An exploration of the use of videotaped teaching and dialogue to support preservice teachers to critically reflect on their emerging teaching practice

Jane Tilson

A thesis submitted in partial fulfilment for the degree of Doctor of Education at the University of Otago, Dunedin, New Zealand

November 2014
ABSTRACT

How teacher educators can support preservice teachers to critically reflect on their teaching practice forms the primary focus of this thesis. Internationally, teacher education programmes have shown enormous interest in supporting preservice teachers to think critically about their teaching practice. However, problematically for teacher educators, the terms reflective and critically reflective practice remain ill defined and are frequently used interchangeably. Academic literature often describes the focus of reflective practice at a personal level, for example, one’s beliefs, assumptions and practices. This thesis, however, asserts a critically reflective practitioner is prepared to focus their critique at both a personal and societal level. Furthermore, this thesis argues a critically reflective teacher can make teaching decisions informed by their critical reflection on their personal beliefs, formal theoretical frameworks, and on the multiple institutional, cultural, social and political assumptions underpinning their practice, in order to rationalise a foundation for teaching practice. The reflective practice literature suggests critically reflecting on one’s teaching cannot be assumed as an innate skill. This thesis investigated a key challenge for teacher educators, can critically reflective practice be taught to prospective teachers, and if so, how?

Underpinned by critical theory, this qualitative study examined whether asking preservice teachers to discuss their personal beliefs, formal theories and wider societal factors around their videotaped teaching practice did, or did not support their critical reflection. In the full study, across one academic year, six preservice teachers participated in an initial interview, three interviews using their videotaped teaching as a prompt for reflection and an exit interview. The main form of data, audiotaped interviews were analysed using a qualitative data management tool HyperRESEARCH. Themes from that analysis informed a generic structure used to report participant’s individual findings as vignettes.
A second major focus of inquiry for this research project was on the role of dialogue, and how dialogue does, or does not support critical reflection. A number of studies have examined audiotaped transcripts of preservice teachers’ speech or monologue around their videotaped teaching. This study, using Fairclough’s (1995) model of critical discourse analysis, analysed how dialogue between the preservice teacher and the researcher did, or did not support them to critically reflect on their videotaped teaching practice.

Findings from the project raised important implications for teacher educators. These were: while all six preservice teachers drew upon personal beliefs, formal theory and wider factors to critically reflect on their teaching, they did so in surprisingly unique ways, and it is a mistake to assume that preservice teachers will independently make theory to practice connections. When using videotaped teaching, all participants recommended having multiple opportunities to view themselves teach, in order that they can target areas of their practice to refine, and across time evidence and own resultant changes in their practice. Reported findings suggest that unless preservice teachers were asked to discuss wider societal factors impacting their practice, this was an area at risk of remaining invisible and silent. When mentoring preservice teachers’ critical reflection, it appears dialogue is a crucial but complex factor. This thesis highlights dialogue strategies that did, and did not support preservice teachers’ critically reflective dialogue. In conclusion, the thesis poses a range of questions to support teacher educators to critically consider how they mentor preservice teachers’ critically reflective thinking around their teaching practice.
ACKNOWLEDGEMENTS

The completion of this thesis is testament to the support of many people, to whom I give my heartfelt thanks.

• My supervisors Dr Susan Sandretto and Dr Keryn Pratt who from their different research lenses and expertise gave invaluable academic support and feedback. I thank Susan for sharing her love of, and wealth of theoretical knowledge, and for her generosity in sharing expert academic oral and written feedback. I thank Keryn for her pragmatism, practicality, problem-solving and expert feedback across the project.

• My eight participants (two in the pilot study, and six in the full study) for their courage in volunteering for a project that was at times both challenging and rewarding. I also thank their schools, staff and students who all made this project possible.

• The wider University of Otago College of Education staff for their on-going support, in particular Fiona Ellis who with humour taught me to keep the thesis in perspective.

• Chris Gardener for her generosity and expert help in formatting the thesis prior to submission.

• My parents, Jenny and Ian for their ongoing support and unfailing belief I would finish.

• In particular, I thank my immediate family; my husband Philip, and Kate, Henry and Jack whose patience, love and support made this thesis possible.
TABLE OF CONTENTS

Abstract........................................................................................................................................... i
Acknowledgements .......................................................................................................................... iii
Table of Contents ............................................................................................................................. iv
Index of Tables and Figures ............................................................................................................. xi
Chapter One: Introducing the Study ............................................................................................... 1
  Reflective and critically reflective practice..................................................................................... 1
  Foregrounding influential contextual factors .................................................................................. 2
  The thesis setting and context .......................................................................................................... 5
  Research questions.......................................................................................................................... 7
  Thesis structure............................................................................................................................... 8
Chapter Two: Critical Theory ........................................................................................................... 10
  Introduction................................................................................................................................... 10
  Historical genesis of critical theory ............................................................................................... 10
    The Frankfurt School’s critique of instrumental or scientific rationality........................................ 13
    The Frankfurt School’s concept of Immanent critique................................................................. 16
    The Frankfurt School’s concept of dialectic thought................................................................. 18
  Habermas and communicative action.............................................................................................. 20
    Habermas and the ideal speech situation...................................................................................... 25
  Critical theory: Its impact on this research project ........................................................................ 31
Chapter Three: Literature Review ................................................................................................... 37
  Introduction................................................................................................................................... 37
  Conceptualising reflective practice ................................................................................................. 38
  The theory/practice divide in teacher education: A false dichotomy.......................................... 41
  International changes in teacher education.................................................................................... 44
<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>Distinguishing critically reflective practice from reflective practice</td>
</tr>
<tr>
<td>56</td>
<td>Can critically reflective practice be taught, and if so how?</td>
</tr>
<tr>
<td>56</td>
<td>Typologies of reflective practice</td>
</tr>
<tr>
<td>63</td>
<td>Tools with which to teach critically reflective practice</td>
</tr>
<tr>
<td>64</td>
<td>The use of video technologies to support reflective practice</td>
</tr>
<tr>
<td>64</td>
<td>The affordances of video technologies and how they have been used</td>
</tr>
<tr>
<td>66</td>
<td>Focusing in on teacher identity</td>
</tr>
<tr>
<td>69</td>
<td>How, and in what ways has videotaping one's own teaching practice been used to scaffold critical reflection?</td>
</tr>
<tr>
<td>76</td>
<td>Conclusion</td>
</tr>
<tr>
<td>79</td>
<td>Chapter Four: Methodology</td>
</tr>
<tr>
<td>79</td>
<td>Introduction</td>
</tr>
<tr>
<td>81</td>
<td>Data construction methods</td>
</tr>
<tr>
<td>81</td>
<td>Videotaped teaching episodes</td>
</tr>
<tr>
<td>82</td>
<td>Interviews</td>
</tr>
<tr>
<td>83</td>
<td>Field notes</td>
</tr>
<tr>
<td>84</td>
<td>Participant selection and recruitment</td>
</tr>
<tr>
<td>85</td>
<td>Pilot study participant recruitment</td>
</tr>
<tr>
<td>86</td>
<td>Full study participant recruitment</td>
</tr>
<tr>
<td>87</td>
<td>Data construction</td>
</tr>
<tr>
<td>87</td>
<td>Pilot study</td>
</tr>
<tr>
<td>89</td>
<td>Full study</td>
</tr>
<tr>
<td>89</td>
<td>Phase one: Initial interview (pre-videotape prompted interviews)</td>
</tr>
<tr>
<td>89</td>
<td>Phase two: Three interviews using videotaped teaching to stimulate critically reflective dialogue</td>
</tr>
<tr>
<td>89</td>
<td>Phase two: Unstructured and semi-structured interview format</td>
</tr>
</tbody>
</table>
Chapter Five: Insights from Preservice Teachers’ Critically Reflective Practice

Data analysis methods

Data analysis using Hyper-RESEARCH

HyperRESEARCH: Case-based design

First cycle coding using HyperRESEARCH

Second cycle coding using HyperRESEARCH

Vignettes

Vignette structure

Initial interview (pre-videotape prompted interviews)

Beliefs, theoretical frameworks and videotaped teaching

The power of dissonance

Wider factors impacting critically reflective practice

Using critical discourse analysis to examine shift in reflective thinking and/or practice

Exit interview (post-videotape prompted interviews)

Vignette map

Critical discourse analysis

Data analysis using CDA

CDA’s three layers of analysis

Ethical considerations

Trustworthiness of findings

Limitation of methods

Researcher reflexivity

Summary of methodology

Chapter Five: Insights from Preservice Teachers’ Critically Reflective Practice

Participant vignettes

Vignette of participant PA

Initial interview - pre-intervention: “I want to know who I am as a teacher” (PA, II)
Beliefs, theoretical frameworks and video: "I want to be the best teacher I can" (PA, V3I) .............. 119

The power of dissonance: Language - too much, too little, or just right? ........................................ 121

Analysing shift: "Doesn't even seem like that's me" (PA, V2I).......................................................... 126

CDA: Textual analysis and discourse practices ...................................................................................... 131

CDA: Social analysis .............................................................................................................................. 133

Exit interview - post intervention: "I like my teaching, watching my teaching, I actually like my practice" (PA, EI) ...................................................................................................................... 134

Vignette - of participant PB .................................................................................................................. 136

Initial interview - pre-intervention: "I want to know what I am doing as a teacher" (PB, II).............. 136

Beliefs, theoretical frameworks and video: "I want to be the teacher I never had" (PB, V1I) .......... 136

The power of dissonance: "This class, they almost know if they don't finish it, there's no worries" (PB, V2I) ........................................................................................................................................... 142

Analysing shift: Theory - "Yeah I, I think I value it" (PB, V1I)............................................................. 144

CDA: Textual analysis and discourse practices ...................................................................................... 145

CDA: Social analysis .............................................................................................................................. 147

Exit interview - post intervention: "I realise I do have what it takes to be a teacher" (PB, EI) ........ 147

Vignette - of participant PC .................................................................................................................. 150

Initial interview - pre-intervention: "Having feedback could help me develop into becoming a better teacher, that's what I want" (PC, II)........................................................................................................ 150

Beliefs, theoretical frameworks and video: “Teaching involves a seamless blending of theory and practice" (PC, V1I)........................................................................................................................................... 151

The power of dissonance: "I think it looks like I'm sort of lecturing them" (PC, V1I) ..................... 153

Analysing shift: "It's a new way of teaching and learning" (PC, V3I)................................................. 156

CDA: Textual analysis and discourse practices ...................................................................................... 157

CDA: Social Analysis ............................................................................................................................ 157

Exit interview - post intervention: "It's made me aware on a placement you can actually be changing so much" (PC, EI) ........................................................................................................................................... 159

Vignette - of participant PD .................................................................................................................. 162
Initial interview - pre-intervention: “The best way to learn from teaching is seeing it from an outside perspective, and just looking in” (PD, II) ................................................................. 162

Beliefs, theoretical frameworks and video: "I enjoy practicum the most because I see it in action, I see what’s happening, I see what works” (PD, V1I) .................................................................................. 162

Wider factors impacting critical reflection: "Like our principal was saying, 'it’s an interesting time to become a teacher', we all took that, we all knew that was a bad time to become a teacher” (PD, EI). ........................................................................................................ 167

Analysing shift: “No one can reveal to you aught, but that which already lies half asleep in the dawning of your knowledge” (Gibran, 1926, p. 53) ........................................................................................................ 169

CDA: Textual analysis and discourse practices ........................................................................ 171

CDA: Wider discourse practices ........................................................................................... 173

Exit interview - post intervention: Video: "You see where you are going wrong, you see what you’re doing well, and you always take something away from it” (PD, EI) ........................................ 174

Vignette - of participant PE .................................................................................................. 176

Initial interview - pre-intervention: A great opportunity for me to advance my teaching .......... 176

Beliefs, theoretical frameworks and video: Theory - "So yeah parts I agree with, other parts I don’t, and I think the only way that you can become a better teacher is by practice” (PE, V2I) ... 176

Wider factors impacting critical reflection: "These children are our future, and I don’t think national standards helps that” (PE, V1I) ........................................................................................................ 181

Analysing shift: "To become a teacher they had to educate me, as I had educated them” (PE, EI) .... 183

CDA: Textual analysis and discourse practices ........................................................................ 184

CDA: Social analysis .............................................................................................................. 186

Exit interview - post intervention: Video: "By watching it, you’re putting yourself in the child’s eyes in a way, seeing what they’re seeing, you don’t see that when you’re teaching it” (PE, EI) ......................................................................................................................... 186

Vignette - of participant PF .................................................................................................. 189

Initial interview - pre-intervention: “Reflection is one of my strengths, I want to learn how maximise the benefits you can get out of reflection” (PF, II) ............................................................... 189
Beliefs, theoretical frameworks and video: "We are lifelong learners, so I like just being critical of everything" (PF, V1I) ................................................................. 189

Wider factors impacting critical reflection: National standards - "It didn't have a massive impact on me" (PF, V3) ................................................................. 194

Analysing shift: It used to be - "How am I going to teach these children over a whole day, now it's I don't have enough time" (PF, V2I) .................................................. 195

CDA: Textual analysis and discourse practices ...................................................... 198

CDA: Social Analysis .......................................................................................... 199

Exit interview - post intervention: "Examining my growth has been quite fascinating to me" (PF, EI) ........................................................................................................... 200

Conclusion ........................................................................................................... 202

Chapter Six: Reflections - Supporting Preservice Teachers' Critically Reflective Practice........ 203

Praxis: Personal beliefs, formal theory and videotaped teaching practice ...................... 204

Personal beliefs: Three key findings ........................................................................ 205

Personal beliefs: Key finding one ........................................................................... 205

Personal beliefs: Key finding two ........................................................................... 205

Personal beliefs: Key finding three ........................................................................ 206

Formal theory: Insights from preservice teachers ..................................................... 206

Formal theory: Key finding .................................................................................... 208

Wider factors: Insights from preservice teachers ....................................................... 208

Wider factors: Key finding ...................................................................................... 209

Videotaped teaching: Insights from preservice teachers .......................................... 210

Videotaped teaching: Key finding one ..................................................................... 211

Videotaped teaching: Key finding two ..................................................................... 211

Videotaped teaching: Key finding three ................................................................... 211

Dialogue, videotaped teaching and critically reflective practice .............................. 212

How dialogue prompted shifts in preservice teachers' reflective thinking, and/or practice:

Insights from preservice teachers ........................................................................... 213
Implications ........................................................................................................................................... 216

Implication one: Praxis around beliefs, theory and videotaped teaching supports critical reflection ........................................................................................................................................... 217

Implication two: It is a mistake to assume preservice teachers will draw upon formal theory to make sense of their practice ........................................................................................................................................... 217

Implication three: Wider factors - making the invisible and silent open to critique and debate ........................................................................................................................................... 218

Implication four: Dialogue - a crucial but complex factor in supporting preservice teachers’ critical reflection ........................................................................................................................................... 219

Limitations ............................................................................................................................................... 220

Future research ....................................................................................................................................... 222

Closing remarks ...................................................................................................................................... 224

References .............................................................................................................................................. 226

Appendices .......................................................................................................................................... 245

Appendix A: Definition of critically reflective practice for this research project ......................... 245

Appendix B: Analysis of articles related to use of videotaped teaching (modified from Trip & Rich, 2012b) ........................................................................................................................................... 246

Appendix C: Pilot study interview ....................................................................................................... 254

Appendix D: Full study initial interview ............................................................................................... 257

Appendix E: Full study interview using videotaped teaching episodes ........................................... 258

Appendix F: Full study exit interview .................................................................................................. 260

Appendix G: HyperRESEARCH code map ........................................................................................... 261

Appendix H: Information and consent form for principals (full study) ............................................ 262

Appendix I: Information and consent form for school students (full study) ..................................... 267
INDEX OF TABLES AND FIGURES

Table 1: Typologies of reflective practice ................................................................. 57
Table 2: Pilot and full study timeline and data sources .............................................. 80
Table 3: Warp and weft case based design ............................................................... 93
Table 4: HyperRESEARCH second round codes ...................................................... 96
Table 5: Vignette map .............................................................................................. 102

Figure 1. Fairclough’s (1995a, p. 98) dimension of discourse and discourse analysis ............ 105
CHAPTER ONE: INTRODUCING THE STUDY

Reflective and critically reflective practice

For several decades reflective practice has been described as the hallmark of professional competence for teachers, and is a key component in the epistemology of teaching practice (Hatton & Smith, 1995; Larrivee, 2008b; Schön, 1983; Valli, 1992; van Manen, 1977; Zeichner, 1987). As a concept, reflective practice has a seductive allure, and for many people the term connotes qualities that feel desirable, useful and informative (Larrivee, 2009 Loughran, 2002). The desire to develop reflective practitioners has had considerable appeal across a number of professions, no more so than in teacher education (Fendler, 2003). In the field of teacher education one can hardly find a teacher education book or article that does not extol the virtues of reflective practice, and the ability to reflect on one's teaching practice is recognised as a central component in a teacher's daily work (El-Dib, 2007). The need to prepare reflective teachers has become an aspirational professional standard leading many initial teacher education programmes in New Zealand and internationally to adopt reflective practice as the foundation of their programmes (Brookfield, 1995; Calderhead, 1989; Hatton & Smith, 1995; Larrivee, 2000; O'Neill, 2012; Thompson & Pascal, 2012; Valli, 1992; van Manen, 1995). However, one of the problems with reflective practice is that it remains an ill defined and illusive concept (Bleakley, 1999; El-Dib, 2007; Jay & Johnson, 2002), and there is much debate in the literature whether reflective practice should focus its critique at a personal and/or societal level (Brookfield, 1995; Carson & Fisher, 2006; Fendler, 2003; Fook & Gardner, 2007; Giroux, 2003; Habermas, 1984a; Jay & Johnson, 2002; Thompson & Pascal, 2012; Yost, Sentner, & Forlenza-Bailey, 2000).

A problem for teacher educators is that within academic literature the terms reflective practice and critically reflective practice are often used interchangeably. This thesis asserts that they are similar but different terms, that critically reflective practice asks teachers to critically reflect upon personal
aspects of their practice, and wider (social, cultural, historical, institutional, and political) factors impacting their practice. In this way, teachers can understand and respond to the complexity in which their daily work is immersed.

In my work as a teacher educator in New Zealand, a number of policy documents, for example, the New Zealand Teacher Council’s Graduating Teacher Standards (2007), and the New Zealand Teacher Council’s Code of Ethics for Registered Teachers (2004), all uphold reflective practice as a cherished professional standard to work toward. However, as Hatton and Smith (1995) have suggested, reflective practice in its myriad of forms cannot be assumed as an innate quality, rather it is a skill that needs to be taught and practiced within and beyond teacher education programmes. This thesis explores a key challenge for teacher educators, can critically reflective practice be taught to prospective teachers, and if so, how?

**Foregrounding influential contextual factors**

Everything comes from somewhere, and one of the great joys of being a teacher educator is the interconnected nature of my work. Daily, I am surprised at how each of the multifaceted aspects of my work recursively inform and refine one another. This is particularly the case across my roles as a teacher and researcher. I next explore how both of these roles and my wider life experiences have prompted this research project’s central focus of inquiry, how to support preservice teachers’ critically reflective practice.

My wider experiences living and working in England prompted my initial research interest around critically reflective practice. Since 2001, my family has twice lived in Cambridge, England, where on both occasions I was employed as a primary school teacher. From 2001-2002, I was employed as a literacy leader in a primary school, where my work was made accountable through an instrumental regime of standardised assessment testing, commonly known as SATs. This was new territory where
I had to attend compulsory training around how to administer national exams in literacy and mathematics, and to learn how to demonstrate and (where possible) account for value added measures in students' academic progress. The standardised testing regime was tightly bound with curriculum delivery, where each informed the other. For example, in my year two class of five-to-six year olds, there was a set text that all of England used for the formal reading comprehension test, and the formal writing test was examined against a prescriptive set of developmental skills laid out in the curriculum. Having taught in New Zealand primary schools where there are no compulsory standardised exams, the power of the regime of national testing caught me by surprise. For instance, even at the year two level, students who were absent for scheduled testing were later caught up, and all students (even those known to be at risk of failing) were tested. Although students' individual results were not made public, their school's results were compared with other schools at a local and national level. Teachers in the staffroom often joked that house prices in their neighbourhood would rise and fall on the quality of their school's SATs results.

My experiences working in Cambridge at this time prompted my critical reflection on a number of issues around SATs, such as: Why did SATs only test literacy, numeracy and science, and how did that affect the wider curriculum? How had the standardised tests become wedded to a lock step developmental view of knowledge and skills? Who might be advantaged, and/or disadvantaged by such a regime? Were the tests primarily a tool of accountability with which to judge teachers, headteachers and schools? The pros and cons of England's SATs regime have long been documented in academic literature, Shiel (2003), West (2010), and Berliner (2011) amongst others provide a fuller discussion than is possible here.

In 2006-2007, I again worked as a primary school teacher in Cambridge, England. Our family arrived during the month of May, unbeknown to us a few days ahead of the national SATs testing. The high stakes nature of SATS were so prevalent the Headteacher of the local primary school was initially reluctant to enrol our daughter, dare we negatively impact the school's results. In my work in
schools, I was alarmed to observe how the lived effects of the SATs system on teachers appeared to have intensified. Young teachers with whom I worked were so driven to achieve the highest possible test scores for their students that at times they referred to students in terms of curriculum levels rather than using their name. Dialogue in the following manner was not uncommon; "I've got a 2C but with extra splinter group teaching we can make them become a 3a". Splinter group teaching was commonplace, where headteachers would hire additional staff to work with students in a particular curriculum area when they thought it was possible to elevate their test score. My purpose in sharing these anecdotes is not to pathologise teachers with whom I worked, rather to call into question an instrumental system of national testing that appeared to have threatened teachers' core professionalism. My reflective musings at this time shifted toward teacher education. I struggled to understand how young teachers who had recently graduated from a teacher education programme appeared committed to implementing governmental policies in an apparently unreflective and uncritical manner. I resolved, on my return to New Zealand in my work as a teacher educator, to actively research strategies to support our preservice teachers to become critically reflective of their own practices, and of wider societal factors impacting their practice.

In New Zealand, I was first employed as a teacher educator in 2000, and in my work mentoring preservice teachers' practice in schools, I had on a number of occasions used their videotaped teaching to scaffold their reflective thinking. I had always been struck by its utility in supporting them to see and make connections between theory and practice. Videotaped teaching also appeared to support them to talk about their practice around how best to support students' learning, and to examine whether those beliefs were evident, or not within their practice. From my observations, video allowed them to see and critically reflect on their practice in a way not ordinarily available to them. These formative experiences informed my decision to use videotaped teaching as a vehicle with which to support preservice teachers' critically reflective practice within this project.
My work as a researcher in the field of critical literacy has also influenced this research project (see Sandretto and Tilson 2014). Over a period of three years, working in a Teaching and Learning Research Initiative (TLRI) funded research project with Dr Sandretto, we worked with a group of New Zealand teachers to co-construct what critical literacy meant for classroom practice in New Zealand. In short, we understood that critical literacy involves supporting students to become aware that:

- texts are social constructions; texts are not neutral; authors draw upon particular discourses (often majority discourses) and assume that readers will be able to draw upon them as well;
- authors make certain conscious and unconscious choices when constructing texts; all texts have gaps, or silences, and particular representations within them; [and] texts have consequences for how we make sense of ourselves, others and the world. (Sandretto, 2006, p. 24)

This work, with its critical lens, strongly influenced my decision to adopt critical theory as the underpinning theoretical framework for this project. Critical theory, by its very nature resists any blueprint, recipe, or definition (Held, 1980). In choosing to position myself as a critical researcher, I understand there is no one truth waiting to be found, rather, I believe how we perceive reality is subjective, and that our realities are multiple and shifting (Denzin & Lincoln, 2005), and are dependent on context. Within this project, critical theory as a tool allowed me to describe, explain and construct data in a particular way that was reflective of my personal beliefs about the nature of truth and how the world works (Crotty, 1998).

The thesis setting and context

The setting for this research project is my current workplace, the University of Otago College of Education in the south island of New Zealand. Participants for this project included eight preservice teachers who were in the final year of their three-year teacher education (primary) degree. Two preservice teachers participated in the pilot study, and six participated in the full study.
Since 2000, teacher education in New Zealand has been the subject of ongoing change, driven by shifting political priorities and agendas. Across New Zealand, and in my own institution, teacher educators have lived and witnessed mergers between former colleges of education and universities. Positioning teacher education within the realm of universities has resulted in changes to staff funding, delivery of content, and more generally to the culture of teacher education (Smith & Tinning, 2011). I next highlight wider political factors affecting both the primary and tertiary education sectors that occurred during 2012 when participants undertook their final year school practicum placement in schools.

In a pre-budget speech in May 2012, the New Zealand Minister of Education forewarned changes that had potential to profoundly impact the primary education sector. Potential changes included: shifting the student-to-teacher ratio from 23 to 27 students to one teacher, removing all specialist technology teachers from intermediate schools\(^1\), and the possibility of performance based teacher pay tied to national standards data. The Minister defended the proposed changes on fiscal grounds, stating "the reality is that we are in a tight economic environment. In order to make new investment in quality teaching, we have to make some trade-offs. We are opting for quality not quantity, better teaching not more teachers" (Parata, 2012, para. 39). Her trade off involving higher class sizes with the subsequent loss of specialist teaching jobs prompted outrage from a number of stakeholders. In a united front, many principals, Boards of Trustees, teachers, students, parents, and teacher unions, signed petitions, engaged in protest marches and lobbied the government to stop the proposed changes. Ultimately the level of protest was such that the Minister abandoned her plan and announced the fiscal savings would be found elsewhere.

Within her May 2012 pre-budget speech, the Minister also announced large-scale changes to the delivery of initial teacher education programmes within New Zealand, where a postgraduate

\(^1\) In New Zealand, intermediate schools have specialist teachers, and provide teaching in all, or some of the following subjects; hard materials, ICT, food technology and graphics and design.
qualification would be introduced as minimum requirement for all prospective teachers. This proposal had profound implications for teacher education providers, prospective and current preservice teachers and wider education stakeholders, including the New Zealand Teacher’s Council, schools, and so forth. However, the political backlash initiated by the Minster’s proposed changes to the primary sector caused her to lose momentum, and in June 2012, she announced such changes would not proceed in the immediate future. I provide this information for readers, it is significant as it captures the backdrop against which participants undertook their final year practicum placements in schools, and became the partial focus of their dialogue presented in the discussion of findings chapter.

**Research questions**

This research project examined which strategies were helpful in supporting preservice teachers’ critically reflective practice. In particular, it explored how asking preservice teachers to discuss their personal beliefs, formal theory and wider (social, cultural, historical, institutional, and political) factors around their videotaped teaching practice, did, or did not support their critically reflective practice.

Within the reflective practice literature, dialogue with an other has been construed as a significant factor in supporting critically reflective practice (Hennessy & Deaney, 2009a; Powell, 2005; Tan & Towndrow, 2009; Yaffe, 2010). However, little attention has been paid to which dialogue strategies appear helpful in supporting critically reflective thinking. This research project investigates the following primary research questions:

1. In what ways does asking preservice teachers to discuss their personal beliefs; formal theory, and wider societal factors (social, cultural, historical institutional, political) in relation to their own videotaped teaching, support them to critically reflect upon their practice?
2. Across interviews using videotaped teaching, in what ways did dialogue between each preservice teacher and the interviewer support, or not support preservice teachers' critically reflective practice?

Thesis structure

I next provide an outline of chapters to support the reader to make overall sense of this thesis. While each chapter is a stand-alone document, the successive chapters are complexly interrelated and each contributes meaning to this project's central focus of inquiry. While the chapters may at first appear linear in design, in writing this thesis I have repeatedly revisited and drawn upon material from each, to best capture insights around this project's primary research questions.

Chapter two first discusses the historical genesis of critical theory, and describes themes that capture the essence of critical theory. The themes were: the Frankfurt School's critique of instrumentalism or scientific rationality, and their concepts of Immanent critique and dialectic thought. In addition, I critically examine Habermas’ (1984a) theory of communicative action. The chapter concludes with a discussion of how critical theory is relevant to, and has impacted on, this project's design.

Chapter three investigates the multiple ways in which reflective and critically reflective practice are understood in the literature, and while these terms are related, how they are different concepts. It examines how perennial debates around the theory-practice divide have further confounded how critically reflective practice is understood. The chapter explores manifold taxonomies and tools teacher educators have utilised to support preservice teachers' critically reflective practice. It concludes with a discussion of how other studies have employed video technologies to support critical reflection, and by examining their strengths and limitations provides a warrant for this work.
Chapter four outlines the research design for this project, and demonstrates how critical theory has informed this research project from its conception to reported findings. It details the methods utilised for data construction and data analysis, and discusses their affordances and limitations. The chapter provides a rationale and map for how I shape the discussion of findings chapter. I also document my research procedures, detailing ethical considerations, and how I sought to enact reflexivity across the entire research project.

Chapter five presents six individual vignettes shaped by a generic structure (detailed in chapter four). The vignette structure is designed to represent participants’ narratives in ways that mirror their understandings and experience of the research process, and to shed light on how teacher educators can support preservice teachers’ critical reflection. To honour and respect participants’ voices, each vignette only examines material relevant to that participant.

Chapter six reports key findings from across all six participants. It highlights this project's contributions to the reflective practice literature, and identifies implications for teacher educators in their role of supporting critically reflective practice. Potential limitations of the study are identified, and the chapter signals recommendations for future research. The thesis concludes with a brief reflective commentary.
CHAPTER TWO: CRITICAL THEORY

Introduction

Theory should be useful, and different theories, like tools, allow us to do different things. For example, useful theory can inform our practice, and recursively our practice may inform the kinds of theories we choose to affirm or resist. Theory may also hold potential to make recommendations for those interested in working for a more just and equitable society, that is to say, theory can support us to see beyond the status quo, and can change society in progressive ways (Anyon, 1994; Freire, 1999). From a myriad of choices I selected critical theory to underpin this research project. My choice of critical theory is deliberate, and as discussed in the introductory chapter is reflective of my personal beliefs about the nature of truth and how the world works (Crotty, 1998).

In this chapter I first describe the historical genesis of critical theory, and then examine themes that capture the character of critical theory. For critical theory to be useful, it will count only in terms of the work it has enabled me to do (Apple, 1996). To make this explicit, at the end of this chapter I discuss each identified theme in terms of its relevance and potential impact on this research project, and summarise the strengths and limitations of critical theory for this research project.

Historical genesis of critical theory

Historically, critical theory is associated with the Frankfurt School; a research institute set up in the German Weimar Republic in 1923 under the directorship of an Austrian Professor, Carl Grunberg. Grunberg was the first self-confessed Marxist to hold a chair at a German University (Held, 1980), and under his leadership Marxism became the theoretical basis and inspiration for the Institute’s programme. Grunberg initiated a distinct brand of Marxism, with a research emphasis on societal issues and problems; for example, mass culture, the family and sexuality, topics typically beyond the
scope of orthodox Marxism (Held, 1980). While the early Institute was affiliated with the Frankfurt University, independent funding gave the group considerable academic autonomy and independence. An independent status meant the Institute could become "an intellectual bulwark against the elimination of left-wing ideas" (How, 2003, p. 13) and contributed to the Frankfurt School’s academic vitality (Held, 1980; How, 2003).

In 1929, Max Horkheimer became the Institute’s Director and his leadership attracted a number of scholarly academics, namely Theodor Ardorno, Herbert Marcuse, and Jürgen Habermas who jointly contributed to the development of critical theory. Under Horkheimer’s leadership three key themes emerged. First, he sought to position research in social philosophy as an interdisciplinary affair, with philosophers, sociologists, historians, and economists all working in partnership to explore philosophical questions. Horkheimer believed that no one branch of the social or natural sciences could "defend the claim that it alone could uncover the essentials or the facts" (Held, 1980, p. 32). Second, Horkheimer emphasised the study of social science must make explicit the "set of interconnections that make possible the reproduction and transformation of society, economy, culture, and consciousness" (Held, 1980, p. 33). In other words, to understand social life requires conscious explanation of the laws operative in society, and that these are changing rather than static. The third key theme was Horkheimer’s rejection of orthodox Marxism. Over time the Institute was to develop a school of Western Marxism that became known as critical theory (Held, 1980).

In order to grasp the axes around which critical theory developed, it is necessary to understand the turbulent historical, political and social context in which the Institute formed and lived. In particular the inter-war years were to powerfully shape and drive their forms of social inquiry. Prior to World War one, the excitement of the Russian revolution had spread well beyond Russia and the unity and revolutionary practice central to Marxist ideology seemed within reach of other European states. However, the 1920s and 1930s witnessed the rise of Fascism and Nazism in Italy and Germany. The early Frankfurt School theorists had hoped that the German people would mobilise to overthrow the
Nazi regime (Jay, 1973). With the failure of the German people to mobilise against Hitler and the eventual regression of the Russian revolution under Stalin's control, the early critical theorists began to question orthodox Marxism. They wished to explain why the socialist revolution predicted by Karl Marx in the mid nineteenth century did not occur as expected.

The turbulent political events of the 1930s not only shifted the group's focus of inquiry, but for safety reasons necessitated their relocation beyond Europe. The openly Marxist orientation of their work, and the fact that a number of their group were Jews, in 1933 forced their transfer from Nazi Germany. It was not until 1953 that their period of exile ended. Prolonged exile and major political events in Europe, such as, the rise of Fascism and Nazism and the failure of the Russian revolution, prompted the Institute to question the relationship between theory and practice. In his reflections on Nazi Germany and life in exile, Marcuse (1960) wrote "the divorce of thought from action, of theory from practice, is itself part of the unfree world. No thought and no one theory (alone) can undo it" (p. xii). In other words, Marxism, the theory upon which the Institute was founded, had failed to predict and was unable to explain the turbulent political events in Europe. With the gap between theory and practice, new theory and new actions were needed to find hope for the future. The interaction of complex factors prompted the Institute to shift their research focus to the following questions, "How could the relationship between theory and practice now be conceived? Could theory preserve hope for the future? [And] in changing historical circumstances, how could the revolutionary ideal be realised?" (Held, 1980, p. 20).

The Institute had come to understand that research must seek to understand social life in "its ceaseless and ever changing transformations" (Held, 1980, p. 30), with the goal of making explicit "the ultimate causes and processes of transformation and the laws according to which they evolve" (Held, 1980, p. 30). Urgent questions arose, such as, how was it possible that Nazism and Fascism had come to dominate central and southern Europe? Was it possible to grasp what had caused such a violent transformation of society and the laws under which such change had evolved? The
Frankfurt group had come to understand that no one theory could claim "ultimate validity in time and space... only relative, historically conditioned meaning" (Held, 1980, p. 30). In response, the Institute was to develop a reconstructed theory of Marxism that became known as critical theory. Critical theory sought to explain a dynamic and changing society that offered few guarantees, and was to become "a force in the struggle against domination in all its forms" (Held, 1980, p. 35).

As discussed, critical theory has a particular historical providence that strongly influenced its form and function. In the next section I highlight key concepts central to its character developed by members of the Frankfurt School. It is beyond the scope of this chapter to engage with all aspects of critical theory espoused by the Frankfurt School. As such, I have chosen four themes that have particular relevance to my research project: these include the critique of instrumental or scientific rationality, and the ideas around Immanent critique, dialectic thought and communicative action.

The Frankfurt School’s critique of instrumental or scientific rationality

Horkheimer, in his 1937 essay called ‘Traditional and Critical Theory’, first published concepts that were to become central and enduring to critical theory. He posed a critique of instrumental or scientific rationality that he believed had come to represent one of the central themes of Western thought that extended back as far as Plato (Giroux, 1997). Horkheimer critiqued modernity’s blind faith in the promise of the Enlightenment to rescue the world from "the chains of superstition, ignorance and suffering" (Giroux, 2003, p. 30). While Horkheimer supported the Enlightenment’s attempts to demystify religion and mythology, the second half of the nineteenth century had seen a growing emphasis on empirically derived social science, or positivism. For the Frankfurt school, positivism presented a view of knowledge and science that "wedded itself to the immediate and celebrated world of [observable] facts" (Giroux, 1997, p. 40). Under positivism, a researcher could be considered a neutral observer, able to collect and quantify data in a value-free way, from which they could make absolute truth claims. Horkheimer problematised this notion, believing there is no
objective reality that social theorists can neutrally reflect upon. He believed that to blindly follow an abstract methodology was to preclude any of the political, cultural, social forces that shape both the object of study, as well as the researcher themselves. Horkheimer (1972) believed positivism limited "scientific activity to the description, classification and generalisation of phenomena with no care to distinguish the unimportant from the important from the essential" (p. 5). For critical theorists, a key problem of adopting a positivist rationality, or technical view of science, is that it does not invite one to question the difference between the world as it is, and that which it could be (Giroux, 1997). For Horkheimer and other Frankfurt theorists, positivism had stripped both knowledge and science from its critical possibilities. Their critique went beyond positivism as a theory of scientific investigation, implying that positivism fails "to understand its own investment in the status quo... in that people everywhere are taught to accept the world as it is, thus unthinkingly perpetuating it" (Agger, 1991, p. 109).

Positivism for the Frankfurt theorists had separated science from ethics. Ethics could not be quantified or measured by a scientific formula, and the suppression of ethics limits the possibility for self-criticism, and "more specifically, for questioning its own normative structure" (Giroux, 2003, p. 33). For critical theory to move beyond the positivist notion of neutrality, it needed to be able to acknowledge the normativity of the interests it represents. In other words, it must develop a capacity for meta-theory. As a critical researcher it is crucial to understand that critical theory itself is representative of particular beliefs and values. Because critical theory itself is value-laden, it will by default include or exclude different interests in any given context. Critical researchers need to critically reflect on the historical development of such interests and to understand their limitations in different contexts. Giroux (2003) describes this as self-conscious critique; that critical theory must critique its own assumptions. For the Frankfurt school this was to require a more fully self-conscious notion of reason, a type of reason that "embraces elements of critique as well as human will, and transformative action" (Giroux, 2003, p. 32). Thus, critical theory is self-conscious, not only of the
coherence of its claims, but also its cultural, social and political context, against which it must defend itself (Edgar, 2005).

For the Frankfurt theorists, "positivism became the enemy of reason rather than its agent" (Giroux, 2003, p. 32). This sentiment was well captured by Friedman (1981), "reason under the rule of positivism, stands in awe of the fact. Its function is to characterise the fact. Its task ends when it has affirmed and explicated the fact.... Under positivism, reason, inevitably stops short of critique" (as cited in Giroux, 2003, p. 32). That is to say, for the Frankfurt theorists, positivism had reduced knowledge to the current state of affairs, the status quo. When reason stops short of critique, there is a risk that society can only reproduce rather than transform itself.

