagogical approaches explicit, some PSTs are unaware that their teacher educators are even trying to model good practice.

Teacher educators have responded by not just walking the talk, but also talking the walk. This has been achieved through transparent processes such as ‘thinking aloud’ or open journaling (Loughran, 2006) or what Wood and Geddis (1999) call a ‘meta-commentary’.

To a greater extent than their colleagues in other disciplines, they [teacher educators] thought they had to ‘walk their own talk’ to exemplify and embody educational theory in their daily professional practice. They also felt they had to ‘talk their own walk’ to know and constantly articulate the theory and intent behind their own practice. (Davey, 2013, p. 144)

Walking the talk appears inadequate unless teacher educators “talk the walk” and make these decisions about teaching explicit to their students. The implications for my study were that my modelling must be clearly (and probably repeatedly) articulated to the PSTs.

Addressing this criterion in my research, I needed to integrate the TfBL model into my teaching and make this modelling explicit to my PSTs. I therefore began each lesson by introducing the class through the teaching as inquiry model and I had the model on the board with key points on each part of the cycle for each lesson. I also posted the TfBL model summary on the open journal. Indeed in my first session I had “Role model the Teaching for Better Learning model” as a learning priority and discussed the table in considerable detail including the background and that it was proposed as the new graduate teacher standards (Table 4).

Table 4: The Teaching for Better Learning structure for Session 1

Learning Priorities
Subject matter: Refresh or build Adventure Based Learning experience repertoire. Building a positive group culture (learners consider role as a participant and as a teacher). Research suggests that learning is constructed by learners in social settings. Establishing a positive social setting is therefore crucial to learning (Alton-Lee, 2003). Relationships between teachers and learners are enhanced through interactions and fun (personal beliefs). Role model the Teaching for Better Learning model
Teaching Strategies
Tātaiako strategy “Identity, language and culture count – knowing where students come from and building on what students bring with them” (p.4) and beginning with a mihi. Critical experiential education *approaches influenced by project adventure training, personal experience and experiential education philosophies and research. Openness about trickery in facilitation roles (Thomas, 2010, p.250). Modelling an ABL sequence and remaining at the lower end of the sequence, keeping it safe and building rapport and confidence with the group. (emotional engagement, reflective cycle) Individual reflection on strengths Offering responsibility to experienced students recognising their prior learning and life experience. Reading reflection.
Teaching enactment
<i>Left blank as this was occurring in the moment of teaching</i>
Evidence of learning
Looking for signs that individuals feel more comfortable in the group, in particular: laughter, conversations between learners who didn’t know each other at the beginning, willingness to speak up in the group setting, understanding diversity in the group. Use of terms within adventure based learning (energizers and deinhbitizers)
Professional Development
Te reo and culturally inclusive pedagogy development

Table 5: Notes to accompany the plan for Session 1

<p>Teaching diverse learners- other than me: As a learner I am quite extroverted, I enjoy active games and interactions. More introverted learners may feel comfortable but not speak up (so speaking up may not be reliable evidence of learning). Some learners may find some of the activities embarrassing or uncomfortable for personal, developmental (maturity) or cultural reasons and this may act against my learning goals. I have taught in South Auckland and have some experience with Pasifika students but this is getting old now. Since coming to Christchurch 7 years ago I have had limited direct experience with diverse learners (apart from volunteering at [school name]). My te reo is somewhat rusty and a professional goal is to engage more with culturally inclusive pedagogies and update my te reo Māori skills. * Itin (1999) describes experiential education not as a method but as a holistic philosophy where carefully chosen experiences supported by reflection, critical analysis, and synthesis, are structured to require the learner to take initiative, make decisions, and be accountable for the results, through actively posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative, constructing meaning, and integrating previously developed knowledge. (p. 93) as cited in Thomas (2010)</p>

b) Linking modelling to PSTs experiences and practices.

Secondly, explicit modelling needs to be linked to students' experiences and then to their teaching practices. According to Loughran (1996), teacher educators should try to help PSTs to see how the teaching being modelled can be applied to different contexts beyond teacher education programmes.

In the case of the OE curriculum course, the particular context was the camp and this allowed PSTs to gain an insight into how this practice looks, feels and sounds in a school programme. I therefore had the PSTs evaluate their teaching on the camp using the same criteria that I used when presenting the model to the class. Barnes, Clarke and Stevens (2000) suggest that assessment can be a powerful driver of educational reform and in response I changed aspects of an assignment to better reflect the structure of the TfBL model (Table 6). Below is the new section of the assessment based on the Teaching for Better Learning model.

Table 6: Assessment rubric for reflection

<p>I. Learning priorities</p>	<p><i>Needs of learners identified (refers to letter to [name] School). Relates to NZC and HPE for PE plus one other curriculum area, levels 4-5, stated and linked to activity components</i></p>
<p>II. Teaching strategies</p>	<p><i>Includes briefing points clearly so another group could run this activity. (Bullet points are sufficient.) Justifies approach by referring to ABL readings and experiential education (300-500 words).</i></p>
<p>III. Evidence of learning</p>	<p><i>Debrief of school students is described, and evidence is collected from learners, partners and your observations and analysed.</i></p>
<p>IV. Reflection (one per person)</p>	<p><i>2 Improvements and 2 commendations are identified. Identify strengths and weaknesses you bring to teaching. What do you need to learn next (professional development goals)?</i></p>

The rubric above shows the way in which I framed the assignment around the same teaching as inquiry I had been modelling in the Teaching for Better Learning model with sections on learning priorities, teaching strategies, evidence of learning and reflection with a question about professional development.

c) Modelling must be linked with theory

Thirdly, according to Lunenberg et al. (2007), the literature contains very few discussions on how teacher educators can connect exemplary behaviour with theory. Both formal and everyday knowledge and the associated actions are theory based (Timperley, 2013). Korthagen et al. (2001) reference Aristotle's work on episteme and phronesis to distinguish between the everyday and practical theories we hold (phronesis), and the generalizable and abstract theories (episteme). Vosnidou (2007) explains that formal knowledge is underpinned by publicly tested frameworks that become established Theories (with a capital T). By contrast, everyday knowledge is based on experience, but is often tacit and untested. This everyday knowledge makes up our personal theories (theories with a lower case t) which develop through experiences. Unless the resolution between the formal and the everyday is addressed systematically, everyday theories usually dominate formal Theories in practice situations (Vosnidou, 2007). I provide the following autobiographical vignette to highlight this point.

In my experiences of teaching, I relied heavily on everyday theories. Coming into teacher education from a practitioner's pathway, I was unaware of many of the capital T Theories. As a teacher and then a teacher educator, I was unclear about which Theories related to which aspects of my teaching. When asked about influential theories, I vaguely answered with my standard "experiential, socio-cultural, constructivist pedagogies" (which seemed to deflect the questioner often enough for me to continue using this line of defence). This was a case of finding a defence for my current and comfortable teaching practices rather than using Theory to analyse my teaching and seek alternative possibilities and certainly limited the opportunities for transformative experiences through engaging with Theory.

Here I explain how I addressed my confusion at transitioning from teacher discourses to the distinct teacher educator and academic discourses (Erickson & Young, 2011). Certainly my personal theories were unchallenged because I initially had so little engagement with Theories. Indeed the beginning of this doctoral research was the first

time that I applied myself to exploring what Theories had to offer and this can be seen in the links I made in Table 5. Davey (2013) also finds that teachers transitioning to teacher education often have had little understanding of Theories. A possible explanation for this is the gulf between teacher and academic discourses which Erickson and Young (2011) uncover. As a teacher educator with little experience of formal Theories, the TfBL model was driving me to explore my personal theories and simultaneously link my modelling with other more formal Theories of learning.

d) Access external evaluation

Fourth and finally, where there are studies on modelling, Lunenberg et al. (2007) critique these as being almost exclusively self-studies in which teacher educators write about their own work. According to Timperley (2013), relying solely on one's own understanding of a given situation is likely to lead to idiosyncratic, rather than increasingly deep, constructs of practice. A. Clarke and Erickson (2004a) are also concerned about the potential for a largely individualistic approach influenced by Schön's work on reflective practice. Accessing other perspectives is important as Timperley and Robinson (1998) and Coburn (2001) found, as all education communities have the potential to entrench existing beliefs and ineffective practices.

In Aotearoa New Zealand, the TfBL model was proposed as a new graduating teacher standard. Working with such standards closely, modelling them in teacher education and then being evaluated against them could provide insights *from* a wider community and therefore also *to* a wider community. Importantly, the developers of the TfBL model expressed a willingness to work with me on this project and I was successful in gaining funding for this collaboration. The developers of the TfBL model were interested in a teacher educator's insights into modelling their standards. In turn I was interested in their insights into my modelling of the TfBL model. As such, our collaboration truly represented an opportunity for the kind of 'inter-view' which Kvale (1996) envisioned.

In this last section, I detailed Lunenberg et al.'s (2007) four criteria for teacher educators seeking to engage in and research pedagogies of modelling. I have demonstrated how my implementation of this research addressed each one of these

criteria. By modelling the graduating teacher standards I would have the opportunity to address the critiques of modelling. These are summarised in the table below:

Table 7: Summary of opportunities offered by the new graduating teacher standards

	The four challenges to modelling (Lunenberg et al., 2007)	Responses offered by my research
a)	Modelling is implicit and therefore less powerful because PSTs are unaware of it	Use the TfBL model explicitly and repeatedly to describe my teaching decisions.
b)	Teacher educators do not connect exemplary behaviour with theory	TfBL requires that teachers link decisions to education's "body of knowledge"
c)	Teacher educators do not connect learning experiences to the PSTs' own practices	PSTs use the model to analyse their teaching on an OE practicum.
d)	Literature on modelling is exclusively self-studies in which teacher educators do not use external evaluation	My modelling of the TfBL model is assessed by critical colleagues from another University who developed the TfBL model.

In this section I have established that using the TfBL model would help in large part to address Lunenberg et al.'s (2007) critiques of modelling. I now turn to the results of my modelling the TfBL model.

PST responses to the model

In the first set of interviews, carried out in week four of the course, I asked participants in my study about the TfBL model that I wrote up on the board each lesson and discussed with them. Their replies included:

Jenny- Well, I copy it down into my book every single time and I think that's because ... I like structure and that is a form of structure of a lesson, I know what is coming next.

Peter- I'm happy for you to tell me this is what's going to happen, it sets me up and everything but it doesn't help me to learn.

Rob- I quite like it because you refer back to your strategies and you refer back to it, other lecturers just write it down and then just ignore it (All quotes were from Interview 1)

All of the PSTs were aware of the model. However, from these comments it became clear that my use of the Teaching for Better Learning model was no more than a lesson overview for the PSTs. Despite my explanations of why I was doing what I was doing and my repeated reference to the model, it was not fulfilling its role as a means for PSTs to engage with theory behind what I was teaching. I was not allowing the PSTs to engage with the model other than as observers, because, as Holt-Reynolds (1992/2004) argues, they were not co-creators and this left them in passive learning roles.

A colleague suggested removing aspects of the model from the board and asking PSTs to complete it as a way to get greater engagement with it. In the next class I had PSTs sign up to complete the model each session and email me with the missing section. It was a hasty innovation on my part and there were more pressing aspects to the course concerning me, including high student absenteeism due to sport, sickness and end of term pressures. I was also concerned that my research was interfering with the flow of my class. After a couple of unsuccessful weeks I abandoned the attempt, and went back to putting the full model on the board and talking through it with the class. If I had scaffolded it more effectively I believe this approach could have been more effective, but as a teacher educator, I had to make decisions about priorities and other aspects of my teaching were a higher priority.

Evidence from student work

I needed to allow PSTs to engage more actively with the TfBL model in a way that showed it was more than simply a lesson structure. I turn now to examine student responses to the TfBL model aspect of their assignment. These aspects required that PSTs reflect on the lesson they delivered on camp, identify two strengths and two improvements, and identify a professional learning goal (as described in Part IV of Table 6). The following extracts from marked assignments (including my comments) show two contrasting PST responses:

<p>Allow more time for the groups to be chosen. By doing this it could produce more communication around the topic of fairness, which in turn could be related back to the group agreement. On the day there was a small amount of constructive feedback related to this but I felt that it could have been facilitated better through a deeper discussion.</p>	
<p>A strength that I bring to my teaching is being organised. I find it hard to “wing it” when there are outcomes that need to be achieved. By being organised I know where I stand and what I still have to complete. A weakness is that I need to know the big picture. I find it hard to complete a task just for the sake of completing a task; I feel it should build on something or support something.</p>	<p>Comment [cjn5]: Thomas (2010) has much to say about facilitating group selection</p>
	<p>Comment [cjn6]: Why is this a weakness?</p>
<p>My professional goals in this area are around linking all the ideas that I have in my head with the New Zealand Curriculum so that they can be useful for me when I am thinking about what to teach to my students.</p>	<p>Comment [cjn7]: Good, you will find ample links there and making them explicit will help you in your teaching too.</p>

Figure 6: Student reflection example 1 (Greg).

Greg was involved in my self-study project as a participant and had participated in interviews and a focus group by this stage. In addition, he was naturally quite reflective and used this opportunity in the assessment to identify aspects of his personal theories such as finding it hard to ‘wing it’ and wanting to ‘know the big picture’. Interestingly, Greg’s analysis of his personal theories revealed that they were largely beneficial in my opinion. For the most part in the literature, personal theories of PSTs appear to be constructed as a deficit discourse and show how they limit the impact of our teaching. While Greg does not refer to any particular formal Theory in this aspect of the assessment, in establishing learning priorities, Greg references the *New Zealand Curriculum* which is a formal, if mainly implicit, repository of Theory for teaching and learning. This was an expectation within the criteria for the assessment so it is not surprising, but it does show that Greg understands the intent of the questions based on the TfBL model.

By contrast the depth shown by the following extract from a reflection shows only rudimentary understanding of personal theories and how they influence teaching and learning.

<p>I personally thought that the camp for me was a great experience in my teacher training. I learnt a lot that I can take into my future teaching practices, as well as a specific amount of practice in the outdoor environment and learning the different techniques that are utilised in the outdoor environment. As a leader I believe I also fall on the 'jelly' side as opposed to the 'peanut' side as I am also willing to take the more supportive role. Saying this I also like to put my own input in as much as I can when I feel it is necessary. I like to come across as energetic and enthusiastic when I teach as I feel this allows me to come off as friendly and approachable as possible for the students so that they can feel like they can talk to me when they need to. A weakness of my style of teaching may be that I can fall back a bit too much and not make as much of a contribution to the team as I probably should or could. My personal learning priority was to contribute as much as I could in the group and to have a bit more of the leader role more of the time.</p> <p>Receiving feedback from my peers is an essential part of the reflection process. I was happy when I was given some good feedback on my teaching that said I was doing well as this made me feel as I was making progress in learning to become a good teacher. I was also grateful that I was given some things to also work on as I could take a look at them and make sure I can focus on improving those things for next time. As a group as we need to spread ourselves around a bit more and make the most out of there being four of us rather than standing together in a bunch.</p>	<p>Comment [cjn17]: gingernut</p> <p>Comment [cjn18]: You appear confident and stepped forward to run aspects of the day for the whole group</p> <p>Comment [cjn19]: be specific- what feedback did you get? It is difficult to know your strengths when all you are told is that you are doing well.</p> <p>Comment [cjn20]: Specifics like having set times and activities to lead was something your group discussed in the feedback sessions too.</p>
--	---

Figure 7: Student reflection example 2 (anonymous).

The difference between the reflections of Student A and Greg is noteworthy. I suspect that Greg would have provided a more reflective account regardless of his involvement in my research (some PSTs seem naturally more reflective than others). During the course we completed a leadership styles class (Doran, 2008) which had PSTs align themselves along a continuum from “jelly to gingernut” (hence my slightly unusual comment on the peanut). My consistent critique of the PSTs’ assignments was that they did not collect adequate evidence of learning. This is an area that I also struggled with. I did identify “evidence of learning” in each lesson plan but rarely did more than mention it briefly at the end.

Examining all 24 assignments I was able to categorise PST responses. From their reflections, I categorised the type of reflection as either identifying personal theories or simply restating their learning about routines as summarised in Table 8.

Table 8: Categories of reflections on teaching strengths

Reflection Responses	Frequency	Examples
Focused on routines	7	Clearer instructions, closer boundaries, time management, safety
Identified personal theories (t)	16	Linked to personal beliefs and their effects on students and peers such as competitiveness, anxiety, authoritarianism, 'getting the right answer'.

Routines are important in teaching, but de Corte (2010) argues that teachers must do more than implement routines; teachers must be able to apply meaningfully learned knowledge and skills flexibly and creatively in a variety of situations. The characteristics of such teachers according to Timperley (2013) are that they question their assumptions and recognise how their worldview is shaped by their life experiences. Within this curriculum course I attempted to begin conversations and discussions about how our life experiences and 'leadership styles' provide us with certain strengths and certain weaknesses. In the assignment I asked PSTs to consider their personal theories and how these influenced their teaching. As shown, 16 of the 23 PSTs (one PST was absent) were able to identify personal theories in their approach to teaching.

For one PST, this involved feeling like she wanted the students to "get the right answer" and she identified that she actively steered her students in the activities to do them the way she considered the best rather than allowing the students to establish their own approach to a particular problem. Others mentioned how they personally enjoyed competition and found themselves frequently framing the learning through competition. I considered these responses reasonably satisfactory and it seemed to indicate that my work on exposing personal theories for myself and my PSTs had been at least somewhat successful.

In the same assignment, PSTs showed a lack of professional development goals.

Table 9: Professional development goals

Professional development	Frequency	Examples
Routines	16	Focused on logistical improvements for an EOTC activity next time
Professional development goals	5	Identified learning about links to the NZC, developing questioning skills, learning about constructivism in this setting

PSTs overwhelmingly focused on improving routines and showed an inability to identify broader professional development goals. According to Darling-Hammond (2006), a preoccupation with acquiring routines is natural for beginning teachers. However, if PSTs do not move beyond routines, they will be unable to adapt their teaching to diverse student groups. In this regard, PSTs should be able to identify professional development and learning goals based on perceived areas of weakness beyond routines. This was largely not the case among my PSTs.

When forced to complete an assessment to engage with the different aspects of the TfBL model, most PSTs completed the learning priorities and teaching strategies tasks with adequate justifications. Fewer PSTs provided evidence of the impact of their teaching and fewer still suggested priorities for professional development. Timperley (2013) cautions teacher educators that while a PST may construct an assignment which draws on formal knowledge, this may not, in the mind of the learner, influence the personal everyday theories which are used in practice. These theories may indeed be in contradiction to one another, without that contradiction being recognised. The arguments presented in the assignment are forgotten because they were provided for the sake of the assignment.

The evidence that PSTs struggled to identify professional development goals may be tied to the metaphor I was developing where they see themselves as passengers who

will be delivered to the destination without needing to develop their own priorities and actively pursue them. I explore this further in the discussion chapters of this thesis.

The TfBL model as a tool to develop my own teaching

An advantage of the TfBL model was that it was a protocol and a standard against which I could measure my teaching. After the course was completed, two of the developers of the model came to Canterbury University and worked with me on my implementation of the model. When I explained my strategy they made the following comments:

Maxine- Wow. There's some complexity going on there isn't it? Because you're doing the teaching for them...

Donna- Just thinking about your own teaching at the same time.

Maxine- Out loud, yeah. It's like hats – shifting hats all the time.

It is interesting to note that for the past several years I had attempted to address the potential confusion of the different roles I took and that PSTs took within my course through the metaphor of putting on different hats. For example, I might say “let’s put on our participant hats for this activity and then we can put on our teacher hats to evaluate it afterwards”. In this way I tried to make transitions more overt. Loughran (2010) identifies this complexity as an inevitable consequence of attempting to teach teachers to teach. The alternative to this complexity is to focus on content as in other academic disciplines.

Our discussion moved to how I used the TfBL model to model to my PSTs

Maxine- But you've also moved it to an entirely different focus – one which I really enjoy – but is entirely different because this was put out as a model for teachers – graduating teachers...

Maxine was surprised by my application of the TfBL model as it was intended for assessing the standard for graduating teachers not teacher educators. Following the arguments made earlier in this chapter, I wanted to model how I used my teaching as a site for inquiry and show like, Russell (1997/2012) shows, that ‘how I teach is the message’. For Maxine and Donna, the way I had used the model was intriguing, whereas for me it was the natural consequence of attempting to create authentic experiences for my PSTs.

Ways in which I was extended by engaging with this model

Had I personally developed my own set of criteria for quality teaching and learning, the criteria would most likely have played to my strengths and asked questions that I was already familiar with. As A. Reid (2004) states “Inquiry can be an exercise in navel gazing, or it can offer a powerful means to looking outwards, engaging with the ideas, innovations and research that are circulating in the wider society” (p. 6). The TfBL model forced me to consider a wide range of questions about my teaching and asked me questions that I didn’t necessarily know the answers to or even how to answer them. The TfBL model sent me to colleagues, PSTs and the literature to find the answers. This in itself was a worthy outcome, since it expanded my horizons.

However, the TfBL model also proved to be a challenge for me in my construction of teaching. The TfBL model appealed because of its breadth and openness and was developed in response to critiques of reductionism. These same attributes made it difficult simply because of the need to apply all the resources in each decision point.

My colonisation of the TfBL model

Maxine identified how I had modified the language of the TfBL model:

Maxine- So this is the first one where you’ve changed the jargon most significantly to evidence of learning from examining impact. I’m curious about that shift...They’re not incompatible, clearly, but I’m curious about why?

Chris-I’m just wondering that...I’ve used that...Where did I go from...? Have I made enough difference for each of my learners? Evidence of learning. Examining the impact – why did I start calling it that?

In this exchange, it was obvious that I was unprepared for this question. In my mind I was using the original unaltered form of the TfBL model and the transcript indicated how surprised I was. I eventually asked “where did I go from?” suggesting that I am searching for my starting point for the modification. In light of this question, I went back to trace the evolution of the TfBL model during my teaching. I had a particular interest in finding out at what stage that I modified the TfBL model.

I return to the way I presented the TfBL model to my PSTs. There were several observations I was able to make when I began to critically examine my use of the TfBL

model. Firstly I discovered that my change in language from “Examining Impact” to “Evidence of Learning” occurred prior to the beginning of the course. Already in the first session I was using the modified phrase. However, more dramatic still was the rapid change in depth of almost all aspects of my presentation of the TfBL model. Initially my preparation was quite full as demonstrated by my first session (Table 4). I had believed that I was fairly consistent in how I prepared and presented the model to my PSTs. What became apparent was that the model rapidly reduced in complexity and lost connections with theories and Theories. Already in my second session I had reduced the model significantly (Table 10).

Table 10: Teaching for Better Learning form Session 2

Teaching for Better Learning form Session 2
<p>Learning Priorities</p> <p>Subject matter: Theories behind ABL, sequencing and adventure wave. Begin to explore identity as a teacher and its influence on teaching and learning everyday theories (Timperley 2012) Continue to build a positive group culture, (explore goals of activities both as a participant and as a teacher).</p>
<p>Teaching Strategies</p> <p>Experiential education approaches influenced by project adventure training, personal experience and experiential education philosophies and research. Reflect on personal ratings, strengths and weaknesses of these documents. Following experiential education using ABL sequence and moving up the sequence, more group initiatives (more focus on debriefing) Written work on sequencing and adventure wave models, short introduction and discussion with examples Group leadership categories- a means of exploring everyday theories</p>
<p>Teaching enactment</p>
<p>Evidence of learning</p> <p>Generation of list of activities linked to sequencing Correct use of subject terminology in discussions Continued engagement in activities and interactions with peers.</p>
<p>Professional Development</p>
<p>Concerns:</p> <p>Some people can feel boxed by the categories of the leadership styles. Work with learners to acknowledge strengths and weaknesses of such exercises.</p> <p>Address misconceptions that the ABL sequence is fixed and emphasise the responsiveness of the model.</p>

There was just one link to the literature in the session two plan, in contrast to the first session where I made two to three direct connections to theory and the literature in the learning priorities section and the teaching strategies section. Furthermore, in session two I made no mention of professional development. While I maintained the notes under the table, the focus moved from exploring my personal theories to a routines focus identifying that learners sometimes feel 'boxed-in' by the categorisation activity. Towards the end of the semester, my treatment of the TfBL model became still leaner, at times just a sketch (Table 11).

Table 11: The Teaching for Better Learning plan for session 14

<p>Risk session 5, May 6, 2013,</p> <p>Learning Priorities</p> <p>Diversity of learning in our class</p> <p>Limitations of RAMS* forms</p> <p>Laws pertaining to OE</p> <p>What OE can offer? What is the role of risk?</p> <p>Assessment</p> <p>Models of risk and crisis management</p> <p>Teaching strategies</p> <p>Presentation on the CIQ summary</p> <p>Discussion reviewing the reading “When will they see the error of their RAMS?”</p> <p>EOTC* guidelines review on the role of risk</p> <p>Assignment updated, discuss expectations in the assignment</p> <p>Student led session: Difficulty vs Competence model, discussion and activity</p> <p>Lemons theory- story of Cave Stream</p> <p>Student Led session: Crisis Management graph discussion</p> <p>Teaching Enactment</p> <p>Evidence of learning</p> <p>Participation and contributing ideas</p> <p>Assignment</p>

Acronyms in table 4 ⁶

⁶ RAMS - risk analysis management system

CIQ - critical incident questionnaire (Brookfield, 1995)

EOTC – education outside the classroom

Noteworthy in this sparse presentation of the TfBL model was that my personal theories (theories with a little t) section had vanished along with any identified professional learning goals. I no longer presented the TfBL model as a table and there were no links to Theories (capital T). I had filtered and modified the TfBL model so that it was achievable in the busy space of day to day teaching. In short, I was unable to sustain the intensity that the TfBL model required for inquiry. By the end of the semester it seemed little more than a lesson structure.

This further analysis sheds considerable light on the struggle my PSTs had with interpreting the model beyond seeing it as a tool to navigate the lesson. The research of Arya et al. (2014) suggests that the weaknesses of teacher educators may be reflected in their PSTs. This represents an alternative interpretation of my results. Rather than revealing a student deficit, it may simply reflect inadequate role modelling on my part.

5.3 My insights from modelling the standards

An often used metaphor for the effect of innovations is that of a chicken house where a rock is thrown on the roof. The chickens flap around a lot and make a lot of noise but eventually return to their original roost positions. It seems that this metaphor applies to my modelling of the TfBL model.

The TfBL model initially forced me to move beyond my comfortable ideas about teaching and learning by presenting me with unfamiliar and uncomfortable questions. However, while it was my decision to use the TfBL model and the impact it had on the way that I thought about teaching, there were aspects of the TfBL model were still “simply filtered through the lens of established beliefs and practices... [and then] colonised by that practice” (A. Reid, 2004, p. 10). Over time, it seemed that I had unconsciously modified aspects of the TfBL model to make it less challenging. I had begun to use short cuts and colonised the TfBL model.

One modification was my change of ‘impact of teaching’ to ‘evidence of learning’. While these are parallel concepts, impact of teaching is a broader and more teacher-centred measure. Within “impact of teaching”, evidence of learning is required by the TfBL

model. This seems like a benign and accidental change, but it still shows my inadvertent modification of the model.

More significantly I argue that my engagement with the TfBL model became quite shallow over the course of the semester. Once I had gone through the resources and made my decisions about the best way to achieve these learning outcomes I did not critically revisit these decisions but rather moved on to more easy aspects. I was in danger of superficiality. A. Reid (2004) also highlights the danger, whereby teachers embrace the concept of inquiry enthusiastically, but apply it uncritically without really understanding the effort and vigilance needed for it to flourish.

However, there are certain teaching strategies and pedagogies which are coherent with my teaching philosophy and the teaching traditions I have inherited from the rich history of OE. Indeed as an educator, I must understand myself “to be a bearer of these traditions, as someone whose practice has been formed within these traditions, and as someone who has moral and professional obligations to those traditions” (Kemmis & Grootenboer, 2008, p. 28). It would be unreasonable, not to mention exhausting, to constantly move like a restless nomad between radically diverse teaching traditions. It would probably also result in confused PSTs. Since going through the process of analysing my teaching strategies I am now more aware of the meta-pedagogies of outdoor education - experiential education, constructivism and the benefits of active learning - that underpin my teaching. As Kemmis and Grootenboer argue, I have a moral and professional obligation to those traditions. For example, my tendencies to privilege authentic experiences in order to draw PSTs into more active learning roles has a tradition in OE teaching and is shared by other OE teachers (Straker, 2014).

Also of concern was my neglect of my personal theories (t) and other Theories. Like Vosnaidou (2007), I found that my everyday theories did appear to trump formal Theories, although in my case it was through a lack of vigilance. Even if I had continued to analyse my personal theories, it would have been helpful in my presentation of the TfBL model to articulate them and consider the strengths and limitations for students from diverse backgrounds.

There were, therefore, multiple ways in which I modified the model. My modifications were, I believe, genuinely unwitting but also so comprehensive that it still surprises me

that I did not realise it at the time. Perhaps this is an insight into how busy-ness can obfuscate many aspects of teaching and result in modification and colonisation - even with good intentions. Here I repeat A. Reid's (2004) advice that the TfBL model required a high level of vigilance from me in order for it to flourish. However, I argue that the perspectives of others proved crucial because my own vigilance proved insufficient.

As in Chapter 4: Transparent Teaching, I began this chapter seeking to understand the impact of my modelling on my PSTs. Once more, the lens was turned back on me to illuminate unexplored aspects of my own teaching and, in particular, my colonisation of the TfBL model. This was a particularly challenging part of my research and I was often left feeling inadequate and despondent. In hindsight, I believe I was being overly critical of myself and my teaching. Casey (2012) discusses how his journal and research saw him focusing highly on the negative and critical aspects of his practice. While it is important to take a critical and uncompromising stance in self-study research, it is also important to recognise our strengths so that we can be encouraged and inspired to continue our teaching journeys.

Acknowledging the importance of a balanced account, there were a number of strengths in my approach that were revealed through this chapter. As a teacher educator I was engaging strongly with the kind of uncertainty and risk-taking that we ask of our PSTs. In this regard, I was modelling "how the process of learning requires vulnerability and the courage to problematize our practice and confront our living contradictions" (LaBoskey, 2004a, p. 829). I was openly *modelling* my struggles with *modelling* what I was advocating. It was a complex, nested approach and I believe I negotiated many parts of this task effectively. The end of course evaluations suggested that I was able to maintain mutually respectful relationships with the PSTs; despite revealing my vulnerability the PSTs did not lose faith in my ability to help them become OE teachers. Importantly, through the course, the majority of the PSTs identified personal theories and the strengths and weaknesses of these theories in their teaching. This was a major achievement and one that I had not achieved in previous years. There were many positive aspects to my teaching, but through this research I focused on the problematic aspects of my practice. Perhaps this is forced by the expectation that self-study research must challenge our assumptions and personal theories. Is there space within self-study for confirming, in addition to disconfirming, and supporting, in addition to

challenging? Without this balance, I believe there is the danger that sustained critique could lead to disillusionment and ultimately the loss of hope.

Summary

In the introduction to this chapter I presented various calls from the literature for teacher educators to model the approaches we promote. Modelling is important in order to provide PSTs with quality learning about becoming a teacher. As I established in Chapter 2: Learning in Teacher Education, quality learning requires more authentic experiences. I then modelled the TfBL model as a way of aligning my teaching with the expectations of graduating teachers. There were some important benefits, such as PSTs identifying their personal theories and analysing them. Also the repetitions of the TfBL model during the classes created a shared language to discuss reflection.

However, my modelling was generally not particularly potent for my PSTs. The reasons for this lack of influence were various and included PSTs perceiving my modelling of the TfBL model as simply a lesson structure, PSTs presenting with weaknesses which reflected my own weaknesses, and finally my colonisation and modification of the TfBL model.

In their conclusion, Lunenberg et al. (2007) ponder “how teacher educators can be encouraged to use modelling more frequently and more systematically” (p. 598). Using Lunenberg et al.’s (2007) work as the basis for this chapter, I have attempted to address this question and provided evidence of systematic and frequent explicit modelling. While of limited benefit to the PSTs, I found the TfBL model invaluable in learning about my teaching. This chapter has shed further light on one particular approach on modelling by teacher educators.

The Aeroplane Metaphor Revisited

Using transparent teaching techniques such as explaining the upcoming turbulence on the intercom was not enough to prepare passengers to fly the plane. The pilot invited the passengers into the cockpit to see the pre-flight checks as well as the decisions that were being made in ‘real time’. The pilot’s modelling of flying the plane and sharing the

protocols was not particularly effective and the pilot learnt more about his own approach through modelling than perhaps the passengers did.

CHAPTER 6: FATALITY CASE STUDIES

The Aeroplane Metaphor

Passengers have now listened to the pilot's announcements and watched the pilot flying the plane. Now the pilot walks down the aisle handing out accounts of aeroplane accidents. These authentic cases are designed to help the passengers take flying seriously and avoid repeating past mistakes.

In addition to transparent teaching and modelling, case studies are another means to provide more authentic experiences. This chapter explores how I incorporated fatality case studies into my course and the ensuing responses of the PSTs to these case studies.

I begin the chapter by briefly describing the effect of two multiple-fatality events in OE on me as a teacher educator in OE. I then introduce case studies as an approach to learning about enhancing safety in OE. Drawing on perspectives from my PSTs, critical colleagues and my own reflections, I analyse the influence of these case studies.

The fatal incidents

On April 15, 2008, an instructor took a group of 10 students and one teacher on a walk up the Mangatepopo Gorge in the central North Island. The gorge walk involves walking over rocks and numerous crossings of the small stream that runs down the gorge. During this particular trip, the river in the gorge rose rapidly due to heavy rain higher in the catchment. The rising water forced the group to seek safety on a ledge. As the river continued to rise, the instructor decided to have the group swim to a safer ledge on the other side of the river. However, almost all of the group were swept past the ledge and six students and the teacher died after being carried downstream and over a weir. Four years later, on August 8, 2012 at a different outdoor centre, two students were swept off rocks by a large wave. The instructor dived into the water to help them but all three died. Their bodies have never been recovered.

Like many other people who have been affected by a fatal incident, I wanted to see what I could do as a teacher educator to avoid future tragedies. Murphy and Clark Johnson (2003) researched the experiences of families where children died violent deaths and

their research is both heart-wrenching and illuminating. While I did not lose a child or a close friend, I knew people who were working at both of the outdoor centres at the time of the deaths. Similar to participants in Murphy and Clark Johnson (2003) study, I felt the need to search for, and find, meaning in these devastating events.

It is important to note that these fatalities all occurred at outdoor education centres with resident instructors, but Brookes (2011) argues that there are nonetheless important lessons to be learnt about risk management and fatality prevention that should be incorporated into teacher education, because of its influence on teachers.

Teacher education is influential for a number of reasons. As I discussed earlier (Chapter 2: Learning in Teacher Education), there is evidence that well-designed ITE is influential on PSTs as they become teachers (Darling-Hammond, 2006; Darling-Hammond et al., 2005). Teachers, in turn are also influential. A review by Hattie (2008) of over 800 studies indicates that teachers account for 30% of variance in student achievement. Each year, I teach around 100 PSTs in a range of OE courses. The majority go on to become teachers of some sort. While not wishing to overstate my influence as a teacher educator, through my teaching, I have the opportunity for cascade type effects; my influence on the PSTs in my course may expand as they go out into schools nationally and internationally and they may teach for decades over the duration of their careers.

I was both deeply disturbed by the fatalities and also had the opportunity as a teacher educator to be influential on OE in schools. The enduring pragmatist's question presented itself: Given all that I know, how might I choose to act? (Cherry-Holmes, 1999). In particular, how could I, as a teacher educator, act in order to improve the safety of OE? And what are the consequences of my actions?

At the end of 2011, Andrew Brookes published an article on the Mangatepopo tragedy and his statement that "Outdoor education can and should be conducted with almost zero fatalities provided potentially life-saving technology is adopted and lessons from previous fatal incidents are learned and incorporated into practice" (p. 15) was highly motivating for me. The problem is that OE fatalities are (fortunately) rare and therefore fall outside of the experience of OE teachers and leaders so teachers cannot base decisions on personal experiences. Therefore Brookes states that "Students who are studying to be outdoor education teachers, have to include fatality prevention as a

specific, detailed elements when planning for teaching secondary students, cross-referenced to studies of actual fatal incidents” (p.30). Using case studies of fatal incidents in OE settings offered a means for me to reach my goal of improving the safety of school students in OE programmes.

6.1 Case studies in teacher education

As set out in the early chapters in this thesis, my goal was to enhance the active learning of PSTs through the provision of authentic learning experiences. Stolz and Pill (2014) argue that case studies could help address the problem that “the method subject acts as one high impermeable silo and the practicum placement another high impermeable silo in which there is no connection or link between each silo at anytime” (p.11). In the following section I briefly introduce the use of case studies in teacher education and argue that case studies of fatalities are an important way to provide authentic learning experiences within ITE courses and thereby improve safety in OE.

Case studies have been used increasingly in teacher education to help connect learning in ITE to school practices (Darling-Hammond & Snyder, 2000; Merseeth, 1990; Shulman, 1986; Stolz & Pill, 2014). Shulman (1986) promotes the use and development of case literature relevant to teacher education because cases expose both the practical and theoretical knowledge of teaching. Shulman argues that to call something a case is to make a theoretical claim that it is a case of something or an instance of a larger class.

The criteria for case studies were originally tightly defined. Cases needed to include well-documented and richly described events or sequences of events and it was these features that made them more than reflections, vignettes or unconnected narrative accounts of experience (Merseeth, 1990). In addition:

A case study is a descriptive research document based on a real life situation, problem or incident. In the presentation of a case study, every attempt is made to provide an unbiased, multi-dimensional perspective. A case study describes a situation requiring analysis, planning, decision-making and/or action. (Merseeth, 1990, p. 54)

The benefits of case studies are that they provide representations of a ‘wider class’ and describe events which are real. Merseeth (1990) argues that because of their authenticity, strong case studies attract comments and active participatory learning from all members of the class (Merseeth, 1990).

Darling-Hammond and Snyder (2000) agree that case studies provide the opportunity within ITE to explore “precepts, principles, theories and perennial issues as they occur in the real world” (p. 529). However, in contrast to Merseth’s criteria above, Darling-Hammond and Snyder, welcome case studies drawn from an individual’s perspective. This is in breach of Merseth’s original criteria for unbiased or multi-dimensional case studies. Cognisant of the risks of this adaptation, Darling-Hammond and Snyder add that the subjective nature of this type of case studies needs to be addressed through the careful selection of readings, discussions, commentaries, and analyses.

While my literature search revealed no reports of using accident or fatality case studies in teacher education, there is one example from the construction industry. Spielholz, Clark, and Sujostrom (2007) report on the use of fatality studies to “capture the attention of people in an industry and highlight the concept that hazards are real and can occur in operations that they perform” (p.25). Spielholz also recognise the value in having authentic case studies to connect training with the reality of the construction workers’ jobs and conclude that fatality narratives have proven to be an effective way to connect and demonstrate real-world experiences and practical steps workers can take to keep themselves safe.

Though far removed from the context of the construction industry, teaching outdoor education also has potential for fatalities. Brookes (2011) suggests that studying cases of fatalities could help PSTs to “develop substantial vicarious experience, equivalent to experience of actual adverse events”(p. 28).

Based on the arguments I have presented, case studies offered active learning for my PSTs because of their authenticity, and provided a way for PSTs to gain vicarious experience and thereby make OE safer. As a consequence, I implemented Brookes’ (2011) recommendations that PSTs investigate case studies of fatalities.

Fatality case studies as new in the curriculum forest

Fatality case studies were a new development in my curriculum and I was curious about the process of embedding new innovations. I begin with a private journal entry exploring my curiosity about adopting new research recommendations into my practice:

By contrast [to curriculum I have been teaching for a number of years] the work by Brookes on Mangatepopo is new and shallow. Over time, this topic will become more nuanced too...