A key question at this point, is how the Frankfurt school's critique of positivism is relevant to my research study? As a critical researcher I believe that reality is subjective, there is no one single interpretive truth, rather that our realities are multiple and shifting (Denzin & Lincoln, 2005), and are dependent on context. In other words, there is no one right way or truth in how to enact the role of a teacher. This belief had implications for my interviews with preservice teachers around their videotaped teaching practice. As they individually explored and discussed their beliefs and theoretical frameworks in relation to their videotaped teaching, I expected to hear the expression of multiple and different teaching identities. An important caveat in my work was not to seek to emancipate preservice teachers from a false consciousness (Lather, 1986), but rather to acknowledge the multipleness and diversity of how they each expressed and understood their role as a teacher. As a critical researcher I am aware there is no one destination, or universal truth and while "we may search for forces that insidiously shape who we are, we must also respect those who reach different conclusions in their personal journeys" (Kincheloe & McLaren, 2005, p. 308). There was, however, a tension within this position. Ultimately, children are at the heart of this project. The decisions preservice teachers make have the potential to advantage and/or disadvantage children in their care. Importantly, critical theory asks us to acknowledge the normativity of the interests it
represents. So what in teaching is normative? Teaching, far from a neutral activity, is a political, moral and ethical endeavour with expected norms of professional conduct. These professional norms are enshrined in policy to protect children. For example, the New Zealand Teachers Council Code of Ethics for Registered Teachers (New Zealand Teachers Council, 2004), and their Graduating Teaching Standards (New Zealand Teachers Council, 2007), explicitly lay out standards of professional conduct for teachers. It is an important point to acknowledge, that while critical theory seeks to clarify the rules and wider forces that constitute society, and to critique and problem-solve those mechanisms, it does not pursue those goals in an unfettered way. Just as critical theory is normatively guided by moral, ethical and political concerns relevant to its focus and context (Strydom, 2011), in my interviews with preservice teachers around their videotaped teaching practice, I expected their teaching to be guided by normative professional standards to safeguard children.

*The Frankfurt School’s concept of Immanent critique*

For the Frankfurt School, a key criticism of adopting a positivist rationality was that it did not invite one to question the difference between the world as it is, and that which it could be (Giroux, 1997). The Frankfurt theorists desired a critical theory that is always concerned with what could be, and what is *Immanent* ² in ways of making sense of the world (Kincheloe & McLaren, 2005). For the Frankfurt school, the essence of critical theory lies in its unmasking function, or how great claims to truth need to be critiqued rather than idolised (Giroux, 2003). Immanent critique refers to the assertion of difference, or a preparedness to analyse the reality of a social subject against other ways of being (Giroux, 2003). In other words, Immanent critique asks us to question the every day, taken-for-granted reality in which our lives are immersed, and supports us to imagine a vision of the not yet (Villaverde, 2004). Immanent critique explores tensions between the real and the possible,

² A German-to English translation of the word Immanent means inherent or intrinsic.
and understands each is dependent upon the other. Immanent critique assumes a mind-set or habit of criticality. In the context of Immanent critique, critical researchers are "profoundly concerned with who we are, how we got this way, and where we might go from here" (Weil & Kinchloe, 2003, as cited in Kincheloe & McLaren, 2005, p. 309). This mode of consciousness links strongly with this research project's primary focus.

The primary focus of this research project is to support preservice teachers to critically reflect on their emerging teaching practice. It understands critically reflective practice involves one being able to locate oneself, both personally and professionally, in order to be clear about the multiple forces that have come to determine one's existence (Smyth, 1989). A key question is how to support preservice teachers' understanding, that they do not have to accept prevailing ideas, actions or social conditions in which their teaching is immersed as being unchanging or immutable (Hoffman, 1987). Rather, as teachers, they can develop a mode of consciousness, viewing "social facts not as inevitable constraints on their human freedom, but as pieces of history that can be changed" (Agger, 1991, p. 109). It is my belief that the process of asking preservice teachers to articulate their beliefs about how children best learn, and their theoretical frameworks in relation to their own videotaped teaching may support them to critically reflect upon the discourses and wider forces that frame (and possibly) constrain their practice. Importantly, this research project aimed to support their agency to affirm or resist those particular discourses, and to support them to imagine other ways of being. The dialogue generated may provide a window into what frames their practice, and prompt preservice teachers to judiciously and flexibly consider their personal beliefs and theoretical frameworks, in order to provide a consciously considered rationale for their practice. The key concept from Immanent critique, of developing a mind-set or habit of criticality, underpins the primary focus of this research project.
**The Frankfurt School's concept of dialectic thought**

Dialectic thought is similar to Immanent critique in that it also supports an unmasking of proclaimed truths (How, 2003). Simplistically understood, dialectic thought is a form of thought or argument that explores connections between opposing ideas. It involves thinking back and forth between different views in the hope of finding a third position, which encompasses but also transcends both (How, 2003). Dialectic thought moves beyond Immanent critique embracing both critique and theoretical reconstruction (Giroux, 1997). What distinguishes dialectic thought from Immanent critique is how it unmask the "insufficiencies and imperfections of finished systems of thought... it reveals incompleteness where completeness is claimed" (Giroux, 1997, p. 43). The purpose of dialectic thought was negative, to "break down the self-assurance of and self-contentment of common sense, and to undermine the sinister confidence in the power and language of facts" (Marcuse, 1960, p. ix). In other words, its purpose is to unmask and critique the tensions between existent social realities and their wider possibilities. For the Frankfurt theorists, tracing the historical genesis of common sense or conformist logic was crucial in order to understand its limitations in practice. Dialectic thought embraces the connections between knowledge, power and domination. It understands that some knowledge is false and that the ultimate purpose of critique is social change and social justice. The notion of dialectic thought is fundamental to critical theory. Critical theory is openly political; it seeks not to just reproduce society via description, but to understand society and change it (Hoffman, 1987). In other words, it is a theory with practical intent. Critical theory rejects notions of positivistic neutrality and instead openly takes sides in seeking a more just society. Within critical theory, dialectic thought is described as the precondition for human freedom (Giroux, 1997). Humans are not free unless they are able to reflect upon, critique and change their existent realities.

The concept of dialectic thought strongly links to this research project's primary focus to support preservice teachers to critically reflect on their emerging teaching practice, and has informed its design. It has long been known it is much harder to critically reflect on one's practice alone than in
collaboration with others (Fazio, 2009; Harford & McRuire, 2008; Hennessy & Deaney, 2009a). As suggested by Day (1999),

the problem with reflecting alone is that there is a limit to what can be disclosed and what information can be collected and received by an individual with a ‘vested’ interest in avoiding uncomfortable change processes. Others are needed in the process. (p. 226, original emphasis).

The design of this research project deliberately sought collaborative dialogue and critically reflective practice in an interview setting. It was intended that the interview process using the preservice teachers' filmed teaching as a prompt for discussion might open possibilities for "cogenerative dialoguing" (Hennessy & Deaney, 2009a, p. 618) and "collaborative theory building" (2009a, p. 628). In other words, by collaboratively analysing teaching practice captured on videotape and identifying discourses underpinning that practice, it might be possible to co-construct new understandings that transcended common understandings. By asking preservice teachers to articulate their personal beliefs and their formal theory in relation to their videotaped teaching, the dialogue generated may provide a "vehicle for 'thinking otherwise'... [that can] de-familiarise present practices and categories, to make them feel less evident and necessary, and to open up spaces for the invention of new forms of experience" (Ball, 1995, p. 266). An important element of dialectic thought was implicit within this research design. Asking preservice teachers to articulate their personal beliefs and formal theory around their videotaped teaching practice called upon the historical origins of their every day common sense or conformist logic. In collaborative dialogue, they could explore the strengths or limitations of that common sense or logic, in relation to their particular classroom context. It was my hope the interview setting had potential to generate dialogue that captured the characteristics of dialectic thought, embracing both critique and theoretical reconstruction (Giroux, 1997).
However, conducting interviews with preservice teachers was not without its tensions; the idea that everyone is completely free to partake in dialogue is unrealistic (Boler, 2004; Hobbs, 2007). Dialogue is never "completely free, nor open, neither authentic nor genuine in the complete sense of these terms" (Sandretto with Klenner, 2011, p. 49). The asymmetrical power relations between the preservice teacher and myself required careful reflexivity. In the methodology chapter I discuss how I sought to mediate and work productively with asymmetrical power relationships in an interview setting.

**Habermas and communicative action**

I next discuss the fourth and final major concept of critical theory that has particular relevance to this research project. Communicative action, authored by a leading theorist from the Frankfurt School, Jürgen Habermas, emerged from particular beliefs of Habermas. I first provide background information about Habermas himself, and how his conception of rationality underpins communicative action theory.

Jürgen Habermas, a German philosopher and sociologist, is one of the most widely recognised proponents of critical theory. Habermas was a member of the Frankfurt Institute of Social Research, and in 1964 succeeded Horkheimer as Professor of Sociology and Philosophy at the University of Frankfurt. While many of his ideas overlap with the Frankfurt School, Habermas was to reshape critical theory, believing many of its features were too pessimistic. Habermas, as earlier Frankfurt theorists, was critical of the illusions of the enlightenment, namely the rise of instrumental rationality justified by positivism. He called for an "enlightened suspicion of enlightenment, a reasoned critique of Western rationalisation" (Habermas, 1984a, p. vii). He asked that society would critique and weigh up both the profits and losses of so-called Western progress, and that reason can only be defended by a critique of reason. Habermas, as with the earlier Frankfurt theorists, desired an undermining of the belief that scientific rationality and reasoning are the sole foundations of
truth claims or genuine knowledge. Habermas developed a particular form of rationality, which resisted a dogmatic faith in any established body of knowledge. Instead, he asserted all knowledge was fallible and that any conclusions we reach are revisable. He suggested instead to adopt a procedural view of rationality, maintaining an openness around conclusions, understanding they can always be challenged, criticised and tested again (Eriksen & Weigard, 2003). Habermas's conception of rationality provided no guarantees of finding the right answers, rather, he asked us to consider which claims were supported by the weightiest arguments? However, how one is to judge the validity or weight of our own or others' claims remains undoubtedly problematic. Habermas's communicative action theory attempted to articulate and defend a concept of rationality that addressed this tension.

The concept of communicative action referred to "at least two subjects capable of speech and action who establish interpersonal relations (whether by verbal or extra-verbal means)" (Habermas, 1984a, p. 86). Within this theory Habermas sought to demonstrate the potential of emancipation within ordinary language, which "both presupposes and anticipates an ideal speech situation in which communication free from domination is possible" (Lakomski, 1999, p. 179). Whether an ideal speech situation is in fact possible, and how Habermas understood this has particular relevance for this research study, particularly when its main form of data is verbal interviews between participants and myself. In this section I first outline key concepts of communicative action theory, and then critically appraise its major features. I conclude with commentary on how these insights have informed this research project.

The main tenet of communicative action theory is that "communication through linguistic utterances are regarded as speech acts" (Eriksen & Weigard, 2003, p. 4). Habermas (1984a) understood speech acts are social actions within which participants have to agree or disagree with validity claims that are implicit in the utterances. He believed that speech functions in an action-coordinating manner in which participants' actions are dependent on how they evaluate the utterances of other
participants. In other words, through dialogue participants may debate and test the validity of each other’s claims. Importantly, Habermas argued that through such dialogue there is potential to find common understandings, or consensus. Habermas (1984a) described this as "human rationality 'proper'" (as cited in Eriksen & Weigard, 2003, p. 4), where within speech, interaction is aimed at finding a consensus on the validity of those claims. Reaching an understanding "functions as a mechanism for coordinating actions only through the participants coming to an agreement concerning the claimed validity of their utterances" (Habermas, 1984a, p. 99). The rationality inherent in communicative action rests on the fact that an agreement, or consensus, must in the end be based on reason, and that participants are able to provide sufficient reasons for their expression of ideas (Habermas, 1984a). The key to Habermas’s notion of reaching understanding is the "possibility of using reasons or grounds to gain intersubjective recognition for criticizable validity claims" (Habermas, 1984b, p. xii).

What then counts as a valid claim around which a consensus might be found? Habermas (1984a) described three criteria on which claims to validity can be considered, namely:

1. That the statement made is true;

2. That the speech act is right with respect to the existing normative context (or that the normative context that it is supposed to satisfy is itself legitimate); and

3. That the manifest intention of the speaker is meant as it is expressed. (p. 99)

A great deal is assumed in the above criteria and Habermas (1984a) was not naïve to believe that participants would necessarily reach an agreed consensus, or that which can be considered a criterion for truth. He argued that "every process of reaching understanding takes place against the background of culturally ingrained preunderstanding" (Habermas, 1984a, p. 100) and suggested, "this background knowledge remains unproblematic as a whole" (Habermas, 1984a, p. 100). His reason for this was "that only part of that stock of knowledge that participants make use of... is put to the test" (Habermas, 1984a, p. 100), for example, when a participant’s viewpoint is challenged.
However, his assumption that one can make generic assumptions regarding participants’ backgrounds appears dismissive of individual cultural identities, or that their particular contexts might embody quite different normative expectations. Habermas was less interested in the impact these factors have on how dialogue unfolds, instead he focused on the power of argumentation to assert validity claims.

In dialogue participants might hold divergent or radically different ideas about what counts as legitimate knowledge. During everyday dialogue, situations may arise in which validity claims concerning beliefs and values become contested and problematic. Habermas acknowledged this point, that for there to be any communication at all, different validity claims must be able to be raised, and be open to debate and critique. He wrote "no one has a monopoly on correct interpretation. [Rather] for both parties the interpretive task consists in incorporating the other’s interpretations of the situation into one's own" (Habermas, 1984a, p. 100). To find a consensus rests on the intersubjective recognition and argumentation around each other’s validity claims (Habermas, 1984a). He described this process as "diffuse, fragile, continuously revised and only momentarily successful communication in which participants rely on problematic and unclarified presuppositions and feel their way from one occasional commonality to the next" (Habermas, 1984a, p. 101). This fragile process of argumentation privileged an inter-subjective finding of consensus over an individual’s subjective beliefs. What then happened, if this fragile process of finding truth collapsed?

When speech broke down, Habermas (1984a) suggested it is through discourse that one may challenge claims of validity and engage in argumentation, in order to justify one's viewpoint. He further added, that when a consensus understanding was questioned, the justification of that consensus ought to be subject to "theoretical discourse". Theoretical discourse is a form of argumentation in which participants seek to formulate rational and cogent argument and to search for common understandings or truth. Truth for Habermas, was "not the fact that a consensus is
realised, but rather at all times and in any place, if we enter into a discourse a consensus can be realised under conditions which identify this as a founded consensus" (Habermas 1984a, as cited in Roderick, 1986, p. 85). In this statement, it appears Habermas has merged two disconnected ideas, that to argue a truth claim appears reliant on conditions conducive to finding consensus. Implicit within this line of thought was "the argument that there can be no separation of the criteria of truth, from the criteria for the argumentative settlement of truth claims" (McCarthy, 1978, p. 303). To find a consensus appeared to confuse the meaning of truth, with the methods (argumentation) for arriving at true statements (McCarthy, 1978). Is finding consensus even a desirable goal, particularly when validity claims must also account for the normative expectations of an individual's context? Is there a danger that the norms of a context might preclude participants from imagining other ways of being, or for formulating new argument? The norms of a given context, and pressure to find consensus or common understanding might limit, rather than open up wider possibilities.

Habermas's response to these critiques was "the idea of truth can be unpacked only in relation to the discursive redemption of validity claims" (McCarthy, 1978, p. 303), or the way in which it can be made good. What is important is, that the validity claim of a participant must be "criticizable in principle" (Habermas, 1984a, p. 318). In other words, Habermas argued that truth claims, and disagreement around truth claims and norms, must be able to be assessed discursively, and in the course of that of assessment are able to be changed or rejected. For Habermas, it was the argumentation around truth claims that led to the possibility of finding rational consensus. And that the criterion of truth was due solely to the argumentation, and not to other contingent or extraneous forces (McCarthy, 1978).

In defence of this belief, Habermas described conditions under which argumentation can lead to a rationally motivated or justified consensus. These conditions included, that there must be "the freedom not only to enter into a critical discussion, to seek discursive justification of problematic claims, and to offer and evaluate various arguments ... but also to call into question and (if necessary) to modify an originally accepted conceptual framework" (McCarthy, 1978, p. 305). His
central thesis was that the afore mentioned conditions engendered a progressive radicalisation of argument, and "it is at this level that the most profound cognitive developments transpire" (McCarthy, 1978, p. 305). Habermas summarised the conditions under which such linguistic freedom can be found, he described these as the ideal speech situation. The concept of an ideal speech situation was central to Habermas's attempts to provide a moral and practical underpinning for critical theory (McCarthy, 1978).

**Habermas and the ideal speech situation**

Habermas understood the ideal speech situation as a utopian ideal, emphasising his model was only an "'anticipation' possessing the status of a 'practical hypothesis' which does not refer to any historical society" (Habermas, 1982, pp. 261-262). Its conditions included:

- Symmetrical relationships between participants which involve all speakers having equal chance of selecting and employing 'speech acts' and participants being able to assume interchangeable dialogue roles;
- debate around ideas must be open in the sense it does not involve coercion or deception;
- participants have adequate communicative resources to discursively put forth their validity claims; and
- participants harmonize their individual plans of action in order to reach a consensus of understanding (Habermas, 1984a; Lakomski, 1999; McCarthy, 1978).

Despite Habermas's call that his notion of ideal speech was an unrealised and utopian ideal, any theory is only useful in terms of the work it allows one to undertake. Is then, the abstract notion of 'ideal speech' a realisable practice in relation to my own research project, particularly when my main form of data rests on dialogue in an interview setting with preservice teachers? Is it possible, or even desirable to strive for the conditions of an ideal speech setting? To answer these questions, I next
critically appraise Habermas's conditions of ideal speech and explore how these insights have informed my research project.

Habermas's first condition, that it was possible to find symmetrical relationships between participants, and where all speakers had equal chance of selecting and employing 'speech acts', seems implausible. A major reason for this is how one chooses to understand discourse. Within ideal speech, Habermas presupposed that argumentation and free speech were operative through discourse, and the dominant power was the force of the better argument. He wrote:

Participants in argumentation cannot avoid the presupposition that ... the structure of their communication rules out all external or internal coercion other than the force of the better argument and thereby neutralises all motives other than that of the cooperative search for truth. (Habermas, 1990, pp. 88-89)

For Habermas "discourse free from power [was] the ideal" (Klenner, 2008, p. 20). He argued the force of an argument would prevail and neutralise all other external forces, and as such, all participants had equal power to participate.

An alternative and broader conceptualisation of discourse defined it as, language use in social practice (Rogers, Malancharuvil-Berkes, Mosley, Hui, & Glynis O'Garro, 2005), and that discourse in language use, is all about power. For Ball (1990), discourses "are all about what can be said and thought and also who can speak, when and with what authority" (p. 2). As such, it is discourse that "produces power-knowledge relationships within which [people] are positioned, identities are constructed and bodies disciplined (Ainsworth & Hardy, 2004, p. 238). Further more, discourses are never completely cohesive or are able to determine social reality, rather "actors are seen as embedded in multiple discourses which create a discursive space in which the actor can play one discourse off another, or draw upon multiple discourses" (Fairclough, 1992, 1995). I next discuss
how this broader conceptualisation of discourse afforded this research project vital insights when working with interview data.

If we understand that discourse is about power, and our social use of language, or discourse produces power relationships; it follows power relationships within dialogue may position participants in asymmetrical ways (Boler, 2004; Hobbs, 2007). As such, power relationships between participants preclude the possibility that dialogue can ever be free, genuine or authentic in the true sense of the word (Sandretto with Klenner, 2011). This alternative understanding of discourse sits directly at odds with Habermas's (1982) notion that there can be symmetrical relationships between participants in dialogue, and all have equal opportunity to speak. The understanding that dialogue is never free from power has important implications for this research study, whose main form of data is interviews with preservice teachers around their videotaped teaching practice. Within the interviews, it was important to acknowledge the preservice teachers were positioned in an asymmetrical power relationship with myself as a more experienced other (in the field of education), and a lecturer within our institutional context. As such, what they chose to share or to remain silent on, depended on their assessment of the pros and cons of disclosing information (Ellsworth, 1989). Arguably, to act discursively is to acknowledge power relationships, and to consciously assess and calculate the risks and costs of disclosing understandings of one's self and others (Ellsworth, 1989). While participants might well have had the communicative competence to formulate their own argument with or against others, in order to protect their self-interests, their strategic use of discursive resources may have taken precedence in how, and what they chose to disclose. Understood in this way, dialogue can only ever produce partial narratives, partial understandings, "partial in the sense that they are unfinished, imperfect, limited; and partial in the sense that they project the interests of one side over others” (Ellsworth, 1989, p. 305). A key insight from this discussion is that we can never truly know each other through dialogue (Ellsworth, 1989), and this understanding has practical implications. When analysing data from interviews, it was essential to consider how the power relationships between participants and myself have impacted the interview
dialogue, and to be mindful that despite attempts to mitigate asymmetrical power relationships,
dialogue is never free from power.

The idea that discourses are never completely cohesive, or are able to determine social reality
(Adler, 1993; Fairclough, 1992, 1995), also sits at odds with Habermas's notion that through
theoretical discourse it is possible and desirable to find rational consensus. I next revisit and further
develop an earlier critique of consensus theory. I pose the question, is it a myth there is such a thing
as an ideal rational person, who is agreeable, open to finding a consensus through argument?
Habermas used strict criteria by which to judge the rationality of a participant, in terms of how
he/she behaves in argumentative dialogue. His criteria follows:

Anyone participating in argument shows his [sic] rationality or lack of it by the manner in
which he handles and responds to the offering of reasons for or against claims. If he is "open
to argument," he will either acknowledge the force of those reasons or seek to reply to
them, and either way he will deal with them in a "rational" manner. If he is "deaf to
argument," by contrast, he may either ignore contrary reasons or reply to them with
dogmatic assertions, and either way he fails to deal with the issues "rationally". (Habermas,
1984a, pp. 18-19, original emphasis)

Within this statement, Habermas assumed that the aim of dialogue was to seek the "intersubjective
mutuality of reciprocal understanding" (Habermas, 1979, p. 5). Furthermore, he has suggested that
any communication that seeks understanding assumes a background consensus (Habermas, 1984a).
This notion was the fulcrum of Habermas's theory of communicative action. Presumably, for
Habermas to enter communication without that understanding would have been to participate in
speech acts in an irrational manner. However, it is questionable that any individual is in fact capable
of adopting an open and unbiased attitude, and engaging in the sort of argumentation that
Habermas has proposed (Roderick, 1986). Particularly if we understand we have multiple shifting
identities, and in order to make sense of our world, we draw upon multiple competing discourses,
that are unique to our own context (Fairclough, 1992, 1995). The strict conditions Habermas placed around rationality relied on participants being open to finding an intersubjective understanding of truth, believing the power of the better argument would "neutralise all other motives, other than that of the cooperative search for truth" (Habermas, 1990, pp. 88-89). This position disregarded an individual's subjectivity, particularly if they drew upon discourses that may have been contrary to a group’s rational consensus.

An important critique to highlight is that finding a rational consensus carries the inherent risk of oppression, in particular to "those [individuals] who are not white, male, middle class, Christian, able-bodied, thin and heterosexual" (Ellsworth, 1989, p. 304). In other words, rationalism may silence and exclude the voices of those who fall outside of mainstream society. Rationalism carries two inherent risks, the first of which is to reinforce hegemonic norms representative of the majority, and the second is to exclude those who hold alternative views.

How then, does one ultimately make sense of these tensions? On the one hand, Habermas’s notion of ideal speech sought to provide a moral, normative foundation for critical theory based on rational consensus (Roderick, 1986). It is important to understand that Habermas's communicative action theory was forged optimistically. The development of his theory was set historically against the background of a turbulent post-war period that had seen the rise of Nazism and Fascism in Europe. He was seeking a critical theory through which participants engaging in rational argumentation could find a moral and normative foundation for the common good of society. On the other hand, one could argue this was a categorical mistake; that rationalism cannot act as a foundation of common good. Humanity is too diverse, and rationalism cannot aid or resolve "disputes between competing theoretical systems or value positions" (Held, 1980, p. 397). To assume rationalism can find consensus risks the oppression of vulnerable groups of society and reinforcing hegemonic norms, rather than opening new forms of social life. As one critic put it,
how can rationalism, help us in the face of the great ideological struggles of the age, involving religious or antireligious creeds, nationalist and pan-nationalist doctrines of all kinds and all varieties of socialism, liberalism and conservatism? ... For it is precisely the claim of such competing doctrines that each advances views which are reasonable and rational. (Lukes, 1977, p. 411)

With many identified risks the ideal speech situation, as laid out by Habermas, may be best left as an abstraction, and in practice be unrealisable. A more productive way forward for this research project was to seek dialogue in an interview setting that was not predicated on finding consensus, rather to seek dialogue that celebrated difference. In other words, "hope for change may lie not in our agreements but in our disagreements, because in our disagreements (dissensus) we argue what is 'the truth' and we question the dominant norms and values and seek to change them" (Hughes & MacNaughton, 2000, p. 255). It maybe that dissensus, not consensus creates possibilities for freedom of speech and emancipation (Lubeck, 1988).

Before concluding this chapter, I highlight some of the implicit challenges of engaging with Habermas's wide body of work. As a reader, one of the problems is that much of his work remains theoretically abstract, and devoid of specific contexts. For example, in terms of normative expectations, he did not illustrate what these might look like in practice with regard to any particular context. He did not provide any concrete or vivid examples of societal issues or problems, or how his theory in practice might address such issues. His work remained curiously without context, and Habermas left his reader to surmise how his theory of communicative action might unfold with regard to his/her particular context. One could argue this is both a strength and limitation of his work. However, ultimately "there is nothing as practical as a good theory" (Lewin, 1945, p. 129), so what can critical theory offer this research project? The next section summarises both the strengths and limitations of critical theory discussed in this chapter.
Critical theory: Its impact on this research project

As discussed at the onset of this chapter, there is no one recipe or blueprint for critical theory (Held, 1980). It has been beyond the scope of this chapter to engage with all aspects of critical theory. Instead, I have limited my analysis to four major concepts of critical theory that emerged from the work of the Frankfurt School: the critique of instrumental or scientific rationality, and the ideas around Immanent critique, dialectic thought and communicative action. Each theme affords insights into how I understand critical theory. A summary of these insights acts as a theoretical platform to underpin this research project.

In order to make sense of how these themes relate to this research project, it is timely to re-state the primary focus of inquiry of this research project; how to support preservice teachers to critically reflect on their emerging teaching practice, using their videotaped teaching as a prompt to support such dialogue. The following discussion makes explicit how insights from each theme can potentially inform this research study with particular attention to the main form of data construction (Polkinghorne, 2005), the interview questions.

To the Frankfurt School, the concept of instrumental or scientific rationality underpinned by positivism posed many threats. One such threat was that instrumental rationalism privileged the most efficient technical means for achieving ends, and that technicist knowledge had come to occupy a dominant space in knowledge. The adoption of technocratic ideologies had reduced individual political consciousness, and stripped science of both ethics and the possibility for self-critique. A key criticism of adopting a positivist rationality was that it did not invite one to question the difference between the world as it is, or that which it could be (Agger, 1991; Giroux, 1997). How then, can the Frankfurt School’s critique of instrumental or scientific rationality, inform one’s ability to become critically self-reflective as a teacher?
A teacher’s work today is full of many competing demands, such as: political, social, cultural and institutional demands that all impact practice. Arguably, some of those demands are technicist in nature, and are driven by external forces beyond the power or choice of an individual teacher. An example of this in New Zealand is the legally mandated implementation of national standards, and a particular form of reporting to parents in the primary sector by the National government. It is not my intention here to critique or affirm this policy, rather to highlight the ethical and moral responsibilities a teacher has in implementing externally driven technicist policies, and to reinforce that teaching is never a value-free or neutral endeavour. It is my hope that by asking preservice teachers to become cognisant of external forces impacting their practice, and that they understand some of these are technicist, privileging means over ends, that they can learn to work with such forces in productive ways that best advantage children in their care. In other words, rather than implementing external technicist policies in an uncritical way, they have agency to ask critical questions. For example, who will this policy or practice advantage or disadvantage, and how can I work with this policy or practice in ways that will advantage all children in my care? To this end, a key question in the interview sequence was: can you name any external wider forces (political, social, cultural, institutional) that impact on how you reflect on your teaching practice, and if so, how? And, how can we problem-solve ways to work with such forces in ways that will advantage all children? Smyth (1989) reminds us there are multiple forces that have come to determine one’s existence, or that inform one’s teacher identity. Instrumental rationalism is potentially just one of these. The next section identifies further forces that this research project targets, forces that are worthy of preservice teachers’ Immanent Critique.

The essence of Immanent Critique, the second concept from the Frankfurt School, was the propensity to develop a mind-set or habit of criticality. A major aim of this research project was to foster within preservice teachers a mode of consciousness that asked them to question the everyday reality in which their lives are immersed, and asked them to imagine a vision of the not yet (Villaverde, 2004). My research study sought to facilitate preservice teachers’ critically reflective
practice at a broad intersection of complex texts that all informed their teacher identity, namely; their personal beliefs, theoretical frameworks and teaching practice. In this project, I am proposing that critical reflection involves a critical praxis (Ginsburg, 1988), where theory and belief inform practice, and practice inform theory and belief. Toward this aim, key questions in the interview were: What are your personal beliefs about how children best learn? Where do your beliefs come from, and what causes you to maintain, or change your beliefs? It is important to note that while their beliefs may be informed by their own experiences (both as children in school and as prospective teachers on practicum), "experience contains in itself no guarantees that it will generate the insights necessary to make it transparent to itself" (Giroux, 1997, p. 45). To rely only on one's experience would be to enact a default model of education, only that which has gone before. This research project understands that theory informs practice, and practice informs theory. Our preservice teachers within their primary programme are exposed to a complex range of educational theories, which includes at times competing and conflicting theories. Within the interviews I also asked: What formal theory/or theories do you draw upon to make sense of your practice, and what is it that causes you to maintain, or change your theories? It is my belief that by asking them to articulate their beliefs about how they can best support children’s learning, and formal theory in relation to their own videotaped teaching, may support them to critically reflect upon the wider discourses that frame (and possibly limit) their practice. Within such dialogue, it was my hope that preservice teachers came to understand they had agency to affirm or resist particular discourses. By asking them to discuss their personal beliefs and theoretical frameworks in relation to their own-videotaped teaching, I hoped to open up the possibility for critical self-reflection.

Dialectic thought, my third concept from the Frankfurt School, embraced Immanent Critique and developed it further. It is a form of argument that explores connections between opposing ideas. It involves thinking back and forth between different views, in the hope of finding a third position that encompasses but transcends both (How, 2003). Dialectic thought is described as openly political, it seeks not to just describe society, but to understand and change it (Hoffman, 1987). Within the
interview setting, it was my hope that the dialogue generated might create a space in which preservice teachers were able to both affirm and resist their personal beliefs and formal theories, as they sought to articulate a rational foundation for their practice. It is important to note that critical reflection does not always necessitate changing one's practice. Within the interview setting, preservice teachers might also choose to celebrate and affirm various aspects of their videotaped teaching. Dialogue in an interview setting between the participants and myself was central to this research project. The next section gathers insights from a critical appraisal of Habermas's theory of communicative action, and how that knowledge has informed this research project.

Habermas's theory of communicative action and his notion of ideal speech sought to develop a moral and normative foundation for critical theory based on rational consensus (Habermas, 1984a). As earlier discussed, Habermas's theory was optimistically formed against the historical background of the rise of Nazism and Fascism in Europe. He sought a theory that could find hope, and a form of rationalism that could prevent man's inhumanity to man ever reoccurring on the scale Europe had witnessed. Habermas and the Frankfurt School understood that no one theory could claim "ultimate validity in time and space, only relative, historically conditioned meaning" (Held, 1980, p. 30), and this was a key aspect of critical theory itself. Critical theory itself must evolve and remain responsive to societal change. In this chapter, I have raised many critiques of Habermas's theory of communicative action. It is important to note that my critiques are framed from a later historical time period, and draw upon insights, or ways of seeing the world, that were not available to Habermas during his academic career. For the purpose of this research project, I have rejected Habermas's notion of ideal speech believing it to be too utopian, and unable to be realised in practice. Habermas believed that through argumentation it was possible to find a rational consensus among speech participants. Problematically, he further believed the force of an argument would prevail, and neutralise all other external forces at play. His beliefs were founded on a narrow view of discourse, discourse that was free from power (Klenner, 2008). The crux of my rejection of Habermas's notion of ideal speech rests on my adoption of a different and broader understanding of
discourse. I understand that through our social use of language, or discourse, we produce power relationships that are always asymmetrical (Ainsworth & Hardy, 2004). As such, it is implausible for participants in speech to have equal chance of selecting and employing speech acts. To act discursively, is to acknowledge those power relationships, and to selectively participate in speech in ways that will protect or promote one's self interests.

I have also rejected the central tenet of Habermas's communicative action theory, that it is possible (or desirable) to find a rational consensus of truth claims (Habermas, 1984a). To do so carries an inherent risk of oppression to minority groups in society, whose views may be silenced or excluded, in the pursuit of intersubjective understandings (Ellsworth, 1989). Within the interviews with preservice teachers, I sought dialogue that was not predicated on finding consensus. Rather, I sought to acknowledge the multiplicity and diversity of how they each expressed and understood their role as a teacher. Within the interview setting, I sought discensus rather than consensus (Hughes & MacNaughton, 2000). It was crucial to create a space in which participants could act discursively. The space needed to be one in which participants felt safe and empowered to play off one discourse against another, and to have agency to draw upon multiple divergent discourses as they articulated a foundation for their practice (Fairclough, 1992, 1995).

Ultimately critical theory sought not just to describe society, but also to understand and change it (Habermas, 1984a). Habermas argued that "theory and practice are linked in the process of self-reflection; our act of knowing coincides with our release from previously unacknowledged forces" (Roderick, 1986, p. 57). By asking preservice teachers to articulate their personal beliefs and theoretical frameworks that impacted their practice, it was my hope that they would question and challenge the dominant norms and beliefs that framed and possibly limited their practice.

Embarking on this research project, it was important to remember teaching is "a complex, situation-specific, and dilemma ridden endeavour" (Sparks Langer & Colton, 1991, p. 137). Each preservice
teacher faced a unique context with its own particular rewards and challenges. The aim of this research project was to support their critically reflective practice. Neither critically reflective practice nor critical theory seek to simplify how complex it is to enact the role of a teacher. Rather, both highlight the complex political, social, cultural, historical and institutional forces in which a teacher’s daily work is immersed. Within this research project’s design, I believe that my deliberate selection of critical theory and critically reflective practice actively supported preservice teachers’ agency in seeking social justice for all children within their care.
CHAPTER THREE: LITERATURE REVIEW

Introduction

This review of literature engages with both conceptual and empirical material from the fields of reflective practice and teacher education. Sources used encompass historical works (see Dewey, 1933; Schön, 1983; Schön, 1987), books, conference papers and journal articles. The selection of journal articles from 1973 to 2014 reflects a growing interest in, and acceptance of practitioner and interpretivist research during that period (Zeichner & Noffke, 2001). There are few theorised accounts of how to support reflective practice from New Zealand, meaning selected literature was drawn largely from Australia, the United States, the United Kingdom and Asia.

The principal focus of this literature review is to explore how teacher educators can support preservice teachers to critically reflect on their teaching practice. The first section examines Dewey’s (1933) and Schön’s (1983) founding principles of reflective practice, and how their disparate conceptualisations both inform and confound the multiple ways reflective practice is today understood. The perennial debates around the theory-practice divide in teacher education further complicate how reflective practice is conceptualised. This review explores these debates and how recent international trends in teacher education programmes threaten to exacerbate rather than resolve this uncomfortable dichotomy. The next section explores how the literature seeks to distinguish reflective practice from critically reflective practice, and the manifold taxonomies and tools teacher educators can draw upon to realise its benefits in practice. The final section explores empirical studies that have employed video-technologies to support preservice teachers’ reflective practice. This section achieves work on a number of levels. It first scopes the diverse ways empirical studies have employed video technologies, and provides conceptual and empirical arguments for choosing to examine studies that position the preservice teacher as the subject of the video. From this manageable set of studies, it next examines which factors appear to support shifts in preservice
teachers' reflective thinking and/or teaching practice, and identifies gaps and silences in the literature where this research study can contribute to the reflective practice field's on-going knowledge production.

**Conceptualising reflective practice**

Reflective practice has a complex theoretical heritage (Akbari, 2007; Fendler, 2003) and the term carries diverse often ambiguous meanings (Jay & Johnson, 2002; Loughran, 2002; Spalding & Wilson, 2002). The term reflective practice is an illusive concept that defies any blueprint, recipe or common definition (El-Dib, 2007) and has become "a catch-all phrase for an ill defined process" (Bleakley, 1999, p. 317). With no common definition, a challenge for teacher educators is to understand what reflective practice means, and how to support its implementation in initial teacher education programmes. There is a danger in adopting a simplistic understanding of the term, that one will limit its benefits in practice, particularly when its very complexity captures its worth (Jay & Johnson, 2002). Within teacher education literature the terms reflection and reflective practice are often used interchangeably to describe an array of practices with different motivations and purposes (Larrivee, 2009). It is useful to distinguish reflective practice from reflection. Larrivee described practice as a teacher's repertoire of "knowledge, dispositions, skills and behaviours" (2010, p. 138), and reflective practice as on-the-job performance where teachers use reflection to make decisions and solve problems. The term reflection itself has an expansive range of meanings, for instance, teachers may be asked to consider their immediate goals and outcomes, what happened within their practice on a particular lesson, why, and how else they might have reached their goals (Cruickshank & Applegate, 1981). Some authors have promoted its benefits as characterised by a commitment to lifelong learning, where teachers continually question and analyse information with the goal of improving the quality of their teaching practice, for example, the pedagogical strategies they employ (York-Barr, Sommers, Ghere, & Montie, 2006). Other authors adopted a broader conceptualisation of
reflective practice, in which a teacher considers the institutional, cultural, historical and political contexts in which their work is immersed (Brookfield, 2009; Hatton & Smith, 1995; Richardson, 1990; Yost, et al., 2000). This broader conceptualisation arguably shifts the term from reflective practice to critically reflective practice. The term critically reflective practice is itself complex, ill defined and is understood in multiple ways. A later section examines in detail how the literature distinguishes critically reflective practice from reflective practice.

In the next section, this literature review does not seek to define the term reflective practice, rather it highlights the complex historical and theoretical traditions that have informed the multiple ways it is understood, and how these have influenced its expression in practice (Fendler, 2003; Fook & Gardner, 2007). Arguably, the way in which a person broadly conceptualises the relationship of schooling and society, or in other words, how we “[grapple] with the ultimate purposes of teaching” (Larrivee, 2008b, p. 90), may influence how one chooses to understand and enact reflective practice (Smyth, 1992). To illustrate this complexity, I first examine the work of two seminal authors within the reflective practice literature, Dewey (1933) and Schön (1983, 1987), who conceptualise reflective practice in contradictory ways.

Dewey is celebrated as one of the foundational influences of reflection in teacher education, and reflective practice has been a significant topic since the publication of his 1933 text, How we think. Dewey (1933) wanted practitioners to develop attitudes of open-mindedness, whole-heartedness and responsibility, and that reflective thinking became embodied as an educative stance within teachers' practice (Dimova & Loughran, 2009). For Dewey (1993), reflective thinking involved “a state of doubt, hesitation and perplexity, and mental difficulty in which thinking originates, and an act of searching, hunting, inquiring to find new material that will resolve the doubt, settle and dispose the perplexity” (p. 12). Dewey promoted “reflective thinking as a way to provide warrant for belief” (as cited in Fendler, 2003, p. 18) and believed that reason and inquiry would triumph over instinct and impulse. For Dewey (1993), reflective thinking was useful because it "converts action
that is merely blind, repetitive and impulsive, into intelligent action" (p. 17). Dewey believed that reflective thinking embodied a scientific approach to education, and was one way to professionalise one’s practice. Reflective practice understood in this way, equates with professionalism, a professionalism that privileges scientifically rational choices over instinct or impulse (Fendler, 2003). The discourse of professionalism valued by Dewey echoes a faith in instrumentalism or a technocratic rationality that was characterised by schooling in the U.S in the 1930s (Popkewitz, 1987). While Dewey's work is heavily cited in the reflective practice literature, the term's meaning has changed considerably since that time (Fendler, 2003).

Schön's (1983, 1987) conceptualisation of reflective practice stands in marked contrast to Dewey. Historically, Schön's work emerged at a time when interpretivist research was gaining wider acceptance in the educational community (Richardson, 1990), and his ideas reflected a movement against technicist competency-based approaches in schooling (Smyth, 1992). Schön (1983) believed that an over-reliance on technical knowledge had caused "a crisis of confidence in professional knowledge" (p. 3), and that technical knowledge alone did not provide a sufficient foundation for practitioners' actions, particularly when they are acting in "the swampy lowland of messy, confusing problems [that] defy technical solution" (p. 42). Schön believed that practitioners’ knowledge from their every day practice was equally as important as technical knowledge, and reflection on one's practice was an important vehicle for building professional knowledge.

For Schön (1983), reflective practice could be seen in two time frames, reflection-on-action and reflection-in-action, both involved practitioners framing and reframing problematic situations. In teaching, reflection-on-action may occur prior to, or post the teaching event, for instance, teachers may plan lessons drawing upon prior knowledge and experience, and post teaching may engage in deliberate systematic thinking about their lesson.
Schön (1983) was primarily interested in practitioners' intuitive reflection-in-action, and he promoted uncertainty, rather than rational choice as a desirable quality in reflective practice. For Schön, the artistry of reflective practice is "caught in the midst of experience" (p. 54), where a practitioner can use their practical knowledge as they teach, to frame and reframe problems as they read and respond to their context. Schön privileged artistic and practical knowledge over a reliance on theory or scientific rationalisation (Fendler, 2003). The juxtaposition of Schön's notion of the intuitive practitioner, and Dewey's notion of the rational scientific practitioner appear almost paradoxical. Today, the meanings of reflective practice are riddled with the tensions of these two disparate orientations toward education, as Fendler (2003) highlights:

Today's discourse of reflection incorporates an array of meanings; a demonstration of self-consciousness, a scientific approach to planning for the future, a tacit and intuitive understanding of practice, a discipline to become more professional, a way to tap into one's inner voice, a means to be a more reflective teacher, and a strategy to redress injustices of society. Reflective teaching has become a catchall term for competing terms of teacher education reforms. (p. 20)

While Dewey and Schön may have privileged different orientations to reflective practice, it is important to highlight how both theorists were seeking to professionalise teaching and teacher education. The divide between Dewey's valuing of theory in order to rationalise one's practice and Schön's privileging of practical knowledge has not only been a dilemma confounding how reflective practice is understood, but is a debate that over time has troubled teacher education programmes.

The theory/practice divide in teacher education: A false dichotomy

A perennial and long-term problem for teacher education programmes has been the perceived gap between theory and practice. Early in the 1900s, Dewey (1904b) identified a difficult challenge for teacher educators, how to reconcile the theory of the university lecture/tutorial room with the
practices of the classroom. Since the late nineteenth and early twentieth century teacher educators have wanted to share new emerging educational research with preservice teachers in order that they can "translate new views and theories about learning into the actual teaching practices in the schools" (Lunenberg, Korthagen, & Swennen, 2007, p. 586). Under such a model universities or colleges have provided theory, strategies and skills, and schools have provided the setting in which the knowledge is practiced. It is up to the preservice teacher to use that knowledge in ways that can potentially inform and change their practice (Widden, Mayer-Smith, & Moon, 1998). This model has been variously called the sacred theory-practice story (Clandinin, 1995), or the theory-to-practice approach (Carson, 1999), where experts in their fields share what they regard to be important theory with prospective teachers. This process is problematic wherein academics outside of classrooms develop theory for teachers to adopt and use in classrooms, not least because it takes little account of teachers' experiential wisdom (Smyth, 1992). Theory in this way becomes likened to:

a collection of maps, guides, itineraries, and rule-books produced in some far off land and then exported to the 'world of practice' so that its inhabitants can understand where they are, what they are doing, and where they are supposed to be going. (Carr, 1982, p. 26)

Whose theory, and what counts as knowledge remains a contested area within theory-to-practice models of teacher education (Fendler, 2003).

While theory-to-practice, or technical-rationalist models, have been dominant for many decades within teacher education, a number of studies have found such models had little impact on teacher candidates (Korthagen, 2010). One such example, is how programmes present theory via a number of isolated papers that make few connections to the real business of teaching (Korthagen & Kessels, 1999; Korthagen, 2010). Zeichner and Tabachnick (1981) have also suggested many theoretical understandings and ideas promoted by teacher education programmes become washed out during school experiences, and may have never impacted teacher candidates in the first instance. Empirical studies by Brouwer and Korthagen (2005) and Zeichner and Gore (1990) also reported that school,
rather than theory, is the most dominant influence on teacher development, and that while educational change may be a goal for teacher educators, in reality it is very difficult for beginning teachers to impact established practices in schools. Similarly, Widden, Meyer-Smith and Moon (1998) conducted an extensive analysis that reviewed ninety-three empirical studies focused on teacher education and concluded the impact of teacher education programmes on beginning teachers' practice is limited. A common theme across these studies was that beginning teachers' energies were so focused on survival, they were not always able to draw upon and learn from course experiences (Korthagen, 2010). However, research around teacher education is open to different interpretations. Drawing upon the same period of research as Widden, Meyer-Smith and Moon (1998), Darling-Hammond (2000) argued differently, that “fully prepared and certified teachers are generally better rated and more successful that those without this preparation" (p. 167), in other words that teacher education programmes do impact preservice teachers' practice, and generally in positive ways.

A key point to emphasise is the theory-practice dichotomy is ultimately unhelpful for both preservice teachers and teacher educators (Le Cornu & Ewing, 2008). The polarisation of theory and practice misguided focuses on the question whether teacher education should start with theory or practice, when in fact a more useful question is how to support preservice teachers to make meaningful connections between theory and practice (Korthagen & Kessels, 1999; Korthagen, 2010). The division of theory and practice into polarised camps ignores that connections between the two domains are crucial for the development of competent teachers (Anderson & Freebody, 2012). For teacher education programmes to remain significant for preservice teachers, it is imperative teacher educators look for ways to reconcile the domains of theory and practice. The next section explores recent shifts in the international teacher education landscape that continue to make this a challenging goal to realise in practice.
International changes in teacher education

Internationally, teacher education programmes are under increasing pressure and scrutiny with calls to reform and redesign teacher education (Anderson & Freebody, 2012; Cochran-Smith & Zeichner, 2005). Calls for reform include a need to "strengthen its knowledge base and its connections to both practice and theory and its capacity to support the development of powerful teaching (Darling-Hammond, 2000, p. 166). A recent international trend has seen university-based teacher education programmes shift toward, or at least include, alternative pathways that place a far greater emphasis on school-based experiences. One such alternative programme, Teach for America (TFA), has shown a growing currency spreading to the United Kingdom (Teach first, Teach Now), Australia (Teach for Australia) (Anderson & Freebody, 2012) and in New Zealand (Teach First New Zealand). While these programmes are in no way homogenous in form (Zeichner & Conklin, 2005), a distinguishing characteristic is how preservice teachers engage intensively with educational and teaching theory for approximately the first six weeks of the programme, while the remainder of the course (one or two years) involves an apprenticeship of observation and teaching in schools. TFA style programmes turn the traditional theory-to-practice model upside down, to one that privileges school-based practice over theory. This shift in focus has the potential to undermine and weaken traditional university-based teacher education programmes (Evans, 2013). While a manifold of political reasons exist for pursuing such a radical shift in teacher education programmes, including teacher shortages, fiscal savings with reduced training costs, and a desire for preservice teachers to receive a more practical and school-based teacher education programme, such programmes are not without risks. When alternative teacher education programmes such as TFA offer preservice teachers limited access to theoretical knowledge, there is a risk they become little more than "guided induction into the tricks of the trade" (Korthagen, 2010, p. 420).

Zeichner and Conklin (2005) conducted a detailed analysis of four large-scale studies with the goal of comparing the efficacy of different TFA programmes in the United States. One of those four studies,
authored by Darling-Hammond, Chung and Frelow (2002), surveyed 3,000 beginning teachers in New York city to assess their sense of efficacy as teachers, and asked them to rate their preparedness for teaching across 40 items considered core tasks of teaching. Of the 3,000 teachers surveyed, those who had entered through a TFA programme felt significantly less prepared across 25 of those 40 items, and their results were consistently lower than all other teacher education providers included in the survey. However, across all four TFA studies, Zeichner and Conklin (2005) found mixed evidence, and in conclusion were unable to "settle the issue of efficacy of the TFA programmes in comparison with that of other programmes" (p. 684), in part because the examined studies drew upon diverse data and used different research methodologies. That said, the data from the Darling-Hammond et al. (2002) study raised concerns, concluding those students prepared by TFA programmes had a "less favourable sense of preparedness that those prepared by traditional university programes" (p. 676).

If prospective teachers have to principally rely on school-based experiences for their learning, as Dewey warned, "the belief that all genuine education comes about through experience does not mean that all education is genuinely or equally educative" (1904b, p. 25). When heavily reliant on an apprenticeship of observation and teaching in schools, preservice teachers are vulnerable to the quality, or lack of quality modelling within their school placements. A further risk is that when preservice teachers are reliant on an apprenticeship of observation they become socialised into established patterns of practice, and are positioned to reproduce rather than challenge the status quo (Widden, et al., 1998). Da Vinci (1452-1519) in the fifteenth century understood the danger of an over-reliance on practice, in his words, "He who loves practice without theory is like the sailor who boards ship without a rudder and compass and never knows where he may be cast" (as cited in Kline, 1972, p. 3). Da Vinci's marine metaphor reminds teacher educators it is at our peril we rely only on practice to guide practice. For all of the above reasons, it is of concern recent trends for alternative teacher education programmes that have heavily privileged practice-based learning over theory, appear to exacerbate rather than resolve the theory-practice divide. The next section
explores how theory is not solely generated by the academy, rather prospective teachers need to be able to critically examine and integrate different kinds of knowledge and theory, both personal and public, and in ways that are responsive to their local context (Evans, 2013).

*Personal or public: Whose theories count?*

Griffiths and Tann (1992) proposed educators need to rethink the terms theory and practice in terms of "public and personal theories" (p. 71). They argued the perceived gap between theory and practice is false and is better construed as a mismatch between the observer’s theory and practitioner’s own theory. In other words, a preservice teacher may find a gap or discrepancy between his/her personal theories and public or formal theories. Griffiths and Tann have suggested we need to value preservice teachers' personal theories, and an important role is to support them to make their personal theories explicit. Schön (1974) similarly contended that practitioners work with two different types of theories, espoused or (public) theories, which are used to rationalise or justify behaviour, and implicit theories, or theories-in-use, which shape actual behaviour. Both Argyris and Schön (1974) and Griffiths and Tann (1992) understood that through a process of reflection, practitioners are able make explicit the knowledge needed to make sense of practical situations, or their theories-in-use, and compare them with public or espoused theories. Reflection enables the practitioner to see the theory-practice gap, and to decide if they can affirm or need to reconstruct their personal theories-in-use. This view was supported by Zheng (2013), if a teacher through reflection becomes aware of cognitive dissonance in their practice, this may lead to change in their beliefs and/or practice. Griffiths and Tann (1992) sought to dismantle the theory-practice divide believing "personal and public theories need to be viewed as living tendrils of knowledge which grow and feed into practice" (p. 71). Under this view, all action or practice becomes an expression of theory. Griffiths and Tann advocated that preservice teachers would build their own "personal theories of action" (p. 71), drawing upon both personal and public theory knowledge.
Halliday (1998) critiqued the simplicity of Griffith and Tann's (1992) model of personal and public theories. He suggested nothing can be taken-for-granted, and all insights and theories require interpretation and critique. He argued not all problems of practice need to be solved by the application of additional theory. Halliday's critique at first appears at odds with Griffith and Tann's theory, however, in combination, Halliday's critique and Griffith and Tann’s ideas work together to dismantle the theory-practice dichotomy. While personal and public theories can work together to inform practice, we need to acknowledge because all theory is a construction, all theory must be subject to interpretation and critique.

A number of authors, including Carr and Kemmis (1986) emphasised the reciprocal relationship between theory and practice:

The twin assumptions that all "theory" is non-practical and all "practice" is non-theoretical are entirely misguided. Teachers could no more teach without reflecting upon (and hence theorising about) what they are doing than theorists could produce theories without engaging in the sort of practices distinctive of their activity. "Theories" are not the bodies of knowledge that can be generated out of a practical vacuum and teaching is not some kind of robot-like mechanical performance that is devoid of any theoretical reflection. Both are practical undertakings whose guiding theory consists of the reflective consciousness of their respective practitioners. (Carr & Kemmis, 1986, p. 113)

Theory and practice are indivisible; neither are created in a vacuum, rather they are inter-dependently reliant upon one another. As Carr and Kemmis (1986) outlined, theory informs practice, and practice informs theory in a cyclic fashion. Their conception dismantles the theory-practice binary, and instead emphasises the nexus or inseparable nature of theory and practice. Walker (2003) also argued theory and practice need each other, she wrote, "Without action and practice, talk about education is arid; without theories talk about educational practice is impoverished" (p. 185). In other words, theory and practice clearly inform and strengthen one another in a recursive
manner. An ongoing challenge for teacher educators is how to make those connections apparent for preservice teachers.

If we understand theory and practice to be indivisible and that one serves the other, an interesting question remains, what is the actual purpose of theory? Theory can be used in a number of ways. As Dewey (1904b) argued theory can be used to provide a warrant or justification for one's practice. Richardson (1990) expanded this notion, stating it was vital for teachers to critically examine both their external theoretical frameworks and their own personal theories in order to either affirm or reject particular practices. She argued in this way teachers may avoid becoming victims trapped by the bias within their personal biographies, or by current political external pressures, and instead can articulate a warrant for their practices. Smyth (1992) described this process as one where teachers seek to develop "defensible practical principles" (p. 298), and acknowledged this to be highly idiosyncratic work dependent on complex contextual factors. Thus, when preservice teachers critically consider the usefulness of theory, they must do so in ways that ascertain its merits (or lack of) for their own particular context. In other words, theory must be fit for purpose and context (Luke, 2000).

Unstated, but implicit, within the theory-practice divide literature is the prestige, power and promise of published academic theory. While this review of literature has examined a number of authors who value teachers' personal theory (Argyris & Schön, 1974; Carr, 1987; Griffiths & Tann, 1992), it appeared they do so with reference to, or in default to the academy. Even with the goal of dismantling the theory-practice divide, teacher education appears to remain in the grip of a technical-rational paradigm that serves to reproduce rather than challenge the status quo. Theory nonetheless can serve quite different purposes. According to Ball (1995), theory has potential to be:

- a vehicle for 'thinking otherwise'; it is a platform for 'outrageous hypotheses' and for 'unleashing criticism'. Theory is destructive, disruptive and violent. It offers a language of challenge and modes of thought other than those articulated for us by dominant others. It
provides a language of rigour and irony rather than contingency. The purpose of such theory is to de-familiarise present practices and categories, to make them see less self-evident and necessary, and to open up spaces for the invention of new forms of experience. (Ball, 1995, pp. 266, original emphasis)

Here, Ball asks us to step outside the myriad of factors that normally would enfold us in such a way that we cannot see beyond the everyday realities in which our work is immersed. For Ball, educational theory typically invites only a "mantric reaffirmation of belief rather than a tool for exploration and thinking otherwise" (p. 268). Ball believed theory offers the "possibility of disidentification" (p. 267) from dominant ideologies and can create spaces to allow us to imagine other ways of being. His alternative conceptualisation of theory reflects many of the discourses inherent in critically reflective practice theory, which the next section explores.

**Distinguishing critically reflective practice from reflective practice**

Critically reflective practice has been described as a close cousin of reflective practice (Fook, 2006). Like its cousin, critically reflective practice is a complex term that is ascribed a plurality of meanings, covering many different intellectual traditions and disciplines within the research literature. Adding the word critically to reflective practice arguably elevates reflection to a more profound or deeper level of thinking (Brookfield, 2002), and shifts the process of reflection to involve critique, or critical thinking. While it is quite possible to engage in uncritical reflection, for example to think simplistically about technical aspects of one's practice, critical reflection implies making a judgement or an assessment of what is being reflected upon (Mezirow, 1998), rather than simply doing something because it works here and now. While there is no one precise definition of critically reflective practice within the literature, one common characteristic emerges, that critical reflection requires judgement or critique. Alongside the notion of critique, key themes emerge, which revolve around what should be the focus of, and the purpose of critique, in particular whether the focus of
critique should be at the personal, societal level or both. I next canvass how different authors understand what it means to be a critically reflective practitioner and how these are differently nuanced dependent upon the theoretical traditions they draw upon. I conclude this section with my definition of critically reflective practice, as I understand it for this research project, and why it is such an important element of teachers' work.

In seeking to distinguish reflection from critical reflection, Moon (2005) wrote of the importance of critical thinking. Her understanding of critical thinking involved seeing with a degree of clarity and precision about one's real-life experience, rather than relying purely on academic theory, with the goal of improving one's current practice. She suggested problems of practice require systematic analysis of complex factors, and the appropriateness of any changes to practice would be dependent on the clarity and precision of the critical thinking process. Moon's version of critical thinking is underpinned by a particular epistemology of knowledge that understands there is a clarity or truth waiting to be found, and draws upon Dewey's (1933) notion of scientific rationalisation. Her version of critical thinking remains sanitised and divorced from moral, social, cultural or political concerns. When critical thinking is understood in terms of seeing with clarity and precision, as Popkewitz (1999) suggested, this is not without risks, "Clarity is always a distinction made through positions of power to sanction what is legitimate ... Moreover clarity is almost always a function of the status quo or the familiar, and the unfamiliar is often described as unclear" (p. 35). So while critically reflective practice undoubtedly involves critical thinking, critical thinking as endorsed by Moon (2005), may potentially limit "one's angles of vision" (Cook-Sather, 2010, p. 571).

Critical reflection is often understood to involve critique, and a key theme within the literature is to focus critique on one's assumptions; in other words, critical reflection involves "assumption hunting" (Brookfield, 2009, p. 295). Mezirow (1998) suggested critical reflection involves critiquing the assumptions on which one's values and beliefs have developed. This makes sense when preservice teachers arrive in teacher education programmes with many idiosyncratic beliefs and values born of
years of observation in classrooms as students (Lortie, 1975). For example, such assumptions may include one's beliefs about how to be an effective teacher and how students ought to behave in school. A preservice teacher's beliefs are powerful and act as "personal practical theories" (Levin, He, & Allen, 2013, p. 202) that guide and shape their classroom practices. Pajares (1992) proposed such beliefs are often unarticulated and unless made explicit with room for debate will remain taken-for granted. Without such dialogue and debate there is a danger teachers' beliefs (or personal practical theories) may function to advantage and/or disadvantage students whom they teach. Preservice teachers' beliefs may differ from formal theories being presented in teacher education programmes, and have been shown to be relatively stable and remarkably resistant to change (Korthagen & Kessels, 1999; Korthagen, 2010). In order for preservice teachers to shift or change their beliefs, Nespor (1987) argues they first need to understand how their beliefs influence their teaching practice.

Brookfield (2002) suggested preservice teachers' childhood and adolescent life experiences profoundly influence the beliefs they draw upon to describe situations, solve problems and guide future actions. In other words, their beliefs function as a filter for how they interpret and make sense of their everyday teaching practice (Fives & Buehl, 2012). For Brookfield, critically reflective practice involved preservice teachers trying to uncover and critically examine the assumptions that frame how they teach. However, Brookfield (1995) argued reflection is only critical when it has two distinct purposes. The first purpose is to question the assumptions that frame our everyday practices, and the second to understand how "considerations of power undergird, frame, and distort educational processes" (Brookfield, 1995, p. 8). He asked that teachers develop a reflective scepticism toward both personal and hegemonic assumptions that if left uninterrupted might otherwise frame one's practice.

Other authors who emphasised the importance of researching and challenging one's every day beliefs include Larrivee (2000), Carson and Fisher (2006), and Fook and Gardner (2007). Larrivee
distinguished reflection from critical reflection by merging inquiry and self-reflection. For Larrivee, critical reflection requires teachers to deeply examine their personal beliefs. Beliefs are the lens through which teachers view their world, and are embodied in the assumptions teachers make, and the expectations they have for their students. Larrivee asked teachers to confront their most deeply held beliefs in order to consider the ethical impact and effects of their practices. She promoted three practices to be hallmarks of critically reflective practice, including; "making time for solitary reflection, becoming a problem-solver, and questioning the status quo" (Larrivee, 2000, p. 296). Unlike Moon's (2005) belief that critical reflection would allow one to see with clarity and precision, Larrivee believed the process of becoming a critically reflective practitioner means at times, embracing and coping with uncertainty. It was her belief that uncertainty, rather than certainty, creates space for change and transformation (Larrivee, 2000). Larrivee's work strongly draws upon Dewey's (1933) notion of practitioners as active problem-solvers and reflects her commitment to the principles of critical theory in challenging hegemonic assumptions.

Carson and Fisher (2006), like Larrivee (2000), emphasised how critically reflective practice needs to focus on identifying and challenging one's values, beliefs, and assumptions. In their view, for students to demonstrate that critical reflection and transformative learning has occurred, means they are able to "identify values, beliefs, and assumptions; can change and/or reassess their values, beliefs and assumptions; can make connections with their cultural, social, and political realities; and act differently from habituated responses and/or take on new behaviors" (Carson & Fisher, 2006, p. 707). Their understanding of critically reflective practice involved critique at both a personal and societal level in order to bring about changes in one's practices. Carson and Fisher noted a complicating factor for preservice teachers is to be able to identify and distinguish, beliefs, values and assumptions, and how the critically reflective practice literature provides little support to resolve this difficulty. A summary of how they distinguish the three follows; beliefs are indicative on how one thinks the world operates or what the individual thinks is true, values reflect how we think the world should operate, what is good, worthwhile and desirable, and assumptions are taken-for-
granted ideas or understandings that underpin our beliefs and values (Carson & Fisher, 2006; Fisher, 2003).

In a similar manner, Thomson and Thomson (2008) also understood critically reflective practice encompasses two dimensions or foci of criticality and distinguish these using the terms depth and breadth. Depth involves being able to look below the surface of a situation, and to question everyday taken-for-granted practices. In this way teachers seek to understand how their assumptions, beliefs, and values are impacting their practice. Breadth engages a different focus of critique, for example, the sociological context of one’s practice, factors such as power relations, oppression and discrimination. Thomson and Thomson believed a critically reflective practitioner, needs to engage with both dimensions.

Fook and Gardner (2007) have suggested that critically reflective practice was both a theory and practice. Their understanding emphasised the process of "unsettling individual assumptions to bring about personal change" (Fook & Gardner, 2007, p. 16). Individual assumptions may be expressed as beliefs, attitudes, values and even theories that are held consciously or unconsciously. As authors, they made explicit how their adoption of, and affiliation with particular theoretical traditions have directly informed their model. They illustrated how their model draws upon tenets of reflective practice theory, for instance, they sought to expose problematic gaps between practitioners' implicit and enacted theory (Argyris & Schön, 1974), and how they placed value on intuition, artistry and creativity (Schön, 1983, 1987). They drew upon postmodernism to question and challenge linear and unified one truth thinking, and instead understood knowledge to be shifting and socially constructed. Critical theory directly informed Fook and Gardner's desire to unsettle and free individuals from the restrictions of current dominant or hegemonic thinking. The primary purpose of their model was to "unsettle the dominant thinking implicit within professional practices, in order to see other ways of practising" (Fook & Gardner, 2007, p. 62).
For critical theorists (Giroux, 1988; Habermas, 1984a; Lakomski, 1999), a distinguishing characteristic of critically reflective practice was its focus on social justice and a vision of emancipatory education. Informed by a critical theory lens, critically reflective practice emphasises the questioning of hegemonic assumptions, particularly around relationships of power within social, political, cultural and institutional arrangements (Giroux, 1988; Habermas, 1984a; Lakomski, 1999). The antecedents of this version of critically reflective practice can be traced back to the work of the late activist Paulo Freire (1921-1997). In the 1960s, Freire was involved in a literacy campaign where he taught adults previously doomed to a life of illiteracy, to read not only the word, but also how to read and critique their world. Through a process of conscientisation, or consciousness raising, he taught people how to read social, political and economic inequalities, and encouraged them to take action against unjust situations in order that they could create a new reality (Freire, 1999). He named this cycle praxis. Praxis involves "reflection, and action upon the world in order to transform it" (Freire, 1999, p. 33). When critical reflection is imbued with the tenets of Freire's conscientization and praxis, teachers are supported to become aware of hegemonic assumptions within their context and practice, and are better prepared to take action in order to pursue democratic emancipatory goals (Carson & Fisher, 2006). In a similar manner, Yost, Sentner and Forlenza-Bailey (2000) suggested critical reflection involves critique on the assumptions that underpin one's decisions and actions, and on the wider ethical, moral, political and historical factors underpinning one's decisions or actions. Yost, Sentner and Forlenza-Bailey asserted a critically reflective teacher is able to "make teaching decisions on the basis of a careful consideration of the assumptions on which the decisions are based and the technical, educational and ethical consequences of those decisions" (p. 41). In summary, critically reflective practice, when underpinned by critical theory involves critique at a personal and societal level and considers the ethical and moral consequences of one's practice.

I next articulate how I understand critical reflection for the purposes of this research project. My understanding of critical reflection extracts, merges and condenses selected ideas from the work of multiple authors in the fields of reflective practice, critically reflective practice and critical theory.
the interests of clarity and readability, I first present my conceptualisation without references; a second version (see Appendix A) acknowledges and honours the work of the multiple authors who have informed my thinking and understanding. For this research project:

Critical reflection involves praxis across a complex intersection of three texts. These three texts include beliefs, theory and practice, where beliefs and theory inform practice, and practice informs theory and beliefs. In order to be able to articulate and defend a foundation for their practice, teachers need to critically examine and articulate the beliefs and theories that inform their practice, and if these are (or are not) evident in their practice, and why. In this way, beliefs, theory and practice have potential to inform each other in a recursive cycle. Critical reflection positions teachers as agents of social change who are able to question and challenge the beliefs and theories underpinning their practice, and the wider societal factors (historical, institutional, cultural, social, and political) impacting their practice, and who routinely consider the technical and ethical implications of their actions within their context.

Before examining if, and how critically reflective practice can be taught to prospective teachers, I first outline why it is such an important element of teachers' work, namely:

• it supports teachers to make informed decisions;

• it supports teachers to develop a rationale or foundation for their practice, in other words they can articulate what it is they stand for, believe in and why;

• it creates an environment in which change and taking risks are valued; and where teachers can envision possibilities beyond the status quo;

• it highlights the moral and ethical responsibilities of a teachers' work and focuses on emancipatory goals (Brookfield, 1995; Carson & Fisher, 2006; Fisher, 2003; Fook & Gardner, 2007; Larrivee, 2000; Mezirow, 1998; Smyth, 1992; Yost, et al., 2000).
Can critically reflective practice be taught, and if so how?

A common theme within the literature was critically reflective practice is not an innate skill, rather it is a skill that needs to be taught and practiced within teacher education programmes (Hatton & Smith, 1995; Jones & Jones, 2013). Because of the complicated and messy nature of critical reflection, how to teach it remains problematic and contested (Akbari, 2007). As teacher educators have wrestled with how best to support preservice teachers’ critically reflective practice, numerous typologies and practical strategies have emerged. Typologies (sometimes known as taxonomies) are frameworks with which to think about reflective practice, whereas practical strategies include a range of activities or vehicles teacher educators employ to support preservice teachers’ reflective thinking. The next section first explores a range of typologies and the debates surrounding how they differently conceptualise reflection, the conclusion outlines a broad range of practical strategies designed to support reflective thinking commonly employed in teacher education programmes.

Typologies of reflective practice

Typologies of reflective practice are useful in that they provide teacher educators and preservice teachers with frameworks and a metalanguage with which to demystify an otherwise complex and inaccessible concept (Jay & Johnson, 2002). An early attempt to define the term reflective practice in terms of its dimensions was authored by van Manen (1977), in his influential article, Linking ways of knowing with ways of being practical. He proposed reflective practice has three levels, comprised of technical rationality, practical reflection and critical reflection. Other authors have used van Manen’s levels as a beginning point for establishing their own system of categorisation, for example, Larrivee (2010). Based on an extensive review of the literature, Larrivee (2008a) found most typologies incorporate three levels, which were;

- an initial level focused on teaching functions, actions or skills, generally considering
teaching episodes as isolated events;

- a more advanced level considering the theory and rationale for current practice;

- a higher order where teachers examine the ethical, social and political consequences of their teaching, grappling with the ultimate purposes of schooling. (p. 342)

The levels Larrivee (2008a) identified clearly encompass a technicist and critical continuum of reflective thinking and practice, with layers of quality that arguably move from trivial to more profound, including technicist, theoretical and critical approaches. While many typologies highlight these three dimensions or levels of reflective practice, they use different language with which to do so. As illustrated in Table 1; authors name which kinds of reflective thinking they privilege and wish to engender within their teacher education programmes.

**Table 1: Typologies of reflective practice**

<table>
<thead>
<tr>
<th>Author /Type</th>
<th>Continuum of Reflective Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Van Manen (1977) 'Levels' USA Conceptual</td>
<td>Technical: concerned with efficient means rather than ends</td>
</tr>
<tr>
<td>Zeichner and Liston (1987) 'Criteria' USA Conceptual</td>
<td>Technical: involves technical content and classroom management competence</td>
</tr>
<tr>
<td>Wellington and Austin (1996) 'Orientations' USA Conceptual</td>
<td>Immediate: focused on survival, non-reflective</td>
</tr>
<tr>
<td>Authors</td>
<td>Typology</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Jay and Johnson (2002)</td>
<td>'Dimensions'</td>
</tr>
<tr>
<td></td>
<td>USA</td>
</tr>
<tr>
<td></td>
<td>Empirical</td>
</tr>
<tr>
<td>Ward and Cotter (2004)</td>
<td>'Levels'</td>
</tr>
<tr>
<td></td>
<td>USA</td>
</tr>
<tr>
<td></td>
<td>Conceptual</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Larrivee (2008a)</td>
<td>'Levels'</td>
</tr>
<tr>
<td></td>
<td>USA</td>
</tr>
<tr>
<td></td>
<td>Conceptual</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Ghaye (2010)</td>
<td>'Strengths'</td>
</tr>
<tr>
<td></td>
<td>UK</td>
</tr>
<tr>
<td></td>
<td>Conceptual</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Nelson and Sadler (2013)</td>
<td>'Orientations'</td>
</tr>
<tr>
<td></td>
<td>USA</td>
</tr>
<tr>
<td></td>
<td>Conceptual</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The left hand column of the table highlights the different terms authors use to describe the types of reflection within their typology, and if the source presented conceptual or empirical material. The terms were: levels, criteria, types, dimensions, strengths, and orientations. The diverse terminology reflects the authors' different understandings about reflection which are contested within the literature. One such debate is whether authors affirm or resist the notion of "hierarchical orders of reflection" (Fendler, 2003, p. 20). Examples of typologies that uphold reflection as an overtly hierarchical skill include van Manen (1977), Ward and Cotter (2004). As the table illustrated, these
authors used the term *levels* of reflection, and presupposed preservice teachers move through a developmental sequence of skills, from technicist to critical, novice to expert dependent on their increasing knowledge and experience. An unfortunate connotation of using the language of levels implies that technical and practical forms of reflection are by default poor relations to critical reflection. A number of authors dispute relegating technical reflection in this way. For example, Fendler (2003) argued devaluing technical or descriptive reflection "is a way of censoring certain ways of talking about teaching" (p. 20), and that teachers in reality need a plurality of modes with which to engage in reflective thinking. Killen (2003b) suggested that a teacher's daily work engages with technical, practical and ethical dilemmas, and to place hierarchical levels around reflective thinking devalues the technical skills and realities of teaching. Bleakley (1999), believed to developmentalise reflection in terms of levels "actually frames all reflection as a technical operation" (p. 318) and may reduce teachers' open-mindedness, and preparedness to deal with uncertainty and ambiguity. It is my belief, the complexity of a teachers' daily classroom practice necessitates that teachers are flexibly able to use multiple lenses with which to reflect on their different aspects of their practice, including technical, pedagogical and critical factors, and all are equally important.

Hatton and Smith's (1995) typology drew upon van Manen (1977) and Schön (1983, 1987) and included reflection-on-action and reflection-in-action, and described five types of reflection (see Table 1). They suggested that preservice teachers begin with the technical and move through to more complex critical types of reflection. Just as Schön (1983, 1987) proposed, Hatton and Smith believed the nirvana, or highest order of reflective practice, is the ability to undertake reflection-in-action, and that ultimately preservice teachers may apply singly or in combination technical, descriptive, dialogic or critical lenses to a teaching scenario as it is unfolding. While they claimed each type of reflection is valuable in its own right, their typology problematically places the types of reflection in an overtly developmental and hierarchical order.
Zeichner and Liston's (1987) typology focused on three criteria for reflection instead of levels. Zeichner and Liston outlined technical, educational and ethical criteria for evaluating the work of preservice teachers, and encouraged preservice teachers to treat all educational knowledge, and the institution of schooling as socially constructed and problematic. While their typology drew heavily upon van Manen's (1977) article, they defined a reflective teacher as "one who assesses the origins and purposes, and consequences of his or her work at all three levels" (Zeichner & Liston, 1987, p. 25). While Zeichner and Liston's choice of the word criteria, rather than levels, appears one of semantics, they actively resisted the notion that levels or criteria of reflection are hierarchical, instead believing that all forms or reflection are of equal valuable.

A typology authored by Wellington and Austin (1996), similarly resisted that reflection is a hierarchical process. Rather than levels or criteria, the authors proposed reflective practice involved five orientations namely: "the immediate, the technical, the deliberative, the dialectic and the transpersonal" (1996, p. 309). It is the fifth orientation, the transpersonal, that distinguished Wellington and Austin's typology from those already discussed. Reflective practice from this orientation involved a focus on self-development; where teachers are able to challenge educational content, means and ends from a personal inner perspective. The questions they might ask are qualitatively different, such as, "how can I integrate my personal/spiritual growth with my vocation? What is my personal responsibility to myself and others" (Wellington & Austin, 1996, p. 311). The authors asserted that this typology provided teachers ways with which to reflect on practical aspects of their practice, as well as their underlying values and beliefs about education, and, dependent on context, teachers need to be able to draw upon all five orientations to inform their teaching practice (Wellington & Austin, 1996).

Jay and Johnson's (2002) typology involved three dimensions namely, description, comparison and criticism. However, it privileged a spiral rather than hierarchical approach. The descriptive level was the problem-setting stage, and asked teachers to consider which aspects of their practice they
needed to reflect upon. The second level involved comparison, in which other viewpoints that may be contrary to one's own were considered. The third critical level considered a problem using multiple perspectives, where "one may then find a way of integrating, or choosing among, the values at stake in the situation" (Schön, 1983, p. 63). Jay and Johnson's (2002) typology promoted an integration of different dimensions that "are not mutually exclusive, [rather] they become intimately intertwined to compose a composite concept" (p. 80).

Table 1 also captures two more recent typologies of reflection, Ghaye (2010) and Nelson and Sadler (2013). Of all those discussed, Ghaye's used strikingly different language to conceptualise reflective thinking; including the terms Appreciate, Imagine, Design, and Act. Ghaye described his model as strengths-based, where one moves from "fixing to flourishing" (2000, p. 11) and advocated its use at an individual, group or whole organisational level. He sought to reframe reflective practice from its traditionally negative focus on deficits in practice, and proposed we ask a broader range of questions about our practice, including questions that will highlight and enable us to build upon current strengths. Ghaye's model at first appears idealistic, however, his typology has a strong critical focus with its work around personal identity and challenging taken-for-granted practices and policies.

Finally, Nelson and Sadler's (2013) typology provided a heuristic for understanding why reflection is important. Their typology included five dimensions (see Table 1) and drew on Jay and Johnson's (2002), "notion of a widening lens, from the situation at hand to multiple perspectives on a situation to an appreciation of the bigger picture of implications surrounding the problem at hand" (p. 79). Complexly, Nelson and Sadler (2013) argued they understood reflection to be developmental, but do "not advocate for the achievement of any particular level" (p. 50) presumably equally valuing all five dimensions. Their heuristic clearly laid out five orientations of reflection, but how it was to be operationalised within a teacher education programme remains unclear.
Since van Manen’s (1977) iconic article, teacher educators have, and are clearly continuing to formulate new typologies that privilege what they understand to be worthwhile foci for reflection. A key question is how useful are they in practice? A strength of typologies is how they provide a framework and a metalanguage with which to think reflectively, making an invisible process more accessible for preservice teachers (Ward & McCotter, 2004). This strength, however, is not without tensions. Typologies have been critiqued on the grounds that having a prescribed metalanguage or framework with which to think may constrain, rather than open up new ways of thinking (Jay & Johnson, 2002). Nonetheless, because reflective practice is a messy and ill-defined topic, providing preservice teachers with a metacognitive language with which to reflect appears paramount. Zeichner (2011) argued teacher education programmes will never be able to find a consensus, unifying purpose or method across the reflective practice field; what is more important is that individual teacher education programmes are able to articulate a vision. Typologies are one tool that can support individual programmes to express their vision of reflective practice.

Typologies are highly abstract in nature, while they support a framework with which to think reflectively, they remain curiously separate from one’s practice (Hallman, 2011). Because of their abstract nature typologies are rarely the focus of empirical research. Of those discussed in Table 1, only Jay and Johnson (2002) and Hatton and Smith (1995) made any empirical claims about their usefulness, all others remained as purely conceptual frameworks and/or as tools with which to assess students’ reflective thinking. Both the above authors’ studies used their typologies as a framework to support and then assess students’ reflective writing. Jay and Johnson illustrated how students’ writing shifted to a critical level post using the typology as a framework; however, they only used one student’s writing sample to evidence this. Hatton and Smith’s study found descriptive reflection was the most commonly utilised type, rather than the more difficult forms of dialogic, or critical reflection. A recurrent theme within the literature is even with specific scaffolding and practical strategies to support critically reflective practice, preservice teachers’ reflections tended to be largely technical or descriptive. In other words, their reflections often failed to connect with
theoretical knowledge or wider societal issues (Larrivee, 2010; Pultorak, 1993). How to shift
preservice teachers' reflections beyond a descriptive or technical level remains a perennial problem
for teacher educators. A major focus of this research project was to explore how to achieve that shift
in order to support preservice teachers' critically reflective practice.