Taking this metaphor further, thinking about new species colonising an area, there are the first colonisers, (routines and rituals), shrubs come through once the soil is established and finally if given long enough, old growth forest ensues with emergent canopy of the priorities standing out.

Then some new research emerges, is this like a weed [?], either it finds a disturbed area to begin or it outcompetes other plants...

Brookes work was a newly imported addition to the "flora and fauna" that inhabited my course... It hasn't had time to become embedded in its niche whereas the LNT [earlier] stuff has had many years of reasonably intense engagement resulting in complex links and interactions with other aspects of the course. (Private Journal 9 April, 2013)

I anticipated that the latest introductions to the course content would be "new and shallow" whereas older aspects of the course would show "complex links and interactions" with other aspects of the course.

Deciding to seek evidence from other commonplaces to explore this ecological metaphor of colonisation by plants, I began by contrasting a transcript of my teaching from an established part of the course (about Leave No Trace) and the newer introduction of fatality studies. I purposefully chose a section that held rich connections in order to examine the colonisation metaphor I was developing. I colour coded phrases in the text that I could trace to their origins and connections which I then identified and labelled around the main text. This was an indicative and reflexive process and not a scientific approach. Nonetheless, I felt the exercise could be informative. The result is shown in Figure 8 (below) for an extract from a Leave No Trace session:

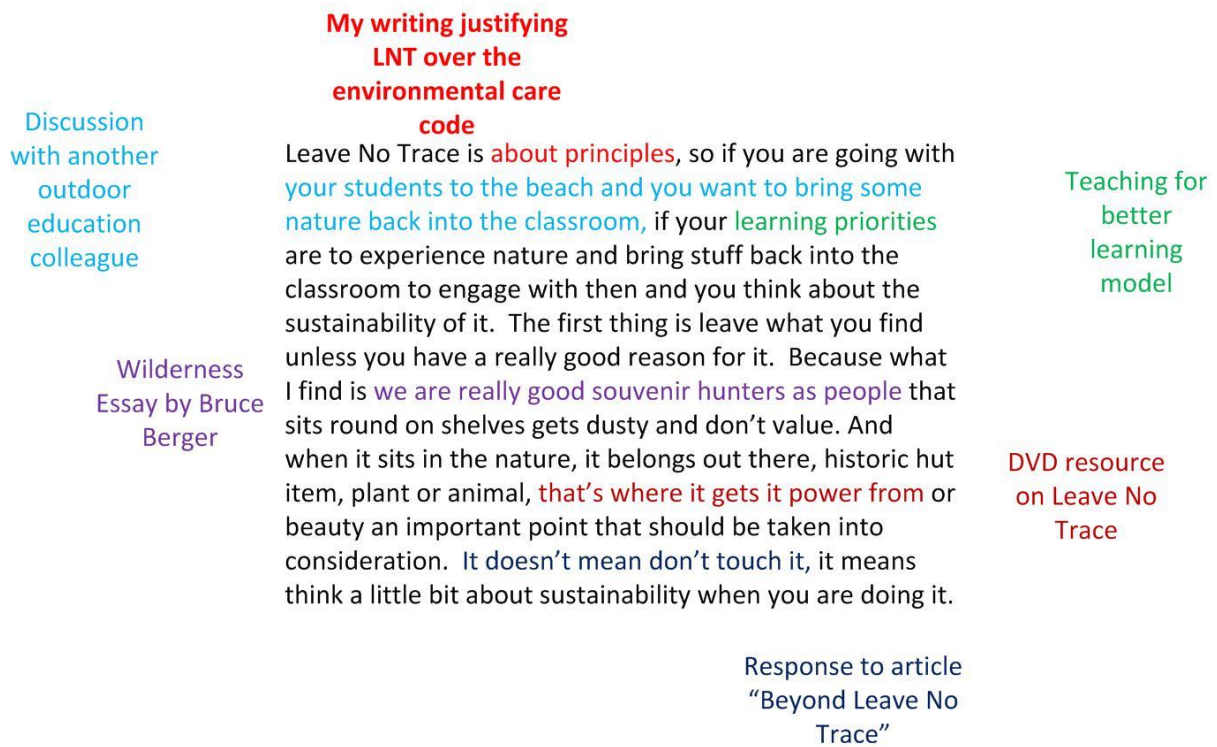


Figure 8: Visual representation of transcript from lecture on Leave No Trace. Transcription at centre and links to other sources (same colour as highlighted text).

From this extract, I was able to trace a variety of connections to sources as diverse as a DVD, an essay I read over a decade ago, recent reading on graduating teacher standards (teaching for better learning model), my own article, responses to colleagues and critiques of Leave No Trace. In terms of the metaphor I had proposed in my journal entry, this spoke to me of an old growth forest with deep and rich connections.

I then carried out the same process but this time with a transcript from a lesson on learning from fatalities. This is shown in Figure 9 below.

From visiting the site

Story of an early attempt on K2

went to OPC as a trainee instructor, slot canyon, steep walled and quite narrow, deep pools but generally knee deep, wear helmets and life jackets.

What they found was a whole bunch of things, the weather, the ratio, 9 students an instructor and a teacher and the ratio was counting the adult, but in reality it was 1:11 because the other adult wasn't experienced, so the ratio was not correct.

Was it the wrong decision? Well in hindsight you can always make the correct decision, all you can do is make the best decision with the information you have at hand

She was in an untenable situation

Local knowledge, knowing where was safe, where wasn't

Really interesting question here that's come up quite a lot, and that is, should individual instructors or teachers in the bush, in the field make their decisions, or how much control should the centralised organisation have over what you do out there. There is one argument that says as an organisation we need to make the decision, there is too much water in the river we are closing the gorge. Or you are good to go.

But there is the other is that the person on the ground is in the best position to know what the students can do and what the conditions are like and be able to make those calls. And OPC operated on that second premise that the instructor on the ground is the best person to make the decision given all the risk management documentation that they had.

The coroner came back and said they should have closed the gorge. She was unsupervised in an activity that she should have been supervised for. So the Mangatepopo gorge raises a number of questions for us in outdoor education. And I think for me one of the key ones that came through there was who has legal responsibility for school students at OPC? Board of Trustees of the school that sent them there. Were they found negligent? No, Why not? The school had done what they were expected to do to take care of their students. Not that that is much comfort for the school or the parents but they did what was expected of them.

Articles critiquing use of RAMS forms

What I want you to do with that particular bit of information there is that this accident happened at the organisation that had the best RAMS forms in the country, possibly the world. So RAMS forms have their place and are useful but they aren't the cure all for accidents. They aren't going to stop things from happening. A couple of things...

Student asks-" if they had been following their protocols and they hadn't had a junior instructor unsupervised in that activity could it still have happened? Hard to say

Links to Haddock article on ratios

Leadership vs management presentation – conference 2008

EOTC guidelines (2009)

Figure 9: Visual representation of transcript from a class on fatalities. Transcript at centre and links to other sources (same colour as highlighted text).

From Figure 9, it seems that there was also a rich interconnectedness with other resources and aspects of the course. While this second extract was somewhat longer than that of my Leave No Trace session, it appears that my integration of this innovation was not simply “new and shallow” as proposed in my journal entry. A possible explanation is that I had already engaged with this topic and read widely prior to Brookes’ article. I regularly taught risk management as part of this course and had therefore fielded questions over several years, read articles and discussed accidents with my PSTs. There was however something new arising from Brookes’ recommendations; I was now engaging the PSTs in a critical and systematic evaluation of fatalities rather than simply completing readings. We also took more time over the studies and had several discussions on what OE teachers could learn from these incidents. Taking the evidence provided so far, I apparently integrated this new innovation into my curriculum very effectively by linking it with other aspects of the course and my pre-existing knowledge.

I turned next to the voices of my learners, to see whether they agreed with my judgement.

Perspectives of my PSTs

The following extracts are from the second focus group with all six PSTs and relates to a discussion on fatality case studies:

Peter- for me, it scares the shit out of me all this risk stuff, and I do see myself in this situation where a Mangatepopo could happen to me and what would I do, so I want to find out everything I can

Greg- yes it scares me, but yes, there is motivation to take kids out there because there are kids who grow up in front of a computer screen

Mel- [fatality studies have] been a real downer, I'm not being mean to your class but I was real loving it at the start but now it's like cos its scaring me and disengaging me in that way (Focus Group 2)

Noteworthy is the common use of the word 'scared'. While Peter mentioned it first, the other two also used the same word indicating its importance to them. Eisner (2002) argues that PSTs enter the teaching profession because they believe they can make a difference and contribute to society. Murphy and Clark Johnson (2003) similarly suggested that people in general view themselves as worthy and the world as good and meaningful (i.e., neither random nor unpredictable). The dissonance between this worldview and imagining school students in our care dying from our actions or inactions is distressing. The content of fatality case studies is highly emotional and confronting.

With regard to the PST comments, it is important to note that while Peter and Greg have many years of outdoor experience and leadership, Mel is a relative novice and was inspired through our camp to take students into the outdoors for learning. This came through later:

Mel- maybe it's because Greg and Peter have had experience and had success, so it's just a way of reassuring them whereas I have only participated in two camps and as a teacher none. The amount of losses and fatalities I have heard far outweigh the successes I have had, that's just me...I have only had two successes and now you have told me about 5 fatalities, whereas these guys have had 100s of successes and only 5 fatalities

Mel had little interest in remote or 'high risk' activities but rather was interested in local parks and possibly overnight experiences. Mel's comment reveals her high level of fear—to the point of feeling disengaged with the course. I return to this point later in this chapter.

According to Dyregrov, Nordanger, and Dyregrov (2003), in general, men tend to respond to deaths with lower levels of distress and also in this case, Andy responded very differently to Mel:

Andy- people's backgrounds will have a big effect, how Mel is quite nervous, Greg feels OK, I'm OK. Accidents happen regardless of training so I'm still fine with going out regardless of the risk, I don't know if that is something you can really change...

In contrast with Mel, Andy had some outdoor education experience. He attended two school camps while on teaching placements, and he grew up in a rural setting feeling comfortable in the outdoors. He had a large amount of confidence and he did not read Brookes' article. Andy's response could be read as flippant; however he accepts risks as an inherent aspect of outdoor education. His comments suggest that his prior understandings of risk were unaltered by class discussions on fatalities in OE. His statement that "accidents happen regardless of training" may reflect a discussion about fatalities in mountaineering involving highly trained avalanche experts and perhaps a comment I made in class that a prominent researcher from the USA had said there was no evidence suggesting that qualifications reduced fatalities. Young men in their late teens to early twenties are over-represented in fatalities of many types. Andy sits within this demographic and my teaching of fatality studies was ineffective in altering his basic assumptions and beliefs. The information he grasped aligned with his current worldviews.

I perceived a high level of openness and honesty during this focus group. I found evidence for PST honesty in that they took positions contrary to what they knew were my learning outcomes for the course and lessons; Mel with her fear from learning about fatalities and Andy with his openness about his lack of engagement with the readings and his adherence to his previous beliefs. PSTs also challenged each other. In particular Greg challenged Andy because his statements indicated that he had not read Brookes' article. The focus group was a confusing experience for me as a teacher educator

because of the diversity of responses to what I considered a reasonably straightforward initiative. I left the focus group feeling unsettled.

Perspectives from Critical Colleagues

As I discussed in Chapter 5: Modelling, Maxine and Donna had been involved in developing the Teaching for Better Learning model. One of the topics Maxine and Donna examined was my teaching of fatality case studies and the divergent PST responses I encountered. Maxine and Donna picked up on how I established learning priorities for each class.

Donna- Your learning priorities or the learning priorities you have for the students?

Chris- Well, my learning priorities. I decide on the learning priorities for my class, basically...

Maxine- it strikes me that your emphasis when thinking about learning priorities has been on what do I need to teach – the content of the teaching – and less on what each of my student's needs? What does student A need that's different to student B... Emphasis on the what to teach, the content, rather than the...who and when for which students and so on...

In this exchange it became obvious that I was selecting priorities based on my own judgement. While I was accessing perspectives from my PSTs, I was not able to articulate how my knowledge of my learners was influencing my selection of learning priorities or how I was adapting them for diverse PSTs. However when the PSTs were teaching, I expected them to demonstrate how they would adapt for diverse learners. Ovens (2013) highlights a similar insight “when in the teaching role we [teacher educators] encourage PSTs to ask how the interests of different ethnicities, faiths and abilities are served by their teaching, but we do not make our teaching transparent in a way that demonstrates how we differentiate our own teaching” (p. 21).

Taking a teacher-centred view of teaching content makes decisions about curriculum far simpler and more manageable. It should therefore not have come as a surprise to me that I simplified the complex task of teaching. Indeed M. J. Reid's (2010) research provides another example of where the commonplaces are dominated by subject matter. I argue that subject matter is likely to dominate in settings such as ITE because the limited time that teacher educators spend with each PST makes it virtually

impossible to adapt the curriculum to their needs. Constrained teacher educator- PST contact time is a powerful example of what Kemmis and Grootenboer (2008) call practice architectures which drives teachers and students to certain practices. The danger is twofold: firstly that this practice architecture results in unbalanced curriculum decisions as Schwab warns, and, secondly that it results in inadequate role modelling of differentiated teaching as Ovens (2013) identifies. Through my neglect of my learners, and despite my best intentions, I had potentially been complicit in poor teaching practices and indeed modelling these for the PSTs.

My interpretation of learning priorities had centred on a coherent and lock-step curriculum in which each PST in the cohort completed the same content, at the same time. Thus, regardless of experience level or appropriateness for the particular learners, we all studied many fatalities. When these critical colleague comments were combined with the literature and my PSTs' comments in the focus group above, it exposed a problematic situation. My enactment of teaching was undermining a key but unstated outcome for the course; to inspire teachers to provide outdoor education experiences for learners in secondary schools.

Once more, as I argued in the previous chapter, I probably would not have had this insight without the perspectives of these particular critical colleagues. With only individualistic reflection to guide me, my approach to establishing learning priorities would presumably have continued. The external perspectives of my critical colleagues allowed me to "name" (Schön, 1983) this puzzle of practice.

I had named, now I needed to reframe my problem. My challenge was how to be responsive to the diversity of my PSTs and yet still work towards fatality prevention?

6.2 My insights from examining fatality case studies

In this section I tease apart some of the important learnings for me. I neglected the diversity of learners in my class. I seemed to reach the students with high levels of OE experiences quite effectively, leaving me open to Feiman-Nemser's (2008) critique of ineffective teaching because I was simply teaching to the students most like me in life experience.

The role of fear and anxiety in learning

Through my implementation of fatality case studies, I damaged the confidence of an, as yet, inexperienced and tentative PST who had previously been inspired to take students outdoors. In a parallel example, Richard, a science teacher, identified that by studying diseases, students would not learn the beauty of biology which was his main goal (Wieringa, 2011). By studying fatalities I had undermined my goal of persuading the PSTs of the beauty and possibilities of OE.

I presented my fatality case study research at the International Outdoor Education Research Conference and delegates in my session argued that deterring some PSTs from taking their students outdoors may be a good thing. This argument was based on the idea that all OE teachers need to be focused on accident prevention and it is better that teachers do not take students outdoors if teachers are not prepared to be safety focused. While acknowledging this argument, I remain unconvinced. If Mel wanted to take students to the local parks and beaches, why did I require her to examine fatalities in remote areas? Mel's anxieties and fears from studying fatalities support the work of Sullivan et al. (2011) who state that the focus on student safety by teachers can work against some of the broader visions of outdoor learning. In a different context, Garbett (2011) also cautions that it is "easy to put unfounded fears into students' minds" (p.70). While Garbett's comment revolves around "war stories" from the classroom, it supports the idea that high levels of student anxiety can be destructive. But in the case of fatality studies, were these fears and anxieties unfounded? My dilemma was profound.

What of Andy? This was also a challenging question. He was part of the study group and gave what I considered honest answers that allowed me an insight into the learning he was doing in my class. How many other young men in my class came through with their personal theories unmoved by fatality case studies? Evidence from class discussions indicates that he was not the only one. In the final risk management assignment Andy wrote that:

Groups need to be made aware that they are there not to take risks but in order to learn from their experiences

This extract reveals a far more nuanced understanding than his comment in the focus group that "I'm fine with going out regardless of the risk". It is possible that through

this course (and perhaps our interviews and focus group discussions) he had come to understand the contested nature of risk in outdoor activities. On the other hand, assignments are not unproblematic measures of learning. It is equally possible that he was writing this to get a good mark. In the last interview (16 months after the course) I revisited this question with Andy. His response was that assessments have a significant influence on his thinking. It was often towards the end of a course when he needed to complete an assignment that the learning from the course became relevant for him. Andy was very open and throughout the research (like all my PSTs) provided me with challenging insights from his experiences in my class. Therefore, I held Andy's final interview comments in high regard. However, I am not fully convinced that the assignment shows a deeper understanding because, like (Timperley, 2013), I doubt the authenticity of assignments in general. Leaving this question hanging is awkward for me but I find some solace in Schwab (1964) statement that the rhetoric of inquiry has to replace the rhetoric of conclusions. In this regard I have generated many questions and few conclusions. Perhaps the benefit of the questions was my continued curiosity. The influence of assessment on personal theories and learning about fatalities is an avenue of inquiry I plan to pursue in the future.

This research raised questions for me about how to address the diversity of learners in my classes in a teacher education setting. How was I allowing the PSTs to learn in ways that were supported by the *New Zealand Curriculum* and the graduating teacher standards? Black and Wiliam (2009) suggest that practice in a classroom is formative to the extent that evidence of the impact of one's teaching is elicited, interpreted, and used to make decisions about the next steps. Decisions based on such information are likely to be better, or better founded, than the decisions I would have taken in the absence of the evidence. Drawing on the perspectives I have accessed in this study, I must now make some decisions about how to act.

How to differentiate learning?

Clearly having all PSTs study similar fatalities is problematic. Two potential solutions present themselves. The first option requires that I get to know the students well enough to select the best learning activities for them individually. Option one is neither particularly feasible, (because of the amount of time required), nor aligned with my constructivist ideas (PSTs should co-construct their learning with my assistance as it is

not just my decision what they should study). In the second option, I help PSTs self-select based on some simple criteria of PST competence (experience and skill levels) and the intended OE contexts (the places and types of learning they plan for their students). In this case a highly experienced PST wanting to teach pursuits in remote settings would study fatalities at the more extreme end of the spectrum. PSTs with least experience in the outdoors and wanting to take students to local parks and beaches would study fatalities appropriate to those settings. Having PSTs self-select for particular fatality studies would allow for differentiated learning in this context. This approach aligns with the philosophy of 'challenge by choice' (Nadler & Luckner, 1992) which positions PSTs as knowing their own limits but also that they can make significant gains when they choose to commit themselves to challenges. Challenge by choice is an underpinning philosophy for adventure based learning and one that PSTs were familiar with because we explored challenge by choice early on in the course. I intend to trial this approach to differentiated learning of fatality case studies in future years.

No doubt there will be difficulties with this approach. I anticipate that fatality studies will always work against my intentions of promoting and inspiring PSTs to take their students outdoors for teaching and learning. For my PSTs, fear and anxiety were a natural response to studying cases of fatalities. As a teacher educator I became more aware of the conflict between fatality case studies and my advocacy for OE.

Given that the fatalities did not occur with OE teachers but rather with instructional staff, is it even appropriate that I require PSTs to study fatalities? Brookes (2003) examined statistics and reported "it is conceivable that teachers could run dozens of camps in circumstances that make a fatality 1000 times more likely than in everyday life without necessarily experiencing a fatality" (p. 21). Therefore, the fact that we have not had a fatality in recent times under the supervision of an OE teacher is not necessarily indicative that all OE programmes are operating as safely as they can. Ultimately, it is important for all people responsible for taking others into the outdoors to be safety conscious.

Has this initiative made OE safer? According Brookes (2011), I may never know, because an absence of fatalities is not necessarily an indication of good practice.

The influence of literature on practice

My uncritical adoption of Brooke's recommendations was interesting. As a practitioner I tend to privilege research as a source of 'trustworthy' information. Brookfield (1995) describes this as "Deep Space 9: the answer must be out there somewhere" (p. 202). In a complex, post-modern world, I sometimes have a yearning for stability and control, and any research that promises the answer is appealing. Russell (1999) states that "the idea that teachers are to be taught the results of research carried out by researchers (who are not seen as teachers) helps to account for the widespread sense of irrelevance of courses in schools of education" (p. 234). As a teacher educator, I need to position myself not just as the end-point consumer in a research retail market, but as an active participant. This is a challenge given that:

Much of the caste system of educational research is systemic: that is, select few are invited to participate fully in research. Others are asked to read the research of others as occasion to apply the knowledge gained from those others to personal situations. The research is only borrowed, never owned – never fully understood. The overall effect of this obfuscation by the structure of educational research goes hand in hand with a basic condition of modern society. In modern society, individuals are often reduced to consumers. (Parsons, 2013, p. 136)

Having embarked on this doctoral research, I have needed to engage not just in knowledge consumption, but also in knowledge production. "The practitioner/researcher is both user and creator of knowledge, which is always regarded as generative and tentative, to be questioned, challenged, connected, tried out, revised, reshaped, and held problematic" (Cochran-Smith, 2003a, p. 21). This thesis and the topic of fatality case studies have highlighted this aspect of my role as a teacher educator and researcher. The methodology of self-study research was a catalyst for this discovery.

Summary

I introduced this chapter with the two multiple fatalities in OE which spurred me to take action. As a teacher educator I was in a potentially influential position. Following the advice of Brookes (2011) that we needed to learn from past accidents, the PSTs in my course studied multiple cases of fatalities

I showed through a private journal entry that I was curious about how innovations such as the fatality case studies entered my curriculum and ‘nestled’ into place in my teaching and my students’ learning. Transcripts of my teaching suggested that fatality case studies were actually well nestled down in terms of connections with different parts of the course and broader bodies of knowledge. Further exploration of the commonplaces revealed that studying the fatality cases created fear and anxiety in most of my PSTs. However one PST seemed to have allowed the whole topic to flow past him without affecting his pre-conceived ideas about risk. An interview with my critical colleagues revealed my myopic focus on curriculum-driven learning priorities, as opposed to considering differentiated learning for my PSTs. In response, I proposed a way to create more differentiated learning using a self-selection strategy. I also showed that this solution was likely to take me deeper into Schön (1987) “swampy zones of practice” (p.3) where every solution reveals further problems. The fundamental tension lay between my goal of inspiring OE, and the grim but arguably important pedagogy of fatality case studies.

The Aeroplane Metaphor Revisited

Fatality case studies resulted in active learning for almost all the passengers on the plane. Most passengers saw the importance of learning about when things go wrong while flying. Some passengers were so traumatised from reading about all the aeroplane crashes that they sat gripping the armrests and wondering if they wanted to become pilots after all. Strangely there seemed to be some passengers still engrossed with in-flight entertainment and largely oblivious of the rest of the passengers and pilot. The pilot also realised that a more differentiated approach to air safety might be necessary if he was to avoid putting many of the passengers off flying.

CONTEXT FOR CHAPTERS 7 AND 8: THE CAMP

Up to this point, I have focused on representations of practice, which allow PSTs to see into the practice of teachers through transparent teaching, modelling and case studies. However, according to Grossman et al. (2009a), approximations of practice are yet more authentic because they allow PSTs to engage in practices that are closer to the practices of a teacher. These authors also argue that approximations of practice receive less emphasis in ITE compared to preparation for the clergy or clinical psychology. Therefore, it seems important for PSTs to experience approximations of practice in ITE because through such experiences, PSTs can begin to engage in the practices of OE teaching.

In the next two chapters I examine approximations of practice on a camp within the OE course. In Chapter 7: Into the Outdoors, I examine the importance of the environment in teaching and learning in the outdoors. Chapter 8: Handing Over, focuses on the roles that PSTs took as I handed over the control of the camp to them.

While the camp setting and PST preparation for teaching during the camp cannot be decoupled, I have chosen to present the findings in two separate chapters for clarity. But first I provide an overview of the camp to situate the next two chapters.

Description of the camp

Figure 10 gives an overview of the sequence of events during the camp. We spent much of the Sunday acquainting PSTs with Okains Bay. The focus of Sunday morning was to highlight the rich Māori and Pākehā history of the area. At the museum PSTs completed activities which required that they examine the exhibits and build on what we had previously covered in class. In the early afternoon, I ran a series of activities on the sand, in the forest and at the lagoon to highlight the benefits of the environment for learning in the outdoors. After that, the PST groups separated and worked on their preparation for their teaching on the Monday.

On the Monday, the PSTs were expected to teach school students in the outdoors. The focus of the lessons was on adventure based learning (ABL) and interdisciplinary outdoor learning as conceived in the *EOTC Guidelines*. PSTs were expected to imagine

the possibilities for outdoor learning within the logistical constraints of time, place and supervision established in advance with me and the participating schools.

These possibilities were framed by concurrent goals for the school students of:

- 1) providing subject specific teaching and learning;
- 2) being environmentally responsive;
- 3) developing interpersonal skills.

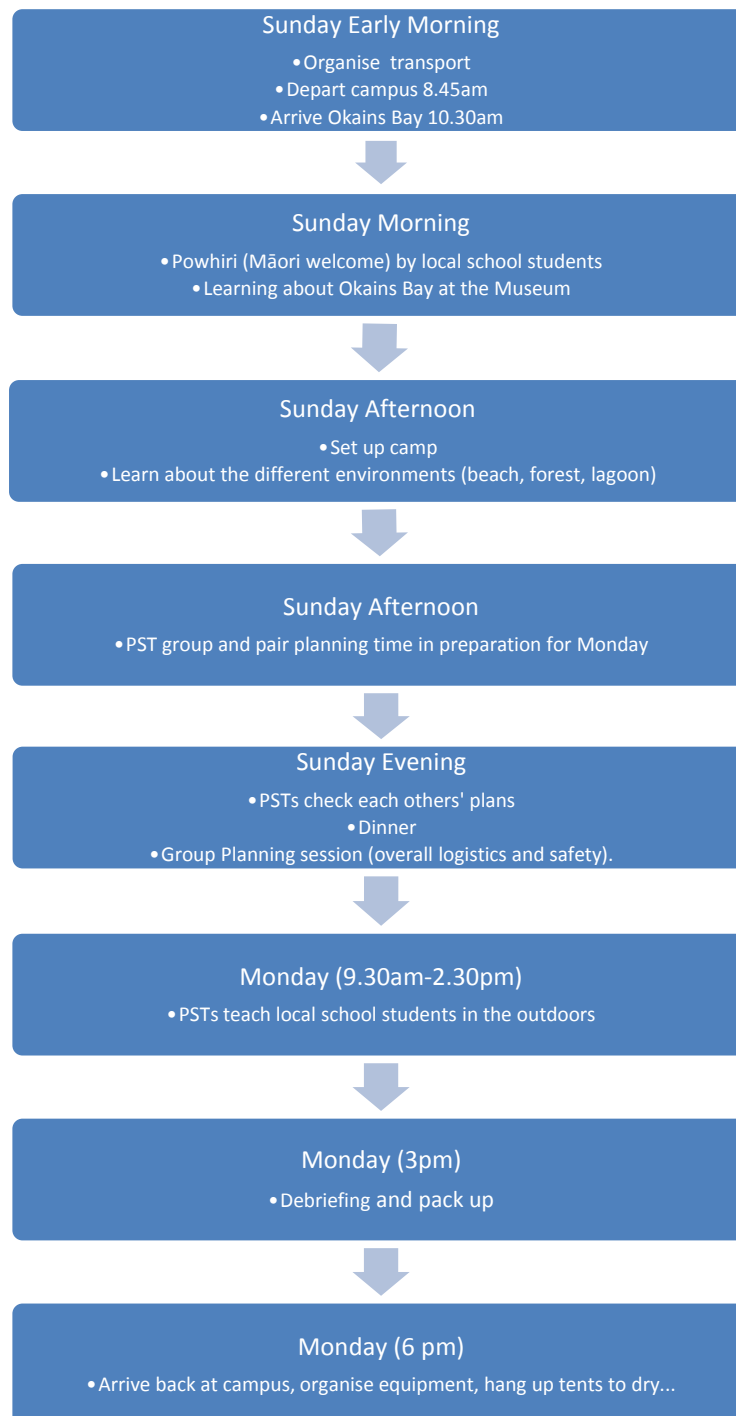


Figure 10: Timeline of the camp

The physical environment is important in learning (which I discuss further in the next two chapters). Figure 11, Figure 12 and Figure 13 show examples of three locations available at Okains Bay. While there is little in the way of native bush, the area has pine forest, a sandy and relatively sheltered beach and a tidal lagoon. As such, the camp setting provides several diverse environmental settings in which to teach and learn.



Figure 11: Learning on the beach at Okains Bay



Figure 12: Still moments at the edge of the lagoon



Figure 13: High-energy physical activity in the forest

CHAPTER 7: INTO THE OUTDOORS

The Aeroplane Metaphor

The pilot decided that the plane itself was the root cause of passivity in the passengers. He got everyone to disembark. Now the plane is gone! There are no comfortable seats in rows, no passive view out of the window and no in-flight entertainment. In addition, it is raining. The pilot is still here but that is all that remains of the plane. The passengers find themselves setting up tents in a forest beside a beach in a land that tells of a rich human history. What experiences are possible now?



Figure 14: Screen Background Image

The background on my computer screen (Figure 14) shows a series of ridges, golden tussock glowing in the evening light and disappearing ridge after ridge into the dusky distance with not a trace of humanity. I took the photo a few years ago and enjoy the relief it brings me when I am feeling under pressure at work. The image seems to offer an escape from the everyday, into a remote and different world, where my everyday stresses melt away.

My appreciation of the tussock hillside image illuminates my approach to outdoor education (OE). My view of the outdoors is aligned with romanticism because I value direct experiences of nature (in contrast to experiences of human-built areas) and my view of nature represents 'the way things should be' (Sauve, 1996). Bell and Lyall (2002) argue that romantic views, such as mine, are common in outdoor recreation where people actively seek uplifting experiences of sublime nature. In my role as an OE teacher, I consider the outdoors as a simpler place where students learn that there are direct consequences for their actions including burnt porridge and needing to walk for hours longer because of a navigation error. Through such experiences, students develop resilience and learn about responsibility. Often times, at the end of an OE trip, there are many stories and much laughter about the events and the hardships we endured. Indeed, according to G. Rose (1993) creating a hero narrative out of overcoming adversity is a central aspect of romanticism.

I have taken a range of students outdoors and seen dramatic improvements in both learning and behaviour that I believe would not have been possible in school or classroom settings. Research shows that learning through outdoor experiences can build confidence and self-esteem, social and interpersonal skills, reinforce both affective and cognitive learning, and improve higher order learning (Hattie, Marsh, Neill, & Richards, 1997; Rickinson et al., 2004). While not specifically analysing why or how the outdoors enhances learning, these authors found considerable research supporting outdoor learning.

Within the OE curriculum course, it is important to go into the outdoors because the camp setting offers a further step towards authenticity. The camp approximates the practice of OE teaching in the outdoors. After camp, a PST (Greg) commented on the difference between teaching his students in a school gym or in the outdoors:

[going outdoors] definitely helps, cos you can't create that same vibe inside, like in a gym, out at [school name] doing high ropes indoors in the gym, doing it there as opposed to in the trees. I don't think they get as much from it...

[the place] where we are going is important...to give more meaning to the lesson you are teaching. (Interview 2)

Here Greg identified the two themes that are the focus of this chapter. Greg argued that he could not develop the same learning environment in the gym as he could in the

outdoors. According to Greg, outdoor education was powerful because it moved beyond the normal school setting. Secondly, Greg alluded to the contribution that the particularities of an outdoor place made towards helping create meaning. I address each of these in turn.

7.1 Outdoor education as “beyond the school setting”

By moving beyond school and teacher education settings, OE provides special opportunities for learning because “Campus architecture is crystallised pedagogy that often reinforces passivity, monologue, domination, and artificiality” (Orr, 2004, p. 14). Even outside of classrooms on the fields and in the gym, Casey (2012) found that his teaching of physical education was defined by messages that the context of school sent to both him as a teacher and also his students. He drew on the concept of ‘practice architectures’ proposed by Kemmis and Grootenboer (2008) to explore how metapactices “shape practices of teaching and learning through planning facilities, equipment, resources, staffing and a wide range of policies and regulations that support and regulate the conduct of educational practices in schools and elsewhere” (p.58). In Chapter 4: Transparent Teaching, Steven, my critical colleague, identified how my behaviour changed in the classroom setting and the effect this was having on discussions:

This was happening naturally, due to positioning, you create this when you are outside, and there is no stage. You stand in a circle with them or beside them, they do this [discuss with each other] almost immediately. In classroom mode people have learned behaviour...

The works of Casey and Kemmis and Grootenboer, in addition to Steven’s observation of my own behaviour, suggests that by leaving the school setting, with all its stultifying metapactices, teachers may be freer to teach in less constrained ways.

But it seems that students also change when they leave schools. Dixon (2005) stated that “for the most part they [classrooms] are spaces that tell children a great deal about adult expectations and power structures” (p. 54). Others agree that the dominating architecture of schools strongly affects student behaviour and learning (Ibrahim & Cordes, 2008; E. F. Smith, Steel, & Gidlow, 2010). An OE teacher in another study:

noticed that the mindset of students changed just by leaving the school grounds. He felt they had learnt a set of passive behaviours to get them through, but really wanted to take control of their lives. Outdoors away from the structures and routines of school they took charge and were willing to push themselves ...really stretch themselves fully and completely. (Straker, 2014, p. 127)

The passivity that seems to surround learners in educational institutions falls away as the classrooms and school grounds are left behind. Zink (2004b) suggests that many OE teachers view distance from our everyday experiences as one of the cornerstones of the educative and developmental function of OE. In addition to teachers, students also perceive their outdoor experiences as valuable because they are different to their everyday lives (Lynch, 2000; Zink & Burrows, 2008). Through this distancing role of OE, aspects of life and society can be highlighted, providing opportunities for alternative perspectives (Straker, 2014).

One possible benefit of this distancing effect is to provide the space for a critical examination of society. Martin (1999) states that “Critical outdoor education goes to the bush, not just to recreate and have fun, but to look back with a critical perspective at the contexts left behind” (p. 465). In this way, critical outdoor education enables students to look back at their lives with ‘fresh eyes’ and to see aspects of their lives and milieu that otherwise would remain hidden through their very ‘normality’. Applied to teacher education, these critical perspectives may help PSTs look back at teaching and learning in schools and ITE with fresh eyes. It is these kinds of opportunities to imagine other (and possibly better) practices which are important for teacher education according to Guðjónsson (2007).

7.2 Outdoor education as “going somewhere special”

However, the outdoors is more than just an absence of urban routines and structures; it has a very real presence and context which is powerful. As Greg’s comments highlighted, the environment in which we situate our lessons helps the students make meanings from their experiences.

Putnam and Borko (2000) argue that context is crucial in mediating learning and identity in general and Kirschner and Whitson (1997) add, that as a consequence, educational research should study learning in context, i.e. in relation to the social, physical and cultural environment in which the learning is embedded. Concerning

teacher education, Clandinin and Connelly (2004) also state that knowledge is experiential, is learned in context and is expressed in practice. These are strong arguments that emphasise the importance of contextualised learning in creating authentic learning experiences in ITE, and that educational research should research these in the settings in which the learning take place.

According to Martin and McCullagh (2011), OE emphasises the role of the environment in learning, a focus which is absent from other PE courses. The setting in which OE takes place is highly influential on learning because learning is situated (Lave & Wenger, 1991). However, one of the obstacles I faced was that the PSTs in my course were not used to attending to the environment. In fact, they may be conditioned to ignore it. Many of my students spent much of their time in highly uniform sports facilities such as gyms and playing fields. North and Harasymchuk (2012) argue that the absence of nature from sports settings can potentially lead to a blinkered focus on activity and insensitivity to the environmental aspects of a place. There is a high likelihood that the benefits of the environmental setting are not realised when the outdoors is treated as simply a backdrop to activities (Hill, 2008; Zink & Burrows, 2008).

Related to these ideas about emphasising the environment in OE learning, are concerns about student safety when teachers are unaware of the influence of the environment. Adequate risk management requires that OE teachers not only have experiences of a particular place (Brookes, 2004), but also experiences of variations in conditions so that they develop adaptability and responsiveness to the environment (Tozer, Fazey, & Fazey, 2007). Therefore while environment is a central aspect of learning in OE, it is also crucial that OE teachers are sensitive to the environment for student safety. Yet the PE background of many of my students potentially limited their sensitivity to the environment and also their ability to bring environmental aspects of OE into their teaching.

In response to such calls about the importance of the environment in OE for learning and safety, during the camp I emphasised environmental aspects of OE through 'leave no trace' principles and a focus on environmental responsiveness. For example, leave no trace principles direct us to use only dead and downed wood for our activities and to locate our lessons on durable ground. Both of these practices help minimise our impacts and avoid damaging plants. PSTs also needed to address environmental

responsiveness by adapting their lessons to the setting. This included bringing the histories of Okains Bay into their lessons, for instance by including important events or characters. It also meant that PSTs needed to adapt their learning activities to the particular context of forest, lagoon or beach. In brief, I expected the PSTs to show their respect for the plants and animals through minimum impact practices, to locate their lessons according to the affordances of the different ecosystems, and to recognise the human histories of the area.

The weather: An important part of the natural environment

It began to rain on Saturday night and continued all day Sunday, and then very heavily from Sunday night until Monday morning, when the rain eased to showers. Everything on camp became very wet.

Weather represented an important environmental consideration in this research. There is a small amount of literature on the influence of weather on students, children and teachers. Generally, (and not surprisingly) studies found that when it is raining teachers don't take classes outdoors (Maynard & Waters, 2007), children are generally less active (Duncan, Hopkins, Schofield, & Duncan, 2008), and in particular younger girls prefer to be indoors (Niklassen & Sandberg, 2010). Wet weather appears to be a deterrent to going outdoors.

However, there are reported benefits to being outdoors in varying weather conditions. Students on expeditions, learn about the environment in a direct way through the weather (Mullins, 2011; Paisley, Furman, Sibthorp, & Gookin, 2008). For example students respond to the weather by considering where to pitch their tents in order to minimise exposure to wind, putting on jackets when it starts raining or sun screen in fine weather. This is one way in which the weather brings the environment to the fore. The tremendous variability which the weather conditions bring to outdoor education is beneficial because it requires student decision making and responsiveness. It seems that there are barriers to participating and learning outdoors in the rain, yet the weather in all its diversity also seems to offer some interesting opportunities for students to learn environmental responsiveness in a very practical and immediate sense.

Positive responses to the rain

Many of the PSTs experiences of the weather aligned with my romantic view. Mel was among the least experienced in the outdoors.

Mel: It was almost good that it was bad if you know what I mean, I think if the weather had been fine I don't think we would have got as much learning out of it as we did having to deal with all that stuff the rain and cold wet kids...for me as a teacher it was good to know that I can get up and I can function and I can do it. (Interview 2)

Mel showed that she valued the challenge of the weather and the opportunities this allowed for her to learn that even after a poor night's sleep, she could not only function personally, but she had enough resources and energy left to work with the 'cold, wet kids'. While Mel considered this valuable learning, it was not a pleasant experience for her, but she learnt that she had a higher capacity to cope than she expected. In Mel's case, the OE camp represented an interruption in the habits of her everyday life and opened her eyes to different possibilities. Mel's response aligned with my romantic ideas about the benefits of exposure to the natural environment. It seemed that through some challenges, Mel learnt about her resilience in the outdoors.

Greg- in terms of personal comfort, if I don't shower for weeks it doesn't bother me.

Andy- I come from out in the country...and play rugby in the rain, I have played in the snow...if it had been much worse I would have worried about my students

Greg, who had spent a great deal of time working in the outdoors, was largely unaffected by the conditions and good-humoured about it. Andy was stoic about the conditions and, like Greg, felt that it was all within a normal range. Andy's background as a country kid and his experience with rugby prepared him for the weather. Andy did indicate that he was aware that the school students could well be having a different experience to him. Peter also picked up on this:

Peter- Maybe the kids now, if they had a lovely sunny day, then they wouldn't think much about it, but instead they might remember that day when it was pouring down and we had to run around to stay warm. Maybe it was a good thing? I don't know because I haven't talked with them about it

Peter was also comfortable with the conditions as he had a great deal of outdoor experience as well as good quality outdoor clothing. Peter considered that the student

experiences may have been more memorable because of the weather which aligns with Mel's statement that "it was almost good that it was bad". While I had been concerned that the weather was a constraint on the possibilities of outdoor education, it seemed that for these PSTs the inclement weather was either perceived as insignificant or even positive.

Negative experiences of the weather

Rob- It was just I didn't want the cold and I didn't have a bedroll, I don't really want to get a sore back, normally I am all for sleeping in tents and stuff but I do like a blow up bed. Cos it was cold, if it was hot I would have been in the tent, but it was freezing that night [I was unaware on camp that Rob decided to sleep in the van]. (Interview 2)

Zink and Burrows (2008) identified that OE teachers considered the outdoors a good place to be and a useful place to enhance learning. My enthusiasm for OE aligns with this and meant that it was hard for me to understand that not all PSTs enjoyed being outdoors. Bixler and Floyd (1997) also found that some students considered the outdoors to be scary, dirty, and uncomfortable. The learning for Rob appeared to be more focused on surviving and enduring this rather miserable experience. The idea of romantically re-storying discomfort and difficulty as heroic adventures and overcoming challenges is a common theme in outdoor education (Bell & Lyall, 2002; G. Rose, 1993) but Rob's comments (two weeks after the camp) showed that his opinion had not adjusted the experience of camp to a heroic adventure.

Another PST who did not appreciate the weather was Jenny:

Jenny- I didn't mind staying in tents, and sleeping on the thin mattresses and stuff but then the earthquake happened and it was like camping, we didn't have facilities for months and months and months. (Interview 2)

In 2010 and 2011 Christchurch was rocked by repeated and significant earthquakes which claimed 185 lives. The power, water supply and sewerage were cut off for weeks and in some cases people still had to use the portable toilets on the street corners, even 18 months later. Jenny revealed that her normal life was full of hardships (perhaps not dissimilar from being on a permanent camping trip) and far from being a refreshing escape to the 'simple life', camping was revisiting an everyday ordeal.

Jenny's perspective identified some of the discourses that I privilege in outdoor education. I believe that camps offer opportunities to move beyond the everyday to a simpler way of life and that the outdoors is a great equaliser. (Lynch, 2000), found that many teachers

considered OE to be a great leveller as skills not called for at school became apparent during the novel activities of a camp and otherwise reticent, unsociable, awkward or unruly children were seen to 'shine'. This superficial view of social interrelationships overlooked the real social and cultural differences that existed between groups in NZ society. (p.32)

My assumptions about the benefits of adversity and challenge were coming under pressure. Jenny's comments helped highlight my own framing of the outdoors for this camp and how I was overlooking the real differences that exist in society.

I had previously taught for a variety of schools and organisations and Jenny's comments made me wonder about my students' experiences of OE. For some of my students, perhaps like Jenny, the outdoors may have represented just another hardship to endure. I do not believe I was naïve in my teaching or my understanding of my students in the past. However, prior to this study, I have not systematically sought to hear my students' voices. In hindsight, I believe there was much that I may have missed about their experiences of OE. As a student from a disadvantaged background stated about discomfort in the outdoors "I get that every day at home, and I hate it. I work hard to avoid those things, not to look for them" (J. Rose & Paisley, 2012, p. 137). By contrast, I was able to go home after my OE experiences to the comforts and security of a middle-class life. Zink and Burrows (2008) argue that there are many ways in which the outdoors shores up and reiterates everyday life. For Jenny and probably a number of disadvantaged students, OE was not moving beyond the constraining structures and habits of society, it was repeating them.

The rain forced PSTs to respond in ways that might not have occurred had the weather been warm and sunny. This was not surprising and I personally also prefer to be outdoors when it is fine, although I find stormy conditions invigorating at times and stated in an interview that I "appreciate the cloudscapes, the storms, the tumultuousness, and for some reason all of those moods are precious to me. It's all part and parcel, the full package deal - on nature's terms" (Straker, 2014, p. 155). On camp, I considered the conditions to be fairly mild - if quite wet. There appears to be a danger

that experienced outdoor educators may underestimate the perceived challenges to their students “Thus, what may be adventurous for others was no longer perceived as adventurous for them” (Straker, 2014, p. 217). I am certainly experienced in a range of outdoor settings and conditions that some would consider extreme. On this trip I didn’t consider the conditions to be worse than damp and well within the standard outdoor conditions where quality teaching and learning could still occur. Were OE to be postponed due to rain, it is unlikely that any programme could run reliably due to the frequency of rain in Aotearoa New Zealand. In addition, I believe there are benefits to experiencing diverse weather conditions. As my PSTs identified, weather required them to respond to the environment.

For my PSTs, learning about the environment through the weather was a key part of the camp. Tozer et al. (2007) call for varied practice contexts for outdoor leaders and this camp certainly provided some PSTs with weather conditions that they were not used to. Like Mullins (2011) and Paisley et al. (2008) my research shows that the weather on the camp brought the environment to the fore.

Implications for my romantic- inspired framing of OE

Participants in my study, in particular Rob and Jenny’s experiences of camp did not align with some of my romantic ideals. While the romantic movement helped protect vestiges of some ecosystems around Aotearoa New Zealand, romanticism has been implicated in a number of destructive processes too. Conceptualisations of pure and remote environment in Aotearoa New Zealand have been associated with an unhealthy dualism where humans set aside sanctuaries and wilderness areas while despoiling other places (Cronon, 2007; Park, 2006). These authors also criticise romantics for their desire to preserve the original, untouched, wild nature, an approach that has seen indigenous people evicted from their ancestral lands due to the creation of national parks and other reserves. The logic followed that if nature was wild and perfect, then people were the despoilers. As such, people did not belong in these wild reserves - ironically this applied even to those indigenous peoples who were currently living with the land and whose presence had helped protect it. The social injustices perpetrated in the name of preservation of natural areas are extensive and a naïve romantic view of nature has proven destructive and xenophobic. romanticism contributed to a situation where colonisers treated the land as an empty space on which they could inscribe their

dreams and aspirations in an uninformed and often ruthless manner. The problem with a naïve romantic approach to OE, is that the injustices of the past get neglected in the OE teacher's ardent desire to share our sublime experiences of nature with our students. Romanticism arguably perpetuates inequality in education and, in particular, works to marginalise indigenous peoples unless, as Gruenewald (2003) indicates, educators actively work to bring these histories into their pedagogies.

Re-framing my romantic approach

The critiques of romanticism appear damning. However, there are possibilities within romantic worldviews that I believe should not be disregarded. For example romantics revitalised the idea of sublime experiences in nature that helped preserve remnants from the industrial revolution. Romantics also highlighted that experiences in nature can be associated with transformative experiences (Sobel, 2008). While embracing a naïve version of romanticism is potentially dangerous, I argue that aspects of romanticism are not without their benefits when handled with caution.

Steering a path between these divergent conceptualisations of environment is challenging. It requires that I am reflective and acknowledge the political and ethical implications of a particular approach. In other words being conscious of what I am privileging and what, as a consequence, becomes marginalised.

A critical colleague, Geoff, reviewed the OE camp with me and questioned the influence of the camp experience and asked if the PSTs “ever actually apply anything?”.

Despite the weather, most of the PSTs felt that they would take students outdoors and were inspired by the OE camp. Speaking about the links between the OE course and her teaching placement Jenny highlighted a particular class she taught outdoors:

Jenny- Another thing [from the curriculum course] was being outdoors to teach, ...We did a selfie-orienteering, they would get a clue, take a photo of themselves at that location, it was pouring down and they loved it... they enjoyed it much more than being in the gym, I think it was because they loved getting muddy... (Interview 3)

Jenny's initial experience of the OE camp had been quite negative. However here, Jenny provided an example of taking students outdoors for learning despite or even because

of the heavy rain. Jenny's enjoyment of this particular session was obvious in the interview. In the final interviews, almost 18 months after the course, Jenny commented that she had felt quite 'down' during the OE camp and those feelings explained her initial reaction to the weather. Learning is situated in a time and context (Lave & Wenger, 1991). Schön (1987) shows us how we can frame and reframe our approaches to puzzles of practice, and here it seems that Jenny has also reframed her experiences. Jenny's initial comments after camp troubled my romantic framings of camp, does this fresh insight now 'untrouble' my framing?

Aspects of the environment beyond the weather

To this point I have focused on how PSTs responded to the environment through the weather, but there were other important aspects of the environment that came out in interviews with the PSTs.

Rob- I didn't realise before camp, utilising simple things like dirt and trees and stuff for a lesson that you could use for teaching and...different creative ways of teaching (Focus Group 1)

Andy- ...if we could take them to a forest for a week and just let them explore and teach them, I think they would enjoy that and they could find what interested them...(Interview 2)

The camp seemed influential for both Rob and Andy because camp had opened their eyes to how the environment could contribute to student interest and creativity. Andy was so inspired he wondered about the opportunities for a week-long forest experience similar in concept to the forest schools of Northern Europe (Mühletaler, 2002).

Greg was one of a small number of PSTs who brought the human histories of the environment into their teaching, although many of the PSTs appreciated the opportunity to learn about the history of the area through our time in class and the museum visit. It seemed that with very limited time and a novel setting, PSTs were challenged to bring the human histories into their lessons. For many PSTs, the environment seemed to be a blank slate on which to inscribe their teaching and the student's learning.

The influence of milieu

The practice architectures I had envisioned escaping through leaving the school grounds still regulated and supported the OE camp. Within ITE, outdoor experiences have been significantly reduced (Boyes, 2004, 2011; North, 2011; Thevenard, 2014). Brookes (2002) argues that due to time pressures and the structure of schooling, de-contextualization of learning becomes a given. For example, in OE we go to special places with rich histories, but students' time in such places is filled with learning a generic curriculum which was developed elsewhere. The contribution that particular places could provide for learning is missed.

My critical colleague (Geoff) also identified time pressures in his analysis of the camp experience. He suggested that I was overly ambitious in what I was trying to achieve in the given timeframe:

Geoff- I would agree that too much [content] in a time, just looking out- in, that whole connections are things like, perhaps, slow pedagogy, we try to abruptly move students through learning, but how authentic is it?

Geoff's question about the authenticity of the OE camp was powerful. In many ways the camp was contrived, time poor and abrupt. I had the feeling that a slower or more deliberate approach would benefit the PST's learning. There was a tension as I was aware of the teaching hours that were allocated to the OE course and that the course was already delivered in excess of the allocated time. Therefore I was not being compensated for all of the time I was teaching. The PSTs also needed to commit more time to my course than other equivalent courses. All of these factors contributed to a timetable "famine" (Payne & Wattchow, 2008) which constructed a fast and shallow practice architecture for the OE camp. Tairab (2003) argues that the consequences of such time pressures impoverish the opportunities for learning through experiences such as OE camps. Despite my initial romantic ideas about OE as removed from the practice architectures of schools, the OE camp was supported and regulated by the same influences as everyday schooling. While there were opportunities within the OE camp, I was naïve because of the strength of my beliefs that in taking a trip away from educational institutions, we could re-invent education free from practice architectures.

7.3 My insights from taking students outdoors

I set out to examine how the experience of a camp allowed pre-service physical education teachers to learn about the environment and its role in OE. The perspectives of my PSTs indicated that experiencing the environment through the weather was indeed a potent aspect of their learning about OE. Many PSTs viewed the rain as a challenge or something that contributed positively to their learning on camp. There were however some insights which undermined my romantic framing of the camp.

Samaras and Freese (2009) state that “We found ourselves framing and reframing our understandings of self-study through our teaching and our application of self-study to our practice” (p.12). Through this self-study I experienced a series of re-framings. It was helpful to access the PSTs’ experiences as they “yield[ed] a more nuanced understanding of the meanings students themselves ascribe to their experiences” (Zink & Burrows, 2008, p. 263). In this way self-study methodology, which requires that I conduct research in relation to others, played a crucial role in making my initial framing of OE explicit, then allowing me to reframe or reconsider this framing.

My romanticism brought an aesthetic focus on the environment in the outdoors that emphasised the difference to the everyday and the inspiring possibilities of outdoor learning. Yet this romanticism also marginalised PSTs who did not find the discomforts of camp uplifting or even different to their everyday discomforts. While Jenny’s revised perspective on camp is important, I still consider her and Rob’s initial comments as critical in challenging my framing of the camp.

I discovered that my own teaching in the outdoors represented a practice architecture inspired to some extent by middle-class romanticism. I carried this romantic metapractice around inside me and it supported and regulated the way that I framed OE. Kemmis and Grootenboer (2008) argue that teacher educators “must be held to account for their work in the construction of the practice architectures of schools and colleges and universities” (p. 60). I must therefore work to construct practice architectures which are better than those that I inherited.

Developing practice architectures which support greater equality in education is a worthy goal in my opinion. Educational inequality is created at least in part by teachers

who teach to the students who are most engaged and the most like ourselves (Feiman-Nemser, 2008). My romantic framing worked for many of my PSTs who were, arguably, most like me. It was deeply disturbing for me to discover that my practices might be undermining my beliefs about OE adding to equality in education. My discomfort was important in spurring me to frame and then reframe my approach to OE. Ovens (2013) argues that teacher educators should “allow students to undo existing meanings and undermine their confidence in the experienced, given and obvious” (p.21). I believe that I have become more sensitive to the ways in which romanticism frames OE for me and the strengths and limitations of this framing. This learning is important not just for me but also for future OE teachers. There are opportunities to explore our framings of OE both for me and for my PSTs. I argue that such an exploration provides opportunities for exposing our framings and allowing us to reframe them. This is a way to respond to Kemmis and Grootenboer’s request for a better practice architecture. By exposing and undermining the taken for granted in our beliefs, we have the opportunity to create a practice architecture which recognises that “there are many outdoors and can help avoid some of the entrenched and idealised perspectives that potentially limit outdoor education discourses and experiences” (Straker, 2014, p. 249).

Summary

In this chapter I deliberated with the perspectives of the commonplaces about the role of environment in the OE camp. Through my autobiography, PSTs and a critical colleague, I was able to identify my initial framing of the camp as influenced by romanticism. I viewed OE as powerful because it was beyond the practice architectures of everyday schooling and also because OE brought PSTs into contact with nature. My framing became problematic when my ideas about the universal appeal of the outdoors and its differences to everyday settings were challenged. This research exposed the narrative of the romantic outdoors as privileged and as reinforcing differences and inequalities in society. Underlying some of the problems in my practice were wider issues with time-poverty in education generally. The practice architectures I thought I had left behind had regulated OE as much as any other educational endeavour. In future, I propose making my romantic framings and the influence of milieu explicit with my PSTs to create better practice architectures for the future.

The Aeroplane Metaphor Revisited.

The passengers stepped out of the plane, leaving the structure behind. It was an opportunity to reinvent a new order and way of being. Unprotected from the rain that fell, the passengers responded with resilience and stoicism to the challenges of being outdoors. Many even relished the opportunity to learn about themselves in this new setting. For others it was just unpleasant and reminded them of other hardships. The pilot realised that not everyone liked leaving the plane. He noticed that he brought some routines of the plane with him even when he left the physical plane behind.

CHAPTER 8: HANDING OVER

The aeroplane metaphor

Some passengers still seemed to be sitting in the back rows staring vacantly out at the cloudscape while others were catching up on sleep before landing. Learning to fly requires that the passengers move out of their seats, take the controls and fly the plane. This also means the pilot has to leave his seat and relinquish the controls. How do the pilot and the passengers exchange roles in this, the most authentic experience available?

In Chapter 7: Into the Outdoors, I analysed the role of the environment in learning about teaching OE. I now examine the process of handing over control, so the PSTs can experience teaching OE to school students in the outdoors. Lave and Wenger (1991) have shown that people achieve knowledge of a practice by participating in that practice. If the PSTs are learning to teach OE, then knowledge is best gained by actively participating and indeed teaching OE. Similarly Dewey (1900) argues that learners should be engaging in 'occupations' which reproduce some form of work carried out in society. This requires that students learn to talk, rather than learn from talk, and learn to do and relate rather than from watching others doing and relating (Kemmis & Smith, 2008). It is not only the educators who call for experience of practice. Within teacher education courses, teaching placements are among the most valued experiences for PSTs (Rossi, Sirna, & Tinning, 2008). There is therefore widespread support for Russell's (2009) statement that nothing can substitute for the meanings that are developed through personal experiences of teaching.

This chapter explores the opportunities that lie within my course for PSTs to have personal experiences of teaching. I begin by describing how I scaffold these experiences. I then examine the different scripts required for both teacher educators and PSTs in these more authentic experiences and the discomfort and tensions that arise. Finally I provide examples of PST approaches to participating and therefore learning during planning time as a way of exploring these different scripts.

8.1 Scaffolding experiences and mis-education

I have argued that authentic experiences of teaching are the goal in ITE, because of the relationship between authenticity and active learning. But how can these authentic experiences be developed for PSTs? Schön (1987) directs teacher educators to examine particular aspects of practice when designing learning experiences for their PSTs. In particular teacher educators should focus on the level of risk, the freedom to learn, and the kinds of coaching PSTs will need for professional learning. Schön's approach links well with the concepts of scaffolding developed in the literature review on learning in ITE, and indeed the entire thesis to this point can be viewed as a form of scaffolding with each chapter exploring increasingly authentic experiences.

Scaffolding experiences for PSTs presents some problems, specifically, how to limit an experience without over-simplifying it. Grossman, Hammerness, and McDonald (2009b) offer a way forward by suggest that the first decision in any teacher education programme is to identify which practices are most important to learn at particular points in a given programme, and these characteristics include: practices that novices can begin to master and practices that preserve the integrity and complexity of teaching.

A certain level of mastery is necessary for PSTs to gain confidence in their ability. It seems therefore that simplification of teaching experiences is necessary so that this mastery can occur. But this simplification has the potential to act against the integrity and complexity of teaching. If the end point of mastery becomes fluency with an over-simplified form of practice, then it potentially teaches PSTs that there are simple answers to the complex questions of teaching and learning.

Dewey (1938/1972) explores such problematic aspects in the relationship between experience and education. Any experience has the capacity for both educative and mis-educative outcomes. Dewey defined education as opening up opportunities for future growth, whereas mis-education is the closing down of further growth. Mis-education may result in unhelpful habits and attitudes becoming entrenched through a particular experience. Arguably, viewing listening as learning and teaching as telling is one such mis-educative outcome of passive experiences of schooling.

The focus of this chapter is on how I enabled PSTs teachers into active roles and sharing the power. Throughout this thesis I have privileged authentic experiences as assisting PSTs to learn about becoming teachers. These authentic learning experiences have served to bring ITE and school experiences closer together so that the gap which PSTs have to bridge between contexts is reduced. Closing this gap in turn makes it more likely that PSTs will see the relevance of their ITE experiences when they teach within schools. Authenticity can also address some of the problems of mis-education caused through over-simplified or irrelevant experiences in learning to teach.

Brief review of the OE camp

As discussed earlier, opportunities for camps within ITE are constrained in a number of ways including “the emphasis on research outputs, increased workload, reduced staff numbers, larger class sizes, and different expectations of delivery methods” (Davey, 2013, p. 151). There are also constraints from the PSTs who are missing out on other classes, family, work, church or sporting commitments. Over the years the camp has reduced to a two day event, taking a Sunday and a Monday. Even this much abbreviated camp required considerable negotiation on my behalf and also from the PSTs.

Earlier I argued that the OE camp was an opportunity for an authentic OE teaching experience because it occurred neither at a school nor a teacher education institution (as explored in Chapter 7: Into the Outdoors). As such it offered an alternative to both teaching placements within schools and to learning within ITE institutions. Because it was in a novel setting, the camp had the educative potential to promote generative and creative ideas about how OE might be conceived and implemented. However, the camp might also mis-educate PSTs by creating a template through which OE must be ‘done’ and in this way PSTs might become stuck in a rut (Dewey, 1938/1972). I wanted to explore my role as a teacher educator in navigating the learning on the OE camp. I now describe the camp briefly.

We had been preparing for camp for several weeks and learning about expectations of teachers in organising and implementing school trips. Once on the camp I gradually transferred control to the PSTs and by Sunday evening when the PST group organised the plan for the Monday, I only offered one or two ideas. On the Monday morning at 9.30am the school students arrived, PSTs greeted them, separated into groups of 12-14

and stayed with that group until the closing activity at 2.30pm. After the school students left, I ran a debrief on the day, we packed up the tents and drove home arriving at campus about 6pm. Gear was then hung up to dry and the equipment checked back in.

The danger of such a short camp is the requirement for a rapid transition from university to the camp setting, and also the rapid transition to a power-sharing experience. The implications are that scaffolding must begin prior to the camp and I turn now to how I established more active roles with the course in the build up to camp.

Preparing for the camp

Preparing PSTs for camp and moving them into more active roles took several different forms in the OE course. Initially PSTs were invited to critique my teaching which occurred through 'feedback' rounds after particular learning experiences. PSTs also peer taught different activities to learn about facilitation and managing risks during outdoor activities, and critiqued their peers' sessions through a similar feedback system. Through such experiences, I established prior experiences of planning and implementation to prepare PSTs to teach school students in the outdoors. Both peer-teaching and critiquing provided significant challenges for PSTs. These brief experiences required that PSTs transition between roles of participants, leaders and critics which proved difficult for some:

Andy- even just thinking in debrief, like today doing the scenario, I was trying to not be a full participant and trying to think about what they were doing and I don't think I got anything out of it I couldn't do both things at once, my brain went into overload

Jenny and Rob had similar experiences to Andy in that they struggled to switch roles from participant to critic. There are clearly "considerable and complex demands associated with attending to learning about teaching on several levels concurrently" (Berry 2005, p.163). Taking on a role as a learner, learning about content and thinking about teaching may well be too much to do simultaneously. In Chapter 4: Transparent Teaching, I described how I struggled with the demands of teaching and simultaneously reflecting. I am aware that many PSTs struggle with 'transition trauma' from switching between different roles yet I still consider that critiquing and peer-teaching experiences

represent valuable opportunities to move into active roles through a structured progression as recommended by Timperley (2013).

I attempted to negotiate some of the problems encountered by scaffolding as I constructed the OE camp with PSTs. For example I developed a list of roles that PSTs signed up for in order to transition to confer more PST control. The list of roles included 'facilitators' (whose job was to develop a shared vision for the day including a whole group timetable and organisational plan) and a range of other roles including drivers, food organisers, equipment meisters and sustainability advisors. Each role came with a title and brief description of the role for example the 'equipment meister' needed to develop a system for keeping track of equipment, both for the teaching aspects of the camp but also for camping. Interestingly Andy was one of the 'gear meisters' and became quite stressed at one stage because of the responsibility he felt in his role. I believe this reflected his sense of the importance and authenticity of his role. I monitored the progress of the different groups as they developed a plan for implementing their particular roles, so that I could feel assured that the necessary preparation was occurring.

In total there were ten different roles, many of which were shared among several people. Using roles in this way is similar to an approach recommended by Barron and Darling-Hammond (2010). They recommend PSTs become involved in learning experiences which are sufficiently open-ended and multi-faceted that they require and benefit from the participation of many members of the group. I provided a certain amount of structure for the PSTs but also a certain (and variable) degree of autonomy. Through these delegated roles, I attempted to make the experience more authentic and allowed PSTs to make choices about how they prepared for and implemented the camp, therefore transitioning into power-sharing roles.

8.2 Transitioning to power sharing on camp

Jansen (2008) argues that the situational leadership framework provides roles that support group development at different stages. While not recommending a linear progression, Jansen suggests that more directive styles are helpful early on in group development, while more delegated leadership styles allow groups to mature and take on greater levels of independence. In a similar vein, Thomas (2010) explores the

different roles that outdoor educators take on as they hand over responsibilities to their student groups. In particular, he examines how these different roles can potentially cause tension or confusion for the facilitator and/or their students. Thomas (2010) advocates for teachers to clearly articulate the different roles they may take on in different situations:

I try to discuss with students the need for me to sometimes change my role [for example from a mutual learning facilitator to unilateral controlling model (autocratic style)] when working with them and I try to share my reasoning for doing so. When a situation requiring me to do so presents itself, I try to explicitly discuss this with students and use the discussion about such changes to create more opportunities for my students to learn about being facilitative outdoor educators themselves. (p.252)

Transfer of control

I established a sequenced structure to the camp with the goal of getting as close to PST autonomy on the Monday as possible. My success in this regard could be measured by my stress levels on the Monday, when the PSTs were teaching the school students.

In order for PSTs to understand this transition I heeded Thomas' (2010) advice. Prior to the camp, I had described the different situations that might arise and the corresponding roles that I may need to adopt. For example, if there was little evidence of PSTs being prepared for the Monday then I would take over and structure the planning and outcomes more closely. On the other hand, if there was ample evidence of planning and preparation then they would have close to complete control.

The PSTs therefore needed to demonstrate that they had prepared adequately for teaching, demonstrated by having a peer-group assess their planning. On the camp, I was available for advice, but told the PSTs that they should manage my input. In this regard, the students should treat me like an advisor with an expensive hourly rate. Through this approach I hoped for the PSTs to seek my input with discretion. I believed that this would frame my role more clearly and avoid an over-reliance on my input. I also told the facilitators that they would need to let me know when they felt that the group had had enough of my teaching. I was aware that I could easily fall into the trap of holding on to control for longer than was necessary. This dual tension was difficult to navigate but I had done this several times before and hoped that these strategies would help.

In the afternoon on Sunday I offered to show a few more activities but the facilitators conferred with the group, and decided that they would prioritise planning time. Two or three groups then asked me for further ideas or thoughts before they finalised their plan. In this way I attempted to manage my desire to teach them more:

One of the things I struggle with as a teacher is letting go of power. I always want to chip in with my ideas. There is a place for teaching from the front and giving information, but as we transition to the camp experience I need to make sure I don't dominate sessions, yet I am still there to support everyone's learning. I decided to say less in the facilitator lead session but could definitely feel the pull to get involved. I feel like I am "being a teacher" when I am giving lots of information. (Open Journal 6 March, 2013)

Teacher educator discomfort

Handing over to PSTs is challenging and requires trust on the part of the teacher educator. As a teacher and teacher educator, I need to remember that this is similar in many ways to the trust that is placed in any teacher when a learner comes to my class (Brookfield, 1995). As a teacher or teacher educator, I am no longer used to placing my trust in others, so needing to trust my PSTs felt uncomfortable.

My reluctance to hand over power to PSTs has some history behind it and I provide the following vignette:

In my first secondary school teaching position, I was placed in charge of an event called Issue Day. For this day, the students in a year group selected an issue that they were passionate about and organised speakers and activities for the rest of the school. That was at least the intention. My year group seemed almost entirely apathetic about the event. Along with two other teachers, I helped them set a timeframe with milestones so that we could measure our progress. This proved ineffective. Coordinating issue day became more stressful for me than teaching my classes. Eventually I went to the principal and asked if we could allow Issue Day to fail? His answer was "no" as it was a risk to the school reputation. I then asked if I could take over the organisation, he also answered "no" as it was a chance for student leadership. At the eleventh hour, the students organised some speakers, and issue day took place. During the following staff meeting, I was amongst the coordinating teachers who were thanked, but I felt the 'success' was not worth the cost in terms of stress and anxiety. I was not sure that the students learnt much from the experience other than that they could 'wing it' at the last possible moment and improvise with charm when many aspects didn't work out. In my opinion, Issue Day was a likely

source of mis-education, and students learnt that they did not have to work hard in order to organise an event.

This dilemma has stayed with me. Even writing these words now, many years later I still feel echoes of the stress and anxiety I felt then. As such, my history with Issue Day is highly relevant to the process of handing over control to PSTs. I remain reluctant to hand over control and need to manage my input so that the OE camp can become an experience with greater sharing of power and control.

This level of discomfort with letting go and handing over is not uncommon in teaching or teacher education. Tidwell (2002) discovered her valued scripts in teaching through analysing her interactions with three students. Her sense of identity as a teacher hung on her script as informing, directing and finally facilitating. Even when these scripts appeared unhelpful for her students, Tidwell found that she slipped into them anyway.

My teaching scripts needed to change dramatically during camp, from the Sunday morning to the Sunday evening I had to move from teaching to a far more passive role which would allow PSTs the space they needed to take control. It was an uncomfortable feeling for me to step back as other teacher educators have explored:

Dawn admitted that she often felt at a loss. She flitted in the background between groups feeling like an intruder on their peer-teaching conversations. Similarly, Alan's script as an expert physical education teacher was attuned to being in front of students directing the activity rather than letting the students lead and facilitate collegial inquiry and reflection. Initially, he found adopting a new role disquieting and non-rewarding. (Garbett & Ovens, 2012, p. 53)

After the PSTs asked me to step back and they began their planning in earnest, I found myself in the limbo state described by Garbett and Ovens, and walked restlessly around to work off my nervous energy and allay my concerns that PSTs were actually working hard. I felt professionally uncertain as to my role. My critical friend Sarah seemed much more at peace with her facilitation:

Sarah- I just sat on the bench and I do this because I trust them to do the job. If they have a question they can come to me. Why did I decide to sit here? Do they see that as lack of interest, abdicating responsibility, or trust? (Interview 2)

Sarah described a class where her PSTs were planning in small groups. She chose not to circulate around the groups because she trusted them “to do the job”. She did wonder how the students perceived her behaviour.

My history of organising school events where students were leaders has served me well. It has prepared me for the inevitable tension that comes from being ultimately in charge, yet needing to hand some control over to the students. This was always challenging for me and Timperley (2013) recommends that teacher educators demonstrate to their PSTs how they resolve tensions. However, I found that resolution of this particular tension was not possible.

Open-mindedness versus discernment

The OE camp and the new scripts that I needed to enact, resulted in discomfort for me which can be viewed through Berry’s (2007) framework of tensions. In my case the tension lay between open-mindedness and discernment. This tension arose because as a teacher educator, I wanted the PSTs to be creative and explore the possibilities of OE teaching in their own way. This required a high level of open-mindedness. Dewey (1933) defines open-mindedness as an attitude of freedom from prejudice and therefore an active and positive desire to listen to different sides and to give full attention to alternative possibilities. Hare (1987) further develops open-mindedness as being critically receptive to alternative possibilities, despite potentially already having formed a view. Hare argues that this is a powerful pedagogical tool because by modelling such a disposition, we invite students to do the same. Spiegel (2012) sees open-mindedness as a virtue, a form of intellectual humility and a recognition of our fallibility.

However, open-mindedness is only a virtue when held in tension with discernment. In addition to my openness to new and creative approaches, I did however, also have certain expectations of what preparing for quality learning looked like, and I needed to ensure that the camp was successful in this regard. This required a high level of discernment. Berry (2005) describes similar experiences:

I gradually came to an awareness that what had occurred in that class was less about me supporting Ellie running a discussion, or helping students to recognise particular difficulties with their choices of teaching approach, than it was about me satisfying my

need that my students should see things as I see them and do as I would have done.
(p. 175)

According to Long (1995), discernment requires that we understand how and why we connect with certain ideas and perspectives rather than others. In order to demonstrate discernment at the camp, I needed to consider why I was connecting with some perspectives and not others. On the camp it was difficult for me to restrain my urge to either expect close copies of my approach, or place myself once more at the centre of the stage in the familiar script of up-front teacher. In response, the mandate I gave to the facilitators, was to let me know when they were ready to complete their planning. The following recorded comment at camp was a reminder about how to help others to manage me:

Talk with [the facilitators] to make sure it isn't the 'Chris show' all over again tonight. (Private Journal from camp)

PSTs roles in taking control

It is not just teacher educators who struggle with the changing scripts. PSTs also needed to explore new ways of being PSTs within this context.

Wanting to be told

Handing over control to the PSTs involved creating a negotiated space where I stepped back. However this created some discomfort for some of my PSTs.

Me- I really often thrive on those lessons, like that's what I need, I need for someone to stand up there and say this is what you have to do (Focus Group 2)

In this context, Mel was discussing lecturing and how she appreciated being told what to do. I acknowledge the place of lecturing and providing clear expectations, but also the need to balance PST's desire for direct information with Dumont, Istance, and Benavides' (2010) advice that teachers should provide opportunities for students to direct their own learning. By contrast, lecturing positions students as passive and was at odds with my desire to provide them with more power and more active roles in their teacher education. The camp was an opportunity to expand into those more active learning roles, but new scripts came with a certain level of anxiety as we explored the boundaries of what was possible.

At times PSTs on the camp (or on the course in general) would seek me out and ask questions to which I felt they already knew the answer or were able to make an autonomous decision. Our PSTs were perhaps not often provided with opportunities to use their judgement or perhaps not rewarded for doing so. Occasionally I felt that PSTs were looking too much to me for answers, to the point where I felt that I was enabling them to continue to be passive. In response I received the following advice:

Mel- maybe if you don't want to be in that role, then I don't know how to not give support, then don't be a resource, if someone asks a question then say go and find that out- if you didn't want to slip into that role (Focus Group 2).

It is interesting that both of the quotes for this section were from Mel, and yet they appear contradictory. I believe that this can best be explained through a situational leadership lens. At times in the course it was appropriate to provide clear instructions, at other times it was important to provide space and indeed fight the impulse to be drawn back into the comfortable scripts for both PSTs and myself.

While a certain amount of self-control is necessary to avoid becoming too active in the process, at the same time, it is not appropriate for a teacher to completely abandon responsibility. I am cognisant of the tension between the extremes of either full control or full delegation. As Jenny reminded me early in the year:

Jenny- sometimes I'd like to find out what you are thinking because you are seen as an authority and you are teaching us and so it would be cool to learn what you think about certain things and not just what we did. You might have a completely different view to us (Interview 1)

As the scripts shift, it is not uncommon for PSTs to feel abandoned. One PST asked “Why have you stopped teaching us?” (Garbett & Ovens, 2012, p. 53).

A way to address this apparent dilemma is to devise experiences that allow learners to adjust the difficult and otherwise modify tasks to suit their own learning needs without compromising the intentions of the activity (Davis et al., 2000). My approach to stepping back relied on the facilitators (in conjunction with the other PSTs) telling me when they were ready to plan on their own and no longer wanted my input. At this point, some PST groups asked me for further advice, while others moved into independent planning. This approach aligns with Nadler and Luckner's (1992) 'challenge by choice' which I described in Chapter 6: Fatality Case Studies. In that

chapter I proposed using challenge by choice as a way to differentiate learning. In this case, providing PSTs with control over my input served the purpose of helping me grow into my new and less active script, but also allowed the PSTs to have some control over the scaffolding they needed in this process. In other words, a form of challenge by choice over how much independence they wanted.

It was important then to access the perspectives of my learners on this challenge by choice approach to handing over control on camp:

Greg- we were leading it until we had exhausted our thinking power and then we passed on to you

Mel- yeah I had that as well, on the camp you were a backup, I was taking the lead but you were support, like "this, this and this, have I missed anything?" it was that support system

Rob- you were like a resource of knowledge after we had gone down whatever avenue, "you could try this"

Peter- you were a backstop for us on camp, so that if the shit hit the fan you then step in (Focus Group 2)

From the PST's perspectives it seems that they were comforted by my presence, for reasons of expertise, safety or as a sounding board. According to the PSTs, my presence at camp reduced their perceived level of responsibility. While they valued being in charge, they appreciated that a more knowledgeable person was there to support them according to Wood et al.'s (1976) definition of scaffolding.

Bolstad and Gilbert (2012) challenge teachers to move past the binary of either student-centred or teacher-driven learning, and instead to structure roles to create a knowledge-building environment. Such an environment should recognise the strengths of students and teachers. In outdoor settings, Thomas (2010) recommends that teachers need to be transparent about their roles, including explaining to their students in what circumstances they may need to intervene in a largely student lead group process. I have shown how I attempted to heed this advice as I handed-over significant amounts of control to the PSTs in the lead up to them teaching school students on the OE camp.

Three cases of PSTs 'taking control'

In the following section I provide three vignettes from the planning time at camp in order to illustrate diverse PST responses to taking control. The PST planning time began when the facilitators asked me to step back and let the PST groups organise their lessons for the Monday.

As I described above, I felt uncomfortable when the PSTs were planning and I felt professionally unsure about my role. I was very aware of the level of open-mindedness that I needed in order to let them make the teaching experience their own. I was uneasy and circulated around. "Observing a group's interactions can provide a substantial amount of information about the degree to which the work is productive, as well as an opportunity for formative feedback and the provision of support for aligning understandings and goals among group members" (Barron & Darling-Hammond, 2010, p. 211). In this way teacher monitoring is helpful and important. By contrast Foucault (1975) warns that observation is a form of coercion and a way of maintaining discipline. My stroll around the area could be interpreted as maintaining for PSTs a sense of "being watched" and therefore controlled. There was in fact an element of control in my observations; I was seeking assurance that effective planning was happening.

One group was sitting under some trees, writing and discussing. I waved and passed them by. In my mind they were the embodiment of active learners; they had identified their task and were working to solve the problem at hand. As de Corte (2010) states "What is essential in the constructivist perspective is the mindful and effortful involvement of students in the processes of knowledge and skills acquisition in interaction with the environment" (p.50). These PSTs looked both mindful and effortful to me.

Another group was playing in the water (they were permitted to go up to waist deep in the shallow bay). I wondered if they were productively using their planning time, but I did not intervene. I did follow up later with the group because I was concerned in particular with two of the group members as there were previous instances where these PSTs had proved unreliable:

Chris- I can feel it in myself, and I'm like, I'm not sure that I really trust you guys with staying focused and going hard core for quality. And that's just my own feeling that I'm recognising there. So what I'm putting out to you guys is ...I'd be really keen for you to be... I don't know what's the word?

Student- More switched on?

Chris- ...What I'm wanting from you guys is just that um that commitment, "we are on it Chris we are working hard" and this may be your style but also you need to show me you need to make it quite demonstrable to me that I can see...

Student- Like when we're out swimming before like we were actually ... we were talking about what we're going to do. ...we weren't just being dicks the complete whole time (Audio Recording)

In this exchange I was negotiating the tension between giving them the freedom to "do it their way" and needing to feel comfortable that they had done sufficient planning. My strategy in this context was to follow Thomas' (2010) advice about being transparent, and I told the PSTs my feelings of unease. I also asked them to be careful to show me that they were using the time productively. As such, it seemed that I was expecting certain types of behaviour that would show me that planning was occurring. Also within OE, Bowdridge and Blenkinsop (2011) state that teachers make judgements "as to what kinds of behaviour and ideas are sanctioned and not sanctioned within this newly forming culture" (p.156). I was drawing on my prior knowledge of these particular learners as I only spoke with two members of the group. The other two members I considered reliable and did not question them.

I was open to groups planning in ways that were not simply sitting down with pen and paper or laptop to plan. However some PSTs seemed to be wasting their planning time. After I walked around the entire area, I still hadn't found one group. I finally saw them lying in their tents and recorded the following comment as I walked away:

It's so funny. I just went and saw [three students] in their tents playing on their phones. I don't know, it's not kind of what I had in mind. Actually it's completely diametrically opposed to what I had in mind, maybe I need to have a talk about it or maybe I just need to back off. I'm building up and accumulating a list of things I feel uncomfortable with. What are they doing there? How much is it OK for them to be ...Aaah, I'm going to rark them all up and get them out of their bloody tents ...and onto the beach. Here we go. (Private Audio Journal from Camp)

This shows the process of my thinking, from observation, then analysis (with an initial view to remaining open-minded). I however reached the conclusion that their

behaviour was not within an acceptable range and chose my response. This brief extract reflected my think-aloud that mirrored my inner voice and the decisions that teachers have to make hundreds of times a day in teaching settings. This entry highlights how my observation led to a feeling of dissatisfaction, through which I identified a puzzle, analysed it, and finally selected a course of action.

[Looking into the tent].

Chris-[laughs]. You guys have got to stop playing games and go to the beach. This is education OUTSIDE the classroom, not inside the tent!