**Tools with which to teach critically reflective practice**

Typologies are rarely used as stand-alone tools; rather they are used in teacher education
programmes alongside other practical strategies to support preservice teachers to critically reflect
on their teaching practice. Teacher educators have a vast and growing number of strategies or tools
at their disposal. These can be loosely classified in terms of the type of the media they employ, for
example, written tools include, critical incident analyses (Francis, 1997; Griffin, 2003; Tripp, 1993),
vignette analyses (Kruse, 1997), and film study (Ryan & Townsend, 2012). Tools focused on writing a
personal reflective account included: autobiographies (Brookfield, 1995), self-study (Loughran &
Russel, 2002), journal writing (Boud, 2001), narrative writing (Bleakley, 2000; Connelly & Clandinin,
1999; Craig, 2010; Orland-Barak & Maskit, 2011), metaphor analysis (Hunt, 2001), and action
research (Hagevik, Aydeniz, & Rowell, 2012). Tools that employed technology included: video
analysis (Tripp & Rich, 2012b; Wang & Hartley, 2003), computer-mediated dialogue (Qian & Tao,
2005), web blogs (Shih-Hsien, 2009), electronic portfolios (Ledoux & McHenry, 2006; Strudler &
Wetzel, 2011), web blog electronic portfolios (Chuang, 2010), and micro blogging/twitter (Domizi,
2013; Wright, 2010). While this list is extensive, it is not exhaustive; its purpose was to illustrate the
scope of possibilities with which to support critical reflection. What was striking is the emerging
proliferation of web-based tools used either singularly, or in combination within teacher education
programmes internationally and locally to support reflective practice.

While many of these strategies have their own established or emerging literature base, it is beyond
the scope of this literature review to discuss each individually. Instead, I next focus on the efficacy of
video-technologies to support critically reflective practice, a research area that in the last decade has seen a burgeoning interest reflected in an increasing number of empirical studies. I first outline why video is a useful technology and the diverse ways it can be implemented. In this project, because preservice teachers’ dialogue around their videotaped teaching often focused on aspects of their teacher identity, I next describe how academic literature understands teacher identity. My subsequent discussion across studies pays particular attention to which factors appear to support, or hinder critical reflection when using videotaped teaching.

The use of video technologies to support reflective practice

The affordances of video technologies and how they have been used

As early as 1973, videotaping teaching emerged as a useful strategy with which to support teachers to reflect on their practice (Fuller & Manning, 1973). Since that period, video technologies have become more accessible and easier to use in practice, making the technology increasingly attractive to teacher educators (Tripp & Rich, 2012b). The use of video technology is now widely recognised as a powerful tool for enhancing preservice teachers’ critical reflection and knowledge construction (see Calandra, Brantley-Dias, & Dias, 2006; Copeland & Decker, 1996; Harford McRuaire, 2008). As a technology, it can expose preservice teachers to rich and diverse teaching scenarios where the complexities of the classroom are brought into sharp focus for deliberation. For example, Ingram’s (2014) study found when student teachers specifically focused on the teaching of their content area, in this case on the teaching of mathematics, the focus of their dialogue shifted from themselves as teachers, to a focus on their learners. Video as a tool, affords opportunities for preservice teachers to observe and articulate connections between theory and practice (Harford, Gerry, & McCartan, 2010). It also allows preservice teachers to view their own and others’ teaching with opportunities for repeated viewing, pausing, annotating, and in dialogue to collaboratively deconstruct and
reconstruct practice (Calandra, et al., 2006; Harford & McRuaire, 2008). Being able to repeatedly watch videotaped teaching brings about opportunities for detailed analysis (Tan & Towndrow, 2009) in which one is more able to notice, consider, and re-consider specific moments and experiences (Hamilton, 2011; van Es & Sherin, 2008). A further advantage of repeated viewing is the possibility of selecting different lenses with which to attend and focus, such as, student engagement, student-teacher interactions, or the use of questioning (Beck, King, & Marshall, 2002). By observing the complex interplay of cultural, social, psychological and institutional factors, preservice teachers may gain powerful insight of what it is like to be a student in their class (Harford, et al., 2010) and to pose critical questions about everyday practices. A further affordance is that even the opportunity to view and deconstruct one’s poor or mediocre teaching, can provide insights into the real life challenges and dilemmas faced when teaching, and such insights may act as a prompt for problem-solving (Marsh & Mitchell, 2014).

Video technologies can be implemented in a plethora of ways, such as: case studies involving examination of an 'other' (Beck, et al., 2002; Copeland & Decker, 1996; Ethell & McMeniman, 2000; Newhouse, Lane, & Brown, 2007), of exemplary practice (Ethell & McMeniman, 2000; Kane, Sandretto, & Heath, 2004), or focused on a teacher's own practice (Calandra, et al., 2006; Clarke, 1995; Harford & McRuaire, 2008), video-based staged events (Ingram, 2014), video case curricula (Stockero, 2008), video using annotation tools (Rich & Hannafin, 2009), and video involving interactive web based technologies (Bower, Cavanagh, Moloney, & MingMing, 2011; Harrison & Yaffe, 2009; Rhine & Bryant, 2007; Sharpe et al., 2003; Wing-mui So, 2012). Regardless which method is implemented, Wang and Hartley (2003) caution the effectiveness of video-technology as a tool in developing reflective practice cannot be assumed. They argued defining a conceptual framework and purpose for its use within wider educational discourse is essential. To not do so, arguably limits any research study to simply examining the efficacy of what is ultimately a contrived construct. With this in mind, I have chosen to narrow my focus around research studies that position the preservice teacher as the subject of the video. This decision is underpinned by both conceptual
and empirical arguments. For example, Schön’s (1983, 1987) conceptualisation that reflective practice is personally constructed, socially mediated, and implicitly situated in the immediacy of the action setting. A number of authors endorsed Schön’s conceptualisation and promote strengths in capturing one’s own practice on video, and subsequently analysing one’s videoed teaching (Clarke, 1995; Harford & McRuire, 2008; Harrison & Yaffe, 2009; Orland-Barak & Rachamim, 2009; Sharpe, et al., 2003; Zhang, Lundeberg, Koehler, & Eberhardt, 2011). Further support was furnished by Seidel et al. (2005), and Zhang et al. (2011), whose studies compared the benefits of teachers watching their own videotaped teaching vs. watching other teachers’ videotaped practice. In both studies, teachers rated watching their own video as having the most potential to impact their reflective thinking and/or practice.

*Focusing in on teacher identity*

While not the primary focus of this thesis, it is not surprising that when positioned as the subject of the video, participants in this research project often discussed aspects of their teacher identity when viewing their videotaped teaching. Teacher identity, like reflective practice is a multifaceted and challenging term to understand or define (Beauchamp & Thomas, 2009). It is a complex construct, “a resource that people use to explain, justify and make sense of themselves in relation to others, and the world at large” (MacClure, 1993, p. 311). That is to say, teacher identity involves multiple dimensions, such as, how to be, how to act, how to understand and be responsive to context, and it embodies personal and professional aspects of one’s practice (Beauchamp & Thomas, 2009).

In order to make sense of a complex construct, academics have developed various models with which to think about teacher identity. I next share three models authored by Day and Kington (2008), Stenberg (2010), and Mockler (2011), who conceptualise in different ways how teacher identity is understood, and I consider their relevance for this research project.
Day and Kington’s (2008) model suggested teacher identity is multifactorial and can be thought about in three competing dimensions; personal, professional and situational factors. Personal factors related to life factors outside of the school, for instance, family and social roles. Professional identity reflected societal and policy expectations of what a good teacher is, and how a teacher enacts their educational beliefs and practices alongside educational policy. The third dimension, situational factors related to the localised school context, such as, pupil behaviour, socioeconomic factors, leadership and so forth. This model suggested all three dimensions interact and operate as a site of continuing struggle that impact teachers’ sense of efficacy, well-being and career satisfaction (Day & Kington, 2014). While the model provided a descriptive framework for aspects of teacher identity, in terms of this project, it lacked any implicit notion of supporting teachers’ criticality, for instance, to critique wider factors impacting their practice.

Three different dimensions or interests were named by Stenberg (2010) to conceptualise teacher identity. In this model, a teacher’s identity might focus on an interest around content, for example, curriculum, how the lesson is delivered, instructions, management of behaviour and so forth. Alternatively, a teacher’s identity might have a didactical interest. That is to say, teachers are aware of and critically consider the choices and decisions they make, for instance, in how they teach. The third possible interest noted by Stenberg was pedagogy, which shifts the focus from teaching to the interactions between students and the teacher. Here, a teacher might reflect on their personal beliefs in relation to their enacted practice, or where a teacher seeks to connect their self-identity with their professional identity. Stenberg’s model relates strongly to this research project in which preservice teachers were asked to discuss their personal beliefs and formal theories in relation to their videotaped practice, in order to support their critically reflective practice.

A third model by Mockler (2011) conceptualised teacher identity as having both a practical and political function. The model is similar to Day and Kington’s (2008) model, and understood that teacher identity is constituted across three domains. These included personal factors, gender,
ethnicity and class, and professional factors such as school context, professional development. However, it is the third domain that distinguished Mockler’s model from those already discussed. The third domain involved the wider political environment surrounding teachers’ daily work, for instance, political ideology and government policy. This model understood all three domains are in a constant state of flux, and at their confluence lay each teacher’s unique embodiment of what it means to be a teacher (Mockler, 2012). The model is openly political and supports teachers’ criticality within and across domains. Mockler also contended articulating one’s teacher’s identity is the first step toward theorising one’s practice, for instance, naming what I do as a teacher, and why. She suggested teachers need support to draw upon and critically consider theoretical knowledge to explore and rationalise their teacher identity. The model strongly resonates with this research project, which asked preservice teachers to draw upon their personal beliefs and formal theories in order to rationalise their videotaped teaching practice.

A key question remains, what kinds of factors do preservice teachers focus on when discussing their teacher identity? A study by Timoštšuk and Ugaste (2010), identified the following themes as preservice teachers talked about their teacher identity post teaching:

1. Classroom instruction, for example, were students able to follow instructions, comprehend subject matter, and use given assessment criteria?
2. The influence of Interactions with students, teachers, university supervisors and fellow students on their practice;
3. Emotions (positive and negative) intensified by their teaching experience, for example, pride in their teaching, fear of failure and so forth;
4. Actions associated with teaching, for example, planning, giving feedback, pedagogy;
5. Belonging to a professional community, that is, identifying the self as a teacher; and,
6. Learning as a teacher, that is, sensing and identifying changes in one’s teaching practice.
As seen in Timoštšuk and Ugaste’s study, teacher identity can be used as a frame or analytic lens with which to make sense of different aspects of one’s practice. In this research project, participants discussed similar (and other) aspects of their teacher identity as they discussed their videotaped teaching practice.

*How, and in what ways has videotaping one’s own teaching practice been used to scaffold critical reflection?*

Of particular relevance to this research project was a review of literature conducted by Tripp and Rich (2012b). The authors located 63 studies in which preservice or in-service teachers were videotaped while teaching, and who subsequently examined and reflected upon their performance. The studies analysed by Tripp and Rich each employed a complex and unique combination of factors: from participants, video procedures, reflection methods, data collection, and data analysis. Because each study was so uniquely complex, my initial attempt of trying to compare the efficacy of such disparate studies became both unwieldy and unprofitable. In order to make sense of an eclectic literature base in a way that could profitably inform the design of this research project, I have chosen to only examine studies that met the following criteria, namely; studies that employ video of teachers’ own practice and that demonstrate evidence of shifting teachers’ thinking and/or practice. (See Appendix B for a modified version of Tripp and Rich’s original database). In addition, I included further empirical articles I located that also met the above criteria. From this manageable selection of empirical studies, I next identify common factors that appear to support participants’ critical reflection.

It is clear from the literature that video technologies have potential to form a catalyst for change in a teachers’ thinking or practice; however, only in combination with other complex factors (Tan & Towndrow, 2009). In terms of the process of videotaping teaching, an early decision rests on who will collect the videotape footage. The reviewed literature reported numerous ways to achieve this,
such as, in some studies preservice teachers videotaped themselves (Calandra, et al., 2006), some used peer-videoing (Harford, et al., 2010), and in other studies the university supervisor (lecturer) or researcher conducted the filming (Martin-Reynolds, 1980; Meade & McMeniman, 1992). This decision is not without consequences. Harford and McRuaire (2008) promoted peer-videoing, as it reduced the perceived asymmetrical power dynamic often associated with an external observer, and placed the student teacher in control of the videoing process. Alternatively, if the researcher conducted the videotaping, an advantage was they would gain familiarity with the full lesson sequence, which was useful to later facilitate and prompt dialogue. Not discussed in the literature is, if all of the above possibilities are available in practice, ethically it makes sense to ask the preservice teacher which is their preferred method of collection (refer the methodology chapter for discussion on how I collected videotaped footage).

In a small number of studies, preservice teachers were asked to collect written data sources, such as, questionnaires (Sharpe, et al., 2003; Tan & Towndrow, 2009; Wedman, Espinosa, & Laffey, 1999), reflective diaries, journals, and lesson plan artefacts (Hennessy & Deaney, 2009a), alongside videotaped footage. In terms of data analysis, almost no discussion was provided in terms of how written artefacts shifted preservice teachers' thinking and/or practice, making their inclusion questionable in studies using videotaped teaching. In the reviewed studies the collection of written artefacts appeared to benefit the researcher more than the preservice teachers, where for instance, the written reflection became one artefact of many, able to be aggregated and cross referenced during data analysis (Hennessy & Deaney, 2009b; Miller, 2009). With little evidence of this strategy shifting preservice teachers' reflective thinking, and because I did not want to over-burden my volunteer participants, I chose not to employ written artefacts alongside videotaped footage.

Across studies post filming, a common strategy involved editing video footage to make a case study, where preservice teachers and/or the researcher selected a clip or section of footage they wish to examine in-depth (Maclean & White, 2007; Rosaen, Lundeburg, Terpstra, Cooper, Fu, et al., 2010;
This strategy had many practical advantages, across time it allowed multiple teaching events to be videotaped and analysed efficiently. Preservice teachers were able to identify particular teaching strategies they wished to target and change, and could track their development across multiple events, and in discussion with others become accountable to suggested changes (Tan & Towndrow, 2009). Studies that reported preservice teachers' preference for making case studies over using written tools for reflection included Rosaen et al. (2010) and Yerrick et al. (2005). However, a disadvantage of video editing is preservice teachers' potential anxiety over selecting clips to share with others, and that they may spend more time on this, than actually reflecting on their teaching (Tripp & Rich, 2012b). Another issue not highlighted within the literature is the additional time and workload involved. Because this research project relied on voluntary participation, I elected not to use video editing, again with concerns not to overburden preservice teachers in their busy final year.

A number of reviewed studies employed video analysis tools (VAT) (Bryan & Recesso, 2006; Rich & Hannafin, 2008; Romano & Schwartz, 2005; Sharpe, et al., 2003; Shepherd & Hannafin, 2008; Tripp & Rich, 2012a; Wing-mui So, 2012). A conceptual paper by Tripp and Hannifin (2009) outlined multiple commercial tools and packages available that enabled teachers to manipulate and share video footage using online technologies. The reviewed studies used VAT in eclectic ways, for example, preservice teachers annotated and commented on their own video footage (Rich & Hannafin, 2008), video footage was shared with peers using online tools (Bryan & Recesso, 2006; Sharpe, et al., 2003; Wing-mui So, 2012), and videotaped teaching became one artefact of many in an electronic portfolio (Romano & Schwartz, 2005; Shepherd & Hannafin, 2008). All of the above studies shifted preservice teachers' thinking, and or practice in different ways (see Appendix B for details). The complexity of each study's design precluded the possibility of identifying further common factors that prompted changes in thinking and/or practice, other than the fact all reviewed studies employed video. However, implementing video annotation tools can be complex and involves a financial cost. It also
requires training in software and tools, and participants need access to a computer, requisite software and high-speed Internet. In Rhine and Bryant's (2007) study, a preservice teachers' comment, "I feel that just a plain video would have been better and probably a lot easier/less frustrating to use!" (p. 350), identified how their use has potential to cause stress for participants.

There are both promises and perils involved in the use of video technologies. Student feedback reported in Sharpe et al. (2003) captured a number of potential perils, such as: the artificiality of video footage where children being filmed may present their best or worst behaviour, feelings of stress and self-consciousness sharing video footage, the inadequacy of short clips for detailed analysis, and the time required to view and comment on others' teaching. Students in both Sharpe et al. (2003) and Wing-mui So’s (2012) studies, commented that truly critical feedback might be withheld, or one might only give positive or surface feedback, to avoid hurting a peer’s feelings. The preservice teachers' comments highlighted this is brave and vulnerable work, and researchers need to negotiate and co-construct ways to pre-empt and problem-solve issues. While a lack of funding precluded the possibility of this research project implementing video annotation tools, it is my belief there is room in the future, to consider their inclusion as part of a suite of tools, with which to support critical reflection in a teacher education programme.

Wang and Hartley's (2003) review of 20 studies examined the relationship between video technologies and teacher education reform, and the ambiguity of what counts as effects of video technology. Their review raised three concerns around the use of videotaped teaching; that research does not provide evidence for video having an effect on the conceptions and knowledge preservice teachers bring with them, secondly, if changes to their knowledge and disposition occur from using video technologies, and finally, can such changes be transferred into their ongoing teaching practice? I return to these questions in the discussion of findings chapter.
The vast majority of reviewed studies recommended reflective dialogue with an other, where the preservice teacher’s videotaped footage became a prompt for their critical reflection. This dialogue was likewise conducted in diverse ways, with preservice teachers meeting with peers, teachers, university supervisors, the researcher, and in some cases a combination of colleagues. A number of studies reported the impact of viewing and discussing one’s own and others’ lessons provided opportunities for significant and worthwhile learning (Borko, Jacobs, Eiteljorg, & Pittman, 2008; Rosaen, Lundeburg, Terpstra, Cooper, Fu, et al., 2010). Establishing a safe and supportive environment in which to provide critical feedback, or in which to deconstruct and reconstruct teaching practices was important (Clarke, 1995; Harford & McRuaire, 2008). A small number of studies provided formal reflective guides to support students when giving critical feedback, for example a critical incident analysis form (Calandra, Brantley-Dias, Lee, & Fox, 2009), a video self-report form to share (Martin-Reynolds, 1980), or a critical friends’ group protocol (Miller, 2009). These studies, however, provided little discussion on the efficacy of these guides. Two studies, Sherin and van Es (2009) and van Es and Sherin (2008), reported the strategy of repeatedly asking preservice teachers what they privileged in their teaching was successful in shifting their dialogue from description to analysis, and also shifted their attention to children’s learning, rather than solely focusing on their role as a teacher.

A number of studies (e.g. Hennessy & Deaney, 2009b; Powell, 2005; Tan & Towndrow, 2009; Yaffe, 2010; van Es, Tunney, Goldsmith and Seago, 2014) reported the discussion between either the researcher, or mentor teacher and preservice teacher to be a significant factor in supporting reflective thinking; and studies employed manifold strategies toward this goal. To illustrate, one example, used layers of increasingly critical questions to shift preservice teachers’ reflective thinking (Powell, 2005). Powell’s study used a reflective framework of questions with practical, technical, perceptual and critically reflective layers. However, his dialogue only shifted preservice teachers’ thinking from practical to technical and perceptual concerns, and he acknowledged future studies needed to shift "from an emphasis on teachers’ revelations to critiquing what has been revealed"
(Powell, 2005, p. 415). Yaffe's (2010) study used a unique innovation where a newly qualified teacher wore video-glasses to videotape her teaching. In discussion, a mentor then mediated dialogue using van Manen’s (1977) three levels (technical, practical and critical) with an emphasis on supporting her critical reflection. The study reported despite this intervention, the beginning teacher appeared to focus on the learning needs of her students, yet remained more focused on her own survival. In her study, Yaffe used the metaphor of midwife to describe the mentor’s role; she used the term to capture the complexity of the mentor’s work in shifting the teacher’s reflective thinking. While wanting to shift her to the next level, the mentor was often unsure at which level the teacher operated, or how to shift her. What we can learn from Yaffe’s study is, that in order to shift a preservice teacher’s reflective thinking, both skilled listening and dialogue are required, and that each are ideally informed by a theoretical understanding of critical reflection. A 2014 study by van Es, Tunney, Goldsmith and Seago examined the conversation between mentors and teachers in a group setting whilst watching videotaped teaching of mathematics lessons. Post analysis, they suggested a range of in-the-moment talk moves a mentor could use to support high quality dialogue with teachers whilst watching videotaped teaching. The talk moves were categorised under four practices: orientating the group to the video analysis task, sustaining an inquiry stance, maintaining a focus on the video and supporting group collaboration. Some of the 14 suggested talk moves included: launching, highlighting, pressing, offering an explanation, countering, clarifying, pointing to evidence, standing back, and validating participants’ ideas (see van Es et al, 2014, for a definition of each talk move, and an example of a prompt for mentors). While not available at the time this research project was conducted, I would recommend their use in future research projects when using videotaped teaching with preservice teachers.

Several reviewed studies reported asking preservice teachers to examine the difference between their espoused theories and their actual teaching practice, whilst discussing videotaped teaching (Meade & McMeniman, 1992; Orland-Barak & Rachamim, 2009; Rosaen, Lundeburg, Terpstra, Cooper, Fu, et al., 2010; Wedman, et al., 1999), as successful strategies in shifting their reflective
thinking, and/or practice. An earlier section of this literature review identified this ability as an important characteristic of critical reflection. All the above studies emphasised how exposing dissonance between one’s espoused and actual teaching practices acted as powerful leverage for shifting change in thinking and/or practice. Across the above studies, two strategies of either stimulated recall or semi-structured interviews were employed to support preservice teachers’ critically reflective thinking. Studies conducted interviews using videotaped teaching in very different ways. For instance, Clarke (1995), allowed the preservice teacher to stop the video at any time they chose to make a comment, or where the preservice teacher was in charge setting the agenda for discussion. Analysis of data found students were more reflective about issues they had raised, than those suggested by their supervisor (Clarke, 1995). These findings were further supported by Youens, Smethem and Sullivan (2014), who found positioning the preservice teacher in control of the agenda as they discussed their videotaped teaching created a space with potential to disrupt the traditional hierarchies of student and academic, or novice and expert. At the other end of the continuum, Pailliottet (1995) listed a detailed framework of questions to support "deep viewing" (p. 138) of video artefacts. Her method for fostering discussion positioned preservice teachers far less powerfully, where the researcher set the entire agenda. In designing interviews, it is my belief there needs to be a balance between supporting student voice (Cole, 1989 ), alongside being able to support preservice teachers' use of a range of reflective lenses. My preference for this research project was to employ a mix of formats including unstructured and semi-structured interview formats, my rationale is detailed in the methodology chapter.

The most common tool of data analysis across reviewed studies focused on transcriptions of either videotaped teaching lessons and/or interviews. Studies employed a vast number of different tools with which to analyse transcripts, including NVivo, Grounded Theory, Critical Reflection Taxonomies and Rubrics, and Discourse Analysis, amongst others (Appendix B outlines each study’s selection of data analysis tools). Across reviewed studies, the analyses of interview transcripts were almost solely focused on the preservice teachers' transcribed oral text or monologue, with little attention
paid to its nascence or precursors. As earlier discussed, dialogue around videotaped teaching was construed as one of the most significant factors in prompting change in preservice teachers' reflective thinking and/or practice. However, to further understand how dialogue can support change, I believe closer analysis of transcripts is needed, for example, around the dialogue that precedes, prompts, facilitates, scaffolds, challenges, extends and confirms shifts in preservice teachers' reflective thinking. In other words, to examine the actual dialogue between the researcher/mentor and preservice teacher as they discuss videotaped teaching. This research study sought to contribute additional knowledge and strategies around this identified gap in the literature, namely; how dialogue between the interviewee and interviewer enables and/or disables changes in preservice teachers' critical reflection.

Only a few studies have explicitly explored preservice teachers' beliefs whilst using videotaped teaching, for instance, Wedman (1999) and Zheng (2013). I have been unable to locate any empirical studies that explicitly explore the praxis between preservice teachers' personal beliefs, formal theories and their teaching practice. By including interview questions that attend to this, this is a further area to which this research study can provide additional knowledge and strategies with which to support preservice teachers' critical reflection.

**Conclusion**

The primary focus of this literature review has been to examine which strategies teacher educators can use to support preservice teachers' critical reflection. A key challenge for teacher educators is how reflective and critically reflective practice remain ambiguous, illusive and ill-defined terms. This review of literature has traced the complex historical and theoretical debates that inform the multiple ways both of these terms are understood, and how these debates have influenced their expression in practice.
This review has examined how the literature sought to distinguish reflective practice from critically reflective practice, and here too, there was no one blueprint or recipe that teacher educators can adopt. While critically reflective practice was commonly understood to involve critique, what should be the focus and purpose of such critique remains a contested area, evidenced by the many different conceptualisations in the literature. An important element of this literature review was to render down from the work of multiple authors, how I understand critically reflective practice, in order to inform the design of this research study, and my work with preservice teachers within, and beyond this research project.

A key argument has been to collapse "hierarchical orders of reflection" (Fendler, 2003, p. 20), which typically privilege critical reflection over technical reflection. Drawing upon conceptual and empirical materials, this review of literature has shown that a teacher’s work is complexly situated, shaped by social, historical, institutional and political influences, requiring teachers to develop both technical, practical and critical lenses with which to consider their daily work (e.g. Brookfield, 1995; Fendler, 2003; Fook, 2006; Larrivee, 2010; Mezirow, 1998; Richardson, 1990).

This review has critically examined a diverse range of taxonomies and tools teacher educators can draw upon when seeking to support preservice teachers' critical reflection. Zeichner (2011) reminded us, that while there is no common method or purpose across the field of reflective practice, teacher educators through their selection of a typology, can articulate a theoretical rationale and vision for reflective practice, and potentially realise that vision through the implementation of carefully selected tools.

While reflective practice is recognised as one of the hallmarks of professional competence for teachers, reflective thinking is not an innate skill. This literature review has highlighted the promise and perils of using video technologies and interviews to support preservice teachers' change in critically reflective thinking and/or practice. As discussed, across studies these two strategies in
combination appear successful in shifting preservice teachers' reflective thinking and/or practice. This research project sought to build on, and add to that body of empirical work. In particular, it sought to find out how dialogue can support shifts in critically reflective thinking, and if asking preservice teachers to articulate their personal beliefs, and formal theory around their videotaped teaching practice may also shift their critically reflective thinking, and support them to articulate a rationale for their teaching practice. It is my belief, employing preservice teachers' videotaped teaching as a stimulus in an interview setting holds promise in developing teaching professionals who understand the complexity in which their work is immersed, and who routinely adopt a critical stance toward their daily practice.
CHAPTER FOUR: METHODOLOGY

Introduction

In qualitative research the methodology captures a complex interweaving of particular disciplines and theoretical perspectives, none of which are neutral (Guba & Lincoln, 2008). This requires the researcher to make explicit the marriage between the research design and its underpinning theoretical framework, and how each has recursively informed the other. Across this chapter I demonstrate how critical theory has informed this research project’s design from its conception to the reported findings. I describe which data construction tools I employed, a rationale for their selection and how they were used. I explain the method of recruitment of my participants, and outline three methods employed for data analysis and their affordances and limitations in answering my research questions. Ethical considerations required across the research project are then discussed. Before the conclusion, I describe how I ensured academic rigour and trustworthiness of findings, and how I sought to enact researcher reflexivity across the entire project.

First, I remind the reader, of the research questions for this project:

Primary research questions:

1. In what ways does asking preservice teachers to discuss their personal beliefs; theoretical frameworks, and wider societal factors (social, cultural, historical institutional) in relation to their own videoed teaching, support them to critically reflect upon their practice?

2. Across interviews using videotaped teaching, in what ways did dialogue between each preservice teacher and the interviewer support, or not support, preservice teachers’ critically reflective practice?
Sub-questions:

- Pre-videotape prompted interviews, how did preservice teachers understand the term critically reflective practice in relation to their own teaching?

- Post-videotape prompted interviews, how did preservice teachers understand the term critically reflective practice in relation to their own teaching, and did this change as a result of their participation in this research project?

Over a thirteen-month period from September 2011 to October 2012, the project involved two distinct phases of data construction, comprising a pilot study and a full study. Table 2 provides a timeline of how data was collected across both phases and the data sources.

**Table 2: Pilot and full study timeline and data sources**

<table>
<thead>
<tr>
<th>Pilot study timeline</th>
<th>Pilot study data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2011</td>
<td>One videotaped lesson/field notes</td>
</tr>
<tr>
<td>October 2011</td>
<td>One audiotaped interview using videotaped teaching to stimulate critically reflective dialogue</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Full study timeline</th>
<th>Full study data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2011</td>
<td>Initial interview</td>
</tr>
<tr>
<td>February/March 2012</td>
<td>Videotaped lesson/field notes</td>
</tr>
<tr>
<td></td>
<td>Audiotaped interview using videotaped teaching to stimulate critically reflective dialogue</td>
</tr>
<tr>
<td>June/July 2012</td>
<td>Videotaped lesson/field notes</td>
</tr>
<tr>
<td></td>
<td>Audiotaped interview using videotaped teaching to stimulate critically reflective dialogue</td>
</tr>
<tr>
<td>September/October 2012</td>
<td>Videotaped lesson/field notes</td>
</tr>
<tr>
<td></td>
<td>Audiotaped interview using videotaped teaching to stimulate critically reflective dialogue and exit interview</td>
</tr>
</tbody>
</table>
Data construction methods

In keeping with my critical theoretical framework, data is not simply lying around, like apples fallen from a tree for a researcher to find and gather up (Polkinghorne, 2005), instead the researcher is required to construct data in a way that enables them to best evidence findings around their focus of inquiry. As outlined in Table 2, this project employed three tools with which to construct data, videotaped teaching practice, field notes and interviews. All three tools used to construct data were considered to be texts. This was in line with my adoption of the definition of texts as language in use, or any instance of written and spoken language that has coherence and coded meanings (Luke, 1995-1996). This definition included texts in the broadest sense, including: spoken, written, oral, visual, multimedia, electronic and so forth. The three texts used to construct data in this project interacted and recursively informed each other across the research process. For example, participants’ videotaped teaching practice was used to stimulate their critically reflective dialogue around their teaching practice, and across interviews was used as a prompt to consider the kind of teacher identity they sought to enact.

Videotaped teaching episodes

Within the field of reflective practice there is a large body of empirical work promoting the benefits of using the videotaped teaching of preservice teachers to facilitate critical reflection on their practice (Copeland & Decker, 1996; Harford & McRuaire, 2008; Hennessy & Deaney, 2009a; Hewitt, Perdetti, Bencze, Vaillancourt, & Yoon, 2003; Holodick, Scappaticci, & Drazdowski, 1999; Rhine & Bryant, 2007, among others). Video technologies can be implemented in manifold ways to support preservice teachers’ critically reflective practice, each with their own potential benefits and limitations (refer the literature review for a detailed discussion). For the purpose of this research project I have chosen to use video in a way that positions the preservice teacher as the subject of the video (see Clarke, 1995; Harford & McRuaire, 2008; Harrison & Yaffe, 2009; Orland-Barak &
Rachamim, 2009; Sharpe, et al., 2003; Zhang, et al., 2011), where they were able to critically reflect on the efficacy of their videotaped teaching practice.

In the pilot study (2011), two participants were each videotaped once, and in the full study (2011-2012) each of the six participants were videotaped teaching three times, once during each of their three-practicum placements in February, June and September 2012 (See Table 2). At my request, in order to support their agency (and comfort in being videoed) participants chose the curriculum areas in which they were videotaped, but had to be actively teaching for approximately 40 minutes. Actively teaching meant being involved introducing or concluding a lesson sequence, or working actively with children, rather than, for instance, the supervision of children's independent work.

Each participant had an opportunity to view their videotaped teaching privately (in their own time and choice of location) before being interviewed to allow them to become desensitised to seeing themselves on video (Hennessy & Deaney, 2009a). All interviews using videotaped teaching as a prompt for discussion were audiotaped and transcribed in order to become texts for data analysis.

**Interviews**

Interviews are often the sole source of data for qualitative research projects (DiCicco-Bloom & Crabtree, 2006), and audiotaped interviews were the main data constructed for this project. As discussed in the literature review, insights from critical theory have underpinned the design of the interview process. While Habermas (1984a) promoted the utopian notion of an ideal speech situation in which participants have an equal chance of employing speech acts, and through dialogue can reach a consensus of understanding, I have resisted this notion. Within the interview setting, rather than seeking one truth or consensus around how to enact the role of a teacher, I sought to acknowledge and value the multiplicity and diversity of how each participant expressed, and understood their role as a teacher. As such, within and across successive interviews I sought discensus rather than consensus (Hughes & MacNaughton, 2000), and to create a space in which
participants could act with agency. I intended the interviews to be a space in which participants felt safe and empowered to play off one discourse against another, and where they were able to draw upon multiple, divergent discourses as they articulated a foundation for their practice (Fairclough, 1989, 1995). For example, where both interviewee and interviewer were able to make an equal number of assertions, were able to ask each other questions, and felt safe to challenge each other’s point of view (Tripp, 1983). However, interviews are a social construct in which the language influences the context, and the context influences the language production (Rogers, et al., 2005). Within an interview setting, dialogue or our social use of language, by default produced discourse, and discourse is imbued with power relationships. As such the construction of interviews was affected by shifting relations of power that at times both allowed and limited participants’ freedom of expression. A limitation of interviews is that we cannot fully come to know an other through dialogue (Ellsworth, 1989), rather than seeing the interviews as a search for ‘truth’, they could be more regarded as collecting partial representations, and understandings of how each participant critically reflected on their teaching practice, and related the research questions to their own particular context.

*Field notes*

A third form of data constructed for this project was field notes. Field notes were recorded as I videotaped each participant’s three lessons, and during each of their interviews using videotaped teaching. As I videotaped each participant’s teaching, in my field notes I detailed a brief running record of the lesson, its topic, focus, timings of sections, use of ICT, and handouts, etc. These notes proved an invaluable aid during data analysis with which to recall the context and sequence of each particular lesson. Field notes also supported my reflection on the process of interviewing, both in-action and post-action (Schön, 1983). Across the project, field notes were crucial in developing my skills of research interviewing. During interviews, I sought to note down brief key points and ideas I
wished to further explore later in the interview, in this way avoiding interrupting a participant’s train of thought. Field notes also informed the iterative nature of the interviews across time (Seidman, 1991). Collecting key phrases and themes from each interview enabled personalised links to be made between successive interviews for each participant, where one interview prepared the context for the next. Field notes, alongside the re-reading of interview transcripts, meant each participant’s interview informed and personalised their successive interviews. During data analysis, field notes were an invaluable aid to memory in recalling each of their videotaped lessons. However, field notes are not without limitations, particularly in my case when they were captured in the midst of multi-tasking, for example whilst videotaping, or as our dialogue unfolded during interviews. This meant some salient features with potential to be useful for data analysis may have been missed. A second limitation of field notes is that any notes recorded were by default filtered by my own researcher bias (Chiserati-Strater, 1996).

**Participant selection and recruitment**

Both the pilot and full study involved participants who were in their final year of their primary teaching degree. My rationale for choosing to work with final year students was the comparative breadth of their in-school experience (as prospective teachers) and their exposure to formal theory within their teacher education programme. In the first two years of their programme they had undertaken ten weeks of practicum placement in four different school settings and had received exposure to curriculum, pedagogical and other formal theories. This research project asked participants to draw upon both personal beliefs and formal theory in order to critically reflect on their practice. With no guarantees, it was my hope they could draw upon experiences from their two-year immersion in the primary programme to support their critically reflective practice. A second rationale was practical. Within their teacher education programme, final year students are placed in only one school for the academic year. Because collecting ethical consent from schools to
conduct research involving videotaping in classrooms is a complex process (see section on ethical considerations for further discussion), it was important to have this in place for each participant, following their school's protocols, at the start of 2012.

_Pilot study participant recruitment_

For the pilot study I approached and met with two preservice teachers in their final year of their three-year primary programme to invite their participation. With such a small sample, it was impossible to be representative of their cohorts' ethnic, gender, and age diversity. That said, I sought to recruit participants representative of both genders, one in their early twenties and a mature-aged student. I met with a female, aged 23, and a male aged 47. At this meeting I provided full University of Otago information and ethics consent forms for their consideration, and the opportunity to ask questions regarding the project. At a later date with their ethics consent forms signed, I visited their third year placement schools and provided University of Otago ethics and information consent forms to their school principals. I followed their principal’s ethical requirements for using video on their school site (see section on ethical considerations). With the permission of their schools, participants were videotaped teaching in their classroom setting. Prior to being interviewed, the male participant had a change of personal circumstance and was unable to proceed within the research project. Having obtained ethical consent to videotape at his school site, I met with another prospective participant, a 20-year-old female who was also on her final year practicum placement at his school. She agreed to participate and signed the ethics consent forms.

Basic biographical details were collected from each participant, these comprised: their full name, age, identified ethnicity, and preferred contact details. Contextual features of their school site were also collected, school size, decile, class size, and whether the school was primary, full primary, intermediate, college, integrated or had a special character. This information was collected in order
to build a picture of the participants' personal and contextual characteristics with potential to analyse if these had any bearing on later data analysis.

*Full study participant recruitment*

Because this research project involved a heavy time commitment in videotaping, interviewing, transcription and data construction, to ensure its feasibility and manageability across one academic year, the decision was made to recruit a small population of six participants.

In the full study, participant recruitment was conducted in a layered approach to ensure voluntary participation. In September 2011, I attended a second year lecture during which I informed the whole cohort I would send an email with information about this doctoral research project, and to invite their participation during their final year of study. A ten-day window was made available for all to consider the invitation, and/or to ask for more information if needed. The email was also sent to students who were in their third year of the four-year degree programme, who would be returning to College of Education for their final year in 2012. The email was sent to a total of 150 students. A total of 26 students responded indicating their interest in participating, 23 by email and three in person. Understanding in seeking six participants it would not be possible to select a group that was representative of their cohorts' diversity, I met with one of my supervisors, Dr Susan Sandretto, in order to recruit as diverse a group as possible. The following characteristics of all potential participants were considered, their gender, age, and ethnicity. Our preliminary selection of six potential participants comprised 4 females aged from 20-36 years, and two males aged 20 and 22 years. Two participants identified their ethnicity as New Zealand Māori and four participants as New Zealand European. I met with each potential participant and provided ethics information and consent forms for their consideration, and provided an opportunity for them to ask questions about their involvement in the research project. All six chose to proceed and signed the ethical consent
forms, at this time basic biographical data and information around their school was collected from the full study participants.

As a courtesy, an email was sent to the other 20 preservice students who had responded to my initial invitation, thanking them for their expression of interest. I explained that because of the heavy time commitment in videoing and interviewing, it was only possible to accommodate six participants. With their permission I asked to keep their names on a database, in the event that any of the 2012 participants might withdraw from the project.

**Data construction**

As previously described, the data construction for this project consisted of two phases, the pilot study (2011) and the full study (2011-2012).