Student 1- We are inspecting the phone [unclear word]

Chris- Aaah Ok. I reckon you should inspect them on the beach, cos it's not raining now and it's beautiful. Otherwise you'll come here and it would be like – "we went to Okains Bay" "what was it like?" "it was kind of like the inside of a tent" laughs

Student - We're coming back next weekend (Audio Recording)

[The PSTs do come out of their tents and go down to the beach where they walk together as a group]

Several aspects stand out for me from this exchange. Firstly, my response to the PSTs and secondly is their behaviour.

An interesting aspect in my response was that it is not clear that I wanted them to plan. From my words it appeared that I just wanted them to be outside of their tents. It was not even clear that I was opposed to them playing games on their phones (although I certainly found this confronting to my romantic notions of the outdoors). Having negotiated the expectations for planning time and given some criteria for quality, I was disturbed to find them neither outdoors, nor planning. They were initially resistant to getting out of the tent, but eventually relented. I was curious about that situation, and in particular what the PSTs were expressing through their behaviour.

Unacceptable PST scripts

As discussed briefly in the previous chapter, there is some evidence that important learning can happen outside of structured activities on camps (Campbell-Price, 2010; Zink, 2004a). I had deliberately allowed sufficient time for PSTs to plan and to have some extra time available to get creative and perhaps experience some of this inter-

activity learning. While this was not simply free time, it was not teacher directed time. However, in this particular group in the tents, I had the sense that planning time was viewed as simply time for a break. I had not felt the need to intervene with the group in the water, perhaps it was because they were outdoors and active. Furthermore, what was disturbing for me was that this group used their planning time to go into their tents and play games on their phones. Due to the lack of reception in the area, phones had not previously been a distraction.

What I was learning was that not all PSTs made good use of the freedom that I provided. Senese (2002) finds that students enjoy freedom, but not all are prepared to make productive use of it. However, he suggests that the more freedom participants are given to construct their own meanings, the more structure they create for themselves. But Senese's experiences are with senior secondary students in English literature classes where the consequences of being unproductive are largely individual and almost certainly do not compromise anyone's safety. He also has a longer time frame in which for students to generate their own structure. On the OE camp, we had just one afternoon.

There was also the possibility that the freedom I had offered was not genuine freedom. Matusov and Brobst (2013) argue that the post- modern turn results in the removal of overt constraints in teaching. For example, when Matusov announces in his class that students are free to either participate or not, he wants his students to cooperate with his pedagogical demands and self-regulate in the way he wants. According to Matusov's⁷ Foucauldian analysis, his (Matusov's) attempt at providing freedom is a particular type of oppression that makes the products of oppression (powerlessness) invisible. Rather than the overt expectations of traditional teaching methods, where students understand the scripts required in order to pass a course, in attempts at democratic and participatory education (such as some types of outdoor education), teacher expectations are still present, but not stated. This potentially leaves the students in a state of anxiety and uncertainty as to what the teacher wants. Because expectations are unclear and the idealized relationship is collegial- even friendly, Matusov amply demonstrates there is a greater propensity for emotional harm. In Matusov's case, some of his former students still refused to have any contact with him,

⁷ Brobst was a student in Matusov's class and thus while they are co-authors, the analysis was of Matusov's teaching, hence I use the singular pronoun when describing Matusov's pedagogy.

even years later because of their experiences in his class. Matusov's dialogical pedagogy could also be seen as a form of Giroux's (1988) "discourse of cordial relations" (p.94) through which students are contained and controlled. Crudely stated, in Matusov's case, the teacher became a manipulator and his students felt betrayed.

Genuine freedom requires that students have the opportunity to select what they will do with that freedom. Indeed "waste, abuse and misuse of freedom are absolutely necessary components of freedom itself and had to be expected and legitimised" (Matusov & Brobst, 2013, p. 39). Otherwise it is not freedom and simply the teacher's overt expectations becoming hidden through a post-modern manipulatory pedagogy. PSTs may well explore the boundaries of their freedom to test whether it truly is freedom, or simply a less direct method of control. Matusov and Brobst describe this testing of freedom as important and necessary.

In the OE camp setting, planning time did not represent complete freedom. It was the time to prepare for the next day and to aim for high quality outdoor education experiences for the school students. There were significant differences between my context and the contexts of Matusov and Brobst, Senese and Berry. There were risks associated with inadequate planning for outdoor education experiences.

Sarah- you know what is hard about that? That also creates a tension for you, often in OE we are into natural consequences, let it fall over, but because it is [school name] -there are wider consequences (Interview 2)

Similar to my problems with Issue Day at my old school, the consequences of our day 'falling over' were unacceptable. Risks included threats to safety (nearby bodies of water (Brookes, 2004)), mis-education of PSTs (inadequate preparation leading to disenchantment with OE) and reputational risks to myself and the College of Education (due to poor experiences of the school teachers and students). While I was open-minded about the ways in which PSTs could prepare, I was also seeking evidence that planning time was being used in a manner that was consistent with preparing for a quality experience for the school students.

Acceptable PST scripts

This analysis revealed a sub- text that there were certain ways of behaving in planning time that appeared better to me than others. Bell (1996) and Zink (2004b) also identified that when students did not behave and 'learn' in ways that were consistent with the teacher's conceptualization of OE, the students became the problem. I seemed to privilege PSTs sitting in groups, writing and discussing because this showed that they were making 'productive' use of this planning time. Garrison (1998) found that teachers often labelled groups who deviated from teacher's expectations as mistaken or lacking in self-regulation. As Zink (2004b) states "some ways of being a student in OE are seen as more acceptable and plausible than others" (p.221). Taking Zink's plausibility term, groups who played in the waves were suspect, (was that really planning?) and the group that went and played games on their phones in their tents were highly 'implausible' and therefore abusing the freedom.

I followed up with my participants in interviews to get their perspectives about PSTs abusing the freedom to plan.

Greg- I think it also comes back to Uni life and they had been working all day and they didn't see the need to put in more time ... [the] "next thing I have to worry about is dinner tonight"

Chris- whereas for me it would be walk on the beach, enjoy the place and just have some down time

Greg- for me it was we need to sort out tomorrow so we don't look like fools (Interview 2)

Peter- Most of the students I had been with don't even go into the Port Hills, they stay down here and go to the pub. (Interview 2)

The insights of Greg and Peter suggest that for some PSTs, the outdoors was not a familiar setting. As such they were uncertain how to behave other than to revert to their everyday free time behaviours.

...dispositions are shaped culturally and discursively, so that situations are understood in different kinds of ways, as different kinds of situations calling for different ways of responding to them. In the same way, forms of action are shaped through previous actions and interactions, previous experience, and the ways situations themselves are arranged. (Kemmis & Grootenboer, 2008, pp. 45-46)

According to Kemmis and Grootenboer, our 'forms of actions' can be seen as responses to different interpretations of situations. The behaviour of PSTs, who went into the tents, was therefore shaped by their previous experiences and so they understood the situation in a different way to me and many other PSTs. They framed planning time as 'free time' which was framed by the usual and routine ways that PSTs relaxed after classes. Bowdridge and Blenkinsop (2011) warn that "Without the direction and structure provided by an instructor, there is the potential for students to engage in activities that are already familiar and are of no educational value" (p.158). It was therefore important that I intervened to provide 'educational value' to their experiences of becoming an OE teacher.

As a member of the group playing in the water, Mel discussed how she generally plans:

Mel- ...I think I need that pressure to work, otherwise I am like, aah, I'll take a break... even with Okains Bay, it was the night before, we busted it out and the next day it was awesome, especially with uni students, and if they don't plan it does crash...with the freedom thing, [but] using it in the classroom- that would be too much (Interview 2)

Here Mel is acknowledging that time pressure helped her to work productively. Although she felt it was appropriate that they were given the freedom to complete this task in their own way, she felt that similar freedom would be "too much" in a classroom setting. From Mel's dismissive tone, it seemed that school students would not benefit from such freedom. This experience quite possibly failed to open up some particular areas of growth for Mel. Certainly the scaffolding required for school students would need to be managed differently. Mel's comment was interesting as many contemporary pedagogies rely on providing freedom for students (Alton-Lee, 2003; Hattie, 2008; Slavin, 2010). These pedagogies also required student motivation and engagement. Perhaps the PST group in the tent suffered from a lack of engagement in the learning?

Pragmatism and consequences

Over the previous pages I have presented an exploration of what the diverse planning time behaviour represented and my responses to these behaviours. It could be informative to interpret these behaviours from a range of paradigmatic lenses. For example a critical theory perspective could shed light on further power issues. However, as a pragmatist, I am directed to consider the consequences of actions

(Cherry-Holmes, 1999). In this case, if the PSTs were sitting and planning, and therefore well-prepared for the school students, then this was a desirable consequence (whether or not it was coerced or self-motivated). In learning to become a teacher, PSTs needed to learn the types of behaviour that were acceptable for teachers and the consequences of those behaviours. It was my responsibility to help them in the process of becoming teachers, and I could help direct their behaviour knowing at least some of the consequences. Therefore, I intervened with PSTs who I perceived were not planning adequately. In my mind, the purpose of planning time was not to simply comply with my expectations of acceptable behaviour, but rather to be ready to provide the school students with a high quality experience on the following day.

Further consequences became apparent. At the end of the camp, as a class we completed a round of 'rose and thorn' (one positive comment and one critical comment) debrief of the camp. The 'thorns' from the group that played on their phones in the tent were

[we made a] rookie mistake not writing down who is going to lead each activity

I think we could have had a few more back up activities, we found ourselves short.

These comments showed that they indeed identified their problem as a lack of planning. However their analysis was silent on the purpose of their lessons and the student learning. In their situation the lack of basic planning was their weakness so perhaps this is an appropriate preoccupation for them. Yet this particular learning from the OE teaching experience may be mis-educative. It is possible that that they will continue to focus on the technical routines, ensuring like the PE teachers Placek (1983) researched, that school students are busy, happy and good and missing any deeper learning potential.

On the Monday, I walked around observing and talking with school teachers as the PSTs ran the day. I noticed some PST groups were struggling with some challenging behaviours, and some PST groups struggled with co-ordination and time management. There were several PSTs groups whose lessons were not as high quality as I would have liked, but there were also several groups whose lessons were highly creative and engaging. Had I carefully controlled the planning time and placed a range of constraints on PSTs, I could probably have improved the lowest performing groups, but I suspect

these constraints might have stifled the high performing groups. Either way, the PSTs were able to experience an outdoor teaching day where they had considerable choice and control.

Active learning as more than just doing

PST responses to my offerings of more active roles in classes presented rich data. T. D. Brown (2011) argues that PSTs enrolled in PETE have generally been motivated by enjoyable experiences in physical activity. In my observations of class, PSTs seemed most involved when they were physically active in some way. Engaging PSTs in “doing” but not necessarily in disciplined learning that has a high degree of transfer is unhelpful (Barron & Darling-Hammond, 2010). While I heed this warning, there have been times when I have chosen to break up a lecture with a brief high energy activity in order to enhance PST focus and engagement. I was curious whether PSTs enjoyed being active generally or whether there were types of activity that they appreciated more than others. In other words, was it sufficient to be physically active as a participant, or was it important to be learning about teaching?

Mel- as all PE students, we all like doing those games but at the same time, if I have a whole lesson that is participant then I'm wondering what am I doing here? I could be at work. Not all the time, but I do love doing the activities (Focus Group 2)

Corroborating Mel’s statement, while activities and warm ups proved popular, exit slips at the end of the semester indicated that by far the most commonly engaging experience was the camp. The reasons the PSTs gave for this, were that they were learning about teaching in an OE setting with real school students. The activities most valued from the semester were ones where they had some leadership and control over the situation (for example risk management scenarios, peer-teaching and EOTC on the camp).

PST learning from the OE camp

Professional educators need to be mindful of the range of meanings that approximations of practice convey (Grossman et al., 2009a). Based on this requirement, I suggest that PSTs might have learnt that:

1. there are certain more acceptable ways to plan for a camp;

2. planning results in better learning for their students;
3. their lessons did not go as well as they had hoped and the dissatisfaction spurs them to plan more effectively in future;
4. they did not plan greatly and yet the school students responded well enough to their lessons and the outdoor settings;
5. planning a great deal did not result in the quality of lessons they had hoped for.

For me, the first three of these outcomes are educative, and last two are mis-educative. Briefly, the first two points indicated that PSTs have experienced that planning takes time and learned that planning is important for developing high quality OE experiences for school students. The third point could be viewed as a failure, except that it results in reflection and improved future performance and “one could argue that it is even necessary to provide these opportunities for failure, which allow novices to contend with their own feelings of disappointment or discouragement and learn to respond in professionally appropriate ways” (Grossman et al., 2009a, p. 2091). I therefore argue that the first three of these points all have educative outcomes as defined by Dewey (1938).

Mis-educative possibilities from OE teaching at camp

The fourth and fifth points above are mis-educative because of their potential to close down opportunities for future growth of the PSTs. I turn now to some of the ways in which the OE camp potentially promoted mis-education.

The nature of the OE camp required that some aspects of lessons needed to be pre-planned while others were left until the night before the school students arrived. There were significant difficulties in making a lesson ‘context responsive’ when the PSTs had not yet been to the location until a day before the school students arrived. PSTs also had no prior knowledge of their learners and as such needed to adapt their plans quickly when they first met the unknown group. All of this posed challenges for a scaffolded experience of learning to teach in the outdoors. The effect was to potentially mis-educate the PSTs by showing that responding to the particular group of learners in a particular setting was not important.

In response to the uncertainty created by knowing neither student group nor the place, PSTs sometimes over-planned to the extent that they had no room for flexibility when we arrived at our location, while other PSTs responded by “winging it” and having so little plan that they limited the learning opportunities of their students.

We must not foreclose on these aspects of teaching, that we must remain open as teachers, so that our planned curriculum and the extent to which we bring it to life is understood as a tension (Berry, 2007) in our work as teachers. (Bullock, Russell, & Mackinnon, 2014, p. 39)

Somewhere in the middle was a place that provided adequate preparation yet enough leeway to respond to our context.

All of these educative and mis-educative outcomes from the OE camp are possible. I did not collect sufficient data to determine the scope of experiences of my PSTs. Based on the diversity of PST experiences in previous chapters I would suggest that all of these outcomes are not only possible but indeed likely. I am cognisant of the dangers of making assumptions about learning in the outdoors. For example, Zink (2004b) criticised the way that experience was universalized in OE. She argued that the individual student was evacuated from the experience because through the process of objective reflection, students should all derive similar meanings from their experiences. This may be the approach by OE teachers who have not explored the responses of students but is not my experience. I have no doubt that there are far more experiences and interpretations of those experiences than I can conceive on any OE camp. Yet I still believe in the power of OE to provide powerful learning experiences, and that these experiences are generally growth oriented (Dewey, 1938/1972). Due to the diversity of experiences in my classes, like Senese (2002):

I accept that I am still becoming and perceptions are limited, but I am able at this time to generalize a little from my experiences.... I have learned to accept and welcome the contradictory nature of interactions in teaching and learning, especially when one person is in a position of authority. (p. 53)

8.3 My insights from handing over control

In their analysis of professional development for teachers, Timperley, Wilson, Barrar, and Fung (2007) show that no particular professional development experience for teachers is associated consistently with improved outcomes for school students. For

every study that shows how a particular activity leads to improved outcomes for learners, they found studies that show the same activity does not result in improvements. They conclude that the difference between effects is related to how the activities are constructed and what is learned through them. In this research, the camp was used as an experience from which to learn. I argue that the OE camp was aligned with at least part of Grossman et al.'s (2009b) criteria because it certainly preserved some of the complexity and integrity of teaching. It is more challenging to demonstrate that the OE camp experience allowed novices to develop a level of mastery, however in the case of some PSTs, I believe this was the case.

Summary

In this chapter I examined how I negotiated handing over some power and control to a group of PSTs. As the teacher, I needed to create space for them to move into more active roles, to support them to take control and to make these steps explicit. This negotiated space was flexible and dynamic. Indeed I found that I needed to exercise self-control, at times holding my tongue when I felt emotionally drawn towards speaking out (Senese, 2002). At other times I chose to intervene when I considered it appropriate. As such, I was still very much engaged in the whole process of handing over control and actively held discernment in tension with open-mindedness in my decision-making.

Examining my expectations of PSTs was informative and I discovered that my initial framing of the problem as a lack of compliance was in tension with my concept of sharing power with them. If I ultimately wanted PSTs to take more control, I needed to be open to the possibilities (even certainties) that the PSTs would not use this freedom in the way that I would, and indeed this was an important part of handing over. The benefits of this freedom were a more authentic opportunity for the PSTs, and the potential to be creative and innovative in ways that were different and indeed, I argue, superior (in many cases) to what may have been possible if I had maintained tight control.

Was the camp experience ultimately an educative experience according to Dewey (1938/1972)? The diversity of PST experiences is too great for me to comment, however PSTs considered it to be the best learning they had on the course. Although I am

conscious of Giroux's warning not to privilege student voice, their voices are nonetheless important for any teacher.

The persistence of PST passivity in the OE camp setting was counter to my beliefs about authenticity in ITE. Up to this point, authenticity had been my goal, and my pedagogical panacea in my fight against PST passivity. The camp OE teaching experience was the closest I could offer to a real teaching experience within ITE, and yet there were still problems with PST passivity. This fundamental challenge to the framing of my doctoral research was profound and I develop this further in the discussion chapters.

The Aeroplane Metaphor Revisited

Simply handing over the controls to the passengers would be risky for a variety of reasons. It was important to first allow passengers the opportunity to see what decisions the pilot was making and watch how he modelled flying the plane. With scaffolding in place, handing over the controls became much less risky and feedback from many passengers supported this approach.

While not without its limitations, handing over the controls was a strategy that appeared to bring many people out of passenger roles for engaging learning experiences. Strangely enough, while the explicit goal of the pilot was to hand over control to the passengers, he found himself reluctant to let go of the controls. The pilot learnt that he had quite specific expectations of the passengers prior to flight, in order to demonstrate trustworthiness. By negotiating explicitly with the passengers, some, (but not all) of these tensions could be mitigated. The pilot needed to step back and avoid hovering, while at the same time knowing that the safety of the plane was still ultimately his responsibility. The experience of handing over felt uncomfortable, regardless of the number of times the pilot has gone through this process. It was however, very rewarding to see the passengers now in the pilot seats and generally flying the plane well.

CHAPTER 9: ECLECTICISM AS A FRAMEWORK

In this research I set out to investigate how I constructed learning experiences in my preparation of PSTs for teaching OE. The chapters presented thus far, have explored my teaching using a self-study methodology and a negative metaphor of PSTs as aeroplane passengers. Through my literature review I established that authentic learning experiences had the potential to disrupt PST passivity in teacher education courses. I then utilized Schwab's (1978) commonplaces to investigate this project of disrupting PST passivity in my teaching. Rather than disrupting PST passivity, this research highlighted my own framings of the problems in teacher education. In each chapter my research shed light on the way in which I had identified concerns in teaching and caused me to reframe my teaching in a similar process to that promoted by Schön (1983). Having covered significant ground in this thesis, it is now necessary to pull together this body of research in order to highlight the key themes and implications. In this chapter I focus on the various framings and frameworks that shaped my research and how these became reframed through embracing eclecticism (Schwab, 1970).

It helpful to revisit the questions which I began with:

1. What opportunities do authentic learning experiences provide in preparing PSTs for teaching?
2. In what ways do authentic experiences result in more active learning by the PSTs?

Over the last five years of research, I began to understand my questions in a different way. I began to see that the questions revealed a great deal about how I viewed the means and ends of teacher education. The rigour of self-study methodology relies on the "emphasis on formal or systematic re-visiting, re-questioning, re-writing, re-imagining, and re-thinking" (Weber & Mitchell, 2002, as cited in LaBoskey, 2004a). In this chapter I demonstrate how I formally and systematically challenged my original beliefs through the various re-visitings, re-questionings, re-thinkings and indeed re-framings. Through my research, I placed my beliefs under considerable stress and sought alternative perspectives in order to open up possibilities as required by a pragmatic approach, Schön's reframings and Schwab's commonplaces. Through this process I demonstrated the rigour required for self-study methodology.

Therefore, rather than addressing my initial questions and seeking to answer them, this discussion chapter will develop an approach that privileges eclecticism rather than any one particular approach. Schwab's eclecticism helped me to understand the limitations of my metaphor of PSTs as passengers on an aeroplane and required me to create an opposing metaphor. Using eclecticism I also reframe my initial focus on authenticity and develop a model which includes inauthenticity, authenticity, education and mis-education and which emerged during analysis and synthesis of the results. Finally I turn to self-study, and the commonplaces, examining each as to how they benefit from an approach aligned with eclecticism. I first provide an overview of the chapters to date.

Overview of the Chapters

I set out the thesis as a form of journey from where I began the research. Through the various chapters I have documented the insights that I have gained along the way. In the prologue, I defined this research as my search for greater certainty and confidence in my role as a teacher educator. Chapter 1: The Context, Chapter 2: Learning in ITE and Chapter 3: Methodology, introduced the thesis and synthesised literature pertaining to my frameworks, literature from teacher education, outdoor education and self-study methodology. The results chapters then investigated my attempts as a teacher to provide more authentic experiences for my PSTs (summarised next and also in Table 12).

In Chapter 4: Transparent Teaching, I made my teaching decisions and thoughts more transparent through an open journal and think-aloud moments during classes. This resulted in my learning about the power of my physical position, but more importantly, how I progressed through phases of infatuation, disillusionment and finally a more balanced understanding of my influence on PST discussions.

Chapter 5: Modelling focused on my modelling of proposed graduating teacher standards (a teaching as inquiry model). Through this chapter I learned about the difficulties of teacher educators modelling but also the way that I had unconsciously colonised and modified the proposed graduating teacher standards which made them less challenging. Without the perspectives of critical colleagues I would almost certainly have missed these insights.

Chapter 6: Fatality Case studies addressed the problem of safety in outdoor education through having PSTs examine case studies of fatalities. Here I discovered that the focus on safety worked against my goals of inspiring PSTs to take their students outdoors for learning. I also came to understand that I taught a generalised curriculum which was focused on content and did not differentiate between the needs of my diverse learners.

In Chapter 7: Into the Outdoors, the PSTs responded positively to the challenges of the environment and generally appreciated the opportunities to be outdoors, and to teach outdoors. For some though, the outdoors was just another hardship in an already difficult life. The perspectives of these PSTs forced me to re-evaluate my romantic framing of OE as a 'welcome break' from our mundane and constrained lives.

Finally, in Chapter 8: Handing Over, I examined how PSTs responded to teaching in the outdoors on camp. This was the most authentic experience of OE teaching I could offer in ITE. I discovered that not all PSTs responded to such authenticity with more active learning roles. I had viewed the OE camp as the ultimate experience for PSTs in the process of becoming OE teachers. This caused me to rethink my approach to the problem of passive roles that PSTs take and the benefits of authenticity in countering this passivity.

In Table 12 I provide an overview of the different learning experiences, my role and the role of the PSTs.

Table 12: Learning experiences created in TECS376

	Approach	Description	Role of teacher	Role of PST	My Learning from the method	My reframing
Transparent Teaching	Think-aloud	Articulating teaching decisions related to making a change or reflecting on a problematic aspect. May include observations and emotional responses (e.g. dissatisfaction, discomfort).	Reflecting in action or after action	Listening	It is difficult to articulate my “inner voice” clearly. PSTs are likely to pick up mixed messages.	The effect of my physical position was challenged. I came to understand that position does have some influence.
	Open Journaling	Distributed through emails, my open journal explicated my teaching decisions.	Reflecting for or after action	Reading and writing responses	Email proved an unreliable means to communicate with my PSTs.	
Modelling	Modelling a teaching as inquiry	Modelling decisions about planning, implementation and evaluation of teaching. For	Reflecting for and on action	Observing	My modelling of the TfBL model was viewed more as a lesson plan	Rather than my modelling the TfBL model, I

	framework.	example my use of the Teaching for Better Learning Model			than as a	found that I had modified it, making it less challenging.
Fatality Case Studies	Analysing case studies of fatalities	PSTs examined fatality cases in order to learn from past experiences of others	Assigning cases, stimulating discussions	Reading, listening and discussing implications	Studying fatalities was scary for PSTs	I did not adapt for diverse PSTS
Into the Outdoors	Bringing the environment into OE teaching	Examining how PSTs respond to the environment through weather and other adaptations to the environment.	Framing OE as different to PE, setting expectations about environment	Experiencing, teaching, responding	Weather was an important aspect for PSTs learning about teaching OE	My romantic framings came under tension.
Handing	I hand-over and PSTs	PSTs as a group took charge of an OE day for school	Negotiated stepping back	Planning, teaching,	Changing scripts was difficult for both me and	Authenticity did not guarantee

Over

take control of students.
for an OE
day.

and
facilitating

and
reflecting.

the PSTs. Setting
expectations was
helpful, but teacher
involvement remained
crucial.

active PST
engagement.

In each learning experience presented in the table, there were strengths and limitations and some experiences were more authentic than others. I now bring these findings together and present an argument that diverse (eclectic) approaches were important for PSTs but that eclecticism was yet more important for me as a teacher educator in reframing my thinking.

9.1 Aeroplane framework

Bullough (1994) makes clear, that teacher educators must make their own metaphors explicit in their teaching:

For me, authenticity in teaching requires that I be able to articulate for my students my own teaching metaphors as they arise from life-history and that I be actively exploring myself as teacher, just as I require that they engage in such exploration. (Bullough, 1994, p. 110)

By creating my negative aeroplane metaphor, I was explicit about what it was that I was fighting against- PST disengagement and passivity in their learning. The purpose of the metaphor was to help me as a teacher educator to check and maintain my progress away from this passivity. I used various pedagogical approaches based on authenticity to help move PSTs in to active learning roles in each of the chapters. I introduced and concluded each chapter with a reference back to this metaphor as a way of testing whether sufficient progress had been made and to what extent.

This metaphorical framing of the research was also a way of demonstrating the transparency of data representation, and the analysis that informs findings and interpretations required in self-study research (Loughran & Northfield, 1998). Allard and Gallant (2012) also use metaphors for the same purpose and state that “metaphors helped to make transparent the teaching and learning theories and philosophies we individually have adopted over time” (p.271). The aeroplane metaphor also proved helpful in describing my approach to teaching teachers about OE.

The aeroplane metaphor provided a means to organise information and a lens through which to see the world. A strength of my metaphor was that it provided coherence and structure for addressing research questions. For example the aeroplane metaphor highlighted the neo-liberal aspects of education and how they framed the PST- teacher educator relationship as a client and service provider transaction. The PSTs were

clients, who had paid for the delivery of education, and the teacher educator's job was to provide the service to the satisfaction of the clients. If the clients were challenged and discomforted, this was clearly not fulfilling the expectations of our market model society. According to the market model, PSTs could arrive with the expectation that their role is to "sit back and enjoy" their teacher education.

This passive aspect of education was highlighted in a number of ways in my research. In particular it came to the fore in the handing over chapter where PSTs were placed in learning experiences at the camp which I considered to be at the more authentic end of the spectrum and therefore anticipated a high level of engagement. The group of "tent slackers" to me epitomized the passivity and lack of initiative that I felt the aeroplane metaphor was framing. While this was just one group of four PSTs in a class of 24, it was a clear indication that for some reason I was not moving away from passivity in the way I intended for each and every one of my PSTs.

As Schwab (1971) notes "we normally see only what we are instructed to look for and we are instructed by theory" (p. 496). The aeroplane metaphor I had developed was a type of personal theory, which unlike formal Theories, had not been exposed to robust debate and critique. Furthermore, Schwab states:

Vague and ambiguous theories, trivial theories, and unsupported speculations can be identified and eliminated by various familiar methods of analysis and criticism and are, in the course of the history of most fields of enquiry, in fact, eliminated. The theories which survive this winnowing- good theories-are nevertheless incomplete, each taking its own view of the subject matter and throwing its own peculiar light upon it. (p. 504)

The 'peculiar light' of my aeroplane metaphor cast certain aspects of my teaching and PST learning into stark relief and hid others in darkness. I now look into the shadows cast by my aeroplane metaphor.

'Active' and 'learning' as mutually exclusive

My research indicated that there were types of being 'active' that appeared to limit the opportunities for learning about teaching. For example, several PSTs had difficulty reflecting after being involved in active learning experiences. But pragmatists assert that it is unhelpful to view thought and action as separate (Cherry-Holmes, 1999; Rorty,

1982). Furthermore, Ord and Leather (2011) argue that “One is engaged at all times in the experience, not with a suspension of thought and analysis, but with a potential at least for a heightening of it” (p.19). Evidence from this study, however, indicated that for some PSTs the experience of *doing* an activity appeared to impair their ability to *think about* the activity. In Chapter 8: Handing Over, some PSTs experienced what I called ‘transition trauma’, where they struggled to examine and critique the roles of their peers who were leading a learning experience because they were so engaged as participants in the activity.

Brookfield (1995) also suggests that there is a tension between action and reflection. He argues that the act of teaching and being involved ‘in the moment’ inhibits a teacher’s ability to think about teaching. But if teachers who are immersed in the act of teaching cannot reflect, then they are at risk of becoming mindlessly active and what Shulman (2004) calls “missing in action”(p.372). Becoming missing in action occurs where the teacher loses sight of the coherence between her or his intentions and his or her practice. This presents a challenge for teachers to be mindful of their teaching, especially when the very act of teaching may work against the necessary mindfulness.

Perhaps acknowledging this challenge, Schön (1987) provides a framework which recognised the opportunity to reflect for, in and on action (before, during and after a teaching act). For some however, the separation of thought and action is an anathema (M. Brown, 2010). M. Brown roundly criticises the common OE practice of sitting down in a circle after an experience in order to reflect (debrief). M. Brown considers this practice as contrived and an artificial separation of action and thought. By contrast, Schön’s framework for reflection provides a broader opportunity to think about action. Schön’s three phases of reflection could potentially be considered to separate reflection from action. However, Schön’s work is based on the idea that experiences are not distinct from reflection and indeed experiences are not discrete quanta that have a clear beginning point and end. The concept of reframings indicates that experiences are available for consideration at a later time. Kemmis and Smith (2008) suggest that our lives may be one experience with many acts which run uninterrupted through all our living years. If this is the case then there is no separation of reflection and experience because experience is continuous.

The PSTs challenged my expectation of their learning from experiences because reflecting on an experience did require a transition (but not necessarily a separation). These transitions were between the types of behaviour required for reflection (for some PSTs, simultaneous action and reflection appeared mutually exclusive) and also the roles they took (participants or leaders needed to become reflectors and critics). Of Schön's types of reflection, I personally found that reflecting in-action was the most challenging because the act of teaching was so engrossing that I had little conscious space left to analyse what I was doing. By concerted reflecting for- and on- action I was eventually able to move into reflecting in- action (as I described in Chapter 4: Transparent Teaching). It seems that some experiences promote certain types of thinking. For example, participation inhibited reflection for some (but not all) PSTs. This insight supports the idea that PSTs need time to reflect, and as my critical friend Sarah suggested, work-shopping particular practices may restrict opportunities to critically reflect on what happened. Slowing down the pace of teaching therefore making the PSTs less active, ironically may increase active learning by this definition.

Experience can be characterised by both an immersion in the nature of the experience as well as, thinking about what the experience means. This is an interesting area for future exploration. How do teacher educators help PSTs transition through the different roles that teacher education offers without losing them in the rapidity of changes? Despite my best efforts to be clear and highlight transitions and role switches, several PSTs still struggled with transition trauma.

This consideration of thought and action has relevance for my conceptions of passive and active learning in my classes. Having established active learning as a goal for this research through my aeroplane metaphor, I now critically examine how I framed active learning and what implications this had for me as teacher educator and for the PSTs in my course.

Interrogating my aeroplane metaphor

My metaphor represented my framing of "passive" and "active" learning. Performing rapid exercise like star jumps is certainly physically active, but what is a sign of an active learner? Other teacher educators have struggled with similar dilemmas.

Brandenburg (2008) research revealed the limitations of her assumptions about what constituted active participation when she wondered about:

the bright but shy student who presents excellent written work while never 'actively participating' in class, and what of the student who 'actively' participates in classroom discussions, where this participation itself appears to create barriers for the student's learning. (p. 14)

My own framing of what constituted active learning was reflected in this quote. I realise now that I was privileging the PSTs who actively engaged in discussions because this showed that they not only were completing the readings, but also were thinking about them. Speaking was therefore a sign of learning. By contrast the silent PSTs raised my suspicions that they were silent because they had failed to complete the readings or were taking 'passenger' roles in my course. Brandenburg's comment exposes the shallowness of my assumption and also the limited nature of the metaphor I was operating with. The silent PSTs were as likely to be learning as the vocal ones. I was clearly using my own experiences as an engaged or dis-engaged student to make a generalisation about all learners. By being explicit about my metaphor, my intention was to design a powerful tool to create quality learning experiences for my PSTs. Through the process of this research, the metaphor became a tool to expose my framing of teaching and exposed some of my own assumptions about what 'active learning' looked like and what 'passivity' was. This finding supports the work on metaphors by (Bullough, 1994; Cochran-Smith, 2002; Martinez et al., 2001; Pinnegar et al., 2011) in showing the strength of using and analysing metaphors in research into teaching.

Unsurprisingly, the aeroplane metaphor was an oversimplification (as is any attempt to communicate a complex area such as education). It highlighted some aspects of my teaching and hid others, it framed and limited the roles PSTs took in my classes, and this was problematic. The aeroplane metaphor over-emphasised the dominating structure of the aeroplane, the authority and remoteness of the pilot and the passivity of the PSTs well beyond the reality of everyday teacher education. It also helped me view silence as harmful to active learning and privileged speaking as 'active' learning. The metaphor hid the myriad roles that PSTs took on in my classes and the ways in which they actively sought quality learning experiences. Bullough, Knowles, and Crowe (1991) show that teachers who construct more complex metaphors for teaching, and who are aware of the strengths and weaknesses of these metaphors are more prepared to meet the

challenges of teaching. Bullough's comment would suggest that by utilizing my overly simple metaphor of the aeroplane, I was ill prepared for the challenges of teaching.

Another problem with the aeroplane metaphor was the way in which it framed motivating PSTs to learn as the problem of the teacher. Davis et al. (2000) drawing on complex conceptions of learning stated that

the idea of motivating learners to learn is much like motivating water to flow downhill. We are all learning, constantly and inevitably...The path of learning can never be determined by the teacher. However, the path of learning is dependent on the teacher- along with a host of other contingencies. (p.66, emphasis in original)

In addition to taking responsibility for motivating learners, which, according to Davis et al. is not possible, the metaphor limited the roles that were available to me as teacher educator. One such role was that of 'celebrity teacher' (Pinnegar et al., 2011). The celebrity teacher has responsibility for making learning fun, entertaining and engaging so that the PSTs move into more 'active' roles. According to Pinnegar, celebrity teachers limit student roles to imitation and admiration. Another role available is that of "modeller and /or an animator of learning" (Brandenburg, 2008, p. 144). In a similar vein to the celebrity teacher, the animator or modeller takes full responsibility for student engagement, and the student roles are to respond to the charismatic celebrity teacher or to imitate them. Reflecting on some of my teaching helped me realise how my framing of PST passivity, was pushing me into certain teaching roles. The metaphor was therefore limiting my view of the PST learning as either 'active' or 'passive' but based on superficial and mis-leading criteria. The metaphor was also restricting the roles available to me as a teacher educator.

The aeroplane metaphor did not present a destination but rather a point of departure from a place framed by my limited understanding of teaching and learning. The metaphor was therefore overly simple and fundamentally flawed.

The future of the aeroplane metaphor

When I discussed my research with my colleagues in teacher education, they engaged with the idea of the PSTs as passengers on a long distance flight, and the metaphor formed a means of expressing my goals as a teacher educator.

Metaphors can define the scope for future actions which, in turn, fit the initial metaphors. This potentially creates a tautology whereby the initial framing of the research (metaphor), defines the results, and the results then support the framing. Such a metaphor also provides a means of making sense of this research. Lakoff (1995) argues that metaphors are a way of creating coherence out of the confusing multitude of experiences. As such, the aeroplane metaphor has been a thread which runs through the chapters of this thesis and it has provided some coherence. The danger, as Sfard (1998) warns, is that a metaphor is always partial and limited. Take any metaphor too far and the harm of the limited view begins to outweigh the benefits. My aeroplane metaphor was initially helpful and helped to describe some aspects of PST behaviour and provide me with a goal as a teacher educator. However, taken too far, it could have resulted in a self-confirming cycle of me viewing PSTs as passengers and defining my teaching by how successful I was in disrupting their ability to remain passive. This latter effect would indeed have been limiting and I argue harmful.

Ultimately, the pragmatic test of a concept is in its consequences. I began the research uncertain that I would continue with the aeroplane metaphor. Even initially it appeared too glib to represent the complexity of my task as teacher educator. Early on I noted that it framed the PSTs too passively and the constraints too simply.

Perhaps I should have heeded Sfard (1998) advice and concurrently developed a second competing metaphor. Schön promotes framing and reframing of problems and this research has indeed spurred me to reframe many of my underlying beliefs. My initial framing was through the aeroplane metaphor. A possible reframing which would shed a different and competing light is a vision of PSTs pulling towards a brighter educational future and myself as a 'moribund' (Schwab, 1978) teacher educator, dragging and slowing them down. In this metaphor, my limited life experiences and the routines and worldviews I have developed from these experiences are like a dead weight on the energetic and diverse PSTs. Such a metaphor might have placed a more critical lens on my own unhelpful behaviour as opposed to focusing on PSTs' passivity. The research arising from framing each chapter with these dual metaphors might have been very different to that which I have produced.

Borrowing from the writing of Edward Abbey (who applied this statement to his home town): I have found the aeroplane metaphor easy to abandon -I have abandoned it many

times! The metaphor was certainly problematic for me. But I gained considerable benefits when I used it as a tool to analyse my own assumptions. I have kept the metaphor as an example of how by analysing our metaphors, we can gain access to our underlying assumptions and how they frame not just our students but also our own roles in teaching and learning.

The reframing of this problematic metaphor was helpful in my research. There were other reframings that occurred during my research.

9.2 Reframings: From authenticity to inauthenticity

As my research progressed, I began to see how my desires for quality learning experiences for my PSTs were being framed through the lens of authenticity. In the past I had privileged more teaching-like experiences at the authentic end of the spectrum because I felt that these were indeed the most relevant and useful for the PSTs. Perhaps this derives from the metapractices (Kemmis & Grootenboer, 2008) within OE which privilege 'real life' experiences and 'natural' consequences (Bowdridge & Blenkinsop, 2011; Straker, 2014; Zink & Burrows, 2008). However, throughout my research, the authentic experiences proved more problematic than I had anticipated. Through my focus on authenticity as the cure for PST passivity, I had envisioned authenticity of learning experiences as my goal, without fully exploring the implications of my focus on authenticity. As I explored the concept of authenticity, it became apparent that there were considerable tensions between authenticity and my constructivist lens. This led me to raise the questions of 'whose authenticity?' and 'why should authenticity be considered worthwhile?'

Authenticity becomes problematic when we define an unhelpful 'real world' as authentic and make the "presumption that what happens in "the world beyond the classroom" offers a standard for what we mean, or might mean, by authenticity" (Splitter, 2009, p. 139). For example, PSTs may take particular experiences from their schooling or professional practice as a benchmark for authenticity. This might be their experience of a particularly compelling lesson, teaching style or favourite teacher. PSTs then apply this test of authenticity to their ITE courses, and determine which aspects of the course are relevant (authentic) and which are irrelevant (inauthentic). So rather than using ITE as a way to test their personal experiences and assumptions, PSTs use

their previous experiences as a test of theory. This then results in PSTs finding that the theories from their ITE are irrelevant as preparation for 'authentic' teaching contexts (Connelly, 2013; Korthagen, 2010; Ovens, 2003; Schwab, 1970/2013). In this instance, ITE becomes a very weak intervention because the PSTs' personal teaching theories remain entrenched and unchallenged (Darling-Hammond et al., 2005). Because authenticity is socially constructed it will likely represent quite different things for teacher educators and each of the diverse PSTs. Unlike an original masterpiece which can be scientifically proven to be authentic, there is no absolute measure of educational authenticity. In responding to the question 'whose authenticity?' the constructivist answer becomes it depends on the context and social setting. Authenticity as an objective goal is particularly problematic if we base it on our unexplored personal experiences and assume that these personal experiences are the universal 'authentic' experience. I was guilty of this through my myopic view of active learning as the goal with authenticity as the means. If the purpose of ITE is to improve educational practices and not simply replicate them, the test of authenticity may well represent a stumbling block.

Building on this argument, Dewey (1938/1972) rejects the idea that any classrooms are not part of the real world. He argues that education should not be judged by its relationship to some external (possibly authentic) end, but rather by the meanings students make of the present experience. Dewey emphasises that what matters most is not that experience has to be relevant to something else, but that it makes sense or is meaningful. Therefore, in a Deweyan interpretation, my ITE course is as authentic as any other of life's experiences. Breen (1985) also states that the classroom constitutes a specific social setting with its own rules and its own authenticity of the classroom as a classroom. This is certainly a challenge in ITE because contrary to Dewey's statement, the purpose of ITE is indeed to prepare PSTs for their future work as school teachers. I interpret Dewey's position as justification for the course as a meaningful setting to learn about becoming an OE teacher. I therefore do not need to continually seek some essence of authenticity in my teaching.

Having now examined the assumption that we all share the same view of authenticity and also that authenticity represents a worthwhile goal, I now consider how my increased understanding can be represented. I still believe authenticity presents a useful measure of meaningfulness to the PST. However, authenticity as defined by

relevance to a 'real world' is no longer tenable. What remains is authenticity as socially constructed within the context of my class and the PSTs wider experiences. My role as teacher educator is therefore to help PSTs to make the task authentic for themselves (Gulikers et al., 2009). In the following section I turn to eclecticism as a way to adjust my view of this problem. By incorporating a contrasting view, I attempt to represent my deepening and broadening understanding of authenticity. To this end, I retain the term authenticity but adapt it through the concepts of scaffolding and inauthenticity.

Inauthenticity and scaffolding

Timperley (2013) and Grossman et al. (2009a) suggest that it is important to reduce the complexity of authentic situations, in order to promote quality learning for PSTs. Bandura (1989) argues that without this reduction in complexity, there is a significant risk of overwhelming PSTs and damaging their self-efficacy. But within my courses, I needed to achieve this reduction in complexity in such a way that the experience did not result in a narrow focus on routines or the perception that teaching was simple. A reduction in complexity simultaneously and necessarily reduced the authenticity of learning experiences. Yet I found that the quality of the PSTs' learning experiences was not necessarily compromised through reduced authenticity, nor improved by an increase in authenticity. This analysis exposed a central problem in my work as a teacher educator; inauthentic learning experiences were potentially important for PST learning about teaching, perhaps just as much so as the so-called more authentic experiences.

Inauthenticity of learning experiences presented a dilemma for me as I had privileged authenticity and saw inauthenticity as a cause of PST passivity. I previously believed that inauthentic learning experiences were to be avoided as much as possible because they made ITE appear irrelevant as teacher preparation. As a result of this dilemma, I began to develop a different stance through which to view quality learning experiences; a model which re-appropriated the term 'inauthenticity' and raised it to a similarly privileged position as authenticity. I now turn to the benefits of inauthenticity.

Inauthenticity

Grossman et al. (2009a) use the term 'inauthentic' to describe the beginning stages of scaffolded experiences. They define inauthenticity, as the level of artifice required to modify an experience to a level of complexity that PSTs can learn from without being overwhelmed. Within OE, an example of inauthenticity is the structuring of experiences so students can learn to work in groups. This is crucial for many aspects of outdoor education, from setting up camp to travelling in groups and is required so that groups can work together to successfully and safely complete a journey or outdoor experience. Group work is challenging even for well-rested adults. In OE, the students will need to make group decisions at the end of the day when they are tired or in situations that may be stressful in other ways. To develop skills in group work, OE teachers often provide learning opportunities which are very different to the 'real life' challenges the groups will face in the outdoors. These learning experiences may involve completing, challenges which are designed to focus on one particular aspect of group work such as communication. Blindfolding the students can focus their attention away from their dominant sense of sight and onto other senses such as hearing. Blindfolding naturally modifies an activity to emphasise listening- a key component of communication. In addition, this learning experience often begins in the school grounds as preparation for outdoor trips, rather than taking place on a camp. In this way the learning is neither situated within the setting in which it will be practised nor does the blindfolded experience represent an authentic experience of OE. In this blindfolded example, adaptation of the learning experience results in artificial boundaries on learners' activities in order to ensure 'appropriate' interpretations (Davis et al., 2000). Therefore it is the very inauthenticity of the experience that allows helpful learning to occur.

Lesson planning is an example of an inauthentic device used in teacher education programmes. Garbett (2014) describes the "artificiality of lesson planning...some of the tasks I design and insist the students complete are only intermediary steps to help them appreciate thinking and acting like a teacher" (p.69). Grossman et al. (2009a) also explore the task of developing a lesson plan in ITE, arguing that lesson plans both capture and misrepresent what experienced teachers do. While experienced teachers do have well-developed plans for class, it is inauthentic for them to plan a lesson out of the context of a larger unit, and they would not plan for hypothetical learners, which is something we often ask PSTs to do. As such, lesson plan assignments are not a

particularly authentic learning experience because of their distance to what ‘real teachers’ do. Requiring lesson plans from PSTs does not meet the authenticity criteria, but lesson plans still play an important role as an intermediary step towards becoming a teacher. Once more, inauthenticity appears to be a useful tool.

In this previous section I have examined the benefits of scaffolding and its related term inauthenticity. Both scaffolding and inauthenticity potentially lie in opposition to goals of situated learning and authenticity through which I initially framed my doctoral research. In the following section I discuss the benefits of using both inauthenticity and authenticity as oppositional terms.

9.3 Eclecticism: Working with disparate concepts

The theme of eclecticism is already well-established in this thesis. Influenced by Schwab’s commonplaces, I drew on perspectives from diverse sources in order to better understand my teaching. Thus the voices, experiences and opinions of various stakeholders in my teaching were heard throughout the results chapters. The use of eclectic perspectives yielded important insights for my research.

In addition to the commonplaces, after reconsidering my use of the aeroplane metaphor, I proposed that my understanding of teaching would have benefitted from an opposing metaphor. The second metaphor reframed myself as moribund, enslaved to my own limited worldview. This was also a form of eclecticism, and this second (eclectic) metaphor would have pushed me to consider alternative framings and I argue yielded more balanced and informed decisions. Schwab called for the eclectic in educational research insisting that educators and educational researchers bring together theories that have the potential to improve classroom practice in a manner that acknowledges their interconnected existence within classrooms (Schwab, 1971). According to Schwab, eclectic operations permit the serial use or even the conjoint use of two or more theories on practical problems. This eclectic approach can lead beyond a view of problems in dichotomous terms and to a view that diverse perspectives reveal more of the whole than each alone. Pyle and Luce-Kapler (2014) drew on Schwab’s work on the eclectic for their research into kindergarten teaching and learning, by bringing both academic and developmental logics together to analyse the purposes of kindergarten education. The academic logic directs teachers to uphold the academic

standards for kindergarten children, while the developmental logic directs teachers to design practices which are appropriate for the age and developmental stage of a particular child. Pyle and Luce-Kapler brought these two perspectives to bear on their research in order to provide a greater understanding of their context. With respect to this combination they quote Schwab stating that

When Schwab describes the eclectic, he is being more precise, drawing on the philosophical integrative definition as in the following: 'One who holds that opposing schools are right in their distinctive doctrines, wrong only in their opposition to one another' (Century dictionary and cyclopedia, 2012). (Pyle & Luce-Kapler, 2014, p. 1972)

A significant weakness in my approach to teaching and research was my use of singular metaphors and singular concepts such as active learning and authenticity. An eclectic approach offers the opportunity to incorporate an opposing viewpoint in a way that integrates multiple perspectives to inform the wider purview. Bruner (1986) also promoted an eclectic approach suggesting that "as with the stereoscope, depth is better achieved by looking from two points at once" (p.10).

Within self-study research Loughran (2013) argues for teacher educators to use opposing concepts as an invitation to think about pedagogy in ways "that are simple to access, but are far from simplistic to develop or apply" (p.132). Loughran's examples include Palmer (1998) who uses the paradoxes such as "welcome both silence and speech". In Palmer's example, he encourages teachers to simultaneously create learning experiences within which students can feel welcomed to speak or indeed remain silent. This seemingly contradictory statement therefore opens up different forms of participation for diverse students. Other examples of disparate concepts include Berry's (2007) tensions. For example, through the tension between safety and challenge, Berry explores the complex decisions required by teacher educators in order to help PSTs to feel safe in their learning, and yet still challenge them to extend themselves as they learn about teaching. Senese (2002) uses axioms such as "Go slow to go fast", indicating that in order to make progress, it is often important to take time early on with students and establish foundations so that their learning can accelerate. I have previously also worked with disparate concepts in my work with sustainability education, and in particular the challenges of simultaneously engaging with the sometimes conflicting demands of social, economic and environmental sustainability in

teacher education (North & Jansen, 2013). Loughran (2013) suggests that by framing pedagogical dilemmas through multiple and potentially conflicting concepts, we are able to generate a fuller and more complex understanding of the dilemmas which teachers face. Teachers are therefore better prepared for the perplexing decisions of teaching.

Applying eclecticism to inauthenticity and authenticity

On reflection, in this study I have attempted to work with this tension between authenticity and inauthenticity; an elastic approach to providing experiences ranging from the more contrived and passive through to the more complex and active. This research examined representations of practice including: transparent teaching, role-modelling and fatality case studies. And approximations of practice by going into the outdoors and teaching at an OE camp. Through these myriad experiences, I attempted to help PSTs in the process of becoming OE teachers.

While eclecticism offers a more complete picture of teaching, the oppositional and eclectic perspectives do not resolve into a common solution but rather remain in tension. In fact, a danger of working with eclecticism is that the results will be “shot through and through with incoherencies, that few regularities were disclosed, and that these few were wholly inadequate as representations of the complex changes” (Schwab, 1970/2013, p. 603).

Pragmatists have also promoted the idea of using disparate concepts to inform decision-making. Putnam (1981) argues that if disparate concepts can be compared or contrasted, then they are commensurate (they can be used to inform a position). This holds true for the examples provided above and each of the authors suggest that there are significant benefits in working with these contrasting concepts. In the case of creating learning experiences using inauthenticity and authenticity, the pragmatist’s ultimate test of any particular course of action is to look to the consequences (Cherry-Holmes, 1999; James, 1907/1981). What therefore are the consequences of combining inauthenticity and authenticity in a model for ITE?

9.4 Education and mis-education from learning experiences

Throughout this thesis, but in particular in Chapter 8: Handing Over, I began to explore Dewey's writings on the links between experience and education. In this section I examine the consequences of inauthenticity and authenticity using Dewey's (1938) concepts of education and mis-education and develop a model to describe their relationship.

Experience and education

Dewey (1938) cautions us that experience and education are *not* the same thing. According to Dewey, an experience is educative when it opens up possibilities for future growth of the learner. As such, I established learning experiences with the intention of inspiring the OE PSTs to take their students outdoors for learning, to create positive learning cultures in their classes and build connections between their students and the environment.

In order to develop these educational outcomes, I carefully connected the learning to real life examples and situations to enhance the authenticity of the learning experiences, but I also reduced the authenticity of learning experiences by constraining and limiting the PSTs exposure to the full complexity of teaching. Therefore I used both authenticity and inauthenticity in designing learning experiences. According to Dewey (1938) experience and education are not connected by simple causality. Therefore, the inauthenticity or authenticity of a learning experience does not determine the educative value for a learner. For example, the less authentic learning experiences can be educative in that PSTs are able to build confidence and mastery within a particular area and based on this confidence to seek further learning opportunities. Indeed this is the purpose of scaffolding (Bruner, 1966). The more authentic learning experiences provide the PSTs with challenges that could potentially bridge the gap between ITE and the practices of teaching in a school. Both inauthenticity and authenticity can help open up possibilities for outdoor learning experiences for PSTs. Through this process I attempted to design quality learning experiences. There was however, always the possibility that these learning experiences worked against my intentions.

Experience and mis-education

While a teacher can provide an experience, what the students learn from that experience may be quite diverse and potentially unhelpful for learning about teaching. Dewey (1938/1972) explored some of these questions in his book “Experience and Education” and this is worth quoting at length:

The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative. Experience and education cannot be directly equated to each other. For some experiences are mis-educative. Any experience is mis-educative that has the effect of arresting or distorting the growth of further experience. An experience may be such as to engender callousness; it may produce a lack of sensitivity and of responsiveness. Then the possibilities of having richer experiences in the future are restricted. Again, a given experience may increase a person’s automatic skill in a particular direction and yet tend to land him in a groove or rut; the effect again is to narrow the field of further experience. An experience may be immediately enjoyable and yet promote the formation of a slack and careless attitude; this attitude then operates to modify the quality of subsequent experiences so as to prevent a person from getting out of them what they have to give. (p. 25-26)

I earlier enumerated the benefits of learning about group work through blindfolded group challenges and also learning about teaching through a lesson planning task. Drawing on Grossman et al. (2009a) that novices may not know what to attend to, and Dewey’s (1938) concept of mis-education, I now turn to the potential pitfalls of inauthenticity in both the blindfolded activity and the lesson plan.

Inauthenticity and mis-education

The inherent inauthenticity of a blindfolded activity to learn about communication, constitutes considerable opportunities for mis-education. Cohen (1994) warns that while modified and closely micro-managed strategies for group interaction have been shown to improve performance in more routine learning tasks, they can inhibit conceptual learning. A potential implication of Cohen’s work for the blindfolded activity is that a group may learn a routine of listening appropriate for the context of a contrived challenge within school grounds, however in a novel setting such as the outdoors, this listening routine may prove unworkable. Cohen’s caution suggests that teachers must be cognisant of the contexts and complexity of the settings in which the learning needs to be applied, and work to ensure that learning experiences are relevant for such settings. In other words, while simplification and artificiality are important in order for

novices to attend to particular aspects of a practice, the extent of this modification must be managed so that PSTs can still see the relevance of this learning to other contexts.

Examining the potential disadvantages of inauthentic lesson planning also reveals two potential areas for mis-education. Firstly, PSTs may learn that it is irrelevant to consider their particular learners when planning for teaching and learning. The lack of adaptability to diverse learners is one of the key critiques of current teaching in Aotearoa New Zealand (Alton-Lee, 2003; Dreaver, 2009; Ministry of Education, 2011b; Pihama, Smith, Taki, & Lee, 2004; Si'ilata, Parr, Timperley, & Meissel, 2011; Timperley, 2013) and the highly modified lesson plan task has the potential to exacerbate this problem through its silence about the particular learners in a particular class. Secondly, a similar critique of 'generic-ness' can be applied to the environmental aspects of OE planning. For example, when an outdoor lesson plan is unresponsive to the particularities of the context in which it occurs, the planning task creates the false impression that the environment is merely a backdrop rather than an integral part of teaching and learning (Brookes, 2002; Straker, 2014). Both of these critiques have relevance for the planning task I required of the PSTs in preparing for their lessons at the camp. As discussed in Chapter 7: Into the Outdoors and Chapter 8: Handing Over, the PSTs had no knowledge of the students they would be teaching, nor indeed of the place where the teaching and learning would occur. Yet I required them to make a plan for these unknown students and the unknown setting. This task had the potential to mis-educate PSTs because the task showed them how to create a universalised curriculum for anyone anywhere. The inauthentic lesson plan task may have limited the learning of the PSTs and potentially reinforced harmful practices.

The myriad ways in which an experience can be educative or mis-educative can be related to the degree of authenticity and inauthenticity. More inauthentic approximations of practice have particular limitations:

they distort the features of practice in various ways, either by allowing students to focus on one primary component or by encouraging students to experiment with its features, they risk representing too narrow a view of what the work entails. In many cases, the approximations allow students to practice ...within very narrow boundaries. (Grossman et al., 2009a, p. 2090)

He's (2011) finding that experiences can become about 'displaying' the required behaviour is an example of the relationship between inauthenticity and education in

ITE. In He's research on peer-teaching, PSTs commented on the pressure to project a competent image to their peers and the lecturer. This reminds us that if teachers "choose surface-level, contrived problems and tasks, and students will, at best, play the familiar [mis-educative] game of telling the teacher what she wants to hear" (Splitter, 2009, p. 142). But, simply creating more authentic learning experiences is certainly no guarantee that these experiences will prove educative.

Authenticity and mis-education

Highly authentic experiences can also be mis-educative. For example more authentic experiences have a mis-educative potential to overwhelm PSTs and damage their self-efficacy. When a novice is faced by the "unforgiving complexity of teaching" (Cochran-Smith, 2003b) and the infinite decisions points in a lesson, there is a real potential for PSTs to have a very negative experience. They may learn that strictness and behaviour management strategies are an end rather than a means (Alton-Lee, 2003) and as a consequence that a quiet and well-behaved class is one in which learning is occurring. The PSTs may develop a tunnel vision type of focus on behaviour management and miss the broader purpose of education. Such an experience shuts down opportunities for more student-centred learning involving co-operative- or inquiry- learning. I saw several examples of quite teacher centred lessons on the camp, suggesting that this may indeed have been the case for some PSTs.

Alternatively PSTs may learn that there is no point in planning because the chaos of classes will make lesson plans useless. This may have been the approach of the group in the tents in the handing over chapter. PSTs then learn to rely on their reactivity and high levels of self-confidence to 'wing' a lesson. In a similar vein to the previous example, this mis-educative outcome results in a narrowing of future possibilities and a short sighted approach to teaching. Authentic experience might push the PSTs to seek simple ways to cope with the complexity of an experience. Through a constructivist lens, the PSTs will take diverse meanings from an experience and this was indeed the evidence from my research.

9.5 Developing the (in)authenticity model

Drawing all these threads from my research together, I now develop a model which recognises that the learning experiences I designed lie on a spectrum between inauthenticity and authenticity (less or more teaching like). The literature on authentic learning, not surprisingly, promotes the more real-world or teaching-like end of the spectrum with its increasing complexity and demands on PSTs. These are indeed important aspects of teacher education. At the same time, the model I have developed recognises and provides space for inauthentic learning experiences because of the affordances which inauthentic experiences provide. Inauthenticity permits PSTs to focus on particular aspects of practice best developed through learning experiences which are significantly different to what a teacher does.

What PSTs learn from these (in)authentic experiences has the potential for both education and mis-education. The continuum reflects Dewey's (1938) conceptions of education as opening up the possibilities for further growth or the mis-educative effects of PSTs becoming stuck in a rut and developing unhelpful coping strategies. I discuss the model further below.

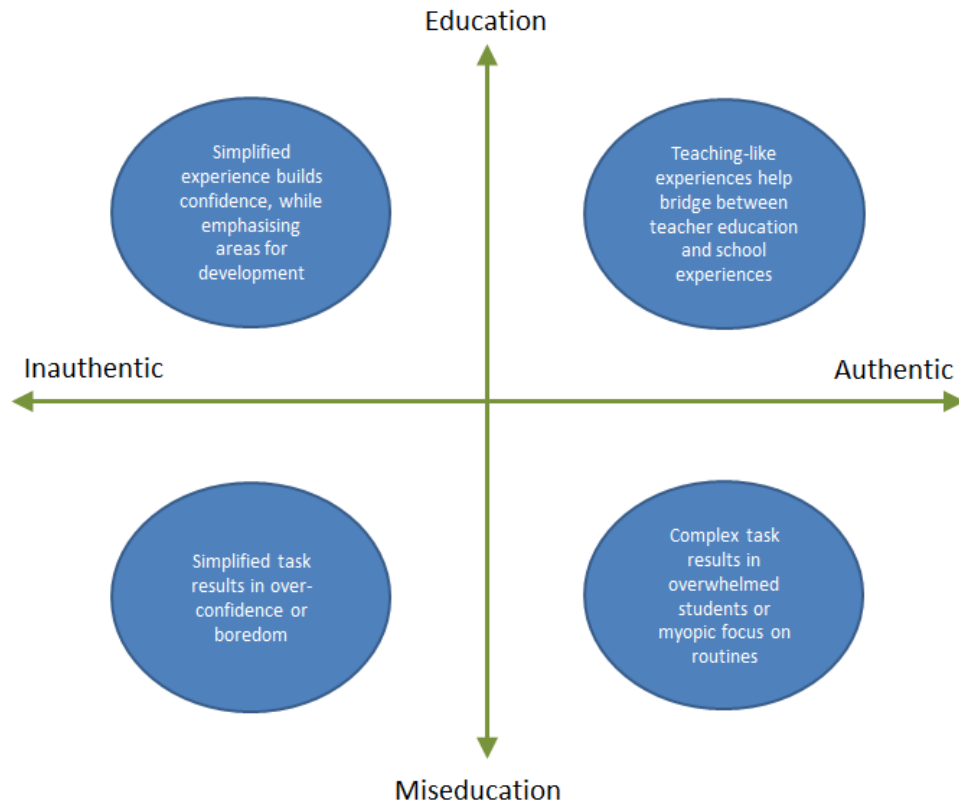


Figure 15: (In)authenticity of learning experiences

Figure 15 presents a range of teaching experiences from inauthentic to authentic on the x-axis with the corresponding increase in risk and complexity towards the more authentic end of the spectrum. The y-axis shows a range of mis-educative to educative outcomes for PSTs. In each quadrant, there is an example of how the experience can be educative or mis-educative. As with all representations, this graphic is a simplification. It does not mean to indicate that there are no gradations between, nor that the outcomes from any particular experience are either educative or mis-educative, no doubt there will be a range of educative and mis-educative outcomes from any one experience. The graphic does not intend to represent a generalised class-wide experience, but rather for any particular PST at any particular point in time the authenticity and educative nature of an experience may vary.

The intent of the model is to show the potential for education or mis-education to arise from all experiences along the authenticity spectrum. The model directs our attention to both the PST's perceived authenticity of an experience and also the educative or mis-educative outcomes of the experience. By directing my focus towards better

understanding the PST’s experiences and perception, it should allow me to better adapt or respond to my learners.

To further support the model, I provide a summary of authentic and inauthentic learning experiences (Table 13).

Table 13: The properties of (In)authenticity

Aspect	Inauthentic	Authentic
Risk to PST confidence	Low	High
Responsibility level of PSTs	Limited scope and discretion	Broad scope and high level of autonomy
PST role examples	Listening, watching	Teaching school students
Educator role examples	Articulating, modelling	Observing, supporting
Educative potential	Allows PSTs to focus on a particular aspect of an experience	Allows PSTs to see the links between ITE and teaching experiences
Mis-educative potential	Presents teaching as overly simple PSTs perceive the learning experience as contrived	PSTs overwhelmed by the demands of the experience PSTs resort to unhelpful coping strategies

Benefits of the (in)authenticity model

The (in)authenticity model is very simple. I tend to think in simple terms, and simple models provide more limited illumination. A more organic or creative model might

allow for more interaction and nuance. For example, the Teaching for Better Learning Model (Aitken et al., 2013) was a far more complex model which offered challenges for me on a variety of fronts (Chapter 5: Modelling) and left me feeling somewhat overwhelmed. Similar to my arguments for inauthenticity, my simple model focused my thinking on particular aspects of practice which I was learning about through this research. The model does not attempt to explain other aspects of education but simply to reflect my learning about authenticity.

From the research literature it appears that eclectic approaches offer to enhance our understanding of problems of practice. Certainly I have found it useful to seek out disparate perspectives as a way to further illuminate a problem.

Implications for my teaching

One opportunity which the model provides is to stimulate discussions between myself and my PSTs about the concepts of authenticity and education in order that we can both understand the effects of the learning experiences better. Such discussions may build understandings of how we construct our ideas about authenticity. Without these shared discussions, perceptions of authenticity may create barriers for teacher educators and PSTs.

Maintaining a focus on eclecticism, I now turn to the eclectics in terms of the methodology and some of the affordances and difficulties it presented.

9.6 Methodological insights

Undertaking a self-study has been both challenging and rewarding. In this section I examine some of the advantages but also challenges of employing a self-study methodology. I then turn to the commonplaces to show how each particular commonplace illuminated different aspects of my research.

Self-study: Bringing together teaching and research

“Underlying all forms [of self-study] is the analysis of one’s own practice with all the attendant challenges and celebrations associated with such scrutiny” (A. Clarke &

Erickson, 2004b, p. 201). Self-study is the synergistic effect of bringing research and teaching together where the result is greater than the sum of its parts and there were many times when I experienced a sense of excitement and discovery during the research process. Excitement of discovery is not particular to self-study. However my excitement was directed towards developing my practice rather than directed at analysing data about others. I was experiencing in a very direct way the “impact of research” and the research-practice gap was lessened through self-study. From an eclectic perspective, my teaching informed my research and my research informed my teaching in a way that enriched both aspects of my work.

A second advantage of self-study was logistical. A constant challenge in research is accessing participants and being able to carry out the methodology as initially conceived. Having participated in a study which involved teachers and academics from different schools and organisations, I was aware of the challenges and time constraints of busy teachers and teacher educators. In addition, Dooley, Dangel, and Farran (2011) found a preponderance of education research was carried out by individual teacher educators with PSTs, possibly out of pragmatic concerns about the achievability of the research. For me there were significant advantages of working with the students in my courses and colleagues in my institution, not the least was accessibility.

Unexpectedly, I found that I did not often flinch when reviewing the video recordings of my class. Perhaps I was insufficiently critical but I generally found that watching myself teach was rewarding and even humorous at times. It gave me a new sense of confidence in my teacher presence and strategies.

There were many rewards from bringing together the otherwise disparate pressures of teaching and researching. There were also challenges in self-study. The effort required to maintain the level of research and teaching began to wear me down as shown in the following private journal extract five weeks into the semester:

Exhaustion through reflection

Quite frankly, it is knacker-ing. I have not been able to keep up with my recordings of my classes (audio or video), gotten behind with transcribing critical colleagues, let alone student interviews. My journal is getting leaner and I have missed

reflections on the last two sessions. Part of that is that I am not getting student responses from my online journal. Is there any point? ...

Anyway, it is a bit discouraging. As well as quite exhausting. Really looking forward to Easter break, bring it on! (Private Journal, 23 March, 2013)

In this entry I was at a low point. I wondered if my research would yield any useful results based on low response rates to my online journal. The advantage of researching my own teaching was turning to a burden; there was no escape from a disappointing class knowing that afterwards I would need to relive the class as I viewed the video recordings and wrote my reflections. As mentioned in the journal, there was a time when I felt unable to maintain the intensity of the self-study methodology and fell behind in several areas of data analysis. It was doubly exhausting when a critical colleague was observing a class which was not going as planned. Kemmis and Grootenboer (2008) wrote about the need for teachers to forgive themselves as a guard against the high level of risk in teaching, and Brookfield (1995) warns of the allied danger of self-laceration. At times it seemed to take a great deal of forgiveness for me get over my disappointment at a class which I felt went poorly. Self-study was hard and I was attempting it whole-heartedly. Mayo (2003) states that practitioner research “calls upon those teachers who are already engrossed in their teaching to devote even less time and energy to the important activities of family life, relaxation, and creativity” (p.32). Prior to embarking on this self-study I did not feel that I had much spare time, and with the added research commitment, it was not surprising that I became tired. Perhaps the cost of eclecticism can be measured in energy required to hold disparate logics together.

I am sure there are many reasons why self-study is largely the domain of teacher educators as opposed to school teachers. One of the reasons is probably that teacher educators are given time to dedicate to research as part of our work. Because of the complexity and time-consuming nature of school teaching, self-study would be a formidable undertaking and I acknowledge the immense efforts of those who have been able to complete research while teaching in schools.

Access to expertise and a wide range of literature was another benefit of being in a teacher education institution. Colleagues in the university were able to observe my classes. This added significantly to the quality of this study. While teaching colleagues

in schools have provided valuable feedback and advice to me, teacher educators understood the demands of academic research and pushed my thinking to a different level than would have been possible otherwise. This difference is highlighted by Erickson and Young's (2011) exploration of collaborative research between teacher educators and teachers. They identified an important tension in the discourses of the two groups, for teachers there were also the pressing needs of practical implementation with limited time, while for the teacher educators there was the pressing needs of academic rigour for publications. As such, having access to the discourse community of teacher educators was important in order to develop as an academic.

While critical colleagues were helpful in developing my academic thinking, there were also many others who supported, praised, challenged and critiqued my work. In order for this to occur, I enlisted the eclectic viewpoints which Schwab recommended. In this next section, I examine the influence of each of these commonplaces in turn.

9.7 Schwab's commonplaces

Schön (1983) promotes internal dialogue as essential for reflection. Schön suggests that reflection is the ability of the practitioner to converse with himself or herself regarding different aspects of professional practice and considering issues from various angles. Through the isolated and individualistic process of completing my reflections and indeed the process of writing up my research in general, I have gained a deeper understanding. However, in this research, I have also demonstrated my ability to mislead, colonise and unconsciously degrade alternatives to my own practice. I argue that Schön's idea of reflection is important, but hold more strongly to (Schwab, 1970/2013) statement that "No curriculum, grounded in but one of these subjects [commonplaces], can possibly be adequate or defensible" (p.608). In light of situated learning theories (Lave & Wenger, 1991; Wenger, 1998), A. Clarke and Erickson (2004b) criticise Schön's framing of reflection and A. Clarke and Erickson, and Trumbull (2006) argue that when reflection is learning, then it must take place in a social context. Similar to Attard (2014), I believe that the internal conversations Schön recommends are helpful but without critical friends, and insights from multiple perspectives, my research would be quite limited.

In the following section I highlight some of the benefits and challenges of using the commonplaces framework.

Commonplace of the learners

The most fundamental meta-criterion for judging whether or not good teaching is happening is the extent to which teachers deliberately and systematically try to get inside students heads and see classrooms and learning from their point of view. (Brookfield, 1995, p. 35)

The importance of the voices of learners is not new (Dewey, 1904/1977) and calls from the scholarly literature are common (see for example Kidd and Czerniawski (2011)). M. J. Reid (2010) conducted a study based on Schwab's commonplaces and sought access to learner commonplace via the teacher's perspectives. He observed the planning meetings of teachers and coded their comments to identify how frequently learners were mentioned. In this way Reid established the relative frequency of representation of the different commonplaces. By contrast, my research sought to engage with learner voices directly. I believe this is an improvement because, while astute teachers will observe, listen and respond to their learners (Alton-Lee, 2003), the learner's perspectives Reid collected were entirely mediated via the teachers in his study. Schwab (1978) does state that two or more bodies of experience may be found in one person, however Reid's study placed all the bodies of experience in the teachers and I found this problematic, particularly with regard to the voices of the learners. For instance, the translation from learners to the research via first the teachers and secondly the researcher must create distortions, regardless of the integrity of the participants and the process. In my research, there is the inevitable filtering and distortion through my own partial understandings and lenses, however, this distortion is limited because I directly accessed the learner voices and secondly represented the learner voices as transcribed. I argue that in this regard, my method is one step closer to Schwab's vision for balanced curriculum development than Reid's work. As Brookfield (1995) states in the opening quote to this section, I worked hard to get inside my PSTs' heads to see my teaching from their perspectives.

Some question the benefits of listening to learners' voices for a variety of reasons including whether learners are competent to be included in the commonplaces. While the PSTs in my study gave generously of their time and experiences, their experiences

were different and they were less knowledgeable about OE teaching than I was or than some of my critical colleagues. Wegener (1986) argues against Schwab's use of the learner commonplace and states that "Students do not belong in such a group [the commonplaces] ...because they are almost certain to be quite unable- simply because of age and inexperience- to take up a deliberative stance in the sense required" (p. 228). Contemporary thinking about teaching and learning emphasises the importance of student voice (Brookfield & Preskill, 2005; Hattie, 2012; Hogan & Gopinathan, 2008) even at pre-school age (Pyle & Luce-Kapler, 2014). In 1978, Schwab wrote that we "must not change the [student's] view of self from capacity for growth to mere incompetence" (p.119). Like Schwab, and unlike Wegener, I see PSTs as competent to represent their commonplace.

Indeed, the process of having PSTs reflect on their experiences in my course yielded two important benefits. First, the PSTs benefitted because according to Schön (1987), taking a reflective stance is central to learning to teach. Second, through the reflections of my PSTs, I became more informed about the meanings that they were taking from the experiences in my course. I was therefore better able to understand the possible strengths and weaknesses of these experiences for different PSTs. Teaching as inquiry strongly advocates that effective teaching requires teachers to learn more about their learners (Ermeling, 2010; A. Reid, 2004).

Others have questioned the level of honesty that is possible between PSTs and the people in power positions who can determine who passes or fails a course stating that due to this, PSTs are reluctant to identify areas where they disagree with us (Holt-Reynolds, 1992/2004). In this research, I openly invited critique and found the PST insights to be profound and challenging. There were significant power issues at play because I was conducting research with my own learners and these issues required careful consideration in order to address the ethical challenges. I believe that I have addressed these areas conscientiously in this research.

I did not respond to all the PST voices all the time and like Giroux (1983), I believe that the student voice should not be reified, but rather examined in conjunction with the perspectives of the other commonplaces. I do however argue that without the strong and continued presence of PST voices, I would have missed a host of important insights into how they learn through my teaching. A. Clarke and Erickson (2004b) state "When

inquiry is reframed in terms of ‘how students learn,’ then it becomes embedded in practice and teacher learning is a natural (even unavoidable) outcome.” (p. 58). My interpretation of this comment is that without the learners, teacher learning becomes limited whereas with learners, teacher learning is virtually ensured. There is certainly no other commonplace which can better understand the learner perspective.

Common place of the subject matter

According to M. J. Reid (2010), the commonplace of subject matter suffers little danger of being excluded because it is the context of the deliberation. In other words, the voices of the other commonplaces come together in the shared discussion of learning to teach OE. Indeed, Reid warns that discipline content “can and often does take precedence over the ability to provide a productive learning experience for the students” (p. 62).

There were instances in this research when such a dominance of discipline became apparent. For example in the chapter on modelling, Maxine questioned me about how I established learning priorities for my classes. At this point I became aware that rather than focusing on the learners and what they needed to learn next, I was focusing on the content and what came next in my timetable. In this example, discipline did appear to overwhelm the learner commonplace in my preparation for teaching. Perhaps this comes back to my assumptions that PSTs were constant from year to year and therefore feedback from previous years became embedded in the course for the following year. There are certainly commonalities between year groups and as a teacher or teacher educator I have learnt which questions are likely to be asked during which topics. This should not however, lead me to create a cookie cutter curriculum which I follow in lock step each year.

In addition to my own experience in OE as a teacher and teacher educator, I was fortunate to have colleagues who had also worked in the OE curriculum area (Steven, Geoff, Eric and Sarah) and some also had expertise in teacher education (Steven, Sarah, Maxine and Donna). As documented throughout the results chapters, critical colleagues have had a significant influence on my research. They represented different aspects of the discipline including physical education and outdoor education. Through these

various representatives, the discipline commonplace had many voices to ensure it was extensively addressed in interviews and through observations of my classes.

In addition to the actual voices of my critical colleagues, I was influenced by the written word of other representatives from the discipline of OE commonplace. Through my research I was engaged in reading contemporary literature and my decision to include the fatality case studies was a direct response to the article by Brookes (2011). In this way the scholarly literature also informed the discipline commonplace.

I believe it was crucial to have critical colleagues engaged in academic work because as mentioned earlier, they extended and challenged my thinking in ways which none of the other commonplaces did.

Commonplace Teacher Educator

As teacher educator, my beliefs and practices have shaped the research from questions, to solution seeking and publication (T. D. Brown, 2011). Because of the centrality of my role, there is no danger that my voice was missed. It appeared in the recordings of the interviews, focus groups and classes, in my journals, and probably the most pervasive, throughout the representation of this research. There is a danger of over- emphasising my own role, my voice and distorting this research through my partial and limited knowledge. As Davis et al. (2000) state, we have a habit of confusing the limits of consciousness with all of thought, perception, and action. During the process of this research, I became aware of the diversity of learning in my teaching, far more so than in the past. I also became aware of how much I fail to see, simply because of the limits of my consciousness. Understanding that my consciousness is limited should act as a spur to explore deeper and further. Indeed Loughran (2006) cautions that self-study needs to challenge our personal theories. Here Loughran echoes the pragmatist's requirement to place our theories under stress, and thereby find a way to test their worth (Rorty, 1982). In this research I have presented a raft of evidence revealing the limitations and assumptions underlying my teaching. In responding to the pragmatist's requirement, there is an element of professional risk. Revealing the inadequacies and fumbles of my teaching does not make good reading for academic promotions boards (Brookfield, 1995). However, it is a criterion whereby the quality of this self-study research can be measured.

Commonplace: Milieu

“Teacher education is a field pressed from within and without by conflicting perspectives and agendas” (Ross & Chan, 2008, p. 8). The context of my institution and the constraints and opportunities of contemporary society permeate this research. Such constraints and opportunities include limited hours, research agendas, teaching workloads and the focus on efficiency. For M. J. Reid’s (2010) research using Schwab’s commonplaces, milieu represents an enigma. He states that it is extremely difficult to verify the inclusion of milieu. I have far fewer concerns about the representation of milieu. Indeed I believe that milieu is present in every interaction, and in the silences and noises around us. We are part of society and are surrounded by milieu, like fish are surrounded by water. I do not believe that milieu needs a specific representative, but that the combined representatives of the other commonplaces are in fact a product of milieu. Teaching and learning are complex activities which occur within webs of social, historical, cultural and political significance (Cochran-Smith, 2003a) which Kemmis and Grootenboer (2008) have labelled ‘practice architectures’ and ‘metapractices’ and these are pervasive. Milieu permeates different levels of influence from national curriculum documents and political decisions, to the circumstances of individual PSTs in a particular context. I do not believe that milieu can be rendered fully visible because of its pervasive nature. However, educators and researchers, have a moral responsibility to make milieu problematic including “the current arrangements of schooling; the ways knowledge is constructed, evaluated, and used; and teachers’ individual and collective roles in bringing about change” (Cochran-Smith & Lytle, 1999, p. 289). Within this research, I attempted to make milieu visible in each chapter. For example milieu became more visible in the time constraints on the OE camp. The influence of these time constraints filtered through all aspects of the camp and compromised the quality of the learning experience as described in Chapter 7: Into the Outdoors and Chapter 8: Handing Over.

Thus far I have framed milieu as a deficit. I need to acknowledge that I live in a generally stable first world country where tertiary education is available to many (if not all), where mortality rates are low and where education is generally valued. My milieu enabled me (even impelled me) to undertake this research. Teachers are paid above average wages and in my experience, teaching is a profession with a good level of status

in Aotearoa New Zealand society. In these ways, milieu enables and supports ITE and learning about teaching.

Summary of commonplaces

Schwab's commonplaces indicated the places to look when I was seeking insights into my teaching and the commonplaces raised the level of richness from a reflective study. The commonplaces also aligned well with the requirement that self-study research uses themes that arise from multiple data sources to provide a sense of trustworthiness (LaBoskey, 2004a). I initially sought to establish themes based on multiple data sources, drawing together the perspectives of the commonplaces in order to demonstrate each theme's trustworthiness. As data analysis began, I realised that far from helping me identify a particular course of action, the perspectives of the commonplaces were divergent. We are advised that "Practicing researchers and evaluators know that the image of data converging upon a single proposition about a social phenomenon is a phantom image" (Mathison, 1988, p. 17). As the research progressed, like Craig (2009), I became increasingly disenchanted with the almost scientific ideas of triangulation that LaBoskey advocated for. I also found Schwab's (1978) concept of coalescence between the commonplaces unrealistic and Timperley's (2013) call to resolve tensions in teaching, unobtainable. What I found seemed more akin to "indeterminate, swampy zones of practice" (Schön, 1987, p. 3) where data did not point in any one particular direction. In his earlier work, Schwab (1970) was more forgiving and stated that "Insights were hard-won and generally short-lived. What remains as a viable alternative is the unsystematic, uneasy, pragmatic and uncertain unions and connections which can be effected in an eclectic" (p.610). The commonplaces certainly left me in an uneasy and uncertain position.