**Pilot study**

The purposes of the pilot study were to trial and refine the efficacy of the interview schedule in constructing data relevant to the focus of this research study. The pilot study was conducted with two participants in September and October 2011. Having obtained informed ethical consent following the University of Otago’s ethical guidelines from participants and their schools, both participants were videotaped teaching for approximately 30-40 minutes during their final year September practicum placement. Each participant had the opportunity to privately view their videotaped teaching on a DVD prior to being interviewed. Each participant was interviewed at their own convenience, using their videotaped teaching to stimulate their critically reflective dialogue. The interviews were audiotaped and transcribed for later analysis. The participants had the opportunity to read their transcripts in order to check the transcript captured a fair and accurate representation of the interview, and to request editing if required.
It was clear from the pilot study that the interview schedule was successful in constructing data relevant to the research focus of this study. When asked to provide feedback on the interview schedule, participants commented that two questions felt repetitive and these were merged in the full study interview schedule (Appendix C details the full pilot interview schedule). Other valuable feedback emerged. In my original design for the study I had intended to have either a peer or participant’s associate teacher conduct the videotaping. While Harford and McRuaire (2008) suggested when the filming is peer-based, the ownership of the process is placed with the preservice students and reduces the perceived power difference of the presence of an external observer, the pilot study participants’ advice was otherwise. When asked about their preference of who should conduct the videotaping, one participant felt having a peer, or their associate teacher (who had potential to become a referee when they were seeking a teaching position) would be far more intimidating than if I were to take on this role. Both participants felt the process would be simpler if conducted by myself, particularly as I had familiarity with the video equipment. A further practical advantage of conducting the videotaping meant I would have first hand knowledge of their lesson, and this knowledge could be useful to facilitate and prompt dialogue. When asked, both participants confirmed the importance of having access to their videotaped teaching prior to the interview, in order to become desensitised to seeing themselves on video prior to being interviewed (Hennessy & Deaney, 2009a). Following their advice I carried these practices forward to the full study.

A further practical insight emerged from the pilot study. Following the advice of Clarke (1995), in an attempt to place the participant as much as possible in control of their videotaped teaching, the interviews were designed so that each participant at any time could rewind, pause or forward the video footage (on DVD), in order to select which aspects they wished to discuss. During the pilot interviews it became obvious I would need to include in my field notes the timing of where

---

3 The term associate teacher refers to the teacher in whose classroom the preservice teacher undertakes their teaching practice. The associate teacher’s role is to mentor and supervise their teaching practice.
participants chose to pause the videotape for discussion. The collection of specific timings enabled me to revisit their videotaped teaching to cross check contextual information from the videotapes during data analysis.

Full study

In the full study, data was constructed in a multi-step process across a thirteen-month period, from October 2011-November 2012. Table 2 detailed an overview of the timeline and how data was constructed.

Phase one: Initial interview (pre-videotape prompted interviews)

Phase one involved an individual semi-structured interview with each of the six participants to ascertain what had prompted their interest in becoming involved in the research project, and how they understood the term critically reflective practice in relation to their own teaching (see Appendix D for the initial interview schedule of questions). All interviews were audiotaped and transcribed for later analysis. The initial interviews each lasted approximately twenty minutes and by mutual agreement (all interviews across the research project) were conducted in my office, where we had access to the required technology, computer, DVD player, digital tape recorder, and where we would not be disturbed.

Phase two: Three interviews using videotaped teaching to stimulate critically reflective dialogue

Phase two: Unstructured and semi-structured interview format

The full phase two interview schedule that comprised both unstructured and semi-structured elements (Kvale, 1996) is detailed in Appendix E.

• Unstructured interview format
The first part of each interview was unstructured with a focus on highlighting the preservice teacher’s voice. As earlier discussed, in collaboratively watching their filmed teaching, I wanted to create a scenario in which the preservice teacher could use the remote control to rewind, pause, or forward the DVD footage at any point, where he/she, rather than the researcher, were empowered to set the agenda for discussion (Clarke, 1995). The unstructured section of the interview was a strategy designed to reduce the asymmetrical power relationship between the preservice teachers and myself. Its unstructured nature afforded opportunities for participants to identify areas of immediate personal interest and/or concerns evident in their videotaped teaching (Harford & McRuaire, 2008). With no a priori agenda to limit the field of inquiry, the dialogue generated had potential to feel more like a discussion than a traditional interview (Holland, 1989). It was my intention that the unstructured section of the interview had potential to become a co-constructed dialogue (Fontana & Frey, 2005; Tripp, 1983), where flexibility of roles could develop, for example, "in which every teacher is always a student, and every pupil a teacher" (Gramsci, 1995, pp. 156-157). In this way the interview had potential to create "a fundamentally dialogic and mutually educative" setting (Lather, 1986, p. 268), for both interviewer and interviewee. A single prompt was used to begin the unstructured section of the interview, "Can you talk to me about your videotaped teaching? Please use the remote control to highlight areas you wish to discuss". Participants determined the content and length of this part of the interview. This section of the interview ranged from 30-40 minutes in length.

- Semi-structured interview format

The second part of the interview used a semi-structured format which aimed to stimulate participants’ critically reflective dialogue on their videotaped teaching practice. Informed by my review of literature, the second part of the interview used a set of pre-determined open-ended questions allowing all participants to be asked the same base set of questions around the focus of inquiry (Dearnley, 2005). An advantage of a semi-structured interview format is flexibility. From a
homogenous base set of questions, participants had the freedom to digress and raise their own topics as the interview progressed. As the interviewer I also had the opportunity to explore areas of interest as they emerged. Across the three interviews using participants' videotaped teaching, recording key phrases and themes in my field notes for each participant, and reading and re-reading their transcripts meant the interviews became iterative across time. This allowed re-entry into participants’ successive interviews in personalised ways, building on their self-identified areas of interest and concerns, as they critically reflected upon their teaching practice. A strength of the design was that revisiting field notes and re-reading transcribed interviews coincided with, and informed ongoing data analysis (DiCicco-Bloom & Crabtree, 2006).

The semi-structured section of the interview was conducted directly after having viewed participants’ videotaped teaching, and explored how to support their critically reflective practice. The affordances of this strategy were limiting the number of interviews for each participant and being able to draw upon their (just viewed) videotaped teaching as a stimulus for further critically reflective dialogue. Both the unstructured and semi-structured sections of the interview were audiotaped and transcribed for later data analysis. The full audiotaped interviews ranged from 60 to 90 minutes in length.

**Phase three: Exit interviews (post-videotape prompted interviews)**

Phase three involved conducting a semi-structured interview with each of the six participants at the end of the research project to ascertain how they understood the term critically reflective practice in relation to their own teaching, and if, and or how this had changed as a result of their participation in this research project (see Appendix F for the exit interview schedule). Because of end of year time constraints, the exit interview was conducted immediately after their final interview using videotaped teaching. All exit interviews were audiotaped and transcribed for data analysis.
Across all interviews, participants had opportunity to privately read and cross check their interview transcripts to ensure they represented our dialogue in a fair and accurate manner, with the chance to suggest any changes, and/or to delete any sections of text they did not want used in data analysis or reported findings. On two occasions participants asked that minor typographical errors were edited in their transcripts; their suggested changes were made prior to data analysis. This cross checking process ensured all interview transcripts captured a verbatim record of our dialogue, as much as possible prior to data analysis.

Data analysis methods

This research project employed three different methods to manage, organise and support data analysis, and to inform how I shaped the discussion of findings. The three methods were: HyperRESEARCH a qualitative data management tool, individual participant vignettes with a structured framework, and Fairclough’s (1995) Critical Discourse Analysis (CDA) framework to closely examine excerpts from interview transcripts. The next section discusses each of these in turn, including my rationale for their selection and how I employed each method to best illuminate insights around my focus of inquiry.

Data analysis using Hyper-RESEARCH

Qualitative research projects involving interviews have the potential to produce a morass of data requiring both transcription and analysis, and this research project was no exception, as the interviews accumulated over 1,200 pages of transcribed text. To provide an ease of access to all the interview transcripts, to aid memory, and to support data management and analysis, I utilised a qualitative data management tool called HyperRESEARCH. HyperRESEARCH as a tool has many

4 HyperRESEARCH is a qualitative data analysis tool accessible from: http://www.researchware.com/
affordances including compatibility with Macintosh and Window platforms, accessible start-up online tutorials, a simplistic user-interface, a case-based design, an online professional support programme, and relative affordability (Staller, 2002).

**HyperRESEARCH: Case-based design**

With its case-based design, the first layer of data analysis using HyperRESEARCH involved assigning selected interview transcripts to create separate cases for analysis (Staller, 2002). In the task of assigning interviews transcripts to cases, as illustrated in Table 3, my original intention was to employ a warp and weft case based design.

**Table 3: Warp and weft case based design**

<table>
<thead>
<tr>
<th>Warp cases</th>
<th>All pre-intervention interviews</th>
<th>All of interview one using videotaped teaching</th>
<th>All of interview two using videotaped teaching</th>
<th>All of interview three using videotaped teaching</th>
<th>All post intervention interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weft cases</td>
<td>All of Participant A’s interviews</td>
<td>All of Participant B’s interviews</td>
<td>All of Participant C’s interviews</td>
<td>All of Participant D’s interviews</td>
<td>All of Participant E’s interviews</td>
</tr>
</tbody>
</table>

As illustrated in the warp row of cases I assigned each set of interviews across all participants as cases for analysis, where all the pre-intervention interviews became a case, and so forth. In the weft row of cases I assigned each participant's complete set of interviews as cases for analysis. Following this design, each case of interview transcripts was then hyperlinked to the HyperRESEARCH software to enable data analysis to proceed. My intention was that the warp and weft design would support my ability to read and make sense of data from two different angles of vision. For example, the warp cases would enable me to read and make sense of the data across all participants, and the weft cases would enable me to read and make sense of each participant’s unique narrative and experience of the research project.
First cycle coding using HyperRESEARCH

Once I had assigned the interviews into the warp and weft cases for data construction, I embarked on hyperlinking codes to cases. Codes are "words or a short phrase that symbolically assign a summative salient essence-capturing and or an evocative attributer for a portion of language-based data" (Saldaña, 2009, p. 3). That is to say, codes seek to capture the essence of meaning from related sections of text. Importantly codes do not just categorise, rather they link data; codes lead you "from the data to the idea, and from the idea to all the data pertaining to that idea" (Richards and Morse, 2007, as cited in Saldaña, 2009, p. 8). As I coded data I sought to identify central ideas within the data, establish a code for that idea, and then apply that same code to related data.

There are many forms of coding including attribute coding, in vivo coding, process coding, simultaneous coding, and structural coding (see Saldaña, 2009). I chose to use descriptive coding as it summarises in a word or short phrase the topic, rather than the content of text, which in my case was excerpts of interview transcripts. Descriptive coding supported me to develop high familiarity with the topics each preservice teacher talked about as they watched their videotaped teaching in the unstructured section and the semi-structured sections of their interviews. Within qualitative research descriptive coding has been described as a means with which "to assist the reader to see what you saw, and to hear what you heard" (Wolcott, 1994, as cited in Saldaña, 2009, p. 72). However, none of this is simple; any codes one assigns are filtered by our own researcher bias, and it would be naïve to believe two researchers involved in data analysis would hear or see the same messages, or interpret those messages in identical ways. As Chiserati-Strater (1996) reminds researchers, we need to be conscious that in data analysis we are (re)constructing not merely representing our participants. Part of my own reflexivity around this issue was, when coding, I sought to remain tightly focused around my primary research questions, and how data construction could shed insights around my focus of inquiry. To illustrate, from the research question: How does asking preservice teachers to talk about their personal beliefs and formal theory support their
critically reflective practice? - I coded the words beliefs, theory and critically reflective practice to relevant sections of text across all interview transcripts. Another affordance of using descriptive coding is how it allows researchers to identify and track longitudinal participant change (Saldaña, 2009). In the discussion of findings chapter I illustrate how descriptive coding enabled me to chart change in participants' critically reflective thinking across time.

In my first cycle of coding I began by hyperlinking descriptive codes to the entire set of pre and post intervention interviews, or two of the warp cases. I generated just over 300 descriptive codes across these two cases of interviews. The vast array of codes were necessary in order to capture the participants' wide and eclectic responses to interview questions, which in this instance asked them to describe their understanding of critically reflective practice in relation to their teaching, pre and post intervention. This first cycle of coding was my first insight into the deeply unique nature of each participant’s data set. This knowledge informed my decision to examine each participant’s full set of interviews separately, rather than examine the data across all participants’ interview sets. Examining data across participants’ felt vacuous, where I had lost sense of the very personal narratives each participant had so generously shared. This realisation prompted my decision to shift from coding the warp cases (across participants) and to begin coding some weft cases, where I coded each participant’s full interview set. I proceeded and with two participants' full set of interviews, quickly generated over 700 descriptive codes to make sense of their unique narratives and research experience. At this point, I was again surprised at how differently each participant reflected on their videotaped teaching practice, and the idiosyncratic set of personal beliefs, and/or formal theory they each chose to draw upon to make sense of, and reflect on their teaching practice. Until this stage I remained undecided about how to shape the discussion findings, either across all participants using the warp cases, or to report findings from the weft cases where I documented the separate narrative of each participant. A decision was made to write each participant’s narrative and research experience separately, to not do so, would have risked losing the deeply personal narratives and diverse accounts of their research experience. I proceeded to descriptively code and hyperlink the
remaining participants’ full set of interviews. At the completion of this task, all interview transcripts were coded in their entirety. Where small sections of text were deemed extraneous, or irrelevant to the focus of inquiry, I assigned the code not coded to indicate this, for example, when a cell phone unexpectedly rang during our interview. In a small number of instances, where a participant had asked me to exclude sections of dialogue from their interview transcripts, I assigned the code, at request not coded. To respect participants’ directions these sections of text were not included in data analysis, or in any reported findings.

**Second cycle coding using HyperRESEARCH**

Coding is a cyclical rather than linear act, in which the researcher is required to repeatedly revisit data in order to "further manage filter and highlight, and focus salient features of the qualitative data" (Saldaña, 2009, p. 8) around their focus of inquiry. Once the descriptive coding work was complete, I needed to stand back from the data and identify and prioritise prevalent themes relevant to my research questions, in a process called second cycle coding (Saldaña, 2009). It involved clustering codes according to their similarity, and where I identified patterns or themes from the data. Second cycle coding identifies, reconfigures and reorganises the first cycle of coding into a smaller and more focused list of broad themes, categories, or concepts (Saldaña, 2009) related to your focus of inquiry. Through a process of reading and re-reading transcripts, I gradually distilled over 1,000 descriptive codes down to a more manageable set of 26 codes. The following table lists these alphabetically, and how I defined them.

**Table 4: HyperRESEARCH second round codes**

<table>
<thead>
<tr>
<th>Second round coding of interview transcripts using HyperResearch</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affirmation</strong></td>
</tr>
<tr>
<td>Where either the participant or interviewer affirm the participant's teaching practice, and/or thinking</td>
</tr>
<tr>
<td><strong>Barriers to critically reflective practice</strong></td>
</tr>
<tr>
<td>Where the participant identified internal or external barriers to their critically reflective practice</td>
</tr>
<tr>
<td>Beliefs</td>
</tr>
<tr>
<td>Co-constructed dialogue</td>
</tr>
<tr>
<td><strong>Conformity</strong></td>
</tr>
<tr>
<td><strong>Dissonance</strong></td>
</tr>
<tr>
<td>Interviewer challenge</td>
</tr>
<tr>
<td><strong>Management</strong></td>
</tr>
<tr>
<td>Participant challenge</td>
</tr>
<tr>
<td>Participant question</td>
</tr>
<tr>
<td><strong>Power</strong></td>
</tr>
<tr>
<td><strong>Problem-solving</strong></td>
</tr>
<tr>
<td><strong>Professionalism</strong></td>
</tr>
<tr>
<td>Reflection critical (Larrivee, 2008a)</td>
</tr>
<tr>
<td>Reflection pedagogical (Larrivee, 2008a)</td>
</tr>
<tr>
<td>Reflection technical (Larrivee, 2008a)</td>
</tr>
<tr>
<td>Framework</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Relationships</td>
</tr>
<tr>
<td>Resistance</td>
</tr>
<tr>
<td>Shift evident</td>
</tr>
<tr>
<td>Surveillance</td>
</tr>
<tr>
<td>Teacher identity</td>
</tr>
<tr>
<td>Theory</td>
</tr>
<tr>
<td>Timing</td>
</tr>
<tr>
<td>Videotaped teaching</td>
</tr>
<tr>
<td>Vulnerability</td>
</tr>
</tbody>
</table>

While the codes were generated using a mix of rationales, each code was focused to enable my access to insights from the interview transcripts related to my primary research questions. Half of the 26 codes emerged from prevalent themes participants discussed across their interviews; these particular codes are identified in Table 4 by the use of italics. The remaining codes were based on themes drawn from my review of literature, which in turn had informed my research questions. Because I also wanted to differentiate and track change in participants’ critically reflective thinking, I drew upon Larrivee’s (2008a) levels of reflective practice, and included three codes; technical, pedagogical, and critical reflection. The literature review also highlighted another major focus of my inquiry; to examine in what ways dialogue between the participants and myself did or did not support participants’ critically reflective practice. The following codes: participant question, participant challenge, interviewer challenge, and co-constructed dialogue were used to identify
features that were prevalent in our dialogue. Because I wanted to identify longitudinal change in participants' critically reflective thinking, and/or practice, I assigned a code called *shift evident* to identify sections of transcripts in which change was evident. The genesis of the remaining codes came from keywords in the semi-structured interview questions, keywords that became the focus of participants' dialogue, for instance, beliefs, theory, or videotaped teaching. I confirmed the efficacy of the list with my doctoral supervisors, and returned to each participant's full set of interviews and hyperlinked the 26 codes to relevant sections of their interviews. The first cycle of descriptive codes were left in place. Many sections of participants' interviews ended up multiply coded, such as, when a participant was talking about beliefs, they may have also talked about relationships and power.

Another affordance of HyperRESEARCH was the capacity to generate code maps based on my selection of one or more codes and/or cases. For each participant I generated a code map of the 26 codes that had relevance to their interview transcripts, and their associated first cycle descriptive codes (Appendix G provides an example of one participant's code map). Each code map became a visual heuristic that captured salient features of their narrative relevant to my inquiry. The code maps were useful as an initial reference point from which to crosscheck I had reported findings from relevant sections of each participant's interview transcripts, when I began shaping findings.

**Vignettes**

Having analysed and coded data using HyperResearch it was essential to find a way of structuring my discussion of findings in a way that respected and captured the unique narrative of each participant. To capture their individuality I presented each of the six participants’ findings in a stand-alone vignette. The word vignette has multiple meanings. Historically vignettes referred to an illustration or photograph, which faded into a background without a formal border. Other descriptions included a design where foliage is used to illustrate a book or carving, or where the term is used to capture an evocative description of an episode or event, and/or as a literary means with which to portray a
person (see oxforddictionaries.com). I have adopted the two latter meanings, whereby I use the term vignette as a tool with which to portray the unique and evocative stories each of my participants shared across their participation in the research project.

**Vignette structure**

Each participant's vignette was structured around a framework that was developed to best illuminate insights around the primary research questions for this research project. This framework had six possible components, consisting of:

1. Initial interview (pre-videotape prompted interviews)
2. Beliefs, theoretical frameworks and videotaped teaching
3. The power of dissonance
4. Wider factors around critical reflection
5. Using CDA to analyse shift in reflective thinking and/or practice
6. Exit interview (post-videotape prompted interviews)

I next discuss a brief rationale for the inclusion of each component.

*Initial interview (pre-videotape prompted interviews)*

This section drew upon data from participants’ initial interview and briefly details why they chose to join the research project. It also captured their understanding of critical reflection (pre-intervention), in order to later examine if this did, or did not change as a result of their participation in the research project (post intervention).

*Beliefs, theoretical frameworks and videotaped teaching*

The second section of each vignette was explicitly focused toward answering the primary research question: In what ways does asking preservice teachers to discuss their personal beliefs and
theoretical frameworks in relation to their own videoed teaching practice, support them to critically reflect on their emerging teaching practice? It began with an overview of each participant’s personal beliefs and formal theory, and then explored how they drew upon their beliefs and theory as they discussed their videotaped teaching across time. Data for this section was drawn from across their three interviews using their videotaped teaching. My discussion of data had a particular focus on how the data coded as personal beliefs, theory and videotaped teaching did, or did not support their critical reflection.

*The power of dissonance*

As discussed in the literature review, exploring dissonance between one’s espoused practice and actual practice has potential to support critically reflective thinking (Argyris & Schön, 1974; Griffiths & Tann, 1992; Zheng, 2013). In the semi-structured section of the interview schedule a key question was: Can you name any examples of your videotaped teaching practice that did not reflect your personal beliefs and or theory? Data for this section targeted participants' dialogue post that question. This section, using data from the three interviews using videotaped teaching, explored whether asking participants to discuss dissonance between their videotaped teaching practice and their personal theories and/or formal theory, did or did not support their critically reflective thinking, and/or changes in their teaching practice.

*Wider factors impacting critically reflective practice*

In the literature review, I argued a critically reflective teacher needs to be aware of wider societal factors (historical, institutional, cultural, social, and political) impacting their practice (Richardson, 1990). Within the semi-structured interview a key question addressing this issue was: Can you name any broader political, cultural or social factors that impact on how you reflect on your teaching? Across interviews using videotaped teaching, this section targeted participants' dialogue post that question, and explored how participants' dialogue around wider factors did or did not, impact their critical reflection. To support the reader to make sense of wider factors the participants chose to
discuss, I provided, background contextual information of proposed government changes to the primary and tertiary sector within New Zealand that took place during 2012, when participants undertook their final school placements in the introductory chapter.

*Using critical discourse analysis to examine shift in reflective thinking and/or practice*

Dialogue has been identified as a significant factor in supporting shift in in preservice teachers' reflective thinking (Hennessy & Deaney, 2009a, 2009b; Powell, 2005; Tan & Towndrow, 2009; Yaffe, 2010). For each participant I assigned the code *shift evident* to excerpts of interview transcripts where I had identified change in his/her reflective thinking, and/or practice. To understand how our dialogue did, or did not facilitate such shift, for each participant I conducted a detailed analysis of an excerpt from one of their interview transcripts using Fairclough’s (1995) Critical Discourse Analysis (CDA) framework. CDA shed insight around how our dialogue did, or did not support change in their reflective thinking and/or practice. A detailed discussion on CDA directly follows this section.

*Exit interview (post-videotape prompted interviews)*

This final section briefly explored how each participant spoke about their experience in the project, and captured how they understood critically reflective practice at its conclusion, and whether this did, or did not change as a result of their participation in the project. For each participant, this section identified and summarised key insights that had emerged from their participation in the project. The key insights were focused in such a way as to shed light on the primary research questions of the project.

**Vignette map**

With a morass of available data and limited space, each vignette covered only five of the six components. The following table shows an overview of the five components covered within each vignette, each vignette included either dissonance or wider factors. The decision around which participants' data to draw upon for dissonance and wider factors was arbitrary. As illustrated, I have
chosen not to use pseudonyms, instead opting to employ alphabetical codes for each participant. Names carry connotations of gender, class, and ethnicity and are reflective of particular fashions and time periods; for all of these reasons I chose not to use pseudonyms. Instead I have assigned an alphabetical code from A-F for each of the six participants, so Participant A is PA. The order in which the alphabetical codes were assigned to participants was also arbitrary.

Table 5: Vignette map

<table>
<thead>
<tr>
<th>Initial interview Pre-intervention</th>
<th>Beliefs/theory/ videotaped lessons</th>
<th>Dissonance</th>
<th>Wider factors</th>
<th>Analysing shift CDA</th>
<th>Exit interview Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant A, B, C, D, E, F</td>
<td>Participant A, B, C, D, E, F</td>
<td>Participant A, B, C</td>
<td>Participant D, E, F</td>
<td>Participant A, B, C, D, E, F</td>
<td>Participant A, B, C, D, E, F</td>
</tr>
</tbody>
</table>

Each vignette drew upon all data pertaining only to that participant; their initial interview (II), three interviews using videotaped teaching (V1I), (V2I), (V3I), and their exit interview (EI). Henceforth, the aforementioned codes identify data sources and each participant. To support ease of readability, at times I have paraphrased and/or cited dialogue from interview transcripts. In all cases, I have indicated in brackets which particular interview/s the data was drawn from using identifying codes. For instance, information for Participant A from Video Interview 1 would be indicated with the code: (PA, V1I). In order to protect and honour the unique narrative of each participant, each vignette was written as a stand-alone document. Only in the conclusions chapter do I draw together patterns and disjunctions across vignettes in order to illuminate the major insights from this research project (Janks, 1997).

Critical discourse analysis

In keeping with the theoretical underpinnings of this research project, CDA is strongly underpinned by critical theory (Grbich, 2013). Norman Fairclough (1995) a founding author of CDA, described it as:
Aiming to systematically explore often opaque relationships between a) discursive practices, events and texts, and b) wider social and cultural structures, relations and processes; to investigate how such practices, events and texts arise out of and are ideologically shaped by relations of power and struggles over power. (p. 132)

Similar to critical theory, CDA is interested in the complex relationship and interactions between language, power and wider sociocultural processes. It focuses on how “language as a cultural tool mediates relationships of power and privilege in social interactions, institutions and bodies of knowledge” (Rogers, et al., 2005, p. 367). As an analysis tool, it attempts to bring social theory and discourse analysis together, to understand how power as a construct is "realised through interdiscursivity and hegemony" (Rogers, et al., 2005, p. 371). That is to say, CDA seeks to understand how discourse operates, and understands that its effects may both enable and/or limit an individual's expression and/or actions.

Data analysis using CDA

As seen in Figure 1, Fairclough (1995) names three inter-related dimensions of discourse. Each involves a different kind of data analysis:

- Text (description) - how the text represents events, beliefs, and identity construction
- Discourse practice (interpretation) - the rules, hierarchies, social identities, speech patterns operating through discourse in the production and consumption of a text
- Sociocultural practice (explanation) - the wider sociocultural conditions that surround and impact those processes (see also Janks, 1997; Phillips & Jørgensen, 2002).
Because CDA demands a high level of detail and involves three layers of analysis, as Phillips and Jørgensen (2002) suggest, it is only possible to work with short sections of text. As a researcher I needed to strategically choose sections of text from transcribed interviews that supported three layers of analysis. In each participant's vignette I selected an excerpt of transcribed text in which shift is evident in their reflective thinking and/or practice. My rationale for this focus emerged from my review of literature and primary research question. Within the literature review, I identified how dialogue around videotaped teaching is construed as one of the most significant factors in prompting change in reflective thinking and/or practice (see Powell, 2005; Yaffe, 2010), and in many studies researchers' analysis of interview transcripts focused only on the preservice teachers' monologue, rather than dialogue with an other. CDA afforded opportunities to closely examine the dialogue between each preservice teacher and myself as we discussed their videotaped teaching, with a view to determining how our dialogue did or did not support shifts in their reflective thinking, and/or practice.
**CDA's three layers of analysis**

1. **Textual analysis**

My focus at the textual level of analysis was to find out how the text was constructed; how was it put together, and what were the potential effects of that construction? At the textual level, where relevant, two analytical strategies from Phillips and Jørgensen (2002) were utilised, multivocality and modality.

Multivocality examines participants' talk moves, the effects of power dynamics, and as such generated questions to explore within the text. For example, were the interviewer and interviewee able to make an equal number of assertions, pose questions, and were both were able to challenge each other's point of view? (Fairclough, 1995; Tripp, 1983). Other questions considered; "What characterises different voices of the text? When does each voice speak? What meanings the different voices contribute to producing?" (Phillips & Jørgensen, 2002, p. 151).

Modality examines the degree of affinity a speaker had toward a statement, and whether they had a high or low modality toward their speech. High modality toward a statement might involve a truth claim, for instance; teachers must always assert their authority. A low modality statement might involve a speaker using a hedge statement, for instance, your context might determine how much authority you need as a teacher. Speakers use hedges when they wish to temper or moderate a claim, and/or express a low affinity or uncertainty around a claim. Hedges employ words such as maybe, well, a bit, could, might and so forth to suggest indeterminacy (Fairclough, 2003; Phillips & Jørgensen, 2002). In examining excerpts of interview text, I considered the modality of both the preservice teachers' and my dialogue.

2. **Discourse practices**

The second level of analysis was focused at the institutional domain (Fairclough, 1989, 1995), and identified which discursive practices preservice teachers and myself drew upon as we discussed their
videotaped teaching, and how discourse impacted the production of the text. A key point in any analysis of discursive practices is that discourse affects not only the production of texts but also its interpretation, and there is no such thing as a neutral interpretation. In other words, during analysis, I had to be aware of, and make explicit how my interpretation of texts was limited by the discourses I personally had available (Phillips & Jørgensen, 2002).

3. Sociocultural practice

The third level of analysis focused on the societal domain and the wider social practices (socio-historical forces and meta-narratives) that were impacting the production and the interpretation of the text (Fairclough, 2003; Phillips & Jørgensen, 2002). At this third level of analysis, CDA requires consideration of the wider societal context affecting the construction and interpretation of the text. For example, contextual factors (time and place), and identifying which societal discourses (political, historical, cultural, institutional, social) impacted on the text. In other words, in this section I made explicit the wider societal discourses impacting the production and interpretation of the text.

In summary, CDA enabled me to examine the micro linguistic features of selected excerpts of text, the institutional discursive practices relating to the production and interpretation of the text, and the macro societal practices to which it belonged (Phillips & Jørgensen, 2002).

Ethical considerations

The University of Otago Ethics Committee approved this research prior to its implementation. There was no intended harm or discomfort to participants at any stage. Following the University of Otago ethics guidelines, I was required to provide information forms and to collect signed consent from all preservice teachers involved. Because this project involved the use of video technologies on school sites, I was also required to provide each school with information forms, and to follow individual school’s protocols for gaining signed consent to enable videotaping to take place. For both the pilot
and full study, information and consent forms were written for the following people: preservice teachers, principals, Boards of Trustees, associate teachers, parents and children (see Appendix H for the information and consent form for principals in the full study, and Appendix I for children in the full study). Once schools were known, I met with each school principal and followed their school’s protocols in terms of whom they required to receive information forms, and whom they required to sign ethical consent. In both the pilot and full study, these were put in place prior to videotaping at each school site.

Within the information forms, preservice teachers and schools were assured they were free to withdraw from the project at any time, without any disadvantage or consequence to themselves. They were assured that only the preservice teacher concerned, my Doctoral supervisors and myself would have access to videotaped teaching and transcribed interviews. They were informed that professional transcribers would be employed to transcribe the initial interviews and the first round of interviews using videotaped teaching, and that they would uphold professional confidentiality. I transcribed the remaining interview transcripts. Preservice teachers were offered the opportunity to read and edit individual transcripts prior to data analysis to check that fair and reasonable representation of their intended meaning had been made. All extracts of the transcripts from data analysis, and/or in reported findings were coded to protect all participants’ privacy, and did not name schools, teachers and/or children. In addition, during exit interviews, preservice teachers were asked if there was any information they wished to have excluded from the completed thesis, future conferences and publications. In case any unforseen issues arose during the project that the preservice teachers felt unable to discuss with myself or my Doctoral supervisors, an independent advisor and support staff member was made available who also signed consent to be involved. All preservice teachers and schools were offered the opportunity to request a copy of the research once the data had been collected and analysed. The research project was submitted for consultation with the University of Otago Ngāi Tahu Research Consultation Committee.
Trustworthiness of findings

A key question for researchers in qualitative research is "how can one persuade his or her audiences that the research findings of an inquiry are worth paying attention to?" (Lincoln & Guba, 1985, p. 290). In the full study with six participants, my focus was on how I could generate insights from the findings, and demonstrate connections between conceptual ideas across data in the reported findings (Maxwell, 1996). Using multiple data sources as texts for data analysis; videotaped teaching practice, field notes and transcribed interviews, all increased the likelihood that my phenomenon of interest was being understood from "various points of view and ways of knowing" (Maykut & Morehouse, 1994, p. 146), and afforded greater trustworthiness of findings.

In this qualitative study terms such as trustworthiness, transferability, dependability and confirmability replace positivistic criteria of internal/external validity, reliability and objectivity (Denzin & Lincoln, 2005). To build trustworthiness of findings, I have sought to provide detailed information about purpose and methods to make the research process transparent to the reader, enabling their careful consideration and scrutiny of the work (Maykut & Morehouse, 1994).

Providing the reader with an audit trail that allows access to the researcher's key decision-making throughout the research process also built trustworthiness across findings (Lincoln & Guba, 1985). This was evidenced for instance, in my explicitly sharing how the pilot study informed the full study's interview schedule and design. Prior to the discussion of findings chapter, sharing how I employed HyperRESEARCH to support data analysis and detailing my rationale for, and making explicit how I had structured the vignettes was a further attempt at making visible both my decision-making, and how I reported participants' findings.

While it was impossible to remove researcher bias (Chiserati-Strater, 1996), actively seeking advice from my Doctoral supervisors at key decision-making points across all stages of the research process was a strategy to build trustworthiness of findings. For example, within HyperRESEARCH I sought
their advice on the efficacy of my second cycle codes, and on my decision to report findings in individual vignettes. During data construction, as earlier discussed, I sought to remain tightly focused around my primary research questions, and how data construction and data analysis could shed insights around my focus of inquiry.

The trustworthiness of reported findings relies heavily in the confidence readers have in the researcher’s sensitivity and skill in handling data (Hoepfl, 1997). As discussed, three methods were employed during data analysis, and each informed how I reported findings. The first method involved using a professional qualitative data management tool, HyperRESEARCH. HyperRESEARCH enabled me to work with a vast amount of interview data and code, and re-code the data using recognised methods in the qualitative data analysis process (Saldaña, 2009). The two cycles of coding interview transcripts informed my decision to report findings in individual vignettes, rather than across participants' interview sets. This was crucial in order to sensitively honour and respect the individual narratives of each participant. While each vignette was written as a standalone document, the vignette design and formal structure was made explicit, to ensure both coverage of salient features of each participants' narrative in order to illuminate insights around my focus of inquiry, and importantly to support readability across participants' findings. The third method of CDA with its three layers of analysis enabled me to closely analyse excerpts of dialogue. Using CDA to analyse excerpts of text in which shift was evident in participants’ reflective thinking, and/or practice shed valuable insights into the ways our dialogue did, or did not support their critically reflective practice.

To honour and respect the unique nature of each participant’s research experience, it was only in the conclusion chapter I sought both patterns and disjunctions needing to be described, interpreted and explained, as well as identifying major themes and patterns across data sets (Maykut & Morehouse, 1994). The conclusion chapter details a meta-analysis across participants' findings as they related to this research project’s research questions.
**Limitation of methods**

No method is without limitations. I next discuss the limitations of the three methods employed within this project, and how I sought to mitigate their potential effects. One potential issue arises when using a qualitative data management tool such as HyperRESEARCH namely; how the researcher needs to remain in control of the data analysis, rather than the tool itself (Gough & Scott, 2000). When working with HyperRESEARCH I used a number of strategies to code and analyse data in an organised and methodical manner. Keeping a daily diary of my coding and decision-making across the process of coding was crucial in order to support my consistency in assigning codes. Regularly reviewing that I was applying emerging codes consistently to related sections of text across participants' transcripts was crucial. As new codes emerged, it was important to re-read and revisit previously coded transcripts to ensure I had considered salient features across each participant's transcripts. In generating the second cycle of codes it was important to define how I understood the codes in order that they could be assigned in a consistent way across interview transcripts. These strategies worked in concert to assert my authority over the data analysis process whilst using HyperRESEARCH. This meta level of consciousness was vital, as the two cycles of coding informed my decision to use vignettes to discuss and report individual participant findings focused around my research questions.

With regard to the use of vignettes, a major limitation was that they relied on my sensitive selection and interpretation of excerpts of dialogue from participants' interview transcripts. While I have rationalised and made explicit the formal structure of the vignettes, it is important to remember I have (re)constructed, not merely represented, each participant’s narratives (Chiserati-Strater, 1996), and that construction was by default filtered through my own researcher bias. In terms of my interpretation of each participant’s interviews, it was vital to carefully develop and assign codes that related to prevalent themes and concepts within, and across participants’ narratives in the first cycle of descriptive coding. Once assigned, the second cycle coding enabled my ease of access to interview
transcripts from which to sensitively construct personal narratives for each participant as they related to my focus of inquiry. While recognising this process did not remove researcher bias, the careful and explicit manner in which the vignettes were constructed was a strategy designed to support the academic rigour of reported findings within, and across vignettes.

The third method, CDA, which I employed within the shift evident section of the vignettes has also been subject to critique (Rogers, et al., 2005). Three common critiques are; (a) that the researcher may read political and/or sociological ideologies into the data, (b) that there is potential for imbalance between the linguistic analysis, on the one hand, and social theory on the other, and (c) that CDA often ignores, or is divorced from social contexts (Rogers, et al., 2005). In terms of the first critique I sought to only make explicit the implicit institutional and societal discourse discourses from the selected excerpts of dialogue. That said, my interpretation was limited by the discourses that I was personally able to draw upon for analysis (Phillips & Jørgensen, 2002). With regard to the critique that CDA might privilege either the linguistic or social analysis, for each participant I ensured my data analysis engaged with Fairclough's (1995) three levels of analysis; including the text, its institutional discourses and wider sociocultural practices, and that each was mutually explanatory. In terms of the third critique that CDA pays little or no attention to social context, in this project each analysis of selected excerpts of dialogue considered carefully the wider macro societal practices to which it belonged, and how they influenced the text's construction (Phillips & Jørgensen, 2002).

Acknowledging the limitations of the data analysis methods employed, and how I sought to mitigate their effects, readers are invited to interpret the utility of reported findings from this research project as it relates to their own context. In the introductory chapter of this thesis, readers were provided with autobiographical and contextual material that constructs the researcher as an instrument of data construction (Guba, Lincoln, & Denzin, 1994). Reflexivity was a crucial tool within this process.
Researcher reflexivity

Qualitative research designs require careful attention to reflexivity (Chouliaraki & Fairclough, 1999). Reflexivity is defined as a process that requires the researcher to engage in a self-referral exercise, involving critical self-reflection of the ways in which their personal social background, assumptions, positioning and behaviour impacted on the research process (Macbeth, 2001; Finlay, 2003). As a researcher, I was highly conscious of how such forces had potential to impact both the research process, and interpretation of the phenomenon under study. This section highlights my efforts to develop a reflexive stance across all stages of this research process with particular attention to relationships, the recruitment of participants, data construction and data analysis.

Across the full research process I sought to acknowledge my privileged position as a more experienced other with obligations to reduce asymmetrical power relationships between my self and participants, and to make our relationship visible and open to debate (Gibson-Graham, 1994). Relationships between participants and myself were foundational to this project. As a researcher, I was reliant on their generosity and goodwill to share their personal beliefs and theoretical constructs as they discussed their videotaped teaching practice. It was a privilege over time to build an in-depth knowledge of each participant’s personal and theoretical beliefs around his or her teaching practice. Part of my reflexivity was to show a genuine interest and engagement with their narratives, and across time to use my personal knowledge of each participant to inform their successive interviews. Building personal relationships was a key factor in maintaining their ongoing motivation and voluntary participation.