Triangulation between the data sources seemed to open up more options rather than converging on any one particular viewpoint. Schön (1983) states that "the multiplicity of conflicting views poses a predicament for the practitioner who must choose among multiple approaches to practice or devise his own way of combining them" (p.17). This indeed seems to reflect the eclectic that Schwab calls for, and I was left with the task that Schön identifies; of finding a way from the disparate perspectives. Also importantly, without the use of themes emerging from multiple data sources and 'adding up to significance', my research lost its trustworthiness according to LaBoskey's

criteria. However, Craig (2009) argues that self-study is being held accountable to misplaced demands for verification. Craig suggests thinking across self-study exemplars and being explicit about the knowledge contribution are ways in which self-study can demonstrate trustworthiness. I have attempted to address this in this thesis through providing sufficient context and numerous examples.

Summary

In this chapter I have shown how taking an eclectic approach to research provided additional sources of illumination for reframing my understandings of teacher education. Through examining my aeroplane metaphor, I came to see how my metaphor provided very limited illumination of my teaching and cast many aspects of teaching and learning in deep shadows. I took an eclectic approach to passive learning in addition to active learning, inauthenticity in addition to authenticity and thereby developed a model which brought these ideas together. I then turned this eclecticism to the self-study methodology and Schwab's commonplaces to show how these could also be viewed as eclectic constructs.

CHAPTER 10: IMPROVEMENT FROM THIS SELF-STUDY

The widely stated purpose of practitioner inquiry (including self-study) is to make an improvement (Attard, 2014; T. D. Brown, 2011; Craig, 2008; Korthagen et al., 2006; LaBoskey, 2004a; Samaras & Freese, 2009; Schwab, 1970/2013; Wallace & Loughran, 2012). Self-study researchers therefore need to make changes in their teaching, and then to demonstrate that these changes were an improvement (Russell, 2002). Now at the end of the research process, I am daunted by Russell's challenge.

Improvement has proven to be a rather difficult term. Similar to the morally privileged status of 'authenticity' (Splitter, 2009), 'democracy' (Bourke & Meppem, 2000) and 'reflection' (Brookfield, 1995), 'improvement' tends to close down discussions because it is obviously inherently 'good'. Delving deeper into 'improvement' reveals some of the tensions that are inherent in teacher education. In their investigation into teaching, Matusov and Brobst (2013) also examine the related term 'success' and state that their "focus is not only on causes of pedagogical failure, but also what is a pedagogical success? (p. vii). Therefore, while improvement appears superficially obvious, further analysis is necessary.

In this study, I was aiming to examine the learning experiences I designed for the PSTs with a focus on reducing passivity in my courses. Improvement by this measure would constitute more active and engaged learners and more meaningful experiences in their ITE. However, my reframing (discussed in the previous chapter) has meant that this question is largely irrelevant. Regardless, the diversity of responses to any one learning experience meant that it was difficult to firstly initiate change, then to demonstrate that this change was indeed an improvement. In the following sections I highlight the changes I made and examine the evidence that the changes represented improvements.

Example 1 change undone: Finishing with camp rather than fatality studies

The course I examined for this research took place in the first semester and so was limited to some extent by the changing seasons; as summer turned to autumn and then to winter, camp experiences became colder and less comfortable. The course was therefore structured so that camp occurred in the first half of the semester in order to make use of the warmer (but not necessarily drier) conditions. This had the added

benefit that PSTs has some experience of OE teaching on which to reflect as we progressed through the course. However, it also meant that we ended the course with fatality studies. Mel felt that risk management and in particular fatality case studies were a negative way to finish the course and other PSTs had concurred. Taking these perspectives into consideration, I examined the opportunities to rearrange the course and place the camp as the culminating experience of the course. Moving the course to the second semester allowed for me to reposition the camp to the end of the course and made use of warmer weather and longer days as we approached summer.

In 2014, the course ran in the second semester. Due to workload, I did not teach that course but I did coordinate it. Unfortunately, the school students who were due to come to camp were overloaded with school events in the final term and the school became reluctant to add to the busyness of that period. As a consequence the course was adapted considerably, the camp did not occur as conceived and I cannot conclude that this change was an improvement.

Example 2: Temporary satisfaction- quizzes on the readings

During my research, it became clear that some PSTs were not completing the readings. As a result, they were missing important aspects of the course and I felt that our class discussions were impoverished. The university provided a mandate to enhance student engagement and promoted quizzes early on in courses to identify any ‘at risk’ students. As a consequence, I designed a series of low stakes (low percentage) quizzes and placed these prior to key discussions.

In a different course (for graduate diploma PSTs) I implemented the quizzes. I found that class discussions were deeper and the PSTs referred to the readings more often. Working with Graduate Diploma PSTs confounds this result somewhat as they tend to be highly motivated and complete the readings anyway in my experience. That said, I believe that the discussions were of a high quality and informal PST comments indicated that the quizzes did motivate them to complete the readings. I argue that this was indeed an improvement for me and an innovation that arose from this study.

Late in 2014 I was exposed to the work of Harland, McLean, Wass, Miller, and Sim (2014) who title their article “An assessment arms race and its fallout: high-stakes

grading and the case for slow scholarship". Their key argument is that assessment is being used as a driver to ensure students "learnt" the subject matter, but the type of learning assessments promote are short term and shallow. Furthermore, proliferation of assessments creates a culture which reinforces that any learning which is truly important will be assessed. An academic participant in Harland et al.'s study commented

I've had a situation that was very humbling and upsetting and disturbing where I tried an integrative lecture with a student class which wasn't assessed and three quarters of the class got up and walked out, one of them saying, 'I'm sorry, but we can't afford to stay here. We're off to do our assignment'. That was sobering. (p.7)

My improvement of creating quizzes to encourage PSTs to complete the course readings had seemed straightforward, yet by using quizzes I had unwittingly become complicit in the "assessment arms race"; any curriculum not tied to assessments was by implication unimportant.

In these two examples, I demonstrated changed practice does not necessarily constitute improvement. Any improvements as a result of these changes were tentative, and very modest. In the case of both of these examples, the changes were either undone when my context changed, or became very problematic when the consequences become more apparent. It was indeed "frustrating to have found the solution to a recurring classroom problem only to have it rear its head in another form" (Brookfield, 1995, p. 241). My changes were not 'provably' connected to improvement. My research complicated the concept of improvement in this regard. In the following section I examine the problematic relationship between change and improvement.

10.1 Viewing change as an improvement

When Schwab advocates for the commonplaces in order to achieve balanced curriculum change, he is privileging change, albeit balanced change. And when T. D. Brown (2011) states that "self-study provides one such opportunity to move forward in ways that are commensurate with the literature and more importantly practice" (p.28), he is also focusing on change. Yet Dewey warns us:

We have to understand the significance of what we see, hear, and its significance consists of the consequences that will result when what is seen is acted upon. A baby

may see the brightness of a flame and be attracted therefore to reach for it.
(Dewey, 1938/1972, p. 68)

Looking to consequences is important when evaluating whether a change is warranted. In the past, I have struggled to find the foresight to see the consequences of the actions I have taken with regards to a sustainability initiative (North & Jansen, 2013). In this article, we described how we instigated a change to a more local camp venue to reduce the distance and therefore carbon footprint of the OE camp (environmental sustainability). But we failed to consider the full implications for the rural schools which had benefitted greatly from our programme and the reluctance of urban schools to add “yet another” event to their crowded timetable (social sustainability). The result was that the change we instigated needed to be undone and the camp returned to its original location using students from the rural schools in the area. Examining my attempts to make changes within my programme, it seems that I would benefit from improved reflection-for-action and ‘feeling out’ the consequences of these changes as the quote from Dewey above suggests. I am attracted to change, enjoy taking risks and am somewhat restless. I must however avoid repeating the same mistakes, like Dewey’s baby, reaching for alluring flames. There is much in the educational literature that privileges change.

Within self-study there are also such calls. For example, Attard (2014) states that “..in reality the self-study practitioner-researcher needs to engage in a never-ending process where the possibility of various solutions are analysed, with the final objective being the need for continuous change with the aim of constant improvement” (p. 38). Change is therefore important if we are to move beyond what Schwab (1978) defines as the moribund state of education.

However, change is not always an improvement; at times the best decision may be to make no change. Brandenburg (2008) argues that understanding her teaching more deeply did not necessarily result in changed practice but rather she came to understand that not everything needed to change. Some problematic aspects of practice are resistant to solutions and endure. Kemmis and Smith (2008) draw on Aristotle’s statement that ethical dilemmas and problems require a kind of judgement about competing goals, competing principles and uncertain priorities among them. Kemmis and Smith continue to examine what this means in terms of change. They once more use Aristotle and show how he requires that we act- even if we decide that the wisest

course of action is to do nothing. While counter-intuitive, doing nothing is indeed an active choice. When I teach crisis management, I provide PSTs with scenarios. One of the most important strategies I focus on in the immediate aftermath of an accident is “don’t just do something, stand there!”. This twist on the common phrase emphasises that action is often driven by a surge of adrenaline and in order to make a good decision, it is necessary to pause and take a more considered approach. It may be that the best course of action is to avoid acting. For example in the case of live wires which have fallen over a crashed car, it is unsafe to touch the vehicle or even get close to it. Many teaching decisions must be made in every minute of every hour and not every observation must be acted upon, or indeed should be acted upon. This level of discernment lies at the heart of teaching decisions and is part of the unforgiving complexity of teaching (Cochran-Smith, 2003b).

A lack of action, however, does not constitute the improvement called for by Russell (2002). Instead, a choice not to act may avoid making something worse. Returning to Russell’s (2002) requirement, I must conclude that like pragmatists, any changes I have made have been temporary and at best satisfactory. Hipkins et al. (2014) call these “clumsy solutions” and argue that these represent improvement because despite their limited success, they open up possibilities for further solutions to be found. Indeed many of the changes I made revealed further problems which I had not anticipated and which required further solutions.

If improvement cannot be measured by changed practice and demonstration that this change was indeed an improvement, then in what ways can my research reveal improvements?

Implicit and embodied practice

As a teacher educator, I am given the responsibility of preparing teachers for teaching. One of the many challenges that come with this responsibility is that teacher knowledge is personal, has an experiential and subjective quality, and a pre-cognitive bodily base (Clandinin & Connelly, 2004). As such, my knowledge of teaching can be difficult for me to articulate to PSTs because as Schön (1995) states, knowledge is “tacit, implicit in our pattern of action, and in our feel for the stuff with which we are dealing” (p.29). By its very nature, teaching is an embodied act.

Working within the health and PE curriculum, it is clear that learning is more than a cognitive process and our bodies are an integral part of how we learn (Ministry of Education, 1999b; 2007). When a teacher educator undertakes inquiry or self-study, the teacher becomes learner and must therefore understand that “our tacit knowledge is already speaking explicitly, and sometimes very loudly. We just need to tune into our bodies and hear what they are saying” (Forgasz, 2014, pp. 18-19). This raises the question for me “In what ways did this research help me to become aware of what my body was saying and how that impacted on my teaching?”.

My embodied practice became overt through my exploration of position and power. Through my body, I was pre-cognitively providing messages about power and thus influencing the types of learning experiences of my PSTs. Certain habits and routines that were implicit in my body’s knowing about teaching became consciously known to me through this research, firstly through a critical colleague’s observation, then through my observations of the video recordings of my classes to the point where I was able to reflect-in-action (Schön, 1987). Several PSTs also found that my physical position made a significant difference, but not all did.

Through naming my physical position, my critical colleague had made it visible to me, and therefore allowed me to examine it. I was then able to explore and reframe it (Schön, 1983). These so-called sleeper issues, (Brandenburg, 2008) were present but lay dormant until I became aware of them.

While learning about the influence of my physical position was significant for me, it was not the silver bullet. My more nuanced understanding from this research was that body position did make a difference, but that body position alone did not overwhelm what Kemmis and Grootenboer (2008) call the enduring practice architectures or my OE metapactices (Kemmis & Grootenboer, 2008). Whether my learning about physical position represents a small sign of resistance and awareness of structures that promote PST passivity remains uncertain. It may simply represent the tension between my teaching practices and the pervasive practice architectures of my milieu. Based on this research, I believe that through small changes it may be possible to firstly identify such metapactices and secondly to potentially disrupt and distort them. This disruption requires that I take a different position or stance physically, but also a different stance in terms of perspective.

The dual meanings of the term stance which implies both body position but also perspective is an interesting concept. In her metaphorical exploration of stance, Cochran-Smith's (2003a) writing has relevance for the physical placement of my body as well as my intellectual activities. Through this metaphor, I can now see how my physical stance has changed through time, reflecting a new stance in my understanding about my embodied teaching. As a consequence, I have learnt an awareness of how my body sends powerful messages about teaching and learning to my PSTs.

This research has identified a variety of avenues for further inquiry. There are many more implicit and tacit understandings of my teaching still sleeping and waiting to be awoken, named and examined. As a pragmatist, I do not support the idea of full and final solutions and Schwab (1971) notes that practical problems are never solved completely or once and for all. Indeed, temporary satisfaction is the best we can hope for (Rorty, 1982).

Taking Rorty's words to heart, I notice that I have understood Russell's challenge of changed practice as a sign of improvement in a very specific way. I have looked at changed pedagogies, course structure or assessments. In the next section, I explore in what other ways Russell suggests changes and improvements might be framed in order to show more enduring change.

10.2 What is an enduring improvement?

"It is just such a complex web [eclecticism] which must somehow be taken into account if we are to effect durable solutions to educational problems" (Schwab, 1971, p. 501). In this statement, Schwab argues that an eclectic approach is required to provide "durable solutions". I initiated this research in the hope of finding some clarity in the contested world of OE and ITE curriculum development. In other words I was seeking to avoid what Openshaw and Ball (2008) referred to as a 'series of displacements'. I wanted some assurance about the correctness (and therefore durability) of the curriculum decisions I was making.

In order to effect durable solutions, I attempted to take an eclectic approach yet as I discussed above, my solutions have been at best ephemeral. Admittedly I have strayed from Schwab's true definition of an eclectic deliberation with the commonplaces in

several ways (as I enumerated in the commonplaces section). However, I suspect that even following Schwab's eclectic to the letter would not have resulted in definitive resolutions to my teaching problems. It seems the dynamic nature of teaching and learning does not present opportunities for durable solutions to questions of curriculum.

The framing of solutions as temporary and at best satisfactory appears to make my research vulnerable to the critique that "Bottom up change – so called let a thousand flowers bloom – does not produce success on any scale. A thousand flowers do not bloom, and those that do are not perennial" (Fullan, 2007, p. 11). In this comment, Fullan expresses his frustration with action research completed by teachers, which he calls "bottom up change". He believes that it does not produce success on any scale - even within the classroom of the teacher conducting such research, nor any perennial (long term) improvement. Fullan's approach to educational research emphasises large scale and quantitative studies and meta-analyses with a focus on generalizability. He wishes to establish the key predictors of effective teaching in order to build confidence that teachers are following 'best practice' and 'evidence-based teaching'. My self-study research comes from a very different paradigm and cannot be held accountable to such measures of validity and reliability as Fullan's work or that of Hattie (2008) and Hogan (2011). In order to respond to such critiques, my research must demonstrate a form of improvement. Yet rather than an increase in confidence that what I am doing is correct, over the course of this research I have become less confident in the relationship between my teaching and the learning that goes on in my classes. I now turn to this newfound uncertainty as a form of improvement.

Robyn Zink critiqued OE for the taken-for-granted certainty with which it treats the relationship between experience and education. She stated that OE

sits at an impasse because it has valorized and privileged experience as the means and modes of education to such an extent that experience is held as the defining feature of OE and that which gives it its power. It then becomes very difficult to consider that experience is anything other than authentic and connected to learning in a transparent way. (Zink, 2004b, p. 218)

I have been guilty of an over-confidence in my teaching whereby the learning experiences which I designed for my PSTs were transparently and linearly related to the educational outcomes. For example, when I created more authentic experiences for my

learners, I expected PSTs to treat these experiences as teaching-like, engaging and therefore PSTs would actively learn about becoming OE teachers. Some of the other learning experiences I designed targeted particular aspects of practice (much like the blindfolded communication activity described earlier) and previously represented my efforts to “maintain control or cover content with little attention to what learners are actually learning” (Davis et al., 2000, p. 11). Thus I argue that certainty is unhelpful.

Uncertainty on the other hand represents an unstable state and prompts high levels of alertness. With respect to practitioner research, Brookfield (1995) suggests that teachers rarely change dramatically, rather, they appear to become less convinced about an issue. Attard (2014) agrees stating that “...while uncertainty is seen as a sign of weakness for the technical expert, uncertainty is a sign of constant growth, development and learning for the self-study practitioner-researcher” (p.38).

The implications of becoming less convinced are similar to those of walking on a track versus navigating off-track. On a track, my mind wanders because I am certain of the route, the track guides my feet along the easiest path. However, off-track, I need to pay attention and make multiple decisions on different scales; from the minutiae of going around a bush through to changing my direction significantly by changing the compass bearing I am following. Brookfield (1995) argues that in teaching, becoming less convinced helps us to stay awake in our practice. Previously I was likely to consider the connections between experience and education to be more straightforward and therefore I could allow the ‘obvious’ meanings to be drawn by the PSTs. In the wake of my research, I am now less convinced that what PSTs will take from a particular learning experience is that which I intended, so I need to stay alert and watchful.

Similar to T. J. Smith (2008), I found “One of the most powerful insights that I gained during my self-study was the realisation that a disposition towards inquiry- an inquiry stance- is an essential attribute for effective teaching” (p. 78). Since taking on this new stance and feeling less certain, I have begun to explore the learning experiences of my PSTs in other classes and this alertness has revealed myriad meanings which PSTs are making.

In the words of Parsons (2013), I “have engaged in *good news* as [I] have experienced the triadic relationship of conducting research, understanding the findings of research,

and seeing how that process has shaped [my] own understandings of who [I am] in the process” (p.139). This heightened alertness and understanding of my research has led to a change in my stance as I have come to understand my role as teacher differently. This in turn has shaped who I am as a teacher and I suggest that like Foucault (1975), “the main interest in life and work is to become someone else that you were not in the beginning” (p. 30). I did not set out to transform myself but rather to understand the learning in my class. Because of my focus on PST learning, like A. Clarke and Erickson (2004b) I found that my learning as a teacher came as an inevitable result. It was a transformation of a kind, although not always radical; more evolution than revolution.

During the course of this research I have learnt from and through the experience of the research process and I believe I have gained a deeper understanding of myself as a teacher educator. In particular the way I frame teaching and learning and the types of PSTs for whom my approach works, but I have also identified a variety of PSTs for whom my approaches were less helpful. Like others before me, Brookfield (1995), Rorty (1982) and Schwab (1970/2013), I have gathered some evidence and have started to make changes to my practice which will inevitably present me with further challenges.

As evidence for this changed stance, I now seek to ‘get inside PST’s heads’ more frequently through a variety of means. After learning experiences, I take time to discuss with PSTs in what ways that this particular experience could result in either mis-education or education. In these discussions I am more comfortable with silence. In addition to these discussions, I regularly gather information using exit slips (although not necessarily weekly). This allows for a different form of ‘student voice’ to be expressed. Similarly, I don’t make judgements from my observations about PSTs’ motivation or engagement levels as quickly as before. If I see what I consider bored or disengaged behaviours, I am more likely to ask the PSTs about my observations and interpretations, before I come to any firm conclusion. Ultimately, being more sensitive to the ‘student voice’ is a fundamental element that underpins quality in teaching (Attard, 2014; Brandenburg, 2008; Hattie, 2012; Wallace & Loughran, 2012; Whitehead, 2004) and has been a key learning for me through this self-study.

Two years after I began my self-study, my focus on student voice continues to reveal more about my teaching and the learning that goes on in my classes. My motivation

remains strong to continue down the track I have begun with this research. In particular structuring high quality learning activities that limit the complexity, scaffold the learning process, yet reflect the agentic and adaptive stance that teachers must take. While two years of changed practice does not prove enduring change, it is certainly a positive indication. My longer term changes in stance are perhaps the best way to respond to Fullan's (2007) critique of teacher research as little more than an "ephemeral flower".

Other observations I have made also suggest that my stance has changed. For example, upon recently re-reading Brandenburg (2008), (which I first read three years ago) I discovered far deeper insights. This suggests that while the book has certainly remained the same, my reading of the book is now quite different. I believe this reflects the significant changes brought about by my new understandings of teaching and my new stance as an uncertain teacher educator.

Summary

Through this research I have come to understand improvement differently. The improvement I have demonstrated is that I am now a more uncertain and therefore more observant teacher educator. The straightforward connection between learning experiences and education which I previously took for granted, is now troubled to the point where I am unsure about the meanings my PSTs are making from these experiences. As a consequence, I have taken up a different stance and I am a more curious teacher. I seek the help of the PSTs in helping me to understand what is going on in my classes and how I can be a better teacher educator. Looking with fresh eyes at my teaching has enabled me to see other possibilities in my teaching. I achieved these insights through the process of self-study and agree with Shulman (1998) that self-study *was* actually the improvement.

CHAPTER 11: REPRESENTATION IN SELF-STUDY

[writing] needs to be readable and engaging, themes should be evident and identifiable across the conversation represented or the narrative presented, the connection between autobiography and history must be apparent, the issues attended to need to be central to teaching and teacher education, and sufficient evidence must be garnered that readers will have no difficulty recognizing the authority of the scholarly voice, not just its authenticity. (Bullough & Pinnegar, 2001, p. 20)

In their statement about quality in self-studies, Bullough and Pinnegar set out a range of requirements for the representation of research. In this section I turn to the representation of the results of my self-study. Expectations from within the self-study research community have important implications for how my research results have been organised and presented. Some of the requirements are common to other types of research, while others are distinct. All types of representation come with their own opportunities and potential pitfalls. I describe some of these opportunities and pitfalls as I encountered them in my research.

Arising from a post-modern conception of research, self-study examines the context and people involved at a depth and level which allows more intricate and intimate details to be examined. Yet self-study must respond to critiques that it is simply reinforcing private practice. Similar to Hogan, Schwab sees a problem with individualised approaches to examining practical problems:

Problem situations, to use Dewey's old term for it, present themselves to consciousness, but the character of the problem, its formulation, does not. The character of the problem depends on the discerning eye of the beholder. And this eye, unilluminated by possible fresh solutions to the problems, new modes of attack, new recognitions of degrees of freedom for change among matters formerly taken to be unalterable, is very likely to miss the novel features of new problems or dismiss them as 'impractical'. (Schwab, 1970/2013, p. 616)

Here Schwab offers a way forward to self-study researchers. Schwab is critiquing an 'unilluminated' response in which a teacher is likely to miss aspects of problems which are novel to him or her. As an alternative, he proposes an eclectic approach, which involves deliberation with others. In the context of my research, reading accounts of self-study research provided me with the opportunity to engage in a form of indirect eclectic deliberation and provided some alternatives to my own "unilluminated" perspective. Through representing my own research, I wish to contribute to the teacher

educator community and hope that in some way, my research may provide insights and alternative perspectives. Framing representation not as expert scientific knowledge for dissemination, but as the practical wisdom of a practitioner (Shulman, 2004) has both opportunities and challenges which I will now consider.

11.1 Self-study approaches to representation

While the attraction of self-study is that the research will be influential on teacher's own understanding of their practice, we are warned that self-study research must publish and present results to the wider community so as to avoid the temptation merely to satisfy the self (Clandinin & Connelly, 2004). As Berry and Loughran (2012) state "it is important that self-study goes beyond the self to *genuinely impact* on the work of teacher educators more widely" (p.402 my emphasis). The goal for practitioner research is indeed that it is meaningful for other teacher educators and contributes towards theory and practice. Berry and Loughran's wording is consistent with the discourses surrounding teacher education research, with institutional requirements for research outputs and also, increasingly, requirements to demonstrate research impact on others. Upon further consideration, the research 'impact' discourse seems to frame representation through a particular metaphor. Impact suggests that there is a collision between the research and the reader. This metaphor implies that the passive reader is transformed or changed through the inherent momentum of the research. As described above, self-study research does not set out to prescribe practices nor make recommendations to others. Instead, its aim is to invite readers to see parallels between their context and that of the research being presented. As such the reader is in control of how the research becomes influential and not through some inherent property (impact) of the research itself. I look further into this discussion below.

The expectation that self-study goes beyond the self creates some challenges for self-study researchers as we attempt to make our research relevant to others. In particular it begs the question, in what way can we present our research so that it is not only accessible to others but also that it is influential? Some of these challenges are shared more broadly within the qualitative research field.

Impact reframed

Given that the reader has ultimate control over the influence of any research she or he reads, how might a writer invite a reader to engage more fully with the research? As Davis et al. (2000) state “language does not represent truth but more a means of projecting a reality” (p.180). For self-study researchers, language should represent a projected reality of our everyday context in such a way that others can read themselves into the research and see the parallels with their own practices. In which ways is it possible to make the research representation more convincing so that the reader then bestows trustworthiness upon the research and the research is then influential?

LaBoskey (2004a) states that when validity is reconceptualised as trustworthiness, it is challenging to bring the details of the work to others so that both the research process and the results can be rendered accessible and comprehensible. This is particularly difficult, according to Gitlin, Peck, Aposhian, Hadley, and Porter (2002), in practitioner research because one of the main goals is to improve our own teaching and yet move this message beyond ourselves. Various authors have struggled with this same dilemma and Lather (1991) coins the term ‘catalytic validity’ to better describe how qualitative research influences readers. Along the same lines, Wals and Alblas (1997) describe the degree to which research can lead to transformations of practice as “case-inspired self-generalisation” (p.255). These different terms essentially describe the same phenomenon, that of readers of research choosing to change their practice because they have become convinced of the relevance of the research for their context.

Responding to such calls, I have attempted to make both my context and my personal history and interests very clear in this research. Firstly, I have chosen to provide rich descriptions of contexts so that others can draw analogies with their own situations. This has included details of the programme within which I work, including images of the physical context. Through such descriptions, readers are more able to see the differences and similarities to their own context. Secondly, I have acknowledged the ways in which my interests and authority have privileged certain interpretations and representations (Korthagen et al., 2006). I have provided autobiographical vignettes with the express purpose of providing readers with an insight into my own perspectives. While I have engaged with eclectic perspectives of others, my study is immersed in my everyday theories. By describing both my context and my own

background, readers may better understand my stance as a teacher educator. But it takes more than an understanding of the context and the researcher for self-study research to become influential, just as important is the writing itself.

11.2 Calls for persuasive representation

Communicating the results of research has been an enduring challenge. Until relatively recently, representation of research had sought to establish a form of authority in which reading was presented as “a set of skills to be used to extract meaning from texts, the reader must be positioned as a non-participant, a more –or-less passive receiver of truths that have already been established” (Davis et al., 2000, p. 234). In order to assert the authority of these established truths, the representation must employ a level of virtuosity in the writing itself (Bullough & Pinnegar, 2001). The reader therefore becomes convinced of the superior expertise of the research, defers to this authority and makes a change.

While this genre of representation is still common, reader response theories suggest that the meanings created through reading, arise from the complex interplay of writer intention, textual representation, readers’ experiences and the contexts of reading (Davis et al., 2000). This approach emphasises the responsibility of the reader alongside that of the writer in creating meaning from the research. Applying this to the representation of self-study research requires that the writer persuade the reader to read their work, and that the reader then actively constructs a meaning from this interplay. This is more consistent with the social constructivist ideas of ‘catalytic validity’ and ‘case inspired self-generalisation’ than with the ‘impact’ of research.

Clandinin and Connelly (1994) suggest that story telling is an effective way for researchers to encourage others to read their work. Teachers often recognise each other’s narratives as there are a finite number of plots and storylines that characterize our lives and while each storyline is subjective, “far from being impossibly variegated, our life stories seem to cluster into a small number of ‘archetypical’ plots” (Goodson, 2013, p. 63). In this way, stories can act to emphasise commonality while providing the alternative illuminating perspectives that Schwab called for. Indeed, Bullough and Pinnegar (2001) argue that interesting stories can act to enhance the appeal of our self-study research because the linearity and simplicity of the story form appeals to teacher

educators, the plot resonates and we read on. Therefore, when representing our research we are encouraged to invite readers into our research by creating a compelling narrative. Heroic stories are one such strategy.

Types of heroes

In qualitative interviews, researchers deal with subjects' framing of their experience and with their tendency to present themselves as the heroic figure at the centre of a narrative (Brookfield, 2008). As researchers, there is also the tendency to frame ourselves as heroes in a narrative when we represent our research. In recognising and indeed privileging this heroic approach to representation, Bullough and Pinnegar (2001) identify four types of hero narratives: romantic, tragic, comedic and ironic. While the tragic and the comedic hero narratives are avoided for obvious reasons, both the ironic and the romantic hero narratives are appealing. I now turn to these two key types of narrative in educational research; romantic and ironic heroes.

Just as the romantic hero eventually triumphs over adversity, generally by strength of character, Bullough and Pinnegar (2001) suggest the allure of a romantic heroic type of narrative is that it aligns with our desire to solve problems and achieve progress. For example, Timperley (2013) suggests that published work into education interventions tend to highlight the efficacy of the particular approach taken, usually in terms of shifts in thinking or practice. She argues that the positive bias of this literature is unsurprising for several reasons and expands on two areas in particular. Firstly, there is a desire for researchers to have their efforts seen in a positive light and secondly, positive results enhance the acceptance of their accounts for publication. To these two I would also add the allure of the romantic hero narrative, which provides writers with a relatively simple storyline in which to frame the research. The romantic hero may be a particular practice rather than an individual, and the practice, while not quite a silver bullet, at least offers a solution to some of the perplexing problems which confront all teachers. If the influence of our research is tied to our ability to draw the reader into our stories, it is little wonder that romantic hero type narratives are appealing.

In contrast to the romantic hero, Bullough and Pinnegar (2001) single out the ironic hero as a particularly apt form for the representation of self-study research. According to Bullough and Pinnegar, ironic hero stories are useful because they allow an

exploration of failures, difficulties, and problematic aspects and unlike romantic hero stories, they do not require a triumphant return. In fact, the ironic hero does not often resolve their problems. Bullough and Pinnegar provide numerous examples of self-study research which could be grouped into the ironic hero narrative and this narrative style also sits well with my research because while I grew in knowledge and understanding, this improvement did not miraculously free me from my problems.

11.3 Persistent problems with representation

In this section I examine some of the difficulties when representation is constructed as persuasion through establishing a coherent narrative.

First, I believe there is a danger in viewing trustworthiness as a consequence of persuasiveness. While it is important to clearly communicate our results and do so as persuasively as possible, there is a danger because the fluent and articulately written argument may be more convincing than perhaps something more substantial but less persuasively written. Silverman (1997) argues that educational research literature at times mimics mass media and focuses on the trivial, kitschy, and melodramatic while ignoring simplicity and profundity. The temptation is for writers to embellish an account to render it more dramatic and exciting. These thoughts are echoed in other areas where we are also warned of drawing inferences too tightly from our results. For example Schön (1983) encourages us to think with exemplars rather than communicating certainties as a rhetoric of conclusions, while Craig (2009) recommends “telling likely stories” (p.23). In my research I have attempted to provide a balanced account which reveals some of the profound insights I have gained and articulate these as persuasively as possible. At the same time I have attempted to be honest and avoid embellishing my account. I acknowledge that the influence of my research, once written is largely in the hands of the readers and their discernment. As LaBoskey (2004a) argues, the test of my representation will be whether the relevant community of teachers and teacher educators evaluates my research findings as sufficiently trustworthy to rely on them for their own work.

Related to the persuasiveness of the writing, is the danger in forcing a linear and progressive story out of our research. Matusov and Brobst (2013) state that a central

challenge for researchers is to develop a subjective, particular, yet responsible and honest account of our research.

Some academic writing styles set the scene by describing an ignorant and shallow approach to teaching, and then the writer proceeds to tear this approach down through reasoning and argument. By overcoming ignorance and pointing to the solution, this writing follows a type of romantic hero narrative. I have found such writing compelling and engaging. It is not until I reflect later that I become aware of the shallowness of the 'straw man' who was built specifically to demonstrate the strength of the author's argument and in the process, to be destroyed.

In self-study, this 'straw man' can be constructed out of my former self, prior to the self-study. Matusov and Brobst (2013) warn of the temptation to "create a patronising and teleological relationship between the "I now" as genius, profound, reflective, responsible... and the "me then" as stupid, naive, mean, mislead, ignorant, arrogant, blind, shallow..."(p. ix). The inherent appeal of this romantic hero narrative is that the storyline becomes more persuasive because it shows transformation through its simplicity and linearity. Several times in the writing of this thesis I have been tempted to downplay my former competence in order to emphasise the importance of my research. Even prior to this self-study I understood that there was a high level of complexity in establishing teaching and learning environments, and I believe I established those environments with considerable dexterity. Yet, acknowledging my former self as competent makes for a much less impressive storyline for my research.

The thesis or article as a vehicle for representation also places constraints upon our accounts of research. In writing this thesis, I have presented the journey of my research in a particular structure:

If we were to choose a metaphor to represent that mental journey it is still more likely to be something about trying to traverse a mangrove swamp than something about a trip on converging railway tracks. So we accept, as all researchers must, the fact that although we neither think nor know in logical straight lines, we are nevertheless obliged to write in them, and are thus content with evocation rather than reproduction as a goal. (Ham & Kane, 2004, p. 144)

Just as Ham and Kane state, the past five years of my research is now presented through this thesis as a linear process and this is necessary in order to have a coherent narrative.

The actual research path I took, involved numerous dead-ends, circular and circuitous routes and side-steps, yet accurately reflecting this in the structure of my thesis while retaining any coherence is beyond my writing ability. I must therefore, like other researchers be content with 'evocation rather than reproduction'. The challenge remains that researchers must be discerning and careful in how we choose to articulate our research. Hart (2014) asks "how do researchers of education critically account for the filtering between raw observational data and what is identified, selected and categorized for presentation? What is recorded or left out as blank spots or blind spots?" (p. 480). A high level of reflexivity is necessary in order to avoid the ever present traps of overly simplistic transformative accounts and heroic storylines. This same discernment is necessary when selecting what to include and what to exclude from the research account and in the next section I expose some of the silences in my research.

The silences in my research

In this research I drew on a framework influenced by pragmatism, constructivism and eclecticism. I believe that the selection and synthesis of these perspectives provides an effective framework for this thesis. However, it is important to recognise that there are significant gaps. It was impossible to include all aspects of my teaching which might have had some bearing on this project. LaBoskey (2004a) states that questions regarding knowledge and research, such as who gets to produce it and how, necessarily involve issues of power. I am making these decisions explicit in order to maintain an honest representation of my research. I turn now to some of the aspects of my research which are missing, notably biculturalism, sustainability education and outdoor pursuits.

Initially I had envisioned including a significant section on bicultural approaches to OE. I collected data from the commonplaces to examine aspects of the course including the powhiri (welcome at the camp) and various culturally responsive pedagogies I employed (Alton-Lee, 2003; Dreaver, 2009; Ministry of Education, 2011b). Like Legge (2011), I believed this research would shed valuable light on my experiences as a Pākehā (non-Māori) educator as I worked to become more culturally responsive. However, being Pākehā I felt uneasy about entering cultural terrain where I had only limited understanding. There is a history of cultural appropriation in Aotearoa New Zealand which has resulted in considerable resentment from some Māori and the

occasional heated exchange leading to what Tolich (2002) called Pākehā paralysis when it came to researching Māori. Some PSTs in my course identified themselves as Māori and as such I had the opportunity to gain valuable insights into this problem. However, in addition to my own insecurities, one PST's background meant he/she was scarred by experiences with the Māori side of his/her family. While a bicultural aspect to my research could have made a contribution to the body of knowledge in this area, I felt ethically insecure and the research took a different direction. Notwithstanding these reasons, I believe there is an important place for both Māori and Pākehā perspectives on bicultural approaches to outdoor education in Aotearoa New Zealand as advocated by Irwin (2010) and Legge (2011). I believe there are significant opportunities for future research in this area.

As Boyes (2011) states, the murmurings about sustainability in outdoor education have risen to a clamour, at least in academic circles. Sustainability has been an important part of my focus on outdoor education including my writing on Leave No Trace (North, 2010, 2011; North & Hutson, 2011) and also on incorporating sustainability education into ITE (North & Jansen, 2013). The *New Zealand Curriculum* states that sustainability education is an important part of educating for the future (Ministry of Education, 2007). There was the potential (for example in Chapter 7: Into the Outdoors), for environment to play a far greater role in this research. Yet sustainability and environmental education received little mention. According to Hill (2012) and Irwin (2010), environmental education and sustainability are frequently marginalised in OE. My research could well support the arguments of these authors. Ultimately however, the focus of my research moved away from sustainability and environmental education. There remains much opportunity and indeed academic support for further research into sustainability education within outdoor education.

Outdoor pursuits dominate outdoor education in Aotearoa New Zealand (M. Brown, 2008, 2011; M. Brown & Fraser, 2009; Zink, 2003). However, in this thesis there is no research into any of the pursuits beyond a mention within fatality studies. Because of this, my research risks mis-representing the work of outdoor education teachers as OE frequently involves tramping (backpacking), climbing, kayaking and alpine experiences. The reality of ITE is that the time and financial constraints have reduced the opportunities for outdoor pursuits within the particular course I studied. In addition, while outdoor pursuits remain at the centre of outdoor education in senior levels of

high schools (Boyes, 2000; Ministry of Education, 1999b), for junior high school students, cross-curricular outdoor learning and basic camping experiences are more common (Haddock, 2007). The focus of TECS376 is on outdoor learning through education outside the classroom, adventure based learning and risk management and no longer on outdoor pursuits. Each of these aspects of the course is well-represented in this research and the lack of outdoor pursuits accurately reflects the course content. It would, however, be interesting to examine outdoor pursuits through a self-study; in particular the kinds of reframing that might be brought into focus through an adventure context. Zink's (2004b) Foucauldian analysis of OE provides an intriguing insight into the types of reframing which might be exposed by such a study.

I have selected to expose just three silences which I felt were noteworthy. There were many other areas that received no mention or short shrift. As with teaching decisions in general, my difficulty was in choosing what to omit, rather than what to include. Another researcher would have selected very differently because "the outcomes of self-study are as unique as our DNA" (Attard, 2014, p.40).

Summary

In this chapter, I examined the ways in which I represented this research so that it can fulfil the expectations of reaching a wider community and not simply satisfying the self. There are several challenges to representation when viewed from a self-study perspective which I explored. Some of the tensions in representation are unresolved and largely unresolvable. Representation requires a high level of reflexivity to confront issues regarding power relations, reflexivity, subjectivity, reciprocity, process, voice and the co-construction of "self" and "other" (Davey, 2013). For my research to become influential, it also requires that it be fluent and persuasive without falling into dishonest versions of romantic hero narratives. This was a significant tension for me. From a privatised perspective "self-studiers" must be content with "Living with incompleteness and unknowability and being context dependent make it hard to draw clear lessons that you can apply tomorrow and the next day, to this year's students and the ones to come, but we believe the effort is worth it" (Coia & Taylor, 2013, p. 13). However, attempting to make our research influential, when our results are context dependent, incomplete and difficult to draw conclusions from represents a significant hurdle. Thirteen years ago, Gitlin et al. (2002) wrote "We have not... developed a form of representation that

does justice to the process orientation of teacher research” (p. 311), but, according to LaBoskey (2004a) we are making progress. By highlighting the inherent tensions of representing self-study research, I have made a contribution to this progress.

11.4 Concluding comments: Implications for theory, practice and future research

When I began this research I was aware of the competing discourses teacher education and outdoor education and I wished to respond in an informed manner. Pertinent to OE was the concern that young people were missing out on a range of benefits by staying largely indoors. These benefits have been articulated both in popular culture (Louv, 2005) and in the research literature (Hartig, Mitchell, de Vries, & Frumkin, 2014; Rickinson et al., 2004). I saw my role in this as an advocate for outdoor experiences and inspiring PSTs to take their students outdoors. At the same time, critiques of outdoor education were heightened by recent and multiple fatalities (Brookes, 2011). There was no consensus on the best way to respond. These challenges motivated me to make changes in my teaching and to examine the effect of these changes through a self-study methodology. The results presented here represent five years of working towards this end. Examining PST experiences indicated highly variable meaning-making from experiences and supports constructivist ideas about learning. This finding turned attention back on my assumptions and framings of learning in my course and as a result I learned far more about myself as a teacher educator than I anticipated at the outset.

There are significant limitations to what can be achieved by one teacher educator, teaching one course within a four year degree, within an ITE institution, within a wider educational system and society in general. These limitations define the context of the results and impose a certain level of modesty on my conclusions.

Nonetheless, I believe this thesis has provided some useful insights into the theory and practice of ITE, the self-study methodology, the preparation of teachers for outdoor education and most significantly into my own understanding of teacher education. The specific contributions of my research are summarised below.

Fatality studies

The fatalities of the past years in Aotearoa New Zealand required that I respond as a teacher educator. After analysing the 2008 fatalities in the Mangatepopo Gorge, Brookes (2011) recommended that ITE for OE teachers include fatality studies. This study was the first to examine the implementation of fatality studies and it revealed a host of complicating factors. The results from this research indicate that fatality case studies require a high level of differentiated learning opportunities, tailored to the individual PSTs. Differentiated learning would help ensure that PSTs are not overly traumatised on the one hand, nor left unmoved on the other hand. Fatality studies are currently being used in senior secondary school OE courses and an important area for future research is to examine whether there are parallels with the results from this study.

Enduring uncertainty

This thesis has contributed to the role of teacher educator actions in establishing learning experiences by adding weight to the growing body of research which troubles the assumption of causality between learning experiences and educative outcomes. This was revealed by the connection between 'authentic' experiences and PST learning. Constructivism highlights the diversity of meanings which PSTs make from any one experience and reinforces calls for teachers and teacher educators to be vigilant in their practice. This vigilance is linked to uncertainty. Through synthesis of the evidence presented here and the literature, I strongly argue that my growing uncertainty and the curious and alert stance I took in response is one of the greatest improvements to come out of this research. In future research I would like to explore the enduring nature of the improvement in my self-study. Will my uncertain stance erode away as ephemeral bottom-up change (Hogan & Gopinathan, 2008) and like much of teacher professional development (Timperley et al., 2007) or will it endure? I intend to continue researching my practice over the next years in order to explore this question.

The eclectic: Beyond the commonplaces

This thesis contributes to and extends on Schwab's eclectic arts by applying eclecticism as a means of reframing root metaphors. I have demonstrated the usefulness of

eclecticism in understanding a range of problems in teaching and learning. By deliberately adopting multiple and eclectic perspectives, this research has revealed new aspects to the problems I was considering and illuminated alternative approaches. While not specifically calling it eclecticism, others have employed various terms such as tensions (Berry, 2007), axioms (Senese, 2002) and paradoxes (Palmer, 1998). In each of these cases, these eclectic approaches led to a variety of insights. This approach proved very powerful in my research and in each chapter I identified the ways in which eclectic arts had presented the opportunity for me to reframe my assumptions: about physical position, role-modelling, my romantic approach to the environment, 'authentic' experiences and fatality studies. Each of these areas had a body of literature behind it and in each case, this literature contributed greatly to my understanding of the problem I was exploring. In turn, my research now provides a further exemplar to extend Schwab's concept of the eclectic in order to reframe teaching and learning dilemmas.

Self-study: Eclectic perspectives

Like many who embark on a self-study, I intended to examine the learning of my PSTs, yet I found my greatest learning was an improved understanding of myself as a teacher educator. While I reflected actively and often, this improved understanding was only possible through the insights of the PSTs in my class, and particularly those who were in my focus group and interviews, and my critical colleagues. In effect, their insights turned the research lens back upon me and I was able to see my teaching through fresh eyes. Therefore building on Schön's (1987) work on reflection, I argue that I needed the insights of others in order to better understand my teaching. An important area for further research is the influence on PSTs of being a participant in a self-study. According to Gulikers et al. (2009), being able to interpret the work of colleagues and giving constructive feedback on these performances are necessary pre-requisites for teachers' professional development and for improving their own functioning. Therefore, participating in this study may have served as a pre-requisite for improving PSTs own practices. Participation in my self-study has motivated some PSTs to undertake self-studies in their honours projects. Is there also an influence on PSTs beyond the context of ITE as they begin teaching in schools? Is there an opportunity in my courses for PSTs to undertake their own study because as A. Clarke and Erickson (2004b) state "we believe that beginners must be engaged in the mature practices of the

profession at the outset of their career if they are to become fully participating members of that profession” (p.208).

Metaphors

This research has also contributed to the already significant body of literature exploring metaphors in education. In articulating my metaphor of PSTs as passengers, I was able to examine and reframe this metaphor through an approach that sought out eclectic metaphors. Pinnegar et al. (2011)’s research into PST metaphors is fascinating and resonates with my use of metaphors. Extending Pinnegar’s research into PST’s metaphors would be worthwhile in my opinion. For example this could involve encouraging PSTs to name their metaphors, then develop an alternative or eclectic metaphor and then to examine any change in PST’s approach to teaching that arose through this process. Such research might lead to some significant shifts in PST’s understanding of their framing of teaching and learning (as it did in my case).

Implications of self-study for improvement and representation?

Through this research I have critically examined the concepts of improvement and representation in self-study. In the case of improvement, the changes I made were often fleeting or indeed potentially unhelpful. The enduring change proved difficult to establish until I examined my changed stance. This form of improvement certainly challenges the established measures of improvement. As long as the measures for improvement are based on technical-rationalist results, represented as quantitative and objective, self-study will remain marginalised in the broader research landscape. Representation of self-study research also proves difficult, if it is to have an ‘impact’ on others. Drawing on constructivism, I showed how research influence could be enhanced through persuasive and honest accounts which encourage readers to picture themselves in the researcher’s shoes and see the applicability of the research to the reader’s context. This approach is not without its dangers but at least provides a viable means for representing self-study research in a way that may be influential.

Through this research I gained a better understanding of teaching and learning and have shared my new understanding in this thesis. My process of coming to understand is incomplete and challenges remain. These are not easy challenges as evidenced by the

many years that educators, researchers, and more recently researching-educators have been occupied with teaching and learning. Like Zeichner (1999) who states that “the birth of the self-study in teacher education movement around 1990 has been probably the single most significant development ever in the field of teacher education research” (p. 8), I have found that bringing together Schwab’s eclectic arts and self-study has resulted in a deeper understanding of my role as a teacher educator. As a self-study researcher, it is my responsibility now to share these insights to the best of my ability, so that others can critique, test my exemplars and build on this knowledge.

EPILOGUE

Now at the end of the study, I realise that this research was a snapshot of a particular time, for me, for my PSTs, my colleagues and the wider context of education. My study took place during a time of change and these changes have continued. As a consequence, I have not taught this OE course to PE students since completing my research. It seems a pity because through this research I became much more knowledgeable about this particular course and the way I structured the learning experiences for my PSTs.

However, this research did not just have relevance for that particular time and course; it has changed the way I teach in all my courses. When I see my PSTs at the beginning of a course, I know that there will be far greater diversity in their experiences than I can predict. I now apply my uncertainty as a teacher educator to these other classes and I am far more curious as a teacher than I was before. I look back on myself as I set out on this research process, not from the perspective of a triumphant romantic hero, but I can see that I have moved significantly.

The nature of OE and ITE remain as contested as ever. I am now more confident and comfortable with my uncertainty. I believe this can only be a good thing in uncertain times.

Appendix 1: TECS376 Course Description

This course is designed to prepare teachers of Outdoor and Environmental Education (O.E.E.) in the junior secondary school. The course develops organisational, sequencing, risk management and field trip implementation skills. It focuses on teachers using experiences outside the classroom to enhance their teaching and learning programmes in all curriculum areas, as well as exploring an environmental sustainability focus. The course aims to develop an approach to planning, implementation and evaluation that maximises student safety and educational outcomes for students. Delivery is experiential and includes a 2 day practicum.

Learning Outcomes

On the successful completion of this course, participants will:

1. Demonstrate an understanding of the philosophies of Education Outside the Classroom (E.O.T.C.) and Adventure Based Learning based on the concepts established in *The New Zealand Curriculum* document.
2. Document the design and implementation of adventure based activities.
3. Understand and apply the principles of Education for Sustainability.
4. Describe the legal responsibilities of schools and teachers.
5. Demonstrate an understanding of Risk Management principles.
6. Deal effectively with a crisis scenario.
7. Document a trip plan, preparing the pupils, monitoring the experience and the evaluating the experience.
8. Apply E.O.T.C. activities across various curriculum areas.
9. Complete a two day practicum.

Appendix 2: Ethical Approval



HUMAN ETHICS COMMITTEE

Secretary, Lynda Griffioen
Email: human-ethics@canterbury.ac.nz

Ref: 2012/51/ERHEC

10 December 2012

Chris North
School of Sciences & Physical Education
UNIVERSITY OF CANTERBURY

Dear Chris

Thank you for providing the revised documents in support of your application to the Educational Research Human Ethics Committee. I am very pleased to inform you that your research proposal "Teaching teachers about outdoor and environmental education - a self study" has been granted ethical approval.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 7 December 2012.

Should circumstances relevant to this current application change you are required to reapply for ethical approval.

If you have any questions regarding this approval, please let me know.

We wish you well for your research.

Yours sincerely

A handwritten signature in black ink, appearing to read 'N Surtees'.

Nicola Surtees
Chair
Educational Research Human Ethics Committee

"Please note that Ethical Approval and/or Clearance relates only to the ethical elements of the relationship between the researcher, research participants and other stakeholders. The granting of approval or clearance by the Ethical Clearance Committee should not be interpreted as comment on the methodology, legality, value or any other matters relating to this research."

Appendix 3: Extension of Ethical Approval



HUMAN ETHICS COMMITTEE

Secretary, Lynda Griffioen
Email: human-ethics@canterbury.ac.nz

Ref: 2012/51/ERHEC

19 November 2014

Chris North
School of Sciences & Physical Education
UNIVERSITY OF CANTERBURY

Dear Chris

Thank you for your request for an amendment to your research proposal "Teaching teachers about outdoor and environmental education - a self study" as outlined in your email dated 18 November 2014. I am pleased to advise that this request has been considered and approved by the Educational Research Human Ethics Committee.

Please note that should circumstances relevant to this current application change you are required to reapply for ethical approval.

If you have any questions regarding this approval, please advise.

We wish you well for your continuing research.

Yours sincerely

A handwritten signature in black ink, appearing to read 'N Surtees'.

Nicola Surtees
Chair
Educational Research Human Ethics Committee

"Please note that Ethical Approval and/or Clearance relates only to the ethical elements of the relationship between the researcher, research participants and other stakeholders. The granting of approval or clearance by the Ethical Clearance Committee should not be interpreted as comment on the methodology, legality, value or any other matters relating to this research."

Appendix 4: Interview and Focus Group Protocols

Interview 1: Beginning weeks

Introduction and Ethics review

Section A

Tell me about your experiences as a learner at school – what did you like/not like?
What approaches to outdoor education or PE did you experience?
In what ways do you think your experiences might influence your approach to teaching outdoor education?

Section B

In your experience of TECS376 so far, what would say are the things that have been:
Most helpful for your learning about teaching OE?
Least helpful for your learning?
Confusing or puzzling things that you couldn't really see the point of?

Section C

In TECS376, what would you say are the kinds of things that I am most keen for you to learn about teaching outdoor education?

Interview 2: Mid-course

Introduction and Ethics review

Section A

Follow up on questions arising from first transcript questions
Focus group learning or comments

Section B: Focus on the EOTC camp (personal experience background)

What is your background in the outdoors and how do you think that influenced your experience of camp? (personal comfort, outdoors with students...)

Section C: Focus on the EOTC camp (experience with our class)

What was most helpful for your learning about EOTC on the camp?
What was least helpful your learning about EOTC on the camp?
What was confusing or puzzling about the camp?

Section D: focus on the EOTC camp (experience with school students)

Describe your experience teaching your students

Section E:

What are the next steps for you in terms of outdoor education?

Interview 3 (post- school placement)

Introduction and ethics

Review previous transcript summary

Tell me a bit about your teaching placement...

1. What did you find the most challenging aspects of teaching on your professional placement?
2. What you think has most influenced the way you currently teach?
3. Can you see any links between the OE course and your approach to, or your thinking about your teaching?
4. What do you think helps you best learn about teaching?
5. In what way do you see yourself being “you” in the classroom?
6. What sort of teacher do you see yourself as wanting to develop into?

Interview 4

Introduction and ethics

Review previous transcript

What links do you still see between TECS376 and your teaching or thinking about teaching?

Reframings: reflecting back on your learning in the course, are there any things that you feel differently about now?

Involvement in my research- what do you think you learned by being a participant?

Other...Follow up on key questions with students below:

Andy- risk statements seem contradictory

Rob- camp experience, sleeping in the van?

Jenny- cold and wet camp, but yet took students outside in the rain on the next placement...?

Focus group 1

Thanks so much for coming...

You are my panel of experts, you have observed me teaching and been involved in the classroom setting, I have had colleagues come to observe me but you have been there the whole time and seen everything. We have completed individual interviews and now we have a group discussion. I will be here but like in class I want the conversation to go between you as much as possible. There can be a culture of PC ness and doing what the lecturer wants, well what I want, no, need for my research is your honest opinions. If you disagree with someone, please state it. I am looking for diverse responses, you have such different backgrounds and life experiences and that is really valuable to me as a teacher, you as teachers and for my research too. Over the time together I feel like we have built up considerable trust and I know it takes courage to speak up when others all seem to have the same opinion. Play hard, play safe, play fair. Be courageous, and lets have a good discussion, and I hope we can all learn from each other.

Learning priorities ranking each person ranks them individually, then brings together for a discussion. Is there something that wasn't down there that should be?

What do you think about this?

18:35-21:30 19/03/13 itunes

31:40:-36:00 Session 5 DSS Enlightening, engaging or just Chris rabbiting on again?

How would your learning on this course be different without the camp? Think about outsider / insider...What did we bring with us? What did we leave behind?
Environment, Place, beauty, appreciation

What is the OE body of knowledge? How has it influenced my teaching? What

Focus Group 2

Introduction:

Expert group, some things have worked for me, others haven't so much. I am developing a framework for thinking about my role and the roles of students in my course.

You are my panel of experts, you have observed me teaching and been involved in the classroom setting, I have had colleagues come to observe me but you have been there the whole time and seen everything. We have completed individual interviews and now we have a group discussion. I will be here but like in class I want the conversation to go between you as much as possible. What I need for my research is your honest opinions. If you disagree with someone, please state it. I am looking for diverse responses, you have such different backgrounds and life experiences and that is really valuable to me as a teacher, you as teachers and for my research too. Over the time together I feel like we have built up considerable trust and I know it takes courage to speak up when others all seem to have the same opinion. Play hard, play safe, play fair. Be courageous, and let's have a good discussion, and I hope we can all learn from each other.

Description of roles students take in class:

Participant- passive recipient- examples?

Leader/ Implementer- routines, protocols examples?

Reflector- thinking about thinking- examples?

Take 5 minutes to write down some notes (bullet points) on the sheets provided,

Talk with a partner- identify key areas- post it notes – to posters

Begin with framework: participant to meta cognitive thinker questions,

What is the importance of these different roles in the class?

Then go to paired discussions with post it notes and finally, bring posters down for group discussion

Participating (experiencing from a student's perspective) e.g. ABL activities I ran, responding to questions

Leader- implementer (Running an activity learning routines, techniques and practices): ABL activities, sequencing, feedback focused on performance as a leader, risk management, logistics.

Thinker- reflector (Thinking about thinking): Self-awareness: Who am I? How does my identity or leadership style influence my teaching? What is OE? What is the role of risk? Feedback focused on big picture- what messages am I sending through my teaching?- What is privileged? What is silenced?

In what ways did I provide opportunities to learn about these?

Which of these helped my learning most?

Which was least helpful for my learning?

What do I need to do next?

REFERENCES

- Adler, S. A. (1993). Teacher education: Research as reflective practice. *Teaching and Teacher Education*, 9(2), 159-167.
- Aitken, G., Sinnema, C., & Meyer, F. (2013). Initial Teacher Education Outcomes: Standards for graduating teachers: Ministry of Education.
- Allard, A. C., & Gallant, A. (2012). Is this a meaningful learning experience? Interactive critical self-inquiry as investigation. *Studying Teacher Education*, 8(3), 261-273. doi: 10.1080/17425964.2012.719128
- Allender, J. S., & Allender, D. S. (2008). *The humanistic teacher*. Boulder, CO: Paradigm Publishers.
- Alton-Lee, A. (2003). Quality teaching for diverse students in schooling: Best evidence synthesis. Wellington, New Zealand: Ministry of Education.
- Arya, P., Christ, T., & Chiu, M. (2014). Facilitation and Teacher Behaviors: An Analysis of Literacy Teachers' Video-Case Discussions. *Journal of Teacher Education*, 65(2), 111-127. doi: 10.1177/0022487113511644
- Attard, K. (2014). Self-study as professional development. In A. Ovens & T. Fletcher (Eds.), *Self-study in physical education teacher education: Exploring the interplay of practice and scholarship* (Vol. 13, pp. 29-43). London: Springer.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44, 1175-1184.
- Barab, S., Squire, K., & Dueber, B. (2000). A co-evolutionary model for supporting the emergence of authenticity. *Educational Technology Research and Development*, 48(2), 37-62.
- Barber, L. (1990). Self-assessment. In J. M. L. Darling-Hammond (Ed.), *The new handbook of teacher evaluation: assessing elementary and secondary school teachers* (pp. 216-228). Newbury Park, CA: Sage.
- Barnes, M., Clarke, D., & Stevens, M. (2000). Assessment: the engine of systemic curricular reform? *Journal of Curriculum Studies*, 32(5), 623-650.
- Barron, B., & Darling-Hammond, L. (2010). Prospects and challenges for inquiry-based approaches to learning. In H. Dumont, D. Istance & F. Benavides (Eds.), *The Nature of Learning* (pp. 199-216). Paris: OECD.
- Beck, C., Freese, A. R., & Kosnick, C. (2004). The pre-service practicum: Learning through self-study in a professional setting. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 1259-1294). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Beer, D. W. (1997). There's a certain slant of light: the experience of discovery in qualitative interviewing. *Occupational Therapy Journal of Research*, 17, 110-129.
- Bell, C. (1996). *Inventing New Zealand: Everyday myths of Pakeha identity*. Auckland, New Zealand: Penguin.
- Bell, C., & Lyall, J. (2002). *The accelerated sublime: Landscape, tourism and identity*. Westport, USA: Praeger Publishers.
- Berry, A. (2004). Making the private public: Giving preservice teachers access to their teacher educators' thinking via an electronic journal. *Didaktisk Tidskrift: För praktiker och forskare*, 14(1), 17-24.

- Berry, A. (2005). *Teaching about teaching, learning about teaching: A self-study of my practice as a teacher educator*. (Doctor of Philosophy Thesis), Monash University, Melbourne, Australia.
- Berry, A. (2007). *Tensions in teaching about teaching: Understanding practice as a teacher educator* (Vol. 5). Dordrecht, The Netherlands: Springer.
- Berry, A., & Loughran, J. (2002). Developing an understanding of learning to teach in teacher education In J. Loughran, T. Russell & C. L. (Eds.), *Improving teacher education practices through self-study* (pp. 13-29). London/New York: RoutledgeFalmer.
- Berry, A., & Loughran, J. (2012). Developing science teacher educators' pedagogy of teacher education. In B. J. Fraser, K. Tobin & C. J. McRobbie (Eds.), *Second International Handbook of Science Education* (Vol. 24, pp. 401-415). Dordrecht, Netherlands: Springer.
- Biculturalism. (2005). In *The New Zealand Oxford Dictionary*. Retrieved from http://www.oxfordreference.com.ezproxy.canterbury.ac.nz/view/10.1093/acref/9780195584516.001.0001/m-en_nz-msdict-00001-0005272
- Bixler, R., & Floyd, M. (1997). Nature is scary, disgusting, and uncomfortable. *Environment and Behavior*, 29(4), 443-468.
- Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 1(1).
- Blomberg, G., Stürmer, K., & Seidel, T. (2011). How pre-service teachers observe teaching on video: Effects of viewers' teaching subjects and the subject of the video. *Teaching and Teacher Education*, 27(7), 1131-1140. doi: <http://dx.doi.org/10.1016/j.tate.2011.04.008>
- Bolstad, R., & Gilbert, J. (2012). Supporting future-oriented learning and teaching: A New Zealand perspective *Research & Evaluation*. Wellington: Ministry of Education.
- Borko, H., & Putnam, R. (1996). Learning to teach In R. Calfee & D. Berliner (Eds.), *Handbook of educational psychology* (pp. 673-708). New York: Macmillan.
- Bourke, S., & Meppem, T. (2000). Privileged narratives and fictions of consent in environmental discourse. *Local Environment*, 5(3), 299-310.
- Bowdridge, M., & Blenkinsop, S. (2011). Michel Foucault goes outside: Discipline and control in the practice of outdoor education. *Journal of Experiential Education*, 34(2), 149-163. doi: 10.5193/JEE34.2.149
- Bowles, S. (1996). Techniques and philosophy. Blending roots? Or sowing maybe-seeds in outdoor adventure education. *Journal of Adventure Education and Outdoor Learning*, 13(2), 7-19.
- Boyes, M. (2000). The place of outdoor education in the health and physical education curriculum. *Journal of Physical Education New Zealand: Ko Tane Mahuta Pupuke*, 33(2), 75.
- Boyes, M. (2004). The maintenance of quality in the preparation of outdoor education teachers. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 1(4), 82-97.
- Boyes, M. (2008). Taking risks is a social phenomenon. *New Zealand Physical Educator*, 41(1), 4.
- Boyes, M. (2011). Historical and contemporary trends in outdoor education. In D. Irwin, J. Straker & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand: A new vision for the twenty first century*. Christchurch, New Zealand: CPIT.

- Brandenburg, R. (2008). *Powerful pedagogy: Self-study of a teacher educator's practice* (Vol. 6). Dordrecht, The Netherlands: Springer.
- Breen, M. P. (1985). Authenticity in the language classroom. *Applied Linguistics*, 6(1), 60-70.
- Bronkhorst, L. H., Meijer, P. C., Koster, B., & Vermunt, J. D. (2011). Fostering meaning-oriented learning and deliberate practice in teacher education. *Teaching and Teacher Education: An International Journal of Research and Studies*, 27(7), 1120-1130.
- Brookes, A. (2002). Lost in the Australian bush: Outdoor education as curriculum. *Journal of Curriculum Studies*, 34(4), 405 - 425.
- Brookes, A. (2003). Outdoor education fatalities in Australia 1960-2002. Part 1: Summary of incidents and introduction to fatality analysis. *Australian Journal of Outdoor Education*, 7(1), 20-35.
- Brookes, A. (2004). Outdoor education fatalities in Australia 1960-2002. Part 3: Environmental circumstances. *Australian Journal of Outdoor Education*, 8, 44-56.
- Brookes, A. (2011). Preventing fatal incidents in outdoor education. Lessons learnt from the Mangatepopo tragedy. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(6), 7-32.
- Brookfield, S. (1995). *Becoming a critically reflective teacher*. San Francisco, CA: Jossey-Bass Inc.
- Brookfield, S. (2008). Radical questioning on the Long Walk to Freedom: Nelson Mandela and the practice of critical reflection. *Adult Education Quarterly*, 58(2), 95-109. doi: 10.1177/0741713607310150
- Brookfield, S., & Preskill, S. (2005). *Discussion as a way of teaching: tools and techniques for democratic classrooms* (2nd ed.). San Francisco: Jossey-Bass
- Brown, M. (2008). Outdoor education: Opportunities provided by a place-based approach. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(3), 7-25.
- Brown, M. (2010). Transfer: Outdoor adventure education's Achilles heel? Changing participation as a viable option. *Australian Journal of Outdoor Education*, 14(1), 13-22.
- Brown, M. (2011). A changing landscape: Place responsive pedagogy. In D. Irwin, J. Straker & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand: A new vision for the twenty first century* (pp. 104-124). Christchurch, New Zealand: CPIT publishing.
- Brown, M., & Fraser, D. (2009). Re-evaluating risk and exploring educational alternatives. *Journal of Adventure Education & Outdoor Learning*, 9(1), 61-77.
- Brown, T. D. (2011). More than glimpses in the mirror: An argument for self-study in the professional learning of physical education teachers. *Asia-Pacific Journal of Health, Sport and Physical Education*, 2(1), 19-32. doi: 10.1080/18377122.2011.9730341
- Bruce, J. (2011). Dancing on the edge: A self-study exploring postcritical possibilities in physical education. *Sport, Education and Society*, 16(1), 1-18.
- Bruner, J. (1966). *Towards a theory of instruction*. Cambridge, MA: Belknap Press.
- Bruner, J. (1986). *Actual minds: Possible worlds*. Cambridge, MA: Harvard University Press.
- Bullock, S., Russell, T., & Mackinnon, A. (2014). *Making the tacit explicit: Exploring Donald Schön's influence on our pedagogies of teacher education*. Paper presented

- at the 10th International Conference on S-STEP | Changing Practices for Changing Times, Herstmonceux Castle, East Sussex, England.
- Bullough, R. (1994). Personal history and teaching metaphors: A self study of teaching as conversation. *Teacher Education Quarterly*, 21(1), 107-120.
- Bullough, R. (1997). Practicing theory and theorizing practice in teacher education. In J. Loughran & T. Russell (Eds.), *Teaching about teaching* (pp. 13-31). London/Washington: DC: Falmer Press.
- Bullough, R. (2014). Becoming a student of teaching. In D. Breault & R. Breault (Eds.), *Experiencing Dewey: Insights for today's classroom* (2nd ed., pp. 78-81). New York: Routledge.
- Bullough, R., Knowles, J. G., & Crowe, N. A. (1991). *Emerging as a teacher*. London, United Kingdom: Falmer.
- Bullough, R., & Pinnegar, S. (2001). Guidelines for quality in autobiographical forms of self-study research. *Educational Researcher*, 30(3), 13-21. doi: 10.2307/3594469
- Bullough, R., & Pinnegar, S. (2004). Thinking about the thinking about self-study: An analysis of eight chapters. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 313-342). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Campbell-Price, M. (2010). Is what is assessed in senior outdoor education all the students learn? *Out and About*(24), 10-15.
- Carter, K. (1995). Teaching stories and local understandings. *The Journal of Educational Research*, 88(6), 326-330.
- Carter, T., & Dunning, D. (2008). Faulty self-assessment: Why evaluating one's own competence is an intrinsically difficult task. *Social and Personality Psychology Compass*, 2(1), 346-360.
- Casey, A. (2012). A self-study using action research: Changing site expectations and practice stereotypes. *Educational Action Research*, 20(2), 219-232. doi: 10.1080/09650792.2012.676287
- Chapman, D. J. (2011). Environmental education and the politics of curriculum: A national case study. *The Journal of Environmental Education*, 42(3), 193 - 202.
- Charmaz, K. (2005). Grounded theory in the 21st century. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 507-536). London, England: Sage Publications.
- Charter, E. (2003). The use of think-aloud methods in qualitative research: An introduction to think-aloud methods. *Brock Education*, 12(2), 68-82.
- Cherry-Holmes, C. H. (1999). *Reading pragmatism* (Vol. 24). New York: Teachers College Press.
- Chun, M. M., & Wolfe, J. M. (2001). Visual Attention. In E. B. Goldstein (Ed.), *Blackwell handbook of sensation and perception* (pp. 272-310). Oxford, UK: Blackwell Publishing Ltd.
- Clandinin, J., & Connelly, F. M. (1994). Personal experience methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 413-427). London: Sage.
- Clandinin, J., & Connelly, F. M. (2004). Knowledge, narrative and self-study. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 575-600). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Clarke, A., & Erickson, G. (2004a). The nature of teaching and learning in self-study. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International*

- handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 41-67). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Clarke, A., & Erickson, G. (2004b). Self-study: The fifth commonplace. *Australian Journal of Education*, 48(2), 199.
- Clarke, C. (1988). Asking the right questions about teacher preparation: Contributions of research on teacher thinking. *Educational Researcher*, 17(2), 5-12.
- Clift, R. T. (2004). Self-study research in the context of teacher education programs. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 1333-1366). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Coburn, C. (2001). Collective sensemaking about reading: How teachers mediate reading policy in their professional communities. *Educational Evaluation and Policy Analysis*, 32, 145-170.
- Cochran-Smith, M. (2002). The research base for teacher education: Metaphors we live (and die?) by. *Journal of Teacher Education*, 53(4), 283-285. doi: 10.1177/0022487102053004001
- Cochran-Smith, M. (2003a). Learning and unlearning: the education of teacher educators. *Teaching and Teacher Education*, 19(1), 5-28.
- Cochran-Smith, M. (2003b). The unforgiving complexity of teaching: Avoiding simplicity in an age of accountability. *Journal of Teacher Education*, 54(1), 3-5.
- Cochran-Smith, M., & Lytle, S. (1993). *Inside/Outside: Teacher research and knowledge*. New York: Teachers College Press.
- Cochran-Smith, M., & Lytle, S. (1999). Relationship of knowledge and practice: Teacher learning in communities. In A. I.-N. C. D. Pearson (Ed.), *Review of Research in Education* (Vol. 24, pp. 249-306). Washington, DC: AERA.
- Cochran-Smith, M., & Lytle, S. (2004). Practitioner inquiry, knowledge, and university culture. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 575-600). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Cohen, E. (1994). Restructuring the classroom: Conditions for productive small groups. *Review of Educational Research*, 64(1), 1-35.
- Coia, L., & Taylor, M. (2013). Uncovering our feminist pedagogy: A co/autoethnography. *Studying Teacher Education: A journal of self-study of teacher education practices*, 9(1), 3-17. doi: 10.1080/17425964.2013.771394
- Connelly, F. M. (2013). Joseph Schwab, curriculum, curriculum studies and educational reform. *Journal of Curriculum Studies*, 45(5), 622-639. doi: 10.1080/00220272.2013.798838
- Connelly, F. M., & Clandini, D. J. (1988). *Teachers as curriculum planners: Narratives of experience*. New York: Teachers College Press.
- Cosgriff, M. (2000). Walking our talk: Adventure based learning and physical education. *Journal of Physical Education New Zealand*, 33(2), 89-98.
- Cosgriff, M. (2008). What's the story? Outdoor education in New Zealand in the 21st century. *New Zealand Physical Educator*, 41(3), 14-25.
- Cosgriff, M. (2011). Learning from leisure: Developing nature connectedness in outdoor education. *Asia-Pacific Journal of Health, Sport & Physical Education*, 2(1), 51-65.
- Cosgriff, M., & Gillespie, L. (2011). Assessment in senior outdoor education: A catalyst for change? *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(5), 7-22.

- Craig, C. (2008). Joseph Schwab, self-study of teaching and teacher education practices proponent? A personal perspective. *Teaching and Teacher Education*, 24(8), 1993-2001.
- Craig, C. (2009). Trustworthiness in self-study research. In C. A. Lassonde, S. Galman & C. Kosnik (Eds.), *Self-study research methodologies for teacher educators* (Vol. 7, pp. 21-34). Rotterdam, The Netherlands: Sense Publishers.
- Craig, C., & Ross, V. (2008). Cultivating the image of teachers as curriculum makers. In F. M. Connelly (Ed.), *Sage handbook of curriculum and instruction* (pp. 282-305). Thousand Oaks, CA: Sage.
- Cronon, W. (2007). The trouble with wilderness; or, getting back to the wrong nature. In W. G. Moseley, D. A. Lanegran & K. Pandit (Eds.), *The introductory reader in human geography: Contemporary debates and classic writings* (pp. 167-178). Malden: Blackwell Publishing.
- Culpan, I. (2008). Physical education and the New Zealand curriculum: Maximising the opportunity. *Physical Educator - Journal of Physical Education New Zealand*, 41(3), 51-61.
- Dall'Alba, G., & Sandberg, J. (2006). Unveiling professional development: A critical review of stage models. *Review of Educational Research*, 76(3), 383-403.
- Darling-Hammond, L. (1997). *The right to learn*. San Francisco: Jossey-Bass.
- Darling-Hammond, L. (2006). *Powerful teacher education*. San Francisco, CA: Jossey-Bass.
- Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Vasquez Heilig, J. (2005). Does teacher preparation matter? Evidence about teacher certification, Teach for America, and teacher effectiveness: Stanford University.
- Darling-Hammond, L., & Snyder, J. (2000). Authentic assessment of teaching in context. *Teacher and Teacher Education*, 16, 523-545.
- Davey, R. (2013). *The professional identity of teacher educators*. 711 Third Avenue, New York: Routledge.
- Davis, B., Sumara, D., & Luce-Kapler, R. (2000). *Engaging minds: Learning in a complex world*. Mahwah, NJ: Lawrence Erlbaum.
- de Corte, E. (2010). Historical developments in the understanding of learning. In H. Dumont, D. Istance & F. Benavides (Eds.), *The nature of learning* (pp. 35-68). Paris: OECD.
- Deni, A. R. M., & Malakolunthu, S. (2012). Teacher collaborative inquiry as a professional development intervention: benefits and challenges. *Asia Pacific Educ. Rev.*, 14, 559-568.
- Dewey, J. (1900). *The school and society*. Chicago: The University of Chicago Press.
- Dewey, J. (1904/1977). John Dewey: The Middle Works In J. A. Boydston (Ed.), *The relation of theory to practice in education*. (Vol. 3, pp. 249-272). Carbondale, IL: Southern Illinois University Press.
- Dewey, J. (1933). *How we think*. Boston, D. C. : Heath & Co.
- Dewey, J. (1934). *Art as experience*. Rahway, NJ: The Barnes Foundation Press.
- Dewey, J. (1938/1972). *Experience and education* (15 ed.). New York: Collier Books.
- Dewey, J. (1938/1986). *Logic: The theory of inquiry* (J. A. Boydston Ed. Vol. 12). New York: Holt.
- Dewey, J. (1998). *Pragmatism, education, democracy* (Vol. 1). Bloomington and Indianapolis, : Indiana University Press.
- Dixon, A. (2005). Space, schools and the younger child. *Forum*, 47(2 & 3), 51-60.

- Dooley, C. M., Dangel, J. R., & Farran, L. K. (2011). Current issues in teacher education: 2006–2009. *Action in Teacher Education*, 33(3), 298-313. doi: 10.1080/01626620.2011.592125
- Doran, M. (2008). The No-Doze leadership styles class. In J. Gookin & S. Leach (Eds.), *2008 NOLS leadership educator notebook: A toolbox for leadership educators*. Lander, Wyoming: The National Outdoor Leadership School (NOLS).
- Dreaver, K. (2009). *Teachers as learners: Improving outcomes for Māori and Pasifika students through inquiry*. Wellington, New Zealand: Learning Media Ltd.
- Dumont, H., Istance, D., & Benavides, F. (2010). The nature of learning (pp. 35-68). Paris: OECD.
- Duncan, J. S., Hopkins, W. G., Schofield, G., & Duncan, E. K. (2008). Effects of weather on pedometer-determined physical activity in children. *Medicine and science in sports and exercise*, 40(8), 1432-1438. doi: 10.1249/MSS.0b013e31816e2b28
- Dyregrov, K., Nordanger, D., & Dyregrov, A. (2003). Predictors of psychosocial distress after suicide, SIDS and accidents. *Death Studies*, 27(2), 143-165.
- Eisner, E. W. (2002). *The educational imagination: On the design and evaluation of school programs* (3rd ed.). Upper Saddle River, NJ: Merrill Prentice Hall.
- Elijah, R. (2004). Voice in self-study. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 247-272). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Erickson, L. B., & Young, J. R. (2011). Toward Transparency: Competing discourses of teacher educators and teachers. *Studying Teacher Education*, 7(1), 93-104. doi: 10.1080/17425964.2011.558399
- Ermeling, B. A. (2010). Tracing the effects of teacher inquiry on classroom practice. *Teaching and Teacher Education*, 26(3), 377-388. doi: <http://dx.doi.org/10.1016/j.tate.2009.02.019>
- Feiman-Nemser, F. (2008). Teacher learning: How do teachers learn to teach? . In M. Cochran-Smith, S. Feiman-Nemser, D. McIntyre & K. Demers (Eds.), *Handbook of Research on Teacher Education* (3 ed., pp. 697-705). New York: Routledge.
- Feldman, A. (2009). Making the self problematic: Data analysis and interpretation in self-study research. In C. A. Lassonde, S. Galman & C. Kosnik (Eds.), *Self-study research methodologies for teacher educators* (Vol. 7, pp. 35-49). Rotterdam, The Netherlands: Sense Publishers.
- Fenstermacher, G. D. (1994). The place of practical argument in the education of teachers. In V. Richardson (Ed.), *Teacher change and the staff development process: A case in reading instruction* (pp. 23-42). New York, NY: Teachers College Press.
- Fontana, A., & Frey, J. H. (2005). The interview: From neutral stance to political involvement. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3 ed., pp. 695-727). London, England: Sage Publications.
- Forgasz, R. (2014). Bringing the physical into self-study research. In A. Ovens & T. Fletcher (Eds.), *Self-study in physical education teacher education: Exploring the interplay of practice and scholarship* (Vol. 13). London: Springer.
- Foucault, M. (1975). *Discipline & punish: The birth of the prison* (A. Sheridan, Trans.). New York, NY: Vintage Books.
- Fullan, M. (2007). *The new meaning of educational change* (4th ed.). New York: Teachers College Press.

- Garbett, D. (2011). Horse riding 101: The role of experience in reframing teacher education practices. *Studying Teacher Education*, 7(1), 65-75. doi: 10.1080/17425964.2011.558371
- Garbett, D. (2014). Lessons on the hoof: Learning about teacher education through horse-riding. In A. Ovens & T. Fletcher (Eds.), *Self-study in physical education teacher education: Exploring the interplay of practice and scholarship* (Vol. 13, pp. 63-73). London: Springer.
- Garbett, D., & Ovens, A. (2012). Being a Teacher Educator: Exploring Issues of Authenticity and Safety Through Self-Study. *Australian Journal of Teacher Education*, 37(3), Article 5.
- Garrison, J. (1998). Toward a pragmatic social constructivism. In M. Larochelle, N. Bednarz & J. Garrison (Eds.), *Constructivism and Education* (pp. 43-60). Cambridge: Cambridge University Press.
- Giroux, H. (1983). *Theory and resistance in education: A pedagogy for the opposition*. Grunby, MA: Bergin & Garvey.
- Gitlin, A., Peck, M., Aposhian, N., Hadley, S., & Porter, A. (2002). Looking again at insider knowledge: A relational approach to knowledge production and assessment. *Journal of Teacher Education*, 53(4), 303-315.
- Goodson, I. (2011). *Life politics: Conversations about education and culture*. Rotterdam: Sense.
- Goodson, I. (2013). *Developing narrative theory*. London: Routledge.
- Graber, K. (1995). The influence of teacher education programs on the beliefs of student teachers: General pedagogical knowledge, pedagogical content knowledge, and teacher education course work. *Journal of Teaching in Physical Education*, 14, 157-178.
- Greene, J. C. (2007). *Mixed methods in social inquiry*. San Francisco: Jossey-Bass.
- Grossman, P. L., Compton, C., Igra, D., Ronfeldt, M., Shahan, E., & Williamson, P. (2009a). Teaching practice: A cross-professional perspective. *Teachers College Record*, 111(9), 2055-2100.
- Grossman, P. L., Hammerness, K., & McDonald, M. (2009b). Redefining teaching, re-imagining teacher education. *Teachers and Teaching: Theory and Practice*, 15, 273-289.
- Grossman, P. L., & Richert, A. E. (1988). Unacknowledged knowledge growth: A re-examination of the effects of teacher education. *Teaching and Teacher Education*, 4(1), 53-62.
- Gruenewald, D. A. (2003). Foundations of place: A multidisciplinary framework for place-conscious education. *American Educational Research Journal*, 40(3), 619-654.
- Guðjónsson, H. (2007). Learning to think of learning to teach as situated: A self-study. *Studying Teacher Education*, 3(1), 23-34. doi: 10.1080/17425960701279800
- Gulikers, J., Sluijsmans, D., Baartman, L., & Bartolo, P. (2009). The power of assessment in teacher education. In A. Swennen & M. van der Klink (Eds.), *Becoming a teacher educator: Theory and practice for teacher educators* (pp. 173-188). Netherlands: Springer Science + Business Media B. V.
- Haddock, C. (2003). *Outdoor safety: risk management for outdoor leaders*. . Wellington, New Zealand: New Zealand Mountain Safety Council.
- Haddock, C. (2007). Education outside the classroom (EOTC) survey: Secondary school report. In M. o. Education (Ed.). Wellington: Ministry of Education.