Listening to participants, and responding to their suggestions and advice was a key reflexive strategy. Examples of such strategies included my earnest attempts to listen to and implement the advice of the pilot study participants, and to enact their suggested changes in terms of the studies’ interview schedule and design. When recruiting participants for the full study, I was highly aware of
my privileged status as a lecturer in our institution, and actively sought to avoid coercion by adopting a multi-layered approach to recruitment. I attempted to ensure their voluntary participation, and that participants knew from the onset they could withdraw from the project at any time, without any disadvantage to themselves. Potential participants were reassured that I would not be assigned as their visiting lecturer during their third year practicum placement, and that their involvement in this project was separate to, and would not affect, the assessment of their Bachelor of Teaching (Primary) degree. Relationships were key to supporting participants' ongoing motivation, particularly as I offered no forms of compensation for their time and commitment, other than suggesting they could highlight their participation within this research project in their Curriculum Vitae when applying for teaching positions. As described previously, all participants received information forms, and signed the University of Otago ethics consent forms prior to their participation. In case any unforeseen issues arose during the project that participants felt they could not discuss with my Doctoral supervisors or myself, I organised a senior college staff member to take on the role as an independent advisor or support person.

From the onset, I understood the design of this research study itself was crucial; I recognise "that methods are not passive strategies, [rather] they will differently produce, reveal and enable the display of different kinds of identities" (Fine & Weis, 1996, p. 267). This was particularly true of the interview setting, in which I had to continually examine the lived effects of my own and participants' interactions within the particular context (culturally, historically, politically, and socially) of our location.

As discussed earlier, interviews are implicitly constrained by asymmetrical power relations between the interviewer and interviewee (Sandretto with Klenner, 2011). The design of the interviews sought to mitigate this tension, for instance, in the unstructured section of the interview participants were empowered to set the agenda where they could choose which aspects of their videotaped teaching they chose to discuss (Clarke, 1995). The semi-structured section of the interview sought to highlight
participants' voices, and elicit how as individuals they sought to enact their emerging teacher
identify. Across interviews, I sought to reflexively adopt multiple roles dependent on context, such
as: simply being there to listen, to affirm participants' teaching practice, to scaffold and challenge
their critically reflective practice through the use of particular questions, to provide expertise and
advice if asked, and positioned as a learner alongside them. In keeping with the critical theory
underpinning of this project, I was respectful of the different ways in which each preservice teacher
chose to articulate a rationale for their practice, understanding there is no one universal truth in
how to enact the role of a teacher (Kincheloe & McLaren, 2005).

To further support researcher reflexivity, I have shared the purpose and how this research has been
enacted, allowing the reader to scrutinise my decision-making from conception to reported findings
(Maykut & Morehouse, 1994). In terms of data construction from a myriad of possible choices, it
was essential to choose methods that allowed me to best answer my research questions. In my
section on data analysis, I provided a clearly articulated rationale for which methods I used to
analyse data, and how they were used. Potential limitations of each data analysis method and I how
I sought to mitigate their effects have also been carefully documented.

In terms of reporting findings, both CDA and critical theory resist a positivistic search for truth
(Habermas, 1984a; Patterson, 1997; Rogers, 2004). The researcher instead is required to engage in a
self-reflexive and "self-conscious exercise in circular reasoning, which breaks the unending quest for
transcendent objectivity, and rests [instead] satisfied with partial and partisan findings" (Pels, 2000,
p. 15). In other words, rather than seeking one universal truth, a key skill of data analysis has been to
make the findings "appear problematic, tentative, plural, multiple and complex through its social,
cultural, and historical positioning" (Patterson, 1997, p. 425), and for the researcher to engage in
ongoing self-doubt and reflexivity. In terms of research findings, every attempt to know the other is
seen through an interpretative lens, and must be regarded as partial and incomplete (Patterson,
1997; Wodak, 1999). One key aspect of that interpretative lens is representation.
In selecting data to represent how participants expressed their emerging teacher identity, I needed to ethically consider how I represented and appropriated different voices (Fine & Weis, 1996). Across transcripts for each participant I sought to identify evidence of their growing ability to critically reflect on their teaching practice. Fine et al. (2003) warn of the danger of reporting "around simplistic binaries, the poor, the victimised vs. the strong the resilient, [rather] to seek to write in a way that captures the structures of injustice and agency and survival" (p. 199). In representing the idiosyncratic complexity of each participant’s experience, it was important to consider broad aspects of their practice, for instance, the ordinary and mundane, their challenges, their celebratory highlights, and to understand these were deeply unique to each participant.

With regard to the methodology, and methods I have employed for generating interpretations and constructing readings, it is important to remember none of these are neutral or unsituated (Luke, 1997), and as such research findings from this project are not proposed as a final arbiter of truth, rather as a set of ideas that its readers may bring to life, or possibly dismiss (Davies et al., 2004).

**Summary of methodology**

This chapter has sought to lay bare the bones of this research project for a reader's scrutiny and appraisal. It has explored in detail how this research was conducted and throughout makes connections to this project’s underpinning theoretical framework, critical theory. A rationale has been shared for employing the following data construction tools in this research, videotaped teaching, interviews and field notes, and how conceptual findings were drawn from the interactions of these multiple data sources across the project (Maxwell, 1996). In terms of research design, it outlined the care taken to ensure the voluntary recruitment of participants, and how the pilot study was used to refine and inform the full study’s design and interview schedule. Detailed information is provided in terms of the participants’ and researcher’s roles within the project, and how the design of the interview schedule (the main form of constructed data) sought to both highlight the
preservice teachers' voice and agency, as well as eliciting information relevant to the focus of inquiry. In terms of data analysis, the suitability, affordances and limitations of three methods used within this research project including: HyperRESEARCH, individual vignettes, and CDA have been discussed. The trustworthiness of findings section illustrated how the data construction, data analysis and the reporting of findings were all designed, and worked in concert to support the academic rigour of this research. This chapter has also discussed my earnest attempts to act reflexively, and to show ethical care and consideration to all participants from conception to the reported findings.
CHAPTER FIVE: INSIGHTS FROM PRESERVICE TEACHERS’ CRITICALLY REFLECTIVE PRACTICE

Participant vignettes

As discussed in detail in the methodology chapter I have structured my discussion of each participant’s findings as a vignette. The vignette framework was focused in such a way that ensures discussion of data best illuminates insights around the primary research question. Each vignette was written as a stand-alone document.

Vignette of participant PA

Participant PA is female and was aged 36 at the onset of the project. She identified her ethnicity as New Zealand Māori. She undertook her final year placement at an inner city Intermediate School working with a male associate teacher and a class of approximately 30 year eight students (aged 11 - 13 years).

Initial interview - pre-intervention: “I want to know who I am as a teacher” (PA, II)

PA’s reasons for entering the research project were to better know herself as a teacher, to learn how to reflect on her teaching practice, and to build professional knowledge and strategies in ways that were commensurate with her beliefs about how best to support children's learning. At the beginning of the project PA described critical reflection as a process of self-checking positive and negative factors in her teaching to see what was, or was not working for her students, and to understand her role in that process. Critical reflection for PA included a willingness to seek help and learn, and

\[\text{\footnotesize\(^5\) In New Zealand, intermediate schools have just two year levels, year seven and year eight students.}\]
importantly to take action to shift practices when needed. She identified her lack of self-belief as her biggest barrier to critically reflective practice (PA, II).

**Beliefs, theoretical frameworks and video: "I want to be the best teacher I can" (PA, V3I)**

Across all three interviews she expressed a number of personal beliefs and formal theories as she discussed her videotaped teaching. These acted as filters with which to describe and make sense of her teaching practice. I briefly summarise these and then illustrate how her discussion of beliefs and formal theory around her videotaped teaching practice did, or did not support her critical reflection.

Her beliefs included; a desire to create a warm safe environment for students, to listen to and respond to student voice, and to presume competence and have high expectations for all learners. She highlighted the importance of accommodating the needs of diverse learners and that you need multiple teaching identities and strategies with which to do so. A central belief was to not make assumptions about students, rather take time to get to know students' lives and empathetically understand wider factors that were impacting their learning and behaviour. Her other key beliefs included providing opportunities for student choice, and supporting their self-management and autonomy (PA, V1I, V2I, V3I). From the onset of the project a number of her beliefs resonated strongly with the principles of critical theory, such as her desire to support student voice, student autonomy, and to not make assumptions about her students all reflect her strong sense of social justice.

Across all of her three interviews using videotaped teaching, PA used choice theory to describe and rationalise her teaching practice (see Kohn, 2006). Choice theory is about power sharing and supporting students' autonomy and independence, and is strongly underpinned by many tenets of critical theory and critical reflection. Her adoption of choice theory indicates her desire to establish a non-traditional role as a teacher, for instance, where teachers co-construct learning with students instead of simply transmitting knowledge. Other references to theory included her dialogue around
content knowledge and her concern at having enough content knowledge and specialist language to support her teaching (Killen, 2003b). She discussed supporting students' higher order thinking (meta-cognition) and their criticality. Rather than naming particular theories or their authors, her inclination was to bundle theories into commonly known meta-theories, for example, "there is an actual theory, I’ve just read it I can’t think, it’ll all go down to constructivism anyway, but it will mix with some of the Vygotsky stuff" (PA, V2I). It was important to PA that her adoption of formal theories must support her personal beliefs, as well as benefit her teaching, in other words, there needed to be congruence between her personal beliefs and theory.

For PA theory was a valuable tool for her teaching:

**PA:** Because theory ... ‘cause theory can show you what you’re thinking and feeling, but not being able to name it.

**Interviewer:** That’s very insightful, I’ll show you what you’re thinking and feeling and you haven’t, that’s got a language for it.

**PA:** Mmm, or yeah or it, it can make [it] real, I hope that makes sense.

**Interviewer:** How does it make it real?

**PA:** Well, it gives it a name.

**Interviewer:** Yeah it gives it a name, it gives practice a name, it does doesn’t it?

**PA:** Mmm.

**Interviewer:** Anything else you want to say about that?

**PA:** Um, the same as before you can build from theory as well, you could always, it could always strengthen your knowledge. (V1I)

Theory gave PA a language with which to think and name her teaching practice, and provided a foundation from which to refine and inform her teaching practice. Having a theoretical language with which to talk about one’s practice is arguably the first step towards being able to confidently rationalise a foundation for your practice. In describing her videotaped teaching she shared, "I just didn't think that up all myself... [theory] is shaping who I am" (PA, V1I). Theory was informing her very identity as a teacher.
Seeing herself teach on videotape highlighted to PA the importance of her own beliefs and formal theory as she established her teacher identity, and powerfully reminds teacher educators that reconciling the two is anything but simple.

PA: It is, see I thought you had to be a teacher and teach what you’re taught, so I didn’t really line it up who I was, as a person so now it’s kind of, oh so I can bring me into this...

Interviewer: Absolutely.

PA: ...but also follow like the curriculum and the steps and, ‘cause that’s probably where I conflict I think, oh is there you know, am I doing it right by the books, or am I doing it more coming from myself? So I think that’s where my confidence, lacks as well.

Interviewer: So there’s a conflict between you...

PA: And the theory side of things, or professionalism. (V3I)

In this excerpt PA revealed surprise at how much of her own identity she can actually bring into the classroom, alongside the tension of getting it right in a way that is sanctioned by formal theory. Seeing herself teach on videotape prompted conflict and uncertainty around her personal theories-in-use (Argyris & Schön, 1974), and expectations from formal theory about how she ought to enact the role of a teacher. In the next section, I examine if uncertainty or dissonance between either her personal beliefs or formal theory and actual teaching practice, created space for change and critical reflection (Larrivee, 2000).

The power of dissonance: Language - too much, too little, or just right?

Repeatedly across her interviews, PA identified a need to build a stronger language base with which to inform her teaching:

PA: I was trying to explain to them to pick something out of it, it’s the whole language, I really struggled with how to explain what I really wanted them to do, about finding an issue in that [news] paper.

Interviewer: Mmm, hmm.

PA: Getting that um, and them trying to... um, see, still can’t find the words now... so yeah, I think language and explaining exactly what I wanted, wasn’t
Interviewer: Wasn’t as clear as you liked?
PA: Good enough, yeah. (V11)

Using Larrivee's (2008a) reflective practice taxonomy, PA's reflection on her use of language remained at a technical level; because of poor instructions students were unclear of their task. While she critiqued her practice, she did so in a surface or technicist manner. However, the opportunity to see and hear herself teach on videotape prompted PA to target a goal of building a stronger language base. Before looking at how her reflections around her language use became more sophisticated, in her first interview she provided this sage message for teacher educators:

PA: Um..., I don’t know I’ve a big thing about the language stuff.

Interviewer: Mmm, hmm.

PA: Because I, like at some lectures I don’t understand what the heck’s going on, because the language I don’t understand..., I don’t want to use too much language where the children don’t actually know what the heck I’m talking about, but then I don’t think I use enough language so, is that conflicting, did that make sense?

Interviewer: Yes, there is a conflict. (V11)

Too much, too little, or just right? How often as tertiary educators do we mistakenly assume our students have the requisite specialist language with which to participate and engage in learning?

PA's negative experience of at times being excluded from learning during lectures powerfully shaped how she read and critiqued her own language use when working with students (Brookfield, 2009; Fives & Buehl, 2012; Levin, et al., 2013). Her experience prompted her to ensure her use of language was accessible to her students, as well as actively supporting their learning. Seeing and hearing herself teach on video supported her to critically reflect on her use of language, and change her practice to better support students' learning.

In her second videotaped lesson PA taught a geometry lesson focused around angles, an unfamiliar content area that required to her to actively engage with relevant content and pedagogical knowledge in preparation for teaching. She actively sought help from both her associate teacher and
college staff, and immersed herself in the language of angles and how to teach using an interactive whiteboard and real protractors. Post teaching she commented on how insights from her first videotaped lesson informed her second lesson, and what has changed.

PA: Well just my demeanour, I think
Interviewer: Mmm hmm
PA: It’s different
Interviewer: And you can see that?
PA: Yeah, yeah, and I think in my first one if I remember correctly, I was worried about content knowledge
Interviewer: Yep and you’ve certainly done all your homework here..., very evidently
PA: Yeah, and so I know what, and why I lack confidence, and it was content, and getting quite knowledgeable about geometry, cause I actually knew nothing about geometry before that posting, I had to go and learn it all pretty much from scratch, um so, definitely content knowledge is the go. (V2I)

Again, seeing visible evidence of her teaching on videotape was powerful. PA articulated how having secure content knowledge has changed her very demeanour and confidence as a teacher.

Developing sufficient specialist language with which to teach geometry was crucial in this process. In terms of discussing which formal theories she drew upon to make sense this lesson, we evidence a shift in her thinking, from her own performance as a teacher to a focus on her students.

PA: I want to encourage them, like the students to make sense of their own learning..., instead of me just plopping information into their minds
Interviewer: Mmm hmm
PA: Um, I can't even remember what that one's called, it is theory but that they just grasp it and manipulate it and move it around try and make sense of it themselves
Interviewer: You’ve kind of talked about that watching your lesson haven't you, like how do you get it back to them, to get them doing it?
PA: Yeah
Interviewer: In a variety of ways..., and revisiting it and building their memory and they have to own it, don't they?
PA: Yeah so they can, it's slightly higher thinking and they can critique it themselves
Interviewer: That's metacognition, is that what you're thinking about?..., you're theorising your own practice here, aren't you?
PA: Yeah
Interviewer: All good
PA: I am, cool. (V2I)

This text illustrated how PA shifted from reflecting on her use of language, to how she understands it is critical she supports students to build their own meta-language, and that her students remember and own such specialist language. She theorised her own practice from her personal beliefs, such as, having sufficient content knowledge, and language, and drew upon formal theories to make sense of her practice. For example, seeking to co-construct learning rather than "simply plopping information in their minds" (V2I), she challenged traditional transmission models of teaching. Using Larrivee’s (2008a) taxonomy we evidence shift from a technicist reflective lens (video interview one) to a pedagogical lens (video interview two), in which PA draws upon beliefs and theory as "intertwining tendrils of knowledge which grow and feed [her] practice" (Griffiths & Tann, 1992, p. 71). Seeing herself teach on video supported her ability to articulate personal and formal theory with which to rationalise her practice, and identifying dissonance in her language use, prompted change in her practice.

In her final interview using videotaped teaching PA reflected on her much improved ability to give clear instructions, and how she continued to build a wide variety of strategies with which to build her students' meta-language, "yeah the new words, well it's the vocabulary that... it's no use teaching them if they don't know what that word is" (PA, V3I). To support students' ownership of language and recognising students learn in diverse ways, her strategies included: making explicit links to real life contexts, integrating specialist language with word study and spelling, using visual tools to prompt memory, and supporting students to actively use new language (V3I). PA
understood language is power and by explicitly building her students' meta-language, she empowered their access to knowledge and learning.

In terms of formal theory, across interviews she continued to talk about power sharing and supporting student autonomy.

PA: In our in our recent paper, EDUC was it the psychology paper where they talk about the authoritative teacher?

Interviewer: Yep

PA: I don't know any of that in depth, but I don't want to be a teacher that is controlling and overbearing. I want to be one that allows freedom within the learning. (V3I)

Here, we see PA actively resist a theory that conflicted with her personal beliefs around teacher identity (Mockler, 2011; Stenberg 2010). From her videotaped teaching she discussed multiple ways to illustrate how her personal beliefs and formal theory have impacted and shifted her practice. For example, in her third lesson students were able to choose their own moot for a group debate and how they presented their debate, during a class game she deliberately sat back and let students take control, "I didn't want to over-power, cause they're in control" (PA, V3I). A key insight from PA's experience was how watching herself teach across three videotaped lessons shifted her reflective thinking around her language use from a technicist to a critically reflective lens (Larrivee, 2008a), in ways that were commensurate with her personal beliefs and formal theory, and she was able to draw upon both to rationalise her practice.

The next section explores how PA's description of her emerging teaching identity significantly changed across her first and second interviews as she reflected on her videotaped teaching. While manifold factors, well beyond those evident in the scrutiny of interview transcripts would have also impacted her reflections, the literature review chapter pinpointed dialogue as a significant factor in supporting shifts in reflective thinking (Hennessy & Deaney, 2009a; Powell, 2005; Yaffe, 2010). To evidence shift in her thinking, I captured how she described her teaching identity in her first
interview, and as discussed in the methodology chapter using selected tools from CDA (Fairclough, 1995, 2003; Phillips & Jørgensen, 2002), I conducted a close analysis of text from her second interview to examine how our dialogue did, or did not facilitate shift in her reflective thinking.

**Analysing shift: "Doesn't even seem like that's me" (PA, V2I)**

Watching oneself teach on videotape is potentially a challenging and confronting experience (Fadde & Sullivan, 2013). In the opening scenes of her first interview, PA critically reflected on her emerging teaching identity.

PA: One thing I noticed straight away is that I'm quite stiff in my posture
Interviewer: Mmm
PA: So that sort of, I don't know but that was...
Interviewer: And
PA: ...something big for me
Interviewer: That you notice, when you saw yourself?
PA: Yeah
Interviewer: What effect is that having on you, and the children, how are you thinking about that?
PA: Well it looks like I'm not relaxed within my lesson
Interviewer: Mmm, hmm
PA: And yeah, so I don't know, I think I need to relax a bit more
Interviewer: Probably the video wasn't helping that day as well
PA: OK
Interviewer: What do you think?
PA: I don't know, I just seem a bit stiff but maybe I'm just looking into it a bit more. (V1I)

This excerpt is powerful. Seeing herself teach on videotape, PA was able to stand back and critically reflect on the importance of her body language and posture. She was able to observe and critique aspects of her practice, ordinarily invisible to her gaze. She identified how her tense body language might block rather than support her ability to establish relationships with students. She commented, "I don't want to look too hard to them, 'cause I want them to be able to communicate with me,
and..., I thought my posture might’ve been a bit too..., ‘cause I didn’t get feedback I was looking for" (PA, V1I). It is brave work to critically reflect on personal identify in this manner, work that required PA to adopt "a 'hands on hips' subject position" (Kamler & Thomson, 2006, pp. 32, original emphasis), where one step removed, she could gaze at and critically read her teacher identity. PA's critical reflection (amongst other factors) created a space for her to re-imagine, and re-shape her teacher identity, and over time supported her to close the gap between her personal belief of creating a warm safe environment, and her actual teaching practice (Stenberg, 2010). In her second interview PA explicitly referred back to this text, and we evidenced significant change in how she read and perceived her emerging teaching identity.

To understand how our dialogue did, or did not support this change in her reflective thinking, using CDA I conducted a three-layered analysis of a section of text from her second interview using videotaped teaching. As described in the methodology chapter, the three layers involved;

1. Text analysis (description)
2. Discourse practices (interpretation)
3. Social analysis (explanation)

Across the three layers I begin with a textual analysis, and describe how the text was constructed, and what were the effects of that construction. Alongside the textual description, I explore which discourses were operating within the text, and their effect. The third level of analysis examines wider societal discourses operating in the text, and their influence in how meaning is produced within the text, and how we interpret that meaning (Janks, 1997). It is my intention this layered analysis across micro (linguistic) and macro (societal) levels sheds light on how dialogue around videotaped teaching can support shift in reflective thinking.
To make explicit which sections of the text are the foci of analysis, each time a new speaker enters the dialogue, a line number has been assigned. In terms of context, the text captured our dialogue as PA discussed her teaching identity during a geometry lesson.

1. PA: I don't even mind watching myself teach now, so that's pretty good

2. Interviewer: That's actually fantastic

3. PA: Mmm

4. Interviewer: Do you want to talk to me about your identity, and?

5. PA: Now?

6. Interviewer: Yeah, like it's a good moment

7. PA: How do I see...?

8. Interviewer: How do you see yourself?

9. PA: Um... doesn't even seem like that's me

10. Interviewer: Really?

11. PA: Cause yeah, cause it's uh, just cause I look like you know, quite comfortable there

12. Interviewer: Mmmm

13. PA: And I think in the first one I wasn't... I knew that I wasn't feeling so comfortable and not very confident and I mean I'm not that confident in geometry, that's probably my one thing I lack at, but I think I enjoy it

14. Interviewer: Mmm mmm

15. PA: And I've enjoyed learning it, so I think that's given me confidence to, not be fake about geometry or fake about teaching, cause I enjoyed teaching, and I've actually enjoyed learning about geometry as well

16. Interviewer: So your content knowledge was secure
17. PA: Yeah it was, and I think that just gave me confidence to be there

18. Interviewer: Cause you're looking quite calm, assertive friendly, there's lots of words, how would you describe yourself?

19. PA: Yeah quite relaxed, um approachable I think

20. Interviewer: Mmm

21. PA: And yeah calm

22. Interviewer: Very calm, you look very anchored

23. PA: Mmm

24. Interviewer: You do, you look and sound like a teacher

25. PA: Mmm, yay....

26. Interviewer: Isn't that cool?

27. PA: That is cool, in fact that's awesome

28. Interviewer: Yeah, it is yeah you look very professional

29. PA: Mmm, I look relaxed I can tell that, you remember the last one? Where all I could see was my shoulders

30. Interviewer: Mmm

31. PA: I don't look as stiff and wired, but that just would have been, I don't fear or something

32. Interviewer: Mmm mmm, you know what you're doing here, don't you?

33. PA: No

34. Interviewer: Yes you do you think about it...you do, you know what you're doing, you've done your content knowledge, you know all the language you've got all of that sorted?

35. PA: Mmm
36. Interviewer: And you're just teaching it

37. PA: Yeah yeah, it's that content knowledge, that's what I wrote in one of my reflections if I don't know my content well, then my confidence just goes with my teaching, so really it's just continually learning the content, which um, I think will just help me out, really a lot better with teaching, cause then I can be relaxed and be myself, cause I know I've got a good teaching approach, um and a good relationship with children and other teachers and that, it's just if I don't know the content then I clam up, and I'm like ahh, yeah I just have to continually

38. Interviewer: That's right you'll never know all of it, you'll just have to find it out as you need to know it

39. PA: Yep, that's what another teacher told me

40. Interviewer: Mmm

41. PA: Learn what you need to know, and if you need to know more and then next year I'll have to do this again take what you've learnt this year and learn more

42. Interviewer: Absolutely

43. PA: You know

44. Interviewer: But you'll never, it won't be as hard again because you'll have the basics sorted

45. PA: Yeah yeah

46. Interviewer: Yeah, you have to be a lifelong learner

47. PA: Mmm

48. Interviewer: As a teacher

49. PA: Yeah, I'm pretty keen. (V2I)
Our talk moves in the opening lines involved a delicate dance shaped by conflicting discourses around self-affirmation and tall poppy syndrome. The text opened with PA tentatively affirming her teacher identity, and her observation she no longer minded watching herself teach. Wanting to further affirm her newfound confidence in line 4, I invited, or gave her permission, to further discuss her teacher identity. In doing so I unconsciously inscribed asymmetrical power relations between PA and myself, where for example, the master praises the apprentice, but the apprentice rarely praises the master (Tauber, 2007). My invitation for PA to discuss her teacher identity placed her in a delicate space, being asked to affirm oneself and not wanting to appear over self-confident is a fine line to tread. PA used a number of hedges to temper how she affirmed her identity, such as, "that's pretty good" (line 1), "I look like you know, quite comfortable there" (line 11), and her comment "doesn't even seem like that's me" (line 9), evidenced her discomfit at watching herself on video, and her reluctance to affirm her own practice.

Her later descriptors of "comfortable", (line 11), "approachable" (line 19), "calm" (line 21) and "relaxed" (line 29) capture significant change in how she read her teacher identity, and she shared having secure content knowledge has been pivotal in developing her confidence. Her comment "[you] can't fake geometry, or fake about teaching" (line 15) highlights she understood there were no Emperor's new clothes to hide behind, and her very survival rests on her preparedness and her ability to teach.

Across lines 16-26, I repeatedly sought to affirm her calm, anchored appearance on the videotape, and how she looked and sounded like a professional teacher. Her reply, "that is cool, in fact, that's awesome" (line 27) marked a significant change in her self-belief. Perhaps the videotape evidence

---

6 Tall poppy syndrome describes a social phenomenon where people with genuine talents might hide their strengths, rather than risk being resented or even cut down by their peers. See http://www.oxforddictionaries.com/definition/english/tall-poppy-syndrome
had become irrefutable, and PA now saw and appreciated the shift in her teacher identity. On more than one occasion, PA made reference to her first interview using intertextuality to evidence how her teaching identity has changed, her comment "I don't look as stiff and wired" (line 31) referred to her fear and vulnerability in her first lesson largely caused, in her view, by insecure content knowledge. With regard to her content knowledge in her second lesson with the intention of affirming her practice, I asked, "you know what you're doing here, don't you?" (line 32). Her reply "No" (line 33) surprised me and suggested she may have thought I was in fact challenging, rather than affirming she had sufficient knowledge with which to teach. A second reading of this brief moment of discensus (Hughes & MacNaughton, 2000) suggested PA still questioned if she had enough language and knowledge with which to teach. My response (line 34) was to reaffirm her level of preparedness to teach. In a brief monologue (line 37), PA reasserted the need for secure content knowledge, and to not have this in place made her feel at-risk and vulnerable. She identified this as a lifelong commitment, "so it's really just continually learning the content” (line 37). In the remainder of the text I picked up on this discourse, the importance of being a life-long learner. My use of the phrase "you'll never know all of it, you'll just have to find it out as you need to know it" (line 38) is an imperative, or command which implied for PA to be successful in the future she would have to follow my instructions or advice. My use of the pronoun 'you' instead of the collective 'we' suggested as the more experienced other, I am excluded from needing to be a life-long learner. While this was certainly not my intention, this brief moment revealed how our unconscious use of everyday language had potential to "produce power-knowledge relationships within which [people] are positioned, identities are constructed and bodies disciplined" (Ainsworth & Hardy, 2004, p. 238). In this case, a simple pronoun inscribed our unequal power relations. What then, was the effect of those asymmetrical power relations? It appears PA was able to accept my affirmation of her teaching identity, not just because she could actually see evidence on videotape, but also because she had faith in my counsel as a more experienced other. This CDA analysis of text highlights how dialogue is never free from power (Sandretto with Klenner, 2011), and that we need to critically read
how our social use of language has potential to both advantage and disadvantage, our own and
others’ agency in speech.

CDA: Social analysis

Society holds many expectations around what it means to be a professional teacher, and how
teachers should enact that role. Multiple, and at times competing discourses construct what it
means to be a professional teacher, for instance, you need to be an expert in your field, to have
secure content and pedagogical knowledge, to be a life long learner, and so forth (Killen, 2003a).
There is of course no one right way to enact a teacher identity, in fact we need fluid shifting
identities (Beauchamp & Thomas, 2009), all of which makes establishing a teacher identity a
complex uncertain process for preservice teachers. In the text PA was concerned to get it right, even
though she and I had never explicitly discussed what that might mean or look like. Instead we
developed a shared language, such as, confident, calm, approachable; this language became a proxy
against which we judged and charted shift in her teacher identity. The Goldilocks principle is a
useful metaphor for how we described her teacher identity, the notion of not too much, not too
little, but just right. In her first video PA identified her body language was stiff and wired, or too
tense, not right. Her critical reflection prompted her to change and shift her teacher identity to
appear more relaxed and approachable for students, in other words, to get her body language just
right. In the text, our dialogue danced around the notion of getting it (her teacher identity) just right.
While we did not name explicit discourses, without doubt they invisibly governed how our dialogue
produced meaning, and ultimately how I have interpreted meaning from the text (Phillips &
Jørgensen, 2002). The next section explores PA’s exit interview, and if, and how her understanding
of critically reflective practice changed as a result of her participation in this project.

7 The Goldilocks’ principle is derived from the fairy-tale, Goldilocks and The Three Bears, and relates to the
notion that something must fall within certain boundaries as opposed to reaching extremes. In the fairy-tale,
Goldilocks tasted the bears’ porridge to check it was not too hot, not too cold, but just right. See
http://curiosity.discovery.com/question/what-is-goldilocks-principle
Exit interview - post intervention: "I like my teaching, watching my teaching, I actually like my practice" (PA, EI)

"I like my teaching, watching my teaching, I actually like my practice" (PA, EI), captured significant change in PA's confidence and self-belief as a teacher, and how the research project, for her had been a transformative process. Rather than always focusing on negative aspects of her practice, she commented, "my focus has changed to what I can do" (PA, EI). Seeing herself teach had been pivotal in supporting that change. Our dialogue, as evidenced in her following comment, was another significant factor in supporting both her critical reflection and affirmation of her teaching practice.

I think having someone like you, your character and your support and you've been able to see things that I can't, and affirm that they're there, and that I'm doing the right thing, because I think that was the biggest thing, am I doing the right thing for these children? (PA, EI)

Her above statement confirmed how skilled dialogue was crucial in supporting shift in her reflective thinking.

At the end of the project PA described critical reflection in the following way, seeing things for what they are, and using that information to know yourself, and to inform your practice. She identified critically reflective practice as a layered process, beginning with understanding what it is you are doing, and using theory to rationalise a foundation for your practice. For PA critically reflective practice supported her "to know who you are, how you do it, and what you need to do, and then it's the sharing, going out there and practicing" (PA, EI).

Five key insights emerge from PA's experience. First, across interviews there is clear evidence of how beliefs and theory informed her practice, and with video as a mirror on her practice, practice has informed her beliefs and theory in a recursive cycle. In other words, her critical reflection involved praxis (Ginsburg, 1988), where her personal beliefs, theory and practice informed and refined each other in an ongoing cycle (Carr, 1987; Carr & Kemmis, 1986; Walker, 2003). Second, asking PA to
discuss her personal beliefs and formal theory as she watched her videotaped teaching across interviews clearly prompted shift in her reflective thinking. As evidenced, her reflective thinking around how she used language to support students’ learning shifted from a technicist to a critically reflective lens (Larrivee, 2008a). A third key insight highlighted how having more than one opportunity to see herself teach on videotape was an important factor in supporting change in her reflective thinking and practice, for instance, where across interviews she was able to identify specific areas of her practice to refine and improve. Next, we evidenced how cognitive dissonance around her use of language prompted her critical reflection and change in her practice. Finally, we have evidenced across interviews that dialogue was a key factor in shifting how she reflected on her teaching practice and, within that dialogue, affirmation of PA’s practice was pivotal in shifting how she reflected on her teacher identity.
Vignette - of participant PB

PB is male and was aged 24 at the onset of the project; he identified his ethnicity as New Zealand European. He undertook his final year school placement at an inner city Intermediate School working with a male associate teacher and a class of year eight students (aged 11-13 years).

Initial interview - pre-intervention: "I want to know what I am doing as a teacher" (PB, II)

PB joined the research project to support his ability to reflect on his teaching; he hoped building his reflective capacity would help his progress as a beginning teacher. When asked to describe how he understood critically reflective practice, he explained it as "just deeper reflection" (PB, II), and when prompted he was either unable or chose not to expand his description beyond this. PB named his ego as a potential barrier around his ability to critically reflect on his teaching practice. For example, where his own modesty might cause him to downplay his own practice, rather than be able to affirm, or "talk myself up" (PB, II). In other words, his preference was to remain modest about his own teaching performance. The candour with which PB talked about ego in this way, reminds teacher educators of one of the real tensions with critically reflective practice, the balancing act of being able to both affirm and critique one's own teaching practice, and the need to create a safe space where dialogue can support both. Also, to understand, that for PB to act discursively around these tensions, meant in order to protect his self-interests, he was selective in what he chose to disclose (Ellsworth, 1989).

Beliefs, theoretical frameworks and video: "I want to be the teacher I never had" (PB, V1I)

A significant belief for PB was to having an active roving teacher identity, where he was able to work closely with students and build effective learning relationships (PB, V1I). He described enacting a positive teacher identity and sharing enthusiasm with students as crucial, and that he would rather leave the job than have a negative teacher persona as past teachers in his own schooling (PB, V1I). Another important belief was to make sure he differentiated his teaching in ways that students
could access the learning; this belief had similarly been shaped by his own schooling experiences, where he had observed teachers blaming students for not being able to engage in learning, rather than looking at their own teaching practices (V1I). His comment, "I want to be the teacher I never had" (PB, V1I) hints of sadness around his own schooling, but this very sadness appears to be what motivated him to establish a counter-narrative for his students, one in which he could establish a warm supportive environment for learning. In terms of power and establishing a professional teacher identity, he commented, "I don't want to be too firm, but I don't want to be a pushover either" (PB, V1I). He recognised the fine line between being a friend and a responsible adult. He understood that in fact he needed to enact multiple identities, where at times to teach, "it's almost like being an actor" (PB, V1I). Never having had a male teacher himself, he valued the opportunity of being a male role model for his students (PB, V1I). For PB to maintain his beliefs, they had to be working, where he and others, for example, where parents could see students were engaged, learning and happy (PB, V2I).

In his first interview using videotaped teaching, when asked to discuss which theoretical frameworks, or theories he drew upon to make sense of his videotaped teaching, PB's initial response was uncertainty and a reluctance to name any particular theories. His reply instead was, "I do what feels natural to me as a teacher... without trying to think too deeply about what I'm supposed to be doing as such" (PB, V1I). His slight apology, "I know that's not the best answer there" (PB, V1I) hints at his awareness he ought to be able to make some connections to the scared theory practice story (Clandinin, 1995), but he elected not to do so. When further prompted, PB chose to critically reflect upon one of his associate teacher's management practices and drew upon Alfie Kohn's (1993) work to shape his critique. His associate teacher employed a marble jar strategy, where marbles are added or withdrawn from a jar, in an attempt to coerce positive student behaviours (Edwards & Watts, 2008). PB paraphrased one of his student's critiques of the marble jar, "what's the point, you're going to take them out anyway, so why should we be good?" (PB, V1I). PB realised the marble jar was not working for his year eight class of students, and he sought
alternative management strategies to support his students. In further dialogue, I prompted his wider critique of the institutional power of schools, and suggested to him that in almost any other institutional context, the marble jar would be construed as a form of bribery and was a strategy designed to control rather than promote students' agency and self-management. He returned to this dialogue in his second interview using videotaped teaching, where instead of the marble jar, he now used the school house point system and only to reward, not punish students' behaviour (V2I). This evidences how his critically reflective thinking prompted PB to shift his practices.

As a teacher educator, I remain surprised that across interviews PB either could not, or chose not to draw upon wider theory with which to make sense of his teaching practice. In the following dialogue I had just asked PB if he could discuss any theory from his wider course that influenced his practice:

PB: Um I can’t think of any of the top of my head but there will be influences from various theories in there
Interviewer: Yeah, can you think of any influences?
PB: Yeah, can’t really it’s been so long since we’ve
Interviewer: ...been at class?
PB: Yeah, been at class and learnt about this stuff
Interviewer: Yip
PB: It was probably in your lectures last year where we last went over this [here he refers to our earlier dialogue around Kohn]
Interviewer: So, nothing at all that strikes you, or?
PB: Um, no not off the top of my head, yeah. (V3I)

His dialogue revealed being introduced to a broad range of theory within a teacher education programme carried no guarantees that preservice students will independently make theory to practice connections. It is also important to acknowledge that as the lecturer of a professional practice paper, I had introduced PB to the work of Kohn (see Kohn, 1993, 2006). One critical reading of that acknowledgement suggests he was naming theory he knew I would like to hear. However, my preferred reading and belief, is that Kohn’s work genuinely appealed to PB and he used it as a platform from which to rationalise his rejection of an observed management strategy in his
classroom. In terms of his reluctance to discuss wider formal theory, we can only second-guess if his personal beliefs carried more weight and authority than any specialist meta-language, or formal theory from his course work (Ritchie & Wilson, 2000), or the possibility that theory from his teacher education programme had been washed out during his school placements (Zeichner & Tabachnick, 1981). We have evidenced PB’s preference to discuss and theorise his practice using personal beliefs, however, because all theory is a construction, it is important all insights including personal beliefs are subject to scrutiny and critique (Halliday, 1998). I next turn my attention to the role of video, in particular to explore if having opportunity to observe himself teach did, or did not support his critical reflection.

In his first interview PB stated he often felt nervous when teaching in front of the whole class. Across interviews, video became a powerful tool for him to affirm his identity and to provide visible evidence he was enacting his personal beliefs. His statement, "I look a lot more confident than I feel..., and I come across as a real teacher" (PB, V1I) palpably captured his relief that he had successfully constructed a professional teacher identity. He commented, for instance, on his confident use of voice and body language, and that he could see how he was actively roving the classroom and engaging all his students (PB, V1I, V2I). Having opportunity to see himself teach across videos meant he could see evidence of his own progress, he noted his improved ability to give clear instructions, and his ability to manage class dialogue with a secure hands-up routine (PB, V2I). He also identified his appearance was more at ease and relaxed, and having established respectful relationships which meant he could share a sense of fun and humour with students (V3I). While having the opportunity to see himself teach on videotape was clearly an affirmative rewarding experience, much of PB’s dialogue around his videotaped teaching was focused at a descriptive level, where his attention remained largely on his own performance, rather than on his students’ learning. I next illustrate how PB reflected on his pedagogy when giving instructions.
In terms of background context, PB has just sent the class off to work independently after having given whole class instructions.

PB: OK, at this point I’m handing out the task of writing a classified ad for the next great explorer. And I think as I’m, as I’m handing out, like I’m just going to go and just give a quick explanation to each child just very quickly, [and] say you know this will have to do. And, I can see that the children, they seem to be enjoying the lesson

Interviewer: They definitely are

PB: Yeah

Interviewer: They are

PB: They are involved in discussion, you know relevant discussion

Interviewer: Mmm hmm.

PB: So they are very engaged

Interviewer: You know they settled quickly

PB: Yeah I was actually um, I was pleasantly surprised. ‘Cause they were for the whole um duration of the lesson they were engaged. (V1I)

In this text, we see clear evidence of how PB drew upon his personal beliefs to affirm his teaching practice, where for instance, he aspired to work closely with individual students to support their learning. What is missing from this dialogue is that the reason PB had to repeat instructions was his initial instructions had been very unclear and students were unsure of the task. His closing comment around his surprise students were engaged for the whole lesson, suggests his still vulnerable self-confidence as he constructed his teacher identity.

A second illustration of a pedagogical reflection follows, in which he talked about his role in supporting student dialogue, as students shared their answers at the conclusion of a lesson.

Interviewer: Were you pleased with the depth of their responses?

PB: Yeah I think some were better than others, but they really did think about it and yeah and I notice one thing is that I do, is that when they read out their answers I was fully involved with their answers

Interviewer: Mmm hmmm, and sort of...
PB: I wasn't just standing back and listening, I was yeah I was almost building on where I had to
Interviewer: Yeah, it's sort of like parroting it back, and adding to it
PB: Yeah I'll only jump in when I thought I should jump in, yeah
Interviewer: I think that's part of the teaching job that
PB: I didn't want to take over
Interviewer: Yeah, you just want to reinforce what they are saying and affirm it etc.
PB: And that shows I'm listening and I'm involved as well, and that they are doing the right thing. (V2I)

In this reflective dialogue PB’s focus was very much on his role within a whole class sharing at the end of an activity. His reflections were useful with potential to refine and inform how he understood his role in supporting dialogue. As observed in his comment, he now read how he needed to balance being fully involved and yet not dominate the whole class dialogue. He also considered the tension of how to paraphrase and build on students' responses, while still honouring their voices. What is missing was his attention to the content of students' dialogue as they shared back, and its depth in relation to his learning objective, in other words, he had neglected to critically reflect on whether his teaching had, or had not shifted students' learning.

In both of these examples, PB’s reflections were again descriptive, rather than critical. His lack of criticality may have stemmed from his initial nervousness in the classroom where he was often trying out new pedagogical strategies for the very first time. He was aware his very survival with a complex busy year eight class of students depended on his self-confidence, and his ability to communicate that confidence with students. While we earlier evidenced how video as a mirror on his practice had calmed and dispelled his nervousness, perhaps at this early stage for PB to critique his practice, may have been to put at risk his newly found and still vulnerable self-confidence.
The power of dissonance: "This class, they almost know if they don't finish it, there's no worries" (PB, V2I)

When asked if PB could identify any areas of dissonance within his practice, such as, where his videotaped teaching did not match either his espoused personal beliefs or theory, his reflections largely focused on technicist or pedagogical aspects of his practice (Larrivee, 2008a). If there is one area of a preservice teacher's pedagogy that practice can improve, it is around the notion of timing. His following dialogue captured this challenge.

PB: I think at the end I was becoming... probably see it in the tape later on, but I become a bit worried about the, yeah worried about time, I think I was watching the clock a bit by the end

Interviewer: It is yeah

PB: Yeah. I always find um, when I’m planning, yeah timing is my yeah it’s probably my weakest spots

Interviewer: Mmm hmm

PB: Um the lesson either goes a lot faster than I, you know than I’d planned for or it would drag on for a lot longer

Interviewer: It is, it’s a really hard thing and without experience it is very difficult

PB: Yeah it’s hard to ‘cause you yeah, it’s hard to know how the children will, how they’ll cope with the task, how long they’ll need. Okay, maybe a task that would you know, seems simple to you or me, we could do it a matter of minutes, but to a child it’s

Interviewer: It could take a lot longer than you think?

PB: Yeah. (V1I)

His comments in this text captured his critically reflective thinking pre, during and post the lesson, or his reflection on-action and in-action (Schön, 1983). Despite his efforts to predict how long an activity might take, getting this right was proving a challenge. One of the affordances of video was the possibility of selecting an explicit lens with which to attend and focus (Beck, et al., 2002), and in our ensuing dialogue we were able to examine how long each section of his lesson sequence took, for instance, the introduction, independent student work and the conclusion. PB expressed conflicting tensions around his lesson introduction, which was five minutes in length. He knew if the
introduction was too long he risked losing students’ engagement, and yet it had to have sufficient substance so students knew what to do. He also commented how his nervousness in front of the class was a factor in keeping it brief (PB, V1I). His critical reflections prompted PB to target timing as an aspect of his practice to work on, and his second interview using videotaped teaching evidenced how that focus reaped real benefits for his teaching practice.

PB: I’ve given an instruction that they will have five minutes to discuss as a group their views
Interviewer: Mmm hmm
PB: And after that they will be sharing their views with the class
Interviewer: Yip
PB: So giving them that time limit means they have to get on to it
Interviewer: Absolutely, that sounds like a very good idea
PB: I’ve found with other lessons I haven’t been clear in setting time, and it just goes on, it never ends
Interviewer: And they don’t get things finished do they?
PB: No no
Interviewer: So I think using a clock is one of your great strategies
PB: Yeah, time management has been one of the things I have been working on and that’s improving
Interviewer: Excellent, and it is about watching the clock when you know you have a given amount of time to get things done
PB: When I first started teaching I couldn’t believe how fast the time goes, and how little time you really have
Interviewer: Mmmm
PB: But uh, I think now in my third year I am starting to get used to that and especially in lessons like English and maths that are so structured and the same everyday I am starting to get used to that and I know I have 50 minutes per lesson
Interviewer: So pace, you have to pace
PB: And I know how long each lesson takes yeah, so I will get used to it. (V2I)

At first glance, timing is perhaps a mundane and taken-for-granted aspect of a teacher’s practice. However, PB’s reflections as he observed himself teach, revealed a hidden complexity and multiple
skills that cannot be assumed. For instance, at a macro level he needed to organise students’
learning across a week, across each day, and ensure his timetable offered a balanced curriculum,
and within curriculum areas he needed to structure lesson sequences against a 50-minute time slot.
With a busy schedule, at a micro level every minute counts; PB was aware of this, and now
confidently signalled to students they had five minutes to prepare an activity before whole class
sharing. His use of time in this way, both motivated and supported students to complete tasks, and
importantly reinforced his teacher identity as being confident and in control. Identifying dissonance
in his practice supported PB to develop "new angles of vision" (Cook-Sather, 2010, p. 571), with
which to improve his use of time. PB's experience also reminds us that critically reflective thinking
around an ordinary taken-for-granted aspect of practice, like timing, can produce extraordinary
benefits, in this case for both PB and his students. I next share a section of text that illustrated a shift
in PB's reflective thinking, and using CDA examine how our dialogue did, or did not support that
change in his thinking.

**Analysing shift: Theory - "Yeah I, I think I value it" (PB, V1I)**

In terms of background context, just prior to this dialogue PB had critiqued his associate teacher's
use of the marble jar as a behaviour management strategy (as earlier discussed). Across this text, we
see a momentary glimpse of shift in his thinking around the usefulness of theory.

1. Interviewer: Can I ask you um, do you value theory, and can you give me a rationale for
your position? Do you value or do you not value theory?

2. PB: Yeah, I, I think I value it

3. Interviewer: Mmm hmm

4. PB: Um, explaining it's going to be a bit harder but

5. Interviewer: Mmm that’s okay mmm

6. PB: No I do, I do
7. Interviewer: Mmm yep

8. PB: Yeah, well for example, the whole Alfie Kohn thing

9. Interviewer: Mmm

10. PB: It's given me something to think about, you know based on his theory

11. Interviewer: It has, hasn’t it?

12. PB: Yeah

13. Interviewer: Yeah yeah

14. PB: And I would have probably would have never thought about it otherwise

15. Interviewer: No, it’s a worthwhile thing to go and think, yeah dip into him and see what you think

16. PB: Because a lot of teachers they use rewards, and yeah, you just don’t think about it

17. Interviewer: Yeah see

18. PB: I've started to question the whole thing, yeah

19. Interviewer: Yeah

20. PB: And also that it’s ah um, the whole class has been punished for one kid’s you know?

21. Interviewer: It’s appalling isn’t it? It wouldn’t happen anywhere else

22. Interviewer: Yeah so yeah I would say I think it would be really interesting for you to read a little bit along that line

23. PB: Yeah. (V1I)

CDA: Textual analysis and discourse practices

The text opened with my prompt asking PB to discuss if he values theory, and why. The moment was charged with our asymmetrical power relations; I was aware from earlier dialogue PB was reluctant to name or use theory in connection with his practice, and yet here I persisted in asking him to
discuss theory. In seeking to assuage our unequal power relations I tempered my question with the word, can, "can I ask you?". His reply, "I, I think I value it" (line 2) suggested his hesitancy and uncertainty. When he suggested explaining it [theory] was going to be hard, I reassured him I understood theory is not easy. His comment, "No, I do, I do" (line 6) revealed his vacillating commitment toward theory, and perhaps his genuine doubt that it was of use. He next named Kohn, a theorist known for his critical stance toward the institutional power of schools (Kohn, 1993, 2006), and how his work had challenged his thinking. His use of the phrase, "you know" (line 10) referenced our collective knowledge and understanding of Kohn's work. Line 14 captured a significant moment of shift in his thinking, he stated, "I would probably never would have thought about it, otherwise". The "it" he mentioned referred to teachers' use of rewards and punishments, in other words, how teachers exercise power. Kohn's work has prompted him to "question the whole thing" (line 18), and my asking him to discuss theory had provoked his critical reflection around hegemonic assumptions of how schools and teachers exercise power (Giroux, 1988; Habermas, 1984a). His ongoing dialogue continued to reveal his reflective scepticism (Brookfield, 1995), around the injustice of particular strategies he had observed, such as, where a whole class was punished for one child's indiscretion (line 20). I affirmed his critique and suggested that such unjust institutional arrangements of power would be unacceptable almost "anywhere else" (line 21). The dialogue finished with my suggestion that he continues to read and build his theoretical knowledge in this area.

It is evident how persistently asking PB to discuss theory was a key factor that triggered him to read, critique and resist observed classroom practices. In other words, theory had prompted PB to engage in dialectic thought (Giroux, 1997; How, 2003), where he was prepared to unmask and critique the tensions between existent social realities and wider possibilities. Had those practices been left uninterrupted, they may have otherwise become a naturalised part of his practice, for example, where he may have adopted rather than rejected the use of the marble jar. While educational theory is sometimes critiqued for offering only a "mantric reaffirmation of belief rather than a tool for exploration and thinking otherwise" (Ball, 1995, p. 268), in this case Kohn's work (see Kohn, 1993,
2006), supported PB to critically reflect and resist observed practices. PB acknowledged that without exposure to the work of Kohn, he "would never have thought about it" (line 14). It appears theory had become useful for PB, but only when asked to articulate if, and how he valued its worth.

**CDA: Social analysis**

Multiple and conflicting discourses of power operate within the text. Traditionally schools and teachers are expected to have power; it is a taken-for-granted institutional and societal expectation (Giroux, 1988). While power is sometimes constructed as a binary, for instance, the powerful and powerless, a teacher's power can be exercised along a continuum of different practices. Practices which vary from where a teacher seeks to exert considerable control over all aspects of students' learning and behaviour, or at the other end of the continuum, where a teacher's primary focus is to support students' autonomy and self-management (Edwards & Watts, 2008). In the text PB critiqued how teachers use rewards and punishments, and the formal theory he drew upon sat the opposite end of the continuum of particular behaviour management practices PB had observed in his classroom, for instance, where his associate teacher had employed the marble jar to manipulate students' behaviour. It is evident our dialogue created a safe space in which PB was empowered to play off and critically consider one discourse against another (Fairclough, 1992, 1995), and where his critical reflection prompted him to enact alternative practices.

**Exit interview - post intervention:** "I realise I do have what it takes to be a teacher" (PB, EI)

In terms of benefits from his participation in the research project, PB identified how seeing his progress across the year had been invaluable in building his self-confidence. While feedback from his lecturers and associate teacher had been pivotal, he commented nothing helped quite as much as seeing himself teach (PB, EI). He noted our dialogue, "had opened [his] mind to different theories and strategies" (PB, EI), and caused him to think more deeply about his teaching practice. At the beginning of the project PB indicated his ego might be a barrier to his reflective practice, where his modesty might prevent him being able to affirm his practice. However, the indisputable evidence of
his progress on videotape supported PB to affirm and build his self-confidence in ways that genuinely surprised and pleased him (PB, EI).

At the end of the project he described critically reflective practice as "looking at what you are doing, continually questioning why you are doing it, and what [you] can do to improve it" (PB, EI). While he believed his understanding of the term had not changed, his value of the practice had, "I always saw the value in it, but I now realise it’s a really strong tool" (PB, EI). For PB to be a critically reflective practitioner meant finding congruence between your practice and beliefs, and to consciously differentiate your content and pedagogical strategies to meet the needs of diverse learners (PB, EI).

PB’s research experience revealed four significant insights. First, he reminds teacher educators creating a safe space for dialogue around critical reflection is crucial, particularly when it involves managing the tensions of both affirming and critiquing one’s practice. Second, his experience highlighted observing oneself teach on videotape has multiple affordances including: being able to select a particular lens with which to attend and focus, the opportunity to evidence tangible progress across videotaped episodes, and perhaps most importantly its power to build and affirm one’s self-confidence. Third, we evidenced how video supported PB to reflect on technical and pedagogical aspects of his practice, and while his reflections were often descriptive rather than critical, his reflections none-the-less refined and informed his teaching practice in productive ways. Finally, PB’s experience underlines it is a categorical mistake to assume preservice teachers will independently make connections between formal course theory and their teaching practice. Despite having evidenced how the strategy of repeatedly asking PB to discuss theory actively triggered his critically reflective thinking, over time his valuing of theory to make sense of his teaching practice appears not to have been sustained. In his exit interview he did not name theory as part of his understanding of critical reflection, instead he named beliefs as his preferred point of reference. His experience raises many questions at a programmatic level within teacher education around how to
support preservice teachers to make connections between theory and practice in ways that are meaningful for their teaching practice; questions that are discussed in the conclusion chapter.
Vignette - of participant PC

Participant PC is female and was aged 20 at the onset of the project. She identified her ethnicity as a European New Zealander. She undertook her final year placement at an inner city full primary school\(^8\) with a class of approximately 30 year seven and eight students (aged 10-13 years), and her associate teacher was male.

Initial interview - pre-intervention: "Having feedback could help me develop into becoming a better teacher, that’s what I want" (PC, II)

Her reasons for joining the project were as follows; to build upon our previous experience where I had mentored her teaching practice in schools, and that she wished to receive extra feedback in order to improve her performance as a teacher. Her initial understandings of critically reflective practice included; the notion of debriefing post teaching to find areas to improve, to think about her pedagogy or how she was teaching, and to focus on the content of her teaching. Also, that she asked her students to be reflective about their learning (PC, II). It involved her reflection in-action, she commented, "I’ve noticed that you’ve got to be critically reflective as you’re going, so changing while you’re doing things" (PC, II). She described it as "thinking a lot deeper about [teaching]" and from multiple perspectives (PC, II). In terms of barriers she identified the possibility of over thinking, where over analysing one's practice had potential to become a negative process, "you can’t let it overpower something else" (PC, II). She identified that video itself might be a barrier, particularly when video only captures brief moments of her teaching practice. Her comment, "it is a snap shot, but it’s hard to get the right snap shot I guess" (PC, II), highlighted her concern that it might not always be possible to videotape examples of her teaching that she could affirm or be most proud of.

---

\(^8\) In New Zealand, the term full primary refers to schools that include the year levels 1-8. Students typically enter at year one, aged five years, and exit at year 8, aged 12-13 years.
Beliefs, theoretical frameworks and video: “Teaching involves a seamless blending of theory and practice” (PC, V1I)

Across all her videotaped lessons PC drew upon both her beliefs and theoretical frameworks as filters with which to make sense of her teaching practice. Her core beliefs about how to best support students’ learning included; supporting her students’ confidence and independence particularly as her year seven and eight students would soon transition to the secondary schooling sector. She wanted to create a safe learning environment and build strong relationships with individual students. She identified being able to read and respond to complex, shifting class dynamics as crucial, for instance, "about five of them have in a way been kicked out of other schools, and so now there’s that dynamic of having people, like a pecking order sort of" (PC, V1I). Clearly, she identified part of her role was to support students to build respectful caring relationships with each other and herself. Many of her personal beliefs resonated strongly with the tenets of critical theory (Gramsci, 1995; Habermas, 1984a), for example, her ethic of social justice where she actively sought to listen to and respond to student voice, and her deliberate attempts to tailor her teaching for diverse learners (PC, V1I). Her teaching was driven by an ethic of inclusion, "it’s not sort of singling out the one student with the learning difficulties, because everybody has their own difficulties" (PC, V1I), revealed her determination to respect and empathetically understand her students as individuals. In discussing her beliefs, she critically reflected on her own use of language, and understood how language inscribes particular identities. She resisted the term children, believing the term student positioned her class in a more agentic powerful manner. In her own words, "at school they are students... giving them that acknowledgement that they are in charge of their own learning... every sort of action has a reaction, so what they do is, is their own..." (PC, V1I). She highlighted her desire to support students' autonomy. Other beliefs were similarly driven by social justice, such as, if a student presented challenging behaviours, the next day they would be given a clean slate, "the good day, bad day, new day" (PC, V1I), philosophy was profound within her practice. Her statement, "Yeah I do, sort of teach by that, that could be one of my..." (PC, V1I) suggests this was a foundational belief. Her beliefs emerged from her own experiences, the role model of her parents,
and other role models whom she admired, for example, her sports coaches (PC, V1I). She understood teaching involved enacting multiple roles, and through this process a central belief was "staying true to yourself" (PC, V1I), that is to say, within reason she was not prepared to compromise her own beliefs or integrity.

Theory was an important tool that across videotaped lessons supported PC to make sense of her teaching practice. She named Bronfenbrenner's ecological model (1979) as significant in terms of supporting her understanding of the wider factors in a classroom affecting students' behaviour and learning. She discussed her desire to build a team environment within her classroom, "where we can move forward by being on the same team" (PC, V1I), and her behaviour management was driven by focusing on positive rather than negative behaviours. When asked if she valued theory her reply suggested an inner tension, "um, always on the fence... well you know always for and against, yet staying true to yourself basically" (PC, V1I). Theory for PC must work in context; and teaching involved a blending of theory and practice (PC, V1I). In her second videotaped lesson she described how theory had become an engrained natural part of her practice, where "I'm doing it for a reason, like theory has become part of what I do" (PC, V2I). For PC, the process of blending theory and practice had become an unconscious and seamless process (PC, V2I).

Across her three videotaped lessons her dialogue centred largely on pedagogical aspects of her teaching practice. This made sense as she was often trying out new teaching strategies for the first time. Seeing herself teach supported both her affirmation and critique of her practice and across videos enabled her to notice, consider and re-consider (van Es & Sherin, 2002) wide ranging aspects of her practice. She commented on: her ability to give clear instructions, her use of timing, her ability to break lessons into clear sections, her use of the interactive whiteboard, tailoring tasks to meet the needs of diverse learners, checking children had requisite skills for tasks, her need to explicitly model skills, and her emerging teacher identity amongst other foci. I next examine how her critical
reflections around her use of timing and her emerging teacher identity created powerful leverage for change (Wedman, et al., 1999).

The power of dissonance: "I think it looks like I’m sort of lecturing them" (PC, V1I)

Her first videotaped lesson was filmed early in February 2012. This date is significant, as she allowed me to capture her very first extended lesson with her class. Her lesson employed a PowerPoint and an interactive whiteboard where her focus was teaching students how to write a science report. In the opening footage, she immediately identified dissonance within her practice:

> When I first watched it back I could immediately see I’ve spent far too long, explaining and talking about report writing, and there’s not enough doing, so the people on the mat would’ve switched off sort of thing, some of them would’ve still been engaged, yet looking back I, you know about ten minutes in, I could, could’ve sent them off to do, an activity and then brought them back. (PC, V1I)

With insight her critical reflection touched on multiple aspects of her teaching she wished to refine and change. She noted her use of timing with a very long introduction, risked disenfranchising students’ focus and engagement and that her talk had overly dominated proceedings. She also realised her teaching style had positioned students in a passive rather than active role. Her next observation continued in the same manner.

> When I look at it, I think it looks like I’m sort of lecturing them, and sort of like the teaching style of lecturing, whereas next time I would like to sort of have them go and do something and then bring it back, and then have them work independently on their own. (PC, V1I)

Here, she strongly called into question her teacher identity and with irony implied it resembled the lecturing style of teaching she had at times received during her university course. Her critical reflection carries a double-edged sword, in which she first bravely confronts and critiques her teacher identity, and where she speaks back to the academy, resisting the traditionalist style of teaching which positioned the teacher as the fount of all knowledge, and students as mere recipients (Richards & Richards, 2013). PC also recognised the need to make her teaching more
interactive, and where students could more quickly be engaged in independent work. As teacher educators, her comment raises noteworthy issues and asks us to critically reflect upon our own delivery of formal course materials, in case, as happened in this instance, we see pedagogies not designed for the school classroom, mirrored back to us by those whom we teach.

Her second videotaped lesson took place in June by which time she had established stronger and more personal relationships with her class, "in the first video I did a lot of guess work, I didn't know as much as I know now, so that would bring [it] back to my knowledge of the learner, and how important it is" (PC, V2I). This growing knowledge impacted PC’s ability to better target and differentiate her teaching around students' diverse needs, and importantly meant her practice in-action (Schön, 1983, 1987) was congruent with her espoused personal beliefs. Her critical reflections on her first videotaped lesson instigated pedagogical changes within her subsequent practice, she commented, "so seeing... thinking of the difference, it's quite different [she laughs], and I'm used to sending them away and getting them back and sharing ideas, because it is now quite interactive" (PC, V2I). Her statement is significant, and revealed the power of repeatedly observing herself teach across time where she could visibly evidence change. It also highlighted how PC’s critical reflection on her first lesson prompted beneficial change for her students, instead of passive recipients of knowledge; they were now positioned as independent and interactive.

One change led to another, and her following statement reflected an emerging self-assurance, “I am a lot more confident giving instructions... and setting expectations to allow them to get on with it themselves" (PC, V2I). As teacher educators we need to remind ourselves teaching is a complex messy endeavour (Schön, 1987); seeing herself teach on videotape enabled PC to pull together what might at first appear disparate threads of her practice in ways that enabled her to strengthen her practice. For example, she heightened her critical attention toward her use of time, her ability to give clear instructions, and her emerging teacher identity. These factors, alongside her growing
personal knowledge of her students (and other factors beyond those evident within her transcripts), all worked in concert to orchestrate productive change for her students.

In her final videotaped lesson PC identified how her teacher identity had become more relaxed and with secure relationships established with her students, she had adopted a playful, even drama-like role.

**Interviewer:** Were you happy with your own teacher identity on that video?

**PC:** Yes cause I feel like I can when I do give the examples or, I'm sort of careless like when

**Interviewer:** Mmm

**PC:** I'm giving the example of Harvey Norman [advertisement] I don't mind [she giggles] switching into that role and making the sound of the coke and things, and

**Interviewer:** So, you can be a bit carefree?

**PC:** I think, I think because we've built good relationships and things, ummm they enjoy that

**Interviewer:** Mmm they do, they definitely do

**PC:** And even when I'm when I was giving the examples of the umm video I'm looking at their faces to see, to see how they're watching the movie, whether they're enjoying it

**Interviewer:** Mmm

**PC:** Ummm yeah cause that's what it's all about having a bit of fun. (V3I)

Observing herself teach across interviews had been a powerful tool with which to examine and affirm her emerging teacher identity, and had enabled her to closely observe students' reactions and engagement to her teaching in a way not ordinarily available to her. She described her teacher identity in this lesson, as being far more like herself, a huge shift from her earlier self-identified lecture style of teaching.
Analysing shift: "It's a new way of teaching and learning" (PC, V3I)

It is important to note that across all her videotaped lessons PC continued to draw upon both her personal beliefs and theory from which to make sense of her videotaped teaching. In the following excerpt of our dialogue, PC describes how theory has directly informed her teaching practice. In terms of background context, her third lesson was focused on literacy where she asked students to distinguish fact from opinion, and to critique multimodal advertisements downloaded from YouTube. Within her lesson, she used an interactive whiteboard to visually present the multimodal texts for her students’ critical analysis. With two goals in mind, I next conduct a CDA analysis of this brief section of text, first to examine how our dialogue did, or did not support her confidence to enact a future focused pedagogy of literacy, and in the CDA social analysis section to make explicit the tacit discourses operating within the text.

1. Interviewer: What theories, you know this was coming, or theoretical frameworks do your draw upon to make sense of that videotaped teaching?

2. PC: Having insight from the semiotic systems has actually informed quite a bit of it, ’cause

3. Interviewer: Cool

4. PC: Cause it almost was from the first interviews, it was almost the thumbs up, that it was okay to be so, ummm maybe dynamic in that way

5. Interviewer: Yes

6. PC: I'm teaching

7. Interviewer: Yes

8. PC: Cause umm, it sort of put a name to it, and sort of gave the umm the theory behind it, that it's a new way of umm teaching and learning

9. Interviewer: Particularly literacy

10. PC: Mmm
11. Interviewer: It is, so that's been quite reassuring for you?

12. PC: Yeah, it has

13. Interviewer: Yeah, there is certainly theory to support the way you practice. (V3I)

CDA: Textual analysis and discourse practices

The text opened with our unequal power relations present, “you know this was coming” (line 1) referred to my repeated pattern of questioning across all of her three interviews, and my unstated but inferred expectation she would be able to draw upon theory to make sense of her teaching. In line 2, she quickly named formal theory from her course that had actually informed her teaching practice, we can only second-guess if her use of the word actually implied her surprise, or that theory often informs her practice. Line 4 carries a number of implicit and competing tensions, such as, PC needed the authority "or the thumbs up" of the academy to sanction her new and dynamic literacy practices, and even with my repeated affirmation across her interviews, she understood in her role as preservice teacher it was a risky business for her to pioneer future focused literacy practices in schools (Sandretto & Tilson, 2014). Across lines 5 to 7 we repeatedly affirm it is okay for her to do so. In line 8, she used a number of hedges, or indeterminate phrases, "it sort of" and "ummm" to express how theory can perhaps give a name to this new way of teaching and learning. In other words, she hinted that theory itself had sanctioned her authority to dare to practice new ways of teaching, and for her students to engage with new ways of learning. My question in line 11 asked if theory had provided her such reassurance, and she affirmed this was the case. My comment in line 13 underscored there was indeed a strong body of theory she can draw upon to rationalise a foundation for her practice.

CDA: Social Analysis

The text tacitly embodies two competing discourses around how to enact the teaching of literacy within today's schools, which I next make explicit for the reader. In New Zealand, current Ministry policy frames literacy as "the ability to understand, respond to, and use those forms of written
language that are required by society and valued by individuals and communities" (Ministry of Education, 2003, p. 13, emphasis added). This definition has meant many New Zealand teachers' literacy practices largely focus on supporting students to decode and encode written texts which privilege the linguistic semiotic system. Such practices omit a future focus, particularly when students today need to be able to engage with an ever-widening variety of text types (Anstey & Bull, 2006). From PC's dialogue and her videotaped lesson we evidenced how she enacted literacy practices that asked students to engage with the semiotic systems, including the audio, visual, spatial, gestural and linguistic system (see Anstey & Bull, 2006), and that students then used that knowledge to critically analyse multimodal advertisements. As discussed, this was risky work for PC, where she was pioneering future focused literacy practices, practices which her colleagues and school may have had limited knowledge. In doing so, she had positioned herself as representative of the next generation of teachers who have potential to shift the landscape of how literacy is taught in New Zealand schools; in other words, she had become an agent of change.

While it is often assumed it is very difficult for preservice teachers to impact or change established practices within schools (Zeichner & Gore, 1990), our dialogue evidenced that possibility. That possibility had been fashioned by a number of happenstance factors; such as PC's exposure to future focused literacy theory within her course work, her valuing of theory, and her preparedness to take risks and trial literacy practices beyond those in her current field of vision. For PC, theory had created a space in which she could imagine and enact creative future focused literacy pedagogies with her students (Ball, 1995).

A CDA analysis of this brief, but potent text has raised many interesting questions for teacher educators, for example: how often across our programmes do we critically reflect on the kind of theory we present to preservice teachers, how often do we teach theory that re-inscribes, or theory that shifts hegemonic practices within schools, and how do we support preservice teachers as PC
bravely did, to become agents of change who can challenge and shift taken-for-granted practices in schools? I return to these questions in the conclusion chapter.

**Exit interview - post intervention: "It’s made me aware on a placement you can actually be changing so much" (PC, EI)**

PC named a number of benefits from her participation in the project; as she had initially hoped the project had provided her support and another means of affirmation and advice (PC, EI). Having the opportunity to repeatedly watch herself teach revealed how much she had changed and grown, and highlighted the realisation as a teacher you are never finished, rather always growing (PC, EI). She also understood the importance of sharing something personal about who you are as a person with her students "without giving away too much of course" (PC, EI). She shared with humour that while she was aged only 20, her students at the end of the year thought she was aged at least 35 (PC, EI). I share this anecdote to indicate the skilful manner in which she walked the tightrope of keeping a professional demeanour, alongside establishing warm personal relationships.

The opportunity to repeatedly see visible evidence of her teaching afforded PC multiple benefits. She had the opportunity to see her teaching practice from her students' perspective (Harford, et al., 2010), where "you get to see not only from a different angle, but from the receiving end of it" (PC, EI). This opportunity had enabled her to critique, target and refine particular aspects of her practice, for instance, communicating instructions clearly for her students (PC, EI). While PC strongly recommended video, and that it was like looking through two pairs of eyes, she cautioned, "it matters who is sitting behind it, and how they are perceiving it" (PC, EI). Her statement here, reminds us of the danger that video in the hand of an other remains a form of surveillance with potential to make a preservice teacher feel vulnerable. This is an area requiring careful consideration when implementing video within a teacher education course.

At the end of the project PC described critically reflective practice in the following manner; it meant understanding the many different factors about which, you as a teacher can be critical. Her critical
reflection had focused on, body language, being able to discern if students are picking up what you are delivering, and if that delivery is, or is not helping students achieve their next learning step (PC, EI). Also, to be aware of students’ engagement, and reading and being responsive to their responses to your teaching are crucial (PC, EI). Critically reflective practice required her to consider the efficacy of her pedagogy, her planning and the structure of her lessons, and to use that critique to refine and inform her teaching practice (PC, EI). It also supported her to consider the tension between teacher and student input; in other words the relative agency and power of the teacher and student in determining content and pedagogy (PC, EI), or where she listened to and responded to student voice in order to support student autonomy. She suggested her critically reflective practice occurred largely pre and post teaching, in her words "you’re looking at the layers, sort of when you’re not in the moment of time" (PC, EI, emphasis added), or not in the intense moment of teaching. While Schön (1983) suggests the nirvana of critically reflective practice is the ability to undertake reflection-in-action, the busy and complex demands of her classroom may have meant this was not yet possible for her to achieve in-action.

From PC’s participation in the research project five clear insights emerge. First, we have evidenced across videotaped lessons how her critically reflective thinking prompted praxis (Ginsburg, 1988), in which her beliefs and theory informed her practice, and her practice informed her personal beliefs and theory in an ongoing recursive cycle. By repeatedly watching herself teach PC was able to identify areas to target and refine, and over time to track visible evidence of changes in her practice. Second, we evidenced how her critically reflective thinking across a wide range of foci, including pedagogical aspects of her practice and her emerging teacher identity, refined and informed her practice in productive ways for her students. Third, repeatedly observing herself teach supported her to affirm her teacher identity in ways that were more congruent with her self-beliefs around how to best support students’ learning (Stenberg, 2010). Fourth, we have seen a momentary glimpse of how her exposure to theory, and her willingness to take risks and trial new literacy practices, positioned her as an agent of change within her school. From a critical theory perspective,
reflecting upon her beliefs and theory supported her Immanent critique (Kincheloe & McLaren, 2005), where she was able to challenge taken-for-granted traditional literacy practices through her enactment of alternative future focused pedagogies. Finally, her research experience raises many interesting questions for teacher educators, and asks us to critically reflect on a number of our own practices, such as the kinds of pedagogies we model in our tertiary teaching, and to reflect on the diversity of theory we expose preservice teachers to within their formal course.

As discussed in the methodology chapter, the final three vignettes examine wider factors impacting the preservice teachers’ critically reflective practice, and do not include a section on dissonance. To support the reader to make sense of participants’ dialogue, the introductory chapter provided background contextual information of proposed government changes to the primary and tertiary sector within New Zealand that occurred while the participants’ undertook their final school placements during 2012.
Vignette - of participant PD

PD is female and was aged 20 at the beginning of the research project. She identified her ethnicity as Pākehā. Across the project she undertook her school placement at an inner city full primary school working with a year four-five class (aged 8-10 years) and a female associate teacher.

Initial interview - pre-intervention: "The best way to learn from teaching is seeing it from an outside perspective, and just looking in" (PD, II)

PD chose to enter the research project believing it would support her to, "see what I'm like when I am teaching, [and] the best way to learn from teaching is seeing it from an outside perspective, and just looking in" (PD, II). She identified herself as a visual learner and hoped video would offer her opportunity to closely observe her practice, and support her to maximise her potential as at teacher, "so I can be the best teacher, so when I go out for a job, I can have confidence in myself" (PD, II). PD's identification of her preference for a visual mode of learning was significant. Her comment, "seeing it, rather than just like, writing it down" (PD, II), meant the opportunity to watch herself teach had rich potential to inform her practice.

In the initial interview she described critically reflective practice as exploring negative aspects of your practice, and rather than engaging in a negative spiral, to then seek advice, for example from your associate teacher (PD, II). Critical reflection was about, "how am I going to improve?" (PD, II), and finding avenues of support. She identified her stubbornness, or reluctance to shift her practices in the light of alternatives, as a potential barrier to her critical reflection (PD, II).

Beliefs, theoretical frameworks and video: "I enjoy practicum the most because I see it in action, I see what’s happening, I see what works" (PD, V1I)

Significant beliefs around how she can best support students' learning included creating a safe comfortable environment, where students could approach you if they have issues or need support

9 In New Zealand, Pākehā is a Māori term that distinguishes Māori from New Zealanders of European descent.
(PD, V1I). She identified projecting a warm calm teacher identity was pivotal in developing a comfortable learning environment. In terms of power, she highly valued supporting students' choice, autonomy and self-management, for instance, where students had agency to choose what order they completed set tasks from a given menu (PD, V1I). Her belief of supporting students' autonomy challenged traditional hegemonic arrangements of power within schools, and was reflective of tenets of critical theory (Giroux, 1988; Habermas, 1987). In terms of establishing an effective teacher identity, she recognised the fine line between being too friendly or too firm. In her words, "I think I've got the hang of being friendly, but yet they know I'm their teacher" (PD V1I). She highly valued having a sense of humour, understanding it was a great tool with which to diffuse tension and have fun (PD, V1I). In terms of curriculum, she identified drama as having special potential to engage and support students' learning across the curriculum (PD, V1I). Her beliefs developed largely from positive role models in her own schooling, and her mother who was a special-needs teacher (PD, V1I). It was important to PD that her beliefs were working for her students, for example, she needed to continually be flexible and responsive to their needs and context (PD, V1I).

When asked which theories she drew upon to make sense of her teaching practice, her initial response was resistance, describing herself as, "more of a practical learner, rather than writing it down" (PD, V1I). While her preference was to observe and learn from her associate teacher, exposure to formal theory from course work was also significant. Her comment, "like you'll be in class, and you'll write down a note, and then it will kind of go through you, and you just don't realise where you've picked it up" (PD, V1I), suggested theory had become part of her reflective thinking, but perhaps in a subconscious rather than conscious way. She identified dialogue in class with her peers as an important source of theory, where "you can find out from them what works, what doesn't, and talk to them about things" (PD, V1I). She named Kohn (see Kohn, 1993, 2006) as being influential on her beliefs and practices around how to best support students' learning. For example, where "giving choices, like interactive teaching, like learner teaching, instead of a teacher directed learning kind of thing" (PD, V1I) had all become a valued part of her planning and practice. To meet
the needs of diverse learners she was aware of the importance of having a range of theories from which to draw upon. Rather than reading or writing about theory, PD’s preference was to see theory in-action, such as, observing her associate teacher’s practice (PD, V1I). In her second interview using videotaped teaching, she commented:

To be honest ... it’s much more useful being out there, like the theory is good and especially the books, but I wish we could have more practical lessons, um just because I’m more of a person who learns by doing. So, when you are sitting there you can zone off you don’t mean to, but if you’re sitting there for such a long time you just tend to zone off. (PD, V2I)

Her statement revealed how PD valued theory, but the manner in which content was at times delivered within her teacher education course, risked disenfranchising her interest and engagement. Her forthright comment, "I don’t think lectures are going to help you" (PD, V2I), referred to her dislike of large class sizes with a lecture style format, and her preference for learning within a tutorial setting. Her comment also exemplified dual challenges teacher educators face, how to deliver theory in an engaging manner, and how to make its insights visible and useful for preservice teachers. For PD, for theory to be useful it needed to have practical application within her teaching practice, and she described a preferred style of teaching from her course:

PD: [The lecturer] just like puts up the bullet [point], and bam, this is what you need to know, and it's just made so much sense instead of some other teachers I've had who just kind of skipped around it, whereas [he/she] just, this is what you need to know, this is what you need to do

Interviewer: Mmmm
PD: Oh cool, done
Interviewer: So, that is useful?
PD: Yeah, just if it comes out straight away, like what this is, it makes more sense and then, that's what quite a few people have said about [his/her] teaching and it's just like, oh yep click
Interviewer: Get it?
PD: Got it, done. (V2I)
In this text, from a critical theory perspective, knowledge appears to have been delivered in an uncritical positivist manner, where content knowledge and pedagogy had become "wedded to the immediate and celebrated world of facts" (Giroux, 1997, p. 40), or where there is one truth, one best way to teach. To treat knowledge in such a formulaic or recipe like manner had appeal for PD, where she could quickly lift, and utilise it, within her teaching practice. However, from a critical theory lens, to treat knowledge or theory in this way is problematic, because all theory is value-laden; it will by default include or exclude different interests in any given context (Giroux, 2003). PD's dialogue raises many tensions for teacher educators around course delivery, particularly with the possibility that if theory is delivered in an uncritical positivist manner, it has potential to limit and constrain preservice teachers' practice around prevailing educational ideas and practices.

In her second interview, I asked if there were any reflections from her first videotaped lesson that had influenced her subsequent practice. Her first lesson involved a guided reading lesson 10 where, in less than ideal circumstances, she had worked with a newly amalgamated group of fourteen students, and she had been feeling unwell. Our dialogue captured her critical reflection on her first lesson.