- Haddock, C., Thevenard, L., Reddish, P., & Phillips, K. (2009). EOTC leader training and qualification needs research report. <http://eotc.tki.org.nz/EOTC-home/Research-and-presentations/Research>
- Ham, V., & Kane, R. (2004). Finding a way through the swamp: A case for self-study as research. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 103-150). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Hamilton, M. L. (2002). Change, social justice, and re-liability: Reflections of a secret (change) agent. In J. Loughran & T. Russell (Eds.), *Improving teacher education practices through self-study* (pp. 176-189). London: RoutledgeFalmer.
- Hamilton, M. L., & Pinnegar, S. (1998). Conclusion: The value and the promise of Self-study. In M. L. Hamilton et. al. (Eds.), *Reconceptualizing teaching practice: Self-study in teacher education* (pp. 31-33). London: Falmer Press.
- Hare, W. (1987). Open-mindedness in moral education: Three contemporary approaches. *Journal of Moral Education*, 16(2), 99-107.
- Hargreaves, A. (1998). The emotions of teaching and educational change. In A. Hargreaves, A. Lieberman, M. Fullan & D. Hopkins (Eds.), *International handbook of educational change* (pp. 558-575). Dordrecht: L;uwer.
- Harland, T., McLean, A., Wass, R., Miller, E., & Sim, K. N. (2014). An assessment arms race and its fallout: high-stakes grading and the case for slow scholarship. *Assessment & Evaluation in Higher Education*, 1-14. doi: 10.1080/02602938.2014.931927
- Hart, P. (2006). Requisite variety: The problem with generic guidelines for diverse genres of inquiry. *Environmental Education Research*, 12(3/4), 539-548. doi: 10.1080/13504620600943194
- Hart, P. (2014). Destabilizing representation of research in education. In A. Reid, P. Hart & M. Peters (Eds.), *A companion to research in education* (pp. 479-488). Dordrecht: Springer.
- Hartig, T., Mitchell, R., de Vries, S., & Frumkin, H. (2014). Nature and health. *Annu. Rev. Public Health*, 35, 207-228.
- Harvey, D. (2005). *A brief history of neoliberalism*. New York: Oxford University Press.
- Hatano, G., & Oura, Y. (2003). Commentary: Reconceptualizing school learning using insight from expertise research. *Educational Researcher*, 32(26-39).
- Hattie, J. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. London, England: Routledge.
- Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. Oxon, Canada: Routledge.
- Hattie, J., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure education and Outward Bound: Out-of-class experiences that make a lasting difference. *Review of Educational Research*, 67(1), 43-87.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112. doi: 10.2307/4624888
- He, C., & Yan, C. (2011). Exploring authenticity of microteaching in pre-service teacher education programmes. *Teaching Education*, 22(3), 291-302. doi: 10.1080/10476210.2011.590588
- Heidegger, M. (1968). *What is called thinking?* New York: Harper & Row.
- Hill, A. (2008). Take away adventure. *Out and About*(20), 16-17.
- Hill, A. (2011). *Re-envisioning the status quo: Developing sustainable approaches to outdoor education in Aotearoa New Zealand*. (Doctor of Philosophy), University of Otago, Dunedin.

- Hill, A. (2012). Developing approaches to outdoor education that promote sustainability education. *Australian Journal of Outdoor Education*, 16(1), 15-27.
- Hipkins, R., Bolstad, R., Boyd, S., & McDowall, S. (2014). *Key competencies for the future*. Wellington: New Zealand Council for Educational Research.
- Hoban, G. F. (2004). Using information and communication technologies for the self-study of teaching. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 1039-1072). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Hogan, D. (2011). Yes Brian, at long last, there is pedagogy in England – and in Singapore too. A response to TLRP’s Ten Principles for Effective Pedagogy. *Research Papers in Education*, 26(3), 367-379. doi: 10.1080/02671522.2011.595548
- Hogan, D., & Gopinathan, S. (2008). Knowledge management, sustainable innovation, and pre-service teacher education in Singapore. *Teachers and Teaching*, 14(4), 369-384. doi: 10.1080/13540600802037793
- Hokowhitu, B. (2004). Challenges to state physical education: Tikanga Māori, physical education curricula, historical deconstruction, inclusivism and decolonisation. *Waikato Journal of Education*, 10, 71-84.
- Holstein, J., & Gubrium, J. (1995). *The active interview*. Thousand Oaks, CA: Sage.
- Holt-Reynolds, D. (1992/2004). Personal history-based beliefs as relevant prior knowledge in course work. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 343-367). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Ibrahim, H., & Cordes, K. A. (2008). *Outdoor Recreation: Enrichment for a lifetime*. Champaign, IL: Sagamore Publishing.
- Irwin, D. (2010). *Weaving the threads of education for sustainability and outdoor education*. (Doctor of Philosophy Thesis), University of Canterbury, Christchurch.
- James, W. (1907/1981). *Pragmatism*. Cambridge: Harvard University Press.
- Jansen, C. (2008). Situational leadership for developing group culture. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(3), 26-35.
- Jay, J. K., & Johnson, K. L. (2002). Capturing complexity: a typology of reflective practice for teacher education. *Teaching and Teacher Education*, 18(1), 73-85. doi: [http://dx.doi.org/10.1016/S0742-051X\(01\)00051-8](http://dx.doi.org/10.1016/S0742-051X(01)00051-8)
- Johnson, S. D., & Aragon, S. R. (2003). An instructional strategy framework for online learning environments. In S. R. Aragon (Ed.), *Facilitating learning in online environments* (Vol. 100, pp. 31-43). San Francisco: Jossey Bass.
- Juster, N. (1961). *The phantom tollbooth*. New York, NY: Random House.
- Kamberelis, G., & Dimitriadis, G. (2005). Focus groups: Strategic articulations of pedagogy, politics and inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3 ed., pp. 887-908). London, England: Sage Publications.
- Kemmis, S., & Grootenboer, P. J. (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). Amsterdam: : SENSE Publishing

- Kemmis, S., & Smith, T. J. (2008). Personal praxis: Learning through experience. In S. Kemmis & T. Smith (Eds.), *Enabling praxis: Challenges for education* (pp. 15-36). Rotterdam, The Netherlands: Sense Publishing
- Kidd, W., & Czerniawski, G. (2011). *The student voice handbook : Bridging the academic/practitioner divide* Retrieved from <http://canterbury.eblib.com.au/patron/FullRecord.aspx?p=769812>
- Kincheloe, J. L. (1991). *Teachers as researchers: qualitative inquiry as a path to empowerment*. London: Falmer Press.
- Kirschner, D., & Whitson, J. (1997). *Situated cognition: Social, semiotic, and psychological perspectives*. Mahwah, NJ: Lawrence Erlbaum.
- Knight, S., Lloyd, G., Arbaugh, F., Edmondson, J., Nolan, J., McDonald, S., & Whitney, A. (2012). Getting our own house in order: From brick makers to builders. *Journal of Teacher Education*, 63(1), 5-9.
- Korthagen, F. (1992). Techniques for stimulating reflection in teacher education seminars. *Teaching and Teacher Education*, 8(3), 265-274.
- Korthagen, F. (2010). The relationship between theory and practice in teacher education. In P. Peterson, E. Baker & B. McGaw (Eds.), *International encyclopedia of education* (3 ed., pp. 669-675). Oxford: Elsevier.
- Korthagen, F., Loughran, J., & Russell, T. (2006). Developing fundamental principles for teacher education programs and practices. *Teaching and Teacher Education*, 22(8), 1020-1041.
- Korthagen, F., & Russell, T. (1995). Final considerations: Reflections on teacher education. In T. Russell & F. Korthagen (Eds.), *Teachers who teach teachers* (pp. 187-192). London:: Falmer Press.
- Kruegar, R. (2000). *Focus groups: A practical guide for applied research*. Thousand Oaks, CA: SAGE Publications.
- Kuzmic, J. J. (2002). Research as a way of knowing and seeing: Advocacy for the other. In J. Loughran & T. Russell (Eds.), *Improving teacher education practices through self-study* (pp. 222-236). London: RoutledgeFalmer.
- Kvale, S. (1996). *Interviews*. London: Sage Publications.
- LaBoskey, V. K. (2004a). The methodology of self-study and its theoretical underpinnings. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 817-870). Dordrecht: Kluwer Academic Publishers, Great Britain.
- LaBoskey, V. K. (2004b). Moving the methods of self-study research and practice forward: Challenges and opportunities. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 1169-1184). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Lakoff, G. (1995). Metaphor, morality, and politics, or, why conservatives have left liberals in the dust. *Social Research*, 62(2), 177-213.
- Lather, P. (1991). *Getting smart: feminist research and pedagogy with/in the postmodern*. London: Routledge.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, United Kingdom: Cambridge University Press.
- Law, B. (2003). *Experiential education as a best practice pedagogy for environmental education in teacher education*. (Doctor of Philosophy Thesis), Griffith University, Brisbane.

- Lee, C. J. G. (2012). Reconsidering constructivism in qualitative research. *Educational Philosophy and Theory*, 44(4), 403-412. doi: 10.1111/j.1469-5812.2010.00720.x
- Legge, M. (2011). A Pākehā perspective on biculturalism in education outdoors. In D. Irwin, J. Straker & A. Hill (Eds.), *Outdoor Education in Aotearoa New Zealand: A new vision for the twenty first century* (pp. 138-145). Christchurch, New Zealand: CPIT publishing.
- Light, R. (2008). Complex learning theory--Its epistemology and its assumptions about learning: Implications for physical education. *Journal of Teaching in Physical Education*, 27(1), 21-37.
- Lighthall, F. (2004). Fundamental features and approaches of the s-step enterprise. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 193-246). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Long, D. A. (1995). Sociology and a pedagogy for liberation: cultivating a dialogue of discernment in our classrooms. *Teaching Sociology*, 23(4), 321-330. doi: 10.2307/1319161
- Lortie, D. (1975). *Schoolteacher: A sociological study*. Chicago, IL: The University of Chicago Press.
- Loughran, J. (1996). *Developing reflective practice: Learning about teaching and learning through modelling*. London, England: Falmer Press.
- Loughran, J. (2004). Learning through self-study: The influence of purpose, participants and context. . In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 151-192). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Loughran, J. (2006). *Developing a pedagogy of teacher education: Understanding teaching and learning about teaching*. London: Routledge.
- Loughran, J. (2010). A pedagogy of teacher education. In P. Peterson, E. Baker & B. McGaw (Eds.), *International encyclopedia of education* (3 ed., pp. 587-591). Oxford: Elsevier.
- Loughran, J. (2013). Pedagogy: Making sense of the complex relationship between teaching and learning. *Curriculum Inquiry*, 43(1), 118-141. doi: 10.1111/curi.12003
- Loughran, J., & Berry, A. (2005). Modelling by teacher educators. *Teaching and Teacher Education*, 21(2), 193-203.
- Loughran, J., & Northfield, J. (1996). *Opening the classroom door: Teacher, researcher, learner*. London: Falmer Press.
- Loughran, J., & Northfield, J. (1998). A framework for the development of self-study practice. In M. L. Hamilton, S. Pinnegar, T. Russell, J. Loughran & V. K. LaBoskey (Eds.), *Reconceptualizing teaching practice: Self-study in teacher education* (pp. 7-18). London, England: Falmer.
- Louv, R. (2005). *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill, N.C.: Algonquin Books.
- Lugg, A. (1996). *Pre-service teachers' changing conceptions of outdoor education: A case study*. (Master of Education), La Trobe University, Bendigo.
- Lugg, A. (2011). *Pre-service teachers' learning through participation in a sustainability education practicum*. Paper presented at the World Environmental Education Congress, Brisbane.
- Lugg, A. (2012). Navigating through new terrain: Pre-service teachers' journeys in teaching 'sustainability'. In M. Robertson (Ed.), *Schooling for sustainable*

- development: a focus on Australia, New Zealand and the oceanic region* (pp. 101-123). Dordrecht: Springer.
- Lunenberg, M. (2010). Characteristics, scholarship and research of teacher educators. In P. Peterson, E. Baker & B. McGaw (Eds.), *International encyclopedia of education* (3 ed., pp. 676-680). Oxford: Elsevier.
- Lunenberg, M., Korthagen, F., & Swennen, A. (2007). The teacher educator as role model. *Teaching and Teacher Education, 23*(2007), 586-601.
- Lynch, P. (2000). Fitting in and getting on. *Children's Issues, 4*(2), 32-35.
- Lynch, P. (2006). *Camping in the curriculum: A history of outdoor education in New Zealand schools*. Lincoln, Canterbury, New Zealand: PML Publications.
- Macfarlane, A. H. (2007). *Discipline, democracy and diversity: Working with students with behavioural difficulties*. Wellington, New Zealand: NZCER Press.
- Mackinnon, A. M. (1987). Detecting reflection-in-action among pre-service elementary science teachers. *Teaching and Teacher Education, 3*(2), 135-145.
- MacLean, M., & Poole, G. (2010). An introduction to ethical considerations for novices to research in teaching and learning in Canada. *The Canadian Journal for the Scholarship of Teaching and Learning, 1*(2), article 7.
- Malmberg, L., & Hagger, H. (2009). Changes in student teachers' agency beliefs during a teacher education year, and relationships with observed classroom quality, and day-to-day experiences. *British Journal of Educational Psychology, 79*(4), 677-694.
- Manke, M. P. (2004). Administrators also do self-study: Issues of power and community, social justice and teacher education reform. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 1367-1392). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Manning, R. E. (2003). Emerging principles for using information/education in wilderness management. *International Journal of Wilderness, 9*(1), 20-26.
- Martin, P. (1999). Critical outdoor education and nature as friend. In J. C. Miles & S. Priest (Eds.), *Adventure programming* (pp. 463-471). State College, PA: Venture.
- Martin, P. (2004). Outdoor adventure in promoting relationships with nature. *Australian Journal of Outdoor Education, 8*(1), 20.
- Martin, P., & McCullagh, J. (2011). Physical Education & Outdoor Education: complementary but discrete disciplines. *Asia-Pacific Journal of Health, Sport & Physical Education, 2*(1), 67-78.
- Martinez, M. A., Sauledua, N., & Huber, G. L. (2001). Metaphors as blueprints of thinking about teaching and learning. *Teaching and Teacher Education, 17*(1), 965-977.
- Mathison, S. (1988). Why triangulate? *Educational Researcher, 17*(2), 13-17. doi: 10.2307/1174583
- Matusov, E., & Brobst, J. (2013). *Radical experiment in dialogic pedagogy in higher education and its centauric failure: Chronotopic analysis*. New York: Nova.
- Maynard, T., & Waters, J. (2007). Learning in the outdoor environment: A missed opportunity? *Early Years, 27*(3), 255-265. doi: 10.1080/09575140701594400
- Mayo, E. (2003). *Toward collective praxis in teacher education: Complexity, pragmatism and practice*. (Doctor of Philosophy), University of Canterbury.
- Meijer, P. C. (1999). *Teachers' practical knowledge: Teaching reading comprehension in secondary education*. Leiden: ICLON.
- Merseeth, K. K. (1990). Case methodology in the study and practice of teacher education. *Teacher Education Quarterly, 17*(1), 53-62.

- Mewborn, D., & Tyminski, A. (2006). Lortie's apprenticeship of observation revisited. *For the Learning of Mathematics*, 26(3), 30-33.
- Ministry of Education. (1999a). *Guidelines for environmental education in New Zealand schools*. Wellington, New Zealand: Learning Media Ltd.
- Ministry of Education. (1999b). *Health and physical education in the New Zealand curriculum*. Wellington, New Zealand: Learning Media Ltd.
- Ministry of Education. (2003). *Safety and EOTC: A good practice guide for New Zealand Schools*. Wellington: Learning Media Ltd.
- Ministry of Education. (2007). *The New Zealand curriculum*. Wellington, New Zealand: Learning Media Ltd.
- Ministry of Education. (2009). *EOTC Guidelines; Bringing the curriculum alive, learning safely*. Wellington, New Zealand: Learning Media Ltd.
- Ministry of Education. (2011a). Education outside the classroom: Schools' use of EOTC Guidelines from <http://www.ero.govt.nz/National-Reports/Education-Outside-the-Classroom-Schools-Use-of-EOTC-Guidelines-October-2011>
- Ministry of Education. (2011b). *Tātaiako: Cultural competencies for teachers of Māori learners*. Wellington, New Zealand: Learning Media Ltd.
- Ministry of Education. (n.d.). Definitions. from <http://eotc.tki.org.nz/EOTC-home/Definitions>
- Misco, T. (2012). The importance of context for teaching controversial issues in international settings. *International Education*, 42(1). <http://trace.tennessee.edu/internationaleducation/vol42/iss1/5>
- Mitchell, C., & Weber, S. (1999). *Reinventing ourselves as teachers: Beyond nostalgia*. London: Falmer.
- Mühletaler, B. (2002). Wald als Vorschulzimmer. *Umwelt 4 / 02 des BUWAL, (Bundesamt für Umwelt, Wald und Landschaft)*.
- Mullins, P. M. (2011). Ecologies of outdoor skill: An education of attention. *The Journal of Experiential Education*, 33(4), 379-382.
- Munby, H., & Russell, T. (1990). Metaphor in the study of teachers' professional knowledge. *Theory into Practice*, 29(2), 116-121. doi: 10.2307/1476909
- Murphy, S. A., & Clark Johnson, L. (2003). Finding meaning in a child's violent death: A five-year prospective analysis of parents' personal narratives and empirical data. *Death Studies*, 27, 381-404.
- Myers, C. B. (2002). Can self-study challenge the belief that telling, showing and guided practice constitute adequate teacher education? In J. Loughran & T. Russell (Eds.), *Improving teacher education practices through self-study* (pp. 130-142). London: RoutledgeFalmer.
- Nadler, R. S., & Luckner, J. L. (1992). *Processing the adventure experience: Theory and practice*. Dubuque, Iowa: Kendall/Hunt Publishing Company.
- New Zealand Teachers Council. (2007). *Graduating Teacher Standards*. New Zealand Teachers Council Retrieved from <http://www.teacherscouncil.govt.nz/te/gts/gts-introduction.pdf>.
- New Zealand Teachers Council. (2010). *Registered Teacher Criteria Handbook 2010*: New Zealand Teachers Council.
- Newmann, F., Marks, H., & Gamoran, A. (1996). Authentic pedagogy and student performance. *American Journal of Education for Teaching*, 104(August), 280-312.
- Nicol, R. (2002). Outdoor education: Research topic or universal value? Part one. *Journal of Adventure Education and Outdoor Learning*, 2(1), 29-41.

- Niklassen, L., & Sandberg, A. (2010). Children and the outdoor environment. *European Early Childhood Education Research Journal*, 18(4), 485-496.
- North, C. (2010). Environmental care in education outside the classroom. *Journal of the Pacific Circle Consortium for Education*, 22(1), 91-101.
- North, C. (2011). The sidelining of environmental care education in outdoor education programmes: Why it happens, why it shouldn't and what we can do about it. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(5), 35-50.
- North, C., & Harasymchuk, B. (2012). Climbing as if you care: Rock climbing at Kura Tawhiti / Castle Hill as a place based approach to sustainability. *Sports Technology*, 5(3-4), 132-142.
- North, C., & Hutson, G. (2011). Environmental myopia: The case for bifocals. *Australian Journal of Environmental Education*, 27(2), 229-237.
- North, C., & Jansen, C. (2013). Holding a sustainability bearing through cutty-grass and clearings: Implementing sustainability during disruptive organisational changes. *Australian Journal of Outdoor Education*, 16(2), 2-11.
- Nuthall, G. A. (2005). The cultural myths and realities of classroom teaching and learning: A personal journey. *Teachers College Record*, 107(5), 895-934.
- O'Sullivan, M. (2005). Beliefs of teachers and teacher candidates: Implications for teacher education. In F. Carreiro da Costa, M. Cloes & M. Gonzales (Eds.), *The art and science of teaching in physical education and sport* (pp. 149-164). Lisbon, Portugal: Universidade De Tecnica.
- Openshaw, R., & Ball, T. (2008). New Zealand. In T. O'Donoghue & C. Whitehead (Eds.), *Teacher education in the English-speaking world: Past, present and future* (pp. 155-172). Charlotte, NC: IAP.
- Ord, J., & Leather, M. (2011). The substance beneath the labels of experiential learning: The importance of John Dewey for outdoor educators. *Australian Journal of Outdoor Education*, 15(2), 13-23.
- Orr, D. (2004). *Earth in mind. On education, environment and the human prospect*. Washington DC: Island Press.
- Ovens, A. (2003). Learning to teach through the practicum: A situated learning perspective. In B. Ross & L. Burrows (Eds.), *It takes 2 feet: Teaching physical education and health in Aotearoa New Zealand* (pp. 76-90). Palmerston North, New Zealand: Dulmer Press Ltd.
- Ovens, A. (2013). Criticality in HPE: Think piece 6: Disturbing practice in teacher education. *Physical Educator - Journal of Physical Education New Zealand*, 46(2), 20-22.
- Ovens, A., & Tinning, R. (2009). Reflection as situated practice: A memory-work study of lived experience in teacher education. *Teaching and Teacher Education*, 25(8), 1125-1131. doi: <http://dx.doi.org/10.1016/j.tate.2009.03.013>
- Paisley, K., Furman, N., Sibthorp, J., & Gookin, J. (2008). Student learning in outdoor education: A case study from the National Outdoor Leadership School. *Journal of Experiential Education*, 30(3), 201-222.
- Palmer, P. J. (1998). *The courage to teach: Exploring the inner landscape of a teacher's life*. San Francisco: Jossey-Bass.
- Park, G. (2006). *Theatre country. Essays on landscape and whenua*. Wellington: Victoria University Press.
- Parsons, J. (2013). Changing self-definitions: The agency of action research for teachers. *Action Researcher in Education*(March/ 4).

- Payne, P., & Wattoo, B. (2008). Slow pedagogy and placing education in post-traditional outdoor education. *Australian Journal of Outdoor Education*, 12(1), 25-38.
- Petraglia, J. (1998). *Reality by design: The rhetoric and technology of authenticity in education*. Mahwah, NJ: Lawrence Erlbaum.
- Philpot, R., & Smith, W. (2011). Beginning & graduating student-teachers' beliefs about physical education: a case study. *Asia-Pacific Journal of Health, Sport & Physical Education*, 2(1), 33-50.
- Piaget, J. (1977). *The development of thought: equilibration of cognitive structures* (A. Rosin, Trans.). New York: Viking Press.
- Pihama, L., Smith, K., Taki, M., & Lee, J. (2004). *A literature review on Kaupapa Māori and Māori education pedagogy*. Auckland, New Zealand: The International Research Institute for Māori and Indigenous Education.
- Pinnegar, S., & Hamilton, M. L. (2009). *Self-study of practice as a genre of qualitative research : theory, methodology, and practice*. Dordrecht Springer.
- Pinnegar, S., Mangelson, J., Reed, M., & Groves, S. (2011). Exploring preservice teachers' metaphor plotlines. *Teaching and Teacher Education*, 27(3), 639-647. doi: <http://dx.doi.org/10.1016/j.tate.2010.11.002>
- Placek, J. (1983). Conceptions of success in teaching: Busy, happy, and good? In T. Templin & J. Olson (Eds.), *Teaching in physical education* (pp. 46-56). Champaign, IL: Human Kinetics. .
- Putnam, H. (1981). *Reason, truth and history*. Cambridge: Cambridge University Press.
- Putnam, R., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29(1).
- Pyle, A., & Luce-Kapler, R. (2014). Looking beyond the academic and developmental logics in kindergarten education: the role of Schwab's commonplaces in classroom-based research. *Early Child Development and Care*, 184(12), 1960-1977. doi: 10.1080/03004430.2014.897945
- Quay, J., & Seaman, J. (2013). *John Dewey and education outdoors: Making sense of the 'Educational Situation' through more than a century of progressive reforms*. Rotterdam, The Netherlands: Sense Publishing.
- Reid, A. (2004). *Towards a culture of inquiry in DECS*. Government of South Australia.
- Reid, M. J. (2010). Commonplaces in practitioner curriculum deliberation. *Research in the Schools*, 17(2), 54-64.
- Rickinson, M., Dillon, J., Teamey, K., Morris, M., Choi, M. Y., Sanders, D., & Benefield, P. (2004). *A review of research on outdoor learning* Retrieved from http://www.field-studies-council.org/documents/general/NFER/A_review_of_research_on_outdoor_learning.pdf
- Rorty, R. (1982). *Consequences of pragmatism: Essays, 1972-1980*. Minneapolis, MN: University of Minnesota Press.
- Rorty, R. (1989). *Contingency, irony, and solidarity*. Cambridge: Cambridge University Press.
- Rose, G. (1993). *Feminism and geography*. Cambridge, MA: Polity Press.
- Rose, J., & Paisley, K. (2012). White privilege in experiential education: A critical reflection. *Leisure Sciences: An Interdisciplinary Journal*, 34(2), 136-154.
- Ross, V., & Chan, E. (2008). Chapter 1: Schwab's call for a renaissance. *Action in Teacher Education*, 29(5-6), 4-24. doi: 10.1080/01626620.2008.10519430

- Rossi, T., Sirna, K., & Tinning, R. (2008). Becoming a health and physical education (HPE) teacher: Student teacher 'performances' in the physical education subject department office. *Teaching and Teacher Education*, 24(4), 1029-1040. doi: <http://dx.doi.org/10.1016/j.tate.2007.11.005>
- Rovengo, I. (2003). Teachers' knowledge construction. In S. Silverman & C. Ennis (Eds.), *Student learning in physical education: Applying research to enhance instruction* (pp. 295-310). Champaign, IL: Human Kinetics.
- Russell, T. (1997/2012). Teaching teachers: How I teach IS the message. In J. Loughran & T. Russell (Eds.), *Teaching about teaching: Purpose, passion and pedagogy in teacher education* (Vol. 2, pp. 32-47). London: Falmer Press.
- Russell, T. (1999). The challenge of change in teaching and teacher education. In J. R. Baird (Ed.), *Reflecting, teaching, learning: Perspectives on educational improvement* (pp. 219-238). Cheltenham, Victoria, Australia: HawkerBrownlow Education.
- Russell, T. (2002). Can self-study improve teacher education? . In J. Loughran & T. Russell (Eds.), *Improving teacher education practices through self-study* (pp. 3-10). London: RoutledgeFalmer.
- Russell, T. (2004). Tracking the development of self-study in teacher education research and practice. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 1191-1210). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Russell, T. (2009). Personal-experience methods: Re-experiencing classroom teaching to better understand teacher education. In C. A. Lassonde, S. Galman & C. Kosnik (Eds.), *Self-study research methodologies for teacher educators* (Vol. 7, pp. 71-86). Rotterdam, The Netherlands: Sense Publishers.
- Russell, T. (2010). Self-study by teacher educators. In P. Peterson, E. Baker & B. McGaw (Eds.), *International encyclopedia of education* (3 ed., pp. 689-694). Oxford: Elsevier.
- Samaras, A. P., & Freese, A. R. (2009). Looking back and looking forward: An historical overview of the self-study school. In C. A. Lassonde, S. Galman & C. Kosnik (Eds.), *Self-study research methodologies for teacher educators* (Vol. 7, pp. 3-20). Rotterdam, The Netherlands: Sense Publishers.
- Sandretto, S. (2009). Theoretical and methodological tensions in a poststructural, collaborative self-study research project. *Studying Teacher Education*, 5(1), 89-101. doi: 10.1080/17425960902830476
- Sauve, L. (1996). Environmental education and sustainable development: A further appraisal. *Canadian Journal of Environmental Education*, 1(Spring), 7-33.
- Schön, D. A. (1995). Knowing-in-action: The new scholarship requires a new epistemology. *Change*, 27(6), 26-34. doi: 10.2307/40165285
- Schön, D. A. (1983). *The reflective practitioner*. New York: Basic Books Inc.
- Schön, D. A. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.
- Schwab, J. J. (1964). Structure of the disciplines: meanings and significances. In G. W. Ford & L. Pugno (Eds.), *The structure of knowledge and the curriculum* (pp. 1-31). New York, NY: Rand McNally.
- Schwab, J. J. (1970/2013). The practical: A language for curriculum. *Journal of Curriculum Studies*, 45(5), 591-621. doi: 10.1080/00220272.2013.798838
- Schwab, J. J. (1971). The practical 2: Arts of eclectic. *The School Review*, 79, 493-542.
- Schwab, J. J. (1978). *Joseph J. Schwab: Science, curriculum, and liberal education*. Chicago, IL: University of Chicago Press.

- Schwartz, D. L., Bransford, J. D., & Sears, D. (2005). Efficiency and innovation in transfer. In J. Mestre (Ed.), *Transfer of learning: Research and perspectives* (pp. 1-51). Greenwich, CT: Information Age Publishing.
- Scott, D. (2014). Criterial judgements in education: Knowledge and research. In A. Reid, P. Hart & M. Peters (Eds.), *A companion to research in education* (pp. 425-431). Dordrecht: Springer.
- Seidman, I. (1998). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (2 ed.). New York, NY: Teachers College Press.
- Senese, J. (2002). Opposites attract: What I learned about being a classroom teacher by being a teacher educator. In J. Loughran & T. Russell (Eds.), *Improving teacher education practices through self-study* (pp. 43-55). London: RoutledgeFalmer.
- Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, 27(2 (Mar., 1998)), 4-13.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14.
- Shulman, L. S. (1987). The wisdom of practice: Knowledge growth in teaching. In D. C. Berliner & B. V. Rosenshine (Eds.), *Talks to teachers*. New York: Random House.
- Shulman, L. S. (1998). Teacher portfolios: A theoretical activity. In N. Lyons (Ed.), *With portfolio in hand: Validating the new teacher professionalism* (pp. 23-37). New York: Teachers College Press.
- Shulman, L. S. (2004). *The wisdom of practice: Essays on teaching, learning and learning to teach* (S. M. Wilson Ed.). San Francisco, CA: Jossey-Bass.
- Si'ilata, R., Parr, J., Timperley, H., & Meissel, K. (2011). *Tula'i Mai! Making a difference to Pasifika student achievement in literacy*. Wellington: Learning Media Ltd
Retrieved from
nzcriculum.tki.org.nz/content/.../25943/.../NZCUpdate27_7Nov.pd...
- Silverman, D. (1997). Towards an aesthetics of research. In D. Silverman (Ed.), *Qualitative research: Theory, method and practice* (pp. 239-253). London: Sage.
- Sleeter, C. (2008). Equity, democracy, and neoliberal assaults on teacher education. *Teaching and Teacher Education*, 24(8), 1947-1957. doi: <http://dx.doi.org/10.1016/j.tate.2008.04.003>
- Smith, E. F., Steel, G., & Gidlow, B. (2010). The temporary community: Student experiences of school-based outdoor education programmes. *The Journal of Experiential Education*, 33(2), 136-150.
- Smith, K. (2005). Teacher educators' expertise: What do novice teachers and teacher educators say? *Teaching and Teacher Education*, 21(2), 177-192.
- Smith, T. J. (2008). Fostering a praxis stance in pre-service teacher education. In S. Kemmis & T. Smith (Eds.), *Enabling Praxis: Challenges for Education* (pp. 65-84). Rotterdam, The Netherlands: Sense Publishing
- Sobel, D. (2008). "Appareled in Celestial Light" transcendent nature experiences in childhood. *Encounter*, 21(4), 14-19.
- Spiegel, J. S. (2012). Open-mindedness and intellectual humility. *Theory and Research in Education*, 10(1), 27-38. doi: 10.1177/1477878512437472
- Spielholz, P., Clark, R., & Sujostrom, T. (2007). Fatality narratives: An effective way to convey hazard information. *Professional Safety*, 52(4), 22-25.
- Splitter, L. J. (2009). Authenticity and constructivism in education. *Studies in Philosophy and Education*, 28(2), 135-151. doi: 10.1007/s11217-008-9105-3

- Stolz, S. A., & Pill, S. (2014). Telling physical education teacher education tales through pedagogical case studies. *Sport, Education and Society*, 1-20. doi: 10.1080/13573322.2014.962495
- Straker, J. (2014). *Meanings of 'the outdoors': Shaping outdoor education in Aotearoa New Zealand*. (Doctor of Philosophy), University of Waikato.
- Sullivan, R. (2006). The dangers of safety in outdoor education. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 2(1), 5-17.
- Sullivan, R., Carpenter, V., & Jones, A. (2011). 'Dreadful things can happen': Cautionary tales for the safe practitioner. *Australian Journal of Outdoor Education*, 15(1), 12-21.
- Tairab, H. H. (2003). The role of reflection in facilitating pre-service primary school teachers' professional growth. *Journal of Faculty of Education*, 18(20).
- Taylor, P., Low, E., Lim, K., & Hui, C. (2013). Making learning visible in initial teacher education: a pedagogical characterisation scheme. *Educational Research for Policy and Practice*, 12(3), 193-209. doi: 10.1007/s10671-012-9140-2
- Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioural sciences*. Thousand Oaks, California: Sage Publications.
- Teloh, H. (1986). *Socratic education in Plato's early dialogues*. Notre Dame, IN: University of Notre Dame Press.
- Thevenard, L. (2014). A word from the Chair. *Out and About*, 7-10.
- Thomas, G. (2010). Facilitator, teacher, or leader? Managing conflicting roles in outdoor education. *The Journal of Experiential Education*, 32(3), 239-254.
- Tidwell, D. (2002). A balancing act: Self-study in valuing the individual student. In J. Loughran & T. Russell (Eds.), *Improving teacher education practices through self-study* (pp. 30- 42). London, England: RoutledgeFalmer.
- Tidwell, D., & Fitzgerald, L. (2004). Self-study as teaching. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 69-102). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Timperley, H. (2013). Learning to practise (A paper for discussion): Ministry of Education.
- Timperley, H., & Robinson, V. (1998). Collegiality in Schools: Its nature and implications for problem solving. *Educational Administration Quarterly*, 34, 608-629.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). Teacher professional learning and development best evidence synthesis iteration. Wellington, New Zealand: Ministry of Education.
- Tolich, M. (2002). Pākehā "paralysis": Cultural safety for those researching the general population of Aotearoa. *Social Policy Journal of New Zealand*(19), 164-178.
- Tozer, M., Fazey, I., & Fazey, J. (2007). Recognizing and developing adaptive expertise within outdoor and expedition leaders. *Journal of Adventure Education & Outdoor Learning*, 7(1), 55-75.
- Tripp, T., & Rich, P. (2012). Using video to analyze one's own teaching. *British Journal of Educational Technology*, 43(4), 678-704. doi: 10.1111/j.1467-8535.2011.01234.x
- Trumbull, D. (2004). Factors important for the scholarship of self-study of teacher education practices. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 12, pp. 1211-1230). Dordrecht: Kluwer Academic Publishers, Great Britain.

- Trumbull, D. (2006). Sharing my teaching journal with my students. In P. Aubusson & S. Schuck (Eds.), *Teacher learning and development: The mirror maze* (pp. 67-82). Dordrecht, The Netherlands: Springer.
- van de Pol, J., Volman, M., & Beishuizen, J. (2010). Scaffolding in teacher-student interactions: A decade of research. *Educational Psychology Review*, 22(3), 271-296.
- Vosnaidou, S. (2007). The cognitive-situative divide and the problem of conceptual change. *Educational Psychologist*, 42(1), 55-66.
- Vygotsky, L. S. (1962). *Thought and language* (E. Hanfmann & G. Vaker, Trans. E. Hanfmann & G. Vaker Eds.). Cambridge, MA: MIT Press.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, M.A.: Harvard University Press.
- Wallace, J., & Loughran, J. (2012). Science teacher learning. In B. J. Fraser, K. Tobin & C. J. McRobbie (Eds.), *Second International Handbook of Science Education* (Vol. 24, pp. 295-305). Dordrecht, Netherlands: Springer.
- Wals, A. E. J., & Alblas, A. (1997). School-based research and development of environmental education: A case study. *Environmental Education Research*, 3(3), 253-267.
- Wegener, C. (1986). Being Practical with Schwab. *Curriculum Inquiry*, 16(2), 215-232. doi: 10.2307/1179771
- Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. New York: Cambridge University Press.
- Whitehead, J. (2004). Evidence in self-studies of teacher education practices. In J. Loughran, M. L. Hamilton, V. K. LaBoskey & T. Russell (Eds.), *International handbook of self-study of teaching and teacher education practices*. (Vol. 1, pp. 871-903). Dordrecht: Kluwer Academic Publishers, Great Britain.
- Wieringa, N. (2011). Teachers' educational design as a process of reflection-in-action: The lessons we can learn from Donald Schön's *The Reflective Practitioner* when studying the professional practice of teachers as educational designers. *Curriculum Inquiry*, 41(1), 167-174. doi: 10.1111/j.1467-873X.2010.00533.x
- Wood, D., Bruner, J., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry*, 17(2), 89-100.
- Wood, E., & Geddis, A. (1999). Self-conscious narrative and teacher education: Representing practice in professional course work. *Teaching and Teacher Education*, 15, 107-119.
- Wubbels, T., Korthagen, F., & Broekman, H. (1997). Preparing teachers for realistic mathematics education. *Educational Studies in Mathematics*, 32, 1-28.
- Youens, B., Smethem, L., & Sullivan, S. (2014). Promoting collaborative practice and reciprocity in initial teacher education: realising a 'dialogic space' through video capture analysis. *Journal of Education for Teaching*, 40(2), 101-113. doi: 10.1080/02607476.2013.871163
- Zeichner, K. (1999). The new scholarship in teacher education. *Educational Researcher*, 28(9), 4-15.
- Zeichner, K. (2006). Different conceptions of teacher expertise and teacher education in the USA. *Education Research and Perspectives*, 33(2), 60-79.
- Zeichner, K. (2010). Competition, economic rationalization, increased surveillance, and attacks on diversity: Neo-liberalism and the transformation of teacher education in the U.S. *Teaching and Teacher Education*, 26(8), 1544-1552. doi: <http://dx.doi.org/10.1016/j.tate.2010.06.004>

- Zink, R. (2003). Abseiling at 5, rafting at 10, what do we do with them when they are 15? Why pursuits might seem like an obvious choice for outdoor education? *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke*, 1(2), 56-62.
- Zink, R. (2004a). Does Pamela Anderson have a place in outdoor education? *Childrenz Issues*, 8(1), 13-28.
- Zink, R. (2004b). The work outdoor education does: A Foucauldian analysis. (Doctor of Philosophy), University of Otago.
- Zink, R., & Boyes, M. (2006). The nature and scope of outdoor education in New Zealand schools. *Australian Journal of Outdoor Education*, 10(1), 57-80.
- Zink, R., & Burrows, L. (2008). 'Is what you see what you get?' The production of knowledge in-between the indoors and the outdoors in outdoor education. *Physical Education and Sport Pedagogy*, 13(3), 251-265.