PD: Um definitely, in that guided reading one, I wasn't feeling it, I was flat
Interviewer: Mmm hmmm
PD: I didn't enjoy it, watching that video on myself because I was a negglie nellie [meaning negative]
Interviewer: You were a negglie nellie?
PD: So in this one, I was enjoying it more because I was enjoying it with the kids and it was a much more interesting lesson, whereas with guided reading it was just too big of a group and just the strategy didn't work for me which I have changed now, and but watching this whole class is just fun, and I could see...

10 In New Zealand guided reading is a widely used pedagogy in which typically a group of 4-8 students are supported by their teacher to read and comprehend a text that sits within their instructional level (see Ministry of Education, 2003).
Interviewer: Mmm
PD: And I could use like the questioning, and my voice and that, and just putting it all together and seeing it flow, whereas in the first one it didn't. (V2I)

In this text, her dialogue ebbs and flows between critiques of her first lesson, and identifying changes in her practice that resulted from her critical reflection. For example: her body language and voice now exuded enthusiasm and energy, she had changed her guided reading pedagogy, she was using skilled questioning, and her second lesson had a sense of connectedness and flow not present within her first. Across interviews, video had supported her to identify and address areas of dissonance in her teaching practice. Her critical reflections supported her to close the gap between her espoused personal beliefs and actual teaching practice (Griffiths & Tann, 1992; Larrivee, 2008a). For PD, this was an intertextual recursive cycle across all her interviews using videotaped teaching.

Her second videotaped lesson involved a mathematics lesson focused on volume. As she watched herself teach, she bravely identified that her lack of content knowledge and specialist language was problematic, where at one point she had to ask her associate teacher to clarify a concept as she was teaching. Watching herself on videotape was confronting, but over time proved productive.

PD: Just not being prepared enough
Interviewer: That’s the big one in this, isn’t it?
PD: Yip, that’s not something I ever want to do again
Interviewer: Yeah, it’s a hard one though isn’t it?
PD: It is, it is, it’s just me, I have to do it myself...like nobody else’s responsibility it’s my responsibility, just get it sorted, it’s as simple as that. Yeah, just make sure I know everything, it’s just, it’s simple, I just have to do it. (V2I)

In her third interview using videotaped teaching, she returned to this dialogue and named being prepared to teach as a central belief in her ongoing practice. In her ongoing mathematics teaching, she ensured she had secure content knowledge, and was pleased to report she had shifted students’ thinking in a fractions unit (PD, V3I).
As well as supporting her critical reflection, having videotaped evidence with which to affirm her practice was equally beneficial. In her second lesson she identified her calm positive teacher identity and her effective use of voice and humour (PD, V2I). Video even supported her to identify that she had earned her students' respect, for example, where she could have now fun with the class, but also knew when to pull back, and that her prime role was to be an educator rather than their friend (PD, V2I). Respect was evident in her successful establishment of routines, for instance, students' consistent use of a hands-up pattern during whole class dialogue, and where she could evidence "they were paying attention to me" (PD, V2I). Seeing herself teach powerfully affirmed her emerging confident teacher identity.

Wider factors impacting critical reflection: "Like our principal was saying, 'it's an interesting time to become a teacher', we all took that, we all knew that was a bad time to become a teacher"(PD, EI).

When asked to discuss wider factors impacting her teaching practice, PD named the national standards (see Ministry of Education, 2009a; Ministry of Education, 2009b) as a real pressure, one that caused her to critically reflect upon her own performance.

You have this kind of pressure behind you to make all your students meet this requirement, and then there are students that just won’t be able to, and I’m scared that I’ll feel like a failure of a teacher if I can’t get them to meet that standard because, I’ll be thinking was it my fault, did I not teach them enough? (PD, V1I).

Her comment revealed her anxiety at having enough knowledge with which to teach and shift students' learning, and her awareness national standards are a form of surveillance against which she will eventually be held accountable. However, her anxiety around the national standards proved productive and prompted her to rationalise her pedagogical choices; for instance, she deliberately used drama as a cross-curricular tool with which to engage and "make it a bit more memorable" (PD, V1I), for her students. She also regularly asked students to name what they have learnt at the end of lessons, in order to anchor their learning (PD, V1I). She critiqued the government's requirement for teachers to label students' progress against the national standards four point descriptors including:
above, at, below, or well below standard. Her comment, "so I’ll probably try my hardest to not write, have not met, you can write comments, oh you know, your child is fantastic, like, we’re just not there yet, but they will get there" (PD, V1I) revealed her determination to work productively with political forces that ran counter to her personal beliefs.

PD also discussed how the political threat of larger class sizes, performance based pay and national standards had potential to make teachers vulnerable. For example, larger class sizes would reduce teachers' opportunities to help individual students, and may have created the flow on effect of fewer, not more, students meeting the national standard. She voiced concerns performance based pay might instigate an undesirable competitiveness between colleagues, as evidenced in her comment, "[if] they’re going to bring in this performance pay, teachers aren’t going to be willing to help us, cause why would you help a beginning teacher to get paid more, when you want to be paid more?" (PD, V3I). Fortunately, the political backlash against the Government's proposed changes meant they never came to fruition.

Across interviews, PD demonstrated a high awareness of the political nature of education, and we have witnessed how her reflective scepticism of government policies supported her to strengthen, and articulate a foundation for her teaching practice. In the following dialogue, PD reflected on how her school staff and parents united together in opposition of the proposed government changes.

PD: It was very, that’s what was interesting being at a school when that happened, like you saw what was on in the staffroom, and
Interviewer: Wasn’t it great though? That socially, the way teachers and parents overturned it
PD: Yeah, it was amazing, and it was mainly the parents that made it happen
Interviewer: So, that was quite empowering to see
PD: Like
Interviewer: Teachers are powerful as a group
PD: Yeah, and if you all band together, and I loved how everyone was banding together no matter what school you’re at, everyone came together for this, cause they knew it was ridiculous. (V2I)

Clearly, witnessing such a tumultuous political period in education gave her a sense of joining a united and powerful professional community.

**Analysing shift:** “No one can reveal to you aught, but that which already lies half asleep in the dawning of your knowledge” (Gibran, 1926, p. 53)

In a following excerpt of our dialogue, in order to support her critically reflective thinking, I challenged the manner in which PD implemented her guided reading lesson. She had adopted her associate teacher’s guided reading pedagogy where, seated in a circle, each student took a turn at one of four predetermined roles. The roles were written on cards and comprised: the text leader, text researcher, text summariser and text predictor (PD, V1I). In the role of text leader, a student set the length of the next section which students were asked to silently read, after which the text researcher asked other students if there were any confusing or challenging words within that text section. If challenging words were identified, students with PD’s support considered strategies with which to ascertain their meaning. The third role of text summariser then provided a brief summary of content for group members, and finally the text predictor posed ideas about what might happen next within the text. In her first videotaped lesson, this pattern repeated until the text had been read in its entirety. While the pedagogy positioned students in an active role, my concern was students’ engagement with the text had been very surface, and a formulaic recipe of using roles had overly diminished PD’s role in guiding students through the text in a way that supported their comprehension.

My intention across our dialogue was to prompt shift in her reflective thinking and practice around her use of this particular pedagogy. I hoped to achieve such shift wherein PD, rather than myself, could consider and re-consider the efficacy of her current guided reading pedagogy. In Gibran’s (1926) prophetic words, "If he [sic] is indeed wise, he does not bid you enter the house of his
wisdom, but rather leads you to the threshold of your own mind” (p. 53). In adopting a facilitatory rather than directive role, my goals were two-fold, to facilitate her critically reflective dialogue, and where possible, to mitigate our asymmetrical power relations.

1. Interviewer: A question I’d quite like to ask is, you know when they summarise?

2. PD: Mmm

3. Interviewer: I think what can, there’s, there’s a risk in that, that they just give you kind of a literal

4. PD: Mmm

5. Interviewer: Retelling

6. PD: They’re not giving me the meaning

7. Interviewer: Yeah, or

8. PD: That is one thing I’ve noticed, is that breaking it down so much, it’s hard to just summarise something just that small

9. Interviewer: Doesn’t really work, does it?

10. PD: It doesn’t, because there’s not much happening in that, other than, I think it’s mainly to probably build on their vocabulary

11. Interviewer: Mmm

12. PD: When they started reading

13. Interviewer: Mmm, so like, when you ask something, they are summarising, and if it’s just a paragraph it’s often

14. PD: Too hard

15. Interviewer: It’s too short

16. PD: Yeah
17. Interviewer: And then I doubt that just using those cards you’d ever without being prompted by you, that they would get at the key messages of the text

18. PD: Yeah

19. Interviewer: You know, what was the

20. PD: I think, I

21. Interviewer: I think, I wonder if was there a moral in this story, or what was the key message?

22. PD: ‘Cause [names her associate teacher] does do a lot of prompting, and I think I need to work on more prompting and guided reading

23. Interviewer: Mmm mmmm

24. PD: I’m kind of letting the cards do the teaching for me instead of

25. Interviewer: Mmm

26. PD: Me actually doing it. (V1I)

The following CDA analysis of the text reveals my success (or lack of) toward those two goals.

_CDA: Textual analysis and discourse practices_

The text opened with my use of a passive and indeterminate vernacular designed to shroud my well intentioned, but none-the-less direct purpose of shifting her reflective thinking and practice. Phrases such as, "I’d quite like to ask" (line 1), and "I think what can... there's a risk... that [students] just give you kind of a literal" (line 2) served dual purposes, first to attempt to ease our unequal power relations, and second to begin to gently unsettle her current pedagogy, in order that she might reconsider its use. My use of the pronoun, "you know, when they summarise" (line 1) inferred our complicity and that we had a similar interpretation of her videotaped lesson. Across lines 1-to-3, I sought to suggest the practice of students summarising very short sections of text was problematic, and that their engagement with the text had operated at a literal or surface depth. In line 6, PD
began to take on board this critique, and to shape it in her own words. By line 8, we observe her considering, and critically re-considering her current pedagogy, "That is one thing I've noticed, is that breaking it down so much, it's hard to just summarise something that small" (PD, V1I). My next talk move (line 9), "Doesn't really work, does it?", served to both affirm her critique and invited her further critical commentary. In lines 10-16, our dialogue confirmed having students summarise brief sections of text, such as a paragraph, was ineffectual. In line 13, having posed a critique, I deliberately left a sentence hanging, leaving a gap for PD to fill. She does so, and in line 14 adds evidence as to why the pedagogy wasn't working. In line 17, still using indeterminate language that inferred my own doubt, I proposed the recipe like formula of cards alone would not support students' comprehension of the text. My comments, "I doubt that just... you'd ever... that they would" (line 17) signified my attempts to reduce our unequal power relations. My use of the pronoun "you" in line 17 is significant. I indicate [you], or that she needed to adopt a more active role in guiding students' comprehension, and without that happening, students would be unable to access a text's key messages. This point was further anchored when I suggested students' comprehension had not been evident during her lesson. In line 22, PD reflected on her associate teacher's observed practice, and noted she was far more active in prompting and guiding students' reading, and she needed to heighten her role in a similar manner. In line 24 and 25, we see a significant dawning of realisation from PD; "I'm kind of letting the cards do the teaching for me instead of... me doing it". Here, she identified and named the key issue, that her use of a pre-set pedagogy had replaced her own agency and role as a teacher within her guided reading practice. The analysis of our dialogue, highlighted how PD subconsciously already knew this, and our conversation had merely brought this knowledge to light in sharp relief, and prompted her to reconsider her role within guided reading.

As teacher educators, one of our roles in reflective dialogue with preservice teachers is to facilitate shift in their thinking and/or practice. Conducting a close analysis of this dialogue revealed particular dialogue strategies as helpful, these were: the use of hedges or indeterminate language with which
to mitigate unequal power relations, the strategy of leaving a sentence unfinished or hanging in order to create a space where the preservice teacher can build upon a suggested idea or critique, and the strategy of suggesting an idea rather than telling, so that the preservice teacher can own any resultant change in their thinking and/or practice.

CDA: Wider discourse practices

Across the dialogue, multiple discourses were at play. At one level our dialogue focused on theoretical critique of a particular version, or discourse of guided reading that PD had adopted from her associate teacher. Within this dialogue, I chose not to play off her associate teacher’s version of guided reading with an alternative version sanctioned by her teacher education course. To do so, would have risked re-inscribing my role as the fount of all knowledge, and hers as recipient. While her guided reading pedagogy sought to position students in agentic powerful ways, for instance, where students were driving the pedagogy, it had done so in such a manner, that PD had become overly passive in her teaching role. Identifying a gap between a desirable and less desirable practice for her students, and critically reflecting upon what had caused that gap, was the first step toward PD re-positioning herself in a more active manner in her guided reading lessons.

At another level within the dialogue, discourse or our social use of language had produced power relations and constructed our relative subject identities (Ainsworth & Hardy, 2004; Ball, 1990). In our respective roles as lecturer and preservice student, the institution in which we work traditionally constructs our roles as hierarchical (Giroux, 1988), for example, expert vs. novice, or experienced vs. inexperienced. Within this dialogue I deliberately sought to use language in such a way to minimise our unequal power relations. For instance, rather than telling, I sought to adopt a facilitatory role that opened possibilities for "cogenerative dialoguing" (Hennessy & Deaney, 2009a, p. 618), and where our dialogue became a vehicle in which PD herself could call into question an aspect of her teaching practice, in order to reconsider its use.
Exit interview - post intervention: Video - "You see where you are going wrong, you see what you're doing well, and you always take something away from it" (PD, EI)

A significant benefit of PD's participation in the project, as seen in her following statement, was how in each video she had identified specific areas in her practice to target, and feed forward into her subsequent teaching, and across videos she could visibly evidence her real progress.

PD: Oh like, I’m so glad that each time, that video, like the first one I didn’t have energy, the second one I did have content, like you know and it just....

Interviewer: It was so evident

PD: Yeah, and it was great because it showed that I was actually growing, not just stuck. (EI)

Dialogue actively supported PD to make connections between theory and practice, and without the opportunity to talk about her practice some of those connections may well have been lost. In her words, "until I’m actually speaking to you about it, that’s when I make the connection in my brain that I’ve actually learnt this stuff" (PD, EI). Her statement underscored how important it is to provide opportunities for such dialogue, where theory to practice connections can actively be formed. From videotaped evidence, she discussed identifying positive and negative aspects of her practice as equally important, and that she highly valued the rare opportunity to spend one-to-one time examining her videotaped teaching. Our collaborative dialogue had enabled her to identify and set in-action achievable goals (PD, EI), and, importantly she could visibly identify her progress against set goals across successive videotaped lessons.

Video offered PD multiple benefits. While her first video had been confronting, she no longer felt afraid of cameras, or seeing herself teach. Video allowed her to stand back and consider aspects of her practice she might otherwise have missed, for instance, "I didn’t realise how wonderfully the class was working" (PD, EI). It also allowed her the opportunity to closely focus on students, for example, their engagement with each other, and the task in hand. As seen, identifying tension or dissonance in her videotaped teaching supported her to consciously inform and refine her practice, in ways that more closely aligned with her personal beliefs.
At the end of the project, we witnessed her deeper and more complex understanding of critically reflective practice. She described it as, "looking at yourself, thinking what you’re doing well, what you can change, and how will you go about changing that" (PD, EI). For PD critically reflective practice was now about change, and how change helps you evolve as a teacher. It meant being open-minded and able to target areas of your practice to change, "you just need an open mind, be like, this [is] what I need to do" (PD, EI). Critically reflective practice had heightened her consciousness of finding congruence between her personal beliefs and practice, and supported her self-awareness as a teacher.

Five key insights emerge from PD’s participation in the project. First, we identified how seeing herself teach supported her to identify areas of dissonance in her teaching practice, and across interviews her critical reflections supported her to close the gap between her personal beliefs and teaching practice (Griffiths & Tann, 1992; Larrivee 2008a). Second, having multiple opportunities to see herself teach was important, and allowed her to evidence progress in her teaching in an intertextual cycle across her three videotaped lessons. Third, as teacher educators she reminded us of the challenges of supporting students to make meaningful theory to practice connections, that this is complex, and as teacher educators we need to critically reflect upon on how we do so, within and beyond the academy. Fourth, dialogue appeared to be a crucial factor in supporting critically reflective thinking, and as PD’s case illustrated, we need to support preservice teachers to discuss and actively make theory to practice connections. A CDA micro/macro analysis of talk moves within our dialogue, shed valuable light on explicit strategies that in PD’s narrative, appeared to support critical reflection. Finally, across 2012, PD’s practicum experiences were set against an unsettled political landscape, however, as evidenced, asking PD to discuss wider societal factors impacting her teaching practice appeared a successful strategy in supporting her critically reflective thinking, which in turn supported her to rationalise a foundation for aspects of her practice.
Vignette - of participant PE

Participant PE is female and was aged 21 at the onset of the project. She identified her ethnicity as New Zealand Māori. She undertook her final year school placement in an inner city primary school. Her year 5-6 class of approximately thirty students were aged 8-11 years, and her associate teacher was female.

Initial interview - pre-intervention: A great opportunity for me to advance my teaching

In previous school placements, PE had found critically reflecting on her practice useful and she hoped the project would support her to refine and inform her teaching, in particular her classroom management, "I think I struggle with management and how to approach it, and I think through this critical reflection, it will help me to sort that out" (PE, II). In her initial interview she described critically reflective practice as "looking back at what I’ve done, what went right, what went wrong, how I could improve" (PE, II). She described critically reflective practice as looking forward, as well as back, in Schön’s terms (1983) reflecting on-action, rather than in-action. She described a barrier to her critical reflection was her propensity to be negative. To overcome this she hoped to develop a habit of "identify[ing] three positives, and then look at one negative, as opposed to going, oh, I need to do, I needed to do that" (PE, II). She was not concerned about the prospect of being videotaped and looked forward to having opportunity to observe her teaching practice from her students' perspective, where "you can really see how it’s affected the children" (PE, II).

Beliefs, theoretical frameworks and video: Theory - "So yeah parts I agree with, other parts I don’t, and I think the only way that you can become a better teacher is by practice" (PE, V2I)

In terms of beliefs underpinning her practice she highlighted the need to create a comfortable learning environment for her students, "[that's] so important because if they’re not comfortable in their environment you’re not going to get the learning out of them that you’re trying to get out of them" (PE, V1I). She was aware how important it was she built relationships with her students where "I’m not just their teacher I’m their friend as well, and they need to respect me as well" (PE,
She hinted here at an inner tension of finding a balance between having a professional and also a warm and friendly teacher identity.

In terms of management, a key belief was to have "a firm like minimal tolerance but at the same time allowing [students] the chance to you know, sort of speak out, and say how they feel" (PE, V1I). In other words, she wanted her teaching to remain flexible and responsive, where she could include and validate students' voices alongside her intended lesson plans. She described her teacher identity as "I wouldn't call myself a strict teacher, I'm firm but fair" (PE, V1I) and where her management was driven by seeking to affirm students' positive behaviour and learning. A further key belief was to support students' autonomy, for example, "if they're not doing what they are meant to be doing, I say what should you be doing?" (PE, V1I), her comment here reflected her desire to support her students' independence and self-management. She described her teacher identity as present and conscious, where "I’m sort of, I’m not I’d probably call it like an absent teacher... I'm always walking around... during a lesson I wouldn't sit down at a desk at all, I'm always there, I'm watching over them" (PE, V1I). Another significant belief was to consistently convey an active and enthusiastic teacher identity through her use of voice and body language. Her beliefs were influenced by a number of factors including, her childhood experiences where as an only child her parents were highly influential, and in her words "the opportunities that I've been given in my schooling have reflected on who I am, and how I am as a teacher myself" (PE, V1I). Her experience as a boarder during her high school years was also significant, where "boarding school had a huge affect on me with my organisation, and yeah... how I manage myself, who I am just everything" (PE, V1I).

When asked which theoretical frameworks she drew upon to make sense of her teaching she discussed Hole and Hall-McEntee's (1999) article focused on preservice teacher reflection. In the article, the authors advocated for teachers to have freedom to be spontaneous and make the most of authentic and engaging events around them, rather than feeling over burdened and constrained by government and school policy demands. The reading strongly resonated with PE in that she
desired such freedom to plan her teaching around current local and world issues, rather than necessarily always having to follow a predetermined school curriculum plan. Her reference to Hole and Hall-McEntee illustrated how she used theory to support her freedom and autonomy in the classroom, and where in an ideal world, she would have major control of her classroom programme. In other words, she used theory as a site of resistance rather than compliance (Ball, 1995). Across interviews, while reluctant to name any other particular theorists, she described a number of pedagogical strategies she had been exposed to during her teacher education course that were now embedded within her teaching practice. These included: valuing her relationships with students, teaching authentic engaging content (PE, V1I), her use of modelling, scaffolding and questioning to support students' learning, and her conscious use of praise to affirm students' behaviour and learning (PE, V2I). In her third videotaped lesson she also discussed allowing students more freedom and choice within her classroom, where students could choose where they sat, whom to work with, and so forth (PE, V3I).

For PE, it was important theory worked in context, and for the individual teacher, "so I think it’s taking from you what you think is important, and what you feel you can take out of it as well. So yeah, parts of [it] I agree with, other parts I don’t" (PE, V1I). As such, theory was about trial and error and seeing if it worked for her students. She also used theory to position and model herself as a lifelong learner with her students, for instance, she regularly asked her students for their input. In her words, "so what did you like about the lesson and what would you have liked to, or like just at the end of the topic even, what would you have liked to see?" (PE, V1I). That is to say, she wanted to know if her teaching informed by her personal beliefs and theory was in fact working for her students, and she sought and valued her students' feedback. She described her use of theory as often unconscious, or where her teaching was on automatic pilot, in her words "a lot of the time it's, it's just do it" (PE, V2I). For PE, theory seamlessly blended with and strengthened her practice.
Across her videotaped lessons a great deal of her dialogue was focused at a descriptive level around pedagogical aspects of her practice and her emerging teacher identity. While much of her dialogue tended to be affirmative rather than critical, a hallmark of her reflective dialogue was her ability to rationalise a foundation for what it was she was doing, and why. For example, in the opening scenes of her first videotaped lesson PE closely examined the effect of her use of voice and body language as powerful tools with which to motivate her students.

PE: Within my speaking that really, like I really captured them, and they were really engaged
Interviewer: See your voice... your voice is a very important tool
PE: Yeah
Interviewer: Isn’t it?
PE: Yeah I think, like especially in this lesson, like I just really used that and I was using like the lows and highs, and just yeah
Interviewer: Mmm hmm, using your voice as a really engaging tool
PE: I use my hands as prompting quite a bit as well
Interviewer: Yeah, so it’s not just your voice is it?
PE: No, I’m not just sitting there relaying it to them, I’m like using my hands I’m acting it out as well... And I think you know that came round with my hand movements and like the way I was speaking and that just totally like gripped them, they were just there, and I was like wow [she laughs]. (V1I)

Her dialogue captured her own surprise at the dynamic engaging manner in which she taught. Video offered her the rare opportunity to critically reflect on how a number of diverse elements had combined powerfully in her communication with students. She reflected on the sound, intonation and volume of her voice, and how her body language was equally important in her communication, and that in combination these elements invited students' interaction, rather than their passive involvement. This excerpt demonstrated her ability to critically reflect upon, articulate what was working well within her practice, and why.

In the following dialogue, PE reflected on the perfunctory manner in which she gave instructions.
Across lessons she consistently gave clear instructions, and used time as an effective management tool where students were very clear about what they had to do within given time frames. Other strategies she observed and commented on included her management of resources; for example, her efficient methods for handing out and collecting in books and materials, and as she roved the class she often carried a clutch of pencils ready to dispatch, rather than have students waste time looking for, or sharpening pencils (PE, V1I). Seeing herself teach enabled PE to identify and name successful strategies she regularly employed in her practice. Video offered her a window, from which she could examine aspects of her practice that were shaping and defining her emerging teacher identity.

Across her videotaped lessons she used insights from her critical reflections to refine and inform her subsequent teaching, such as, in her first lesson she identified her overuse of the phrase fantastic, and in her second lesson she consciously self-monitored and changed her language use to become more explicit in how she gave praise to students (PE, V2I). In her first videotaped lesson, she observed how her tall physical height could be a barrier when working with individual students, "I noticed in that last one I didn't so much get down to their level, so I started doing that" (PE, V2I).

Video afforded her the opportunity to examine how she supported student dialogue. In her second videotaped lesson, PE identified she could have used a pair-share dialogue pattern more often, so that all students had opportunity to talk with a partner, not just those who were prepared to put their hand up to speak. Her third videotaped lesson involved guided reading and to maximise all students' participation she deliberately heightened her use of pair share dialogue, where rather than
relying solely on a teacher-student-teacher-student pattern of dialogue, she actively fostered a student-student-teacher-student dialogue pattern. In her words, "they’d all have input, but not only would they have separate input, they would talk to each other" (PE, V3I). The opportunity to see herself teach, enabled her to notice and reconsider her use of dialogue in significant ways (van Es & Sherin, 2002), where students were no longer positioned as passive recipients, rather they were expected to be interactive and agentic learners.

Across her videotaped lessons PE drew upon both her "personal and public theories... as living tendrils of knowledge" (Griffiths & Tann, 1992, p. 71), and both informed and refined her practice in productive ways. Her critically reflective thinking around her videotaped teaching also appeared to have heightened her conscious use of effective pedagogical strategies, with which to support students' learning.

And seeing you know, like you know it’s all well and good reflecting after a lesson on what went well and what didn’t, but there’s little underlying things that you don’t pick up on until you’ve watched it on the video, like oh I did that, oh and you’re actually watching yourself. (PE, V1I)

Seeing herself teach had been pivotal in supporting her self-knowledge as a teacher, knowledge that may have been unavailable for her reflective consideration without that opportunity.

**Wider factors impacting critical reflection: "These children are our future, and I don’t think national standards helps that"** (PE, V1I)

As discussed in the introduction chapter, 2012 was a year fraught with political turmoil and uncertainty for both the primary and tertiary teacher education sectors. When asked in her first videotaped lesson about wider factors impacting how she reflected on her teaching, her dialogue prioritised national standards as an area of concern. Her major concern was because students all learn at different rates, it is disrespectful to judge a student using a one size fits all tool (PE, V1I). In terms of pressure to have her students perform well against the standards, her comment, "I think it’s ‘cause at the moment I’m not so much, well I am responsible for these children, but the real
responsibility isn’t all mine, and I’m not the main teacher in the class as such” (PC, V1I) revealed how her position as a preservice teacher absolved her of some of that weight and responsibility. In her second interview her critique shifted toward the Minister of Education’s large-scale agenda to reform New Zealand’s teacher education programmes based around a postgraduate qualification, a qualification potentially able to be completed in a one or two year period. This new postgraduate qualification, if enacted, would have privileged an apprenticeship model of observation over traditional university theory-to-practice models. Near completion of her three-year undergraduate qualification, this possibility caused PE considerable consternation.

PE: When they said about the, you’re going to have to have a postgrad degree, I [was] like I’ve just spent three years at Uni
Interviewer: Mmm
PE: With this much you know debt over me, and now they’re going to say I’m not a qualified teacher cause I don’t have a postgrad, I was like, I just found it ridiculous, like three years specialised in
Interviewer: Curriculum
PE: Education
Interviewer: Yeah
PE: And everything, and like teaching for three years as opposed to someone who’s gone and done the likes of chemistry and have come into to do one year of you know? (V2I)

Her dialogue powerfully captured her indignation at how the potential change in teacher education qualifications might undermine her undergraduate degree and make her less competitive in a highly competitive job market; also that her three-year degree had obliged her to accumulate personal financial debt.

In her third interview, PE’s dialogue around wider factors returned to her concern over national standards and how she could work with productively with a system of reporting to parents that ran counter to her personal beliefs. Her comment regarding her students’ end of year school reports to parents is insightful, "it doesn’t, like if I don’t understand it, like I saw all my kids’ reports, and it
showed they were at the standard but their parents didn’t know what the standard was, they just know they are at it” (PE, V3I). While one of the original goals of the National Standards had been to report to parents against the national standards in clear and user-friendly language, PE’s critical reading suggested this goal had not yet been achieved in her school context.

In her third interview her comments indicated a sense of ambivalence, possibly framed by her awareness she seemed unable to impact or change wider political agendas:

In honesty, I’ve actually just tried to kind of not really think about it, and what will be will be, like I’m still intact or not any more, but I’m still in teacher training and my influence on theirs isn’t going to change it, so I think probably now would be my time where I would sort of look more into it. (PE, V3I)

Her comment revealed her tension at trying to stay intact or true to her own beliefs, alongside knowing when she won a teaching position, she would have to find ways to work productively with political initiatives that run counter to her personal beliefs. While PE was aware of the uncertain political terrain that surrounded education in 2012, her critically reflective thinking functioned at an abstract rather than practical level, this was not surprising as her comment captured, "when the real responsibility isn’t all [yet] mine" (PE, V1I). None-the-less, our critically reflective dialogue around wider factors appears to have heightened her consciousness of how politics impacts and shapes the daily work of teachers within New Zealand.

**Analysing shift: ”To become a teacher they had to educate me, as I had educated them" (PE, EI)**

In her first interview while discussing her beliefs, PF had identified an inner tension around her teacher identity, where "I’m not just their teacher I’m their friend as well, and they need to respect me as well" (PE, V1I). In her last interview, we revisited this theme.

1. Interviewer: And it’s about relationships, isn’t it?
2. PE: Yeah, it is. Everything relates back to relationships, and if you’ve got, I think that’s probably one of my strengths, is relationships and being not only their teacher but someone that they can turn to if they need that

3. Interviewer: So they are not a friend. You’re avoiding the word ‘friend’, or are you?

4. PE: Well I’m not so much, I am a friend, but friend can be interpreted as wrong on so many levels

5. Interviewer: A friend is a funny one, isn’t it? At the beginning of the year you might not have thought that. But friend isn’t the right word, is it? I’m just interested that you are avoiding it?

6. PE: Significant other?

7. Interviewer: That you are a significant other, Yeah. And do you see yourself as an educator?

8. PE: Yeah. Or no, because I feel like I’m learning with them as well. It’s not, I mean I’m educating them but they’re educating me as well. They’re an educator as well. For me to become a teacher they had to educate me, so yeah, it’s a tough one

9. Interviewer: That’s a lovely line you’ve just said. What did you just say?

10. PE: For me to become a teacher they had to educate me, as I educated them.

11. Interviewer: That co-construction’s so important. Interesting, I think that’s quite a shift. It’s an insightful observation. (EI)

**CDA: Textual analysis and discourse practices**

The text opened with my question inviting her to talk about her relationships with her students. Her emphatic, "yes it is" (line 2) revealed her agreement that relationships are pivotal. Her use of an indeterminate phrase, "I think that’s probably one of my strengths" (line 2) suggested her reluctance to affirm her practice, even though she is aware this is one of her strengths. She then commented, "not only being their teacher, but someone they can turn to if they need that" (line 2) hinted at her understanding as a teacher you need to enact multiple roles. Wanting to push her dialogue to
become more explicit around her teacher identity, I next played devil's advocate. I referenced her earlier use of the word friend, and suggested she was now avoiding that term. My comment "or are you?" (line 3), slightly softened my direct speech and invited her further commentary. In line 4, she opened with a hedge, "well I'm not so much" suggesting her resistance to the term friend, but she then wavered, "I am a friend" (line 4). This captured her inner tension of wanting to have a professional teacher identity, alongside managing a friend-like relationship with her students. In the same line, she began to problematise the word friend, and implied it had multiple and not always positive meanings around a student-teacher relationship. In line 5, I picked up on this discourse and concurred that friend is not the right word, inferring we need to find other language with which to think and talk about teacher identity. To further clarify her thinking around a troublesome term, I asked her why she was avoiding its use (line 5). In line 6, PE suggested another term, "significant other", implying to teach is to be a significant other. Here, I regretted not affirming her shift in language, instead I asked, "do you see yourself as an educator?" (line 7). Her reply (line 8) played with the term educator as both a noun and verb, where both she and her students were positioned as agentic. To be an educator for PE implies a two-way street, where she and students can both educate each other, or where there is a reciprocity of roles, rather than seeing the teacher as the fount of all knowledge. In line 9, I reaffirmed her sentiment, and seeking further clarity around how she understood her role as a teacher, I asked her to re-articulate her statement. She did so, and her reply is powerful, "for me to become a teacher they had to educate me, as I had educated them" (line 10). This represented a significant shift in how she now talked about her teacher identity and the kind of role she aspired to enact. At the conclusion of this text, in seeking to capture the essence of her statement, I suggested the term co-construction, and re-affirmed her insightful observation. Across this brief text, our dialogue has moved in an arc, shifting from loosely discussing relationships as being important, to using a metalanguage that described how those relationships function. As observed in her critically reflective dialogue, PE aspired to build relationships founded on
partnership, and to position her students not as passive recipients, rather as co-constructors of knowledge.

CDA: Social analysis

There are a number of implicit wider societal and institutional discourses at play within this text. Society expects a teacher’s identity to be professional (Killen, 2003a; McGee & Fraser, 2012). To be a professional teacher carries a tacit expectation of maintaining a professional distance, for instance, where a teacher can establish warm effective relationships but not overstep the mark of becoming too accessible or too friendly. A critical reading of the word friend within the realm of teacher-student relationships implied an overstep of this professional boundary, and this was the tension PE wrestled with, as she initially discussed her beliefs around how best to support students’ learning. In the text, PE re-framed how she talked about her teacher identity and chose to draw upon a discourse or metalanguage that positioned her students as knowledgable and able, where they could co-construct knowledge with her. The text highlights the challenges preservice teachers face in establishing an effective and professional teacher identity, and how important it is for them to have a metalanguage with which to think about and name the kinds of teacher identities they seek to enact. As evidenced in this text, having such a metalanguage supported PE’s critical reflection, and her ability to rationalise a foundation for the kind of teacher identity she aspired to enact.

Exit interview - post intervention: Video - "By watching it, you’re putting yourself in the child’s eyes in a way, seeing what they’re seeing, you don’t see that when you’re teaching it" (PE, EI)

PE’s dialogue summarised what she has most valued from her participation in the project:

I’ve gained honestly so much from this, being able to reflect myself on my own teaching without someone actually telling me, ‘this is what you’re doing’. I’m seeing it for myself and I can cringe, or I can be like ‘Yep, this is good. I like what I’m doing, I’ll continue to do this.’ So that’s being able to, obviously critically reflect myself as opposed to having a lecturer come in and be like, ‘Oh, you’re doing this’, you know, you should be doing this.’ It’s kind of like I’m able to make those decisions myself. (PE, EI)
Her comment evidenced how the privilege of observing herself teach had supported her to both affirm and critique her own practice, and how she has appreciated the opportunity to independently assess her performance as a teacher, rather than rely on the judgment of an other.

Video afforded PE multiple benefits, for example, opportunities to gaze at, and affirm aspects of her practice ordinarily unavailable for her scrutiny. She commented, "when I watched my videos I can see how the kids respect me, whereas when you’re looking at it in front of, when it just happens throughout the day, you don’t see that so much" (PE, EI). Video also allowed her a closer understanding what it was like to be a student in her class, "by watching it, you’re putting yourself in the child’s eyes in a way, seeing what they’re seeing, you don’t see that when you’re teaching it" (PE, EI).

At the end of the project PE described critically reflective practice in the following way; it involved examining positives and negatives in your practice, and that you can draw upon theory, experiences and other peoples' perspectives to make sense of your practice. A key aspect of critically reflective practice for her was to understand how your practice works, and how you might do it differently. She identified the most significant change in her understanding of critically reflective practice had been her preparedness to not only critique, but also to affirm her own practice (PE, EI).

Five key insights emerge from PE’s participation in the project. First, that she has been able to draw upon both personal beliefs and theory in order to critically reflect on her videotaped teaching practice. In other words, we have seen praxis (Ginsburg, 1988), across these three texts, where they have each informed and strengthened each other in a recursive cycle. Second, across her videotaped lessons, PE’s critical reflections supported her to target specific areas of her practice to refine and improve, and over time she visibly evidenced her subsequent growth (PE, EI), highlighting how important it is to have opportunity to observe yourself teach on more than one occasion. Third, video enabled her to closely examine, critique and affirm her teaching practice. In her words, "it’s
probably assisted with my reflection process of how I do things” (PE, EI), where she could attend to, and judge the efficacy of particular teaching strategies. Her resultant self-knowledge enabled her to strongly articulate a foundation for her teaching practice. Fourth, it is evident how our dialogue around wider societal factors supported her critical reflection, but where her critique remained largely at an abstract rather than practical level. As discussed, this was not perhaps surprising when in her role as a preservice teacher she had many, but not yet the full responsibilities of a classroom teacher. A final insight was how our dialogue prompted her to critically reflect upon, and re-consider the metalanguage she drew upon to describe her teacher identity, in productive ways for both PE and her students.
Vignette - of participant PF

PF is male and was aged 22 at the onset of the project. He identified his ethnicity as New Zealand European. He undertook his final year of practicum experiences in an inner city primary school. His class consisted of year one students, aged between five and six years of age, and his associate teacher was female.

Initial interview - pre-intervention: "Reflection is one of my strengths, I want to learn how maximise the benefits you can get out of reflection" (PF, II)

PF entered the project having received feedback from lecturers that reflective practice was one of his core strengths, and he wanted to "learn how to maximise the benefits you can get out of reflection" (PF, II). He also indicated his aspiration to pursue further tertiary education with the goal of completing a Masters and Doctorate, and he hoped his involvement in this project would provide insights into the world of tertiary research (PF, II).

He described his understanding of critically reflective practice in the following manner: looking at what went well, what went wrong, and then talking to other people to get multiple perspectives, before looking at how to improve your practice (PF, II). He described integrating other people’s perspectives alongside his own beliefs as important. Also, to continually ask a variety of questions about your practice, including: who, what, where, why, and how questions (PF, II). In terms of barriers to his critically reflective practice, he commented, "I guess not being on the other side, not seeing myself" (PF, II), that is to say, he wanted to see beyond his current teaching and try alternative practices, and he believed the opportunity to see himself teach would be beneficial in this regard (PF, II).

Beliefs, theoretical frameworks and video: "We are lifelong learners, so I like just being critical of everything" (PF, V1I)

Across his interviews, PF expressed a number of beliefs and theoretical frameworks that underpinned his teaching, which he drew upon to rationalise a foundation for his practice. Before
illustrating if, and how our dialogue around his videotape teaching, did, or did not support his critically reflective thinking and/or practice, I first summarise the personal beliefs, and formal theory he identified as significant to his teaching practice.

PF highly valued knowing each student as an individual, for instance, having knowledge about their interests and prior knowledge was pivotal in his planning (PF, II). Identifying students' prior knowledge meant in his words, he could then “target their zone of proximal development” (Vygotsky, 1986), in order to best support their learning (PF, V1I). In this brief comment, we evidence PF seamlessly using theory to provide a foundation for his personal beliefs; this facility was a characteristic feature of all his interviews using videotaped teaching. Building relationships was a foundational belief for PF; relationships where his students felt safe to take risks, and where it was a safe place to make mistakes (PF, V1I). He strongly believed in establishing effective relationships with parents, and with his year one class he had this opportunity as parents dropped off and picked up their children from his classroom each day. He sought to build relationships founded on trust and respect, for example, where "you treat other people how you would like to be treated" (PF, V1I). He also identified having high expectations for all his students, alongside never underestimating students' abilities, as central beliefs (PF, V1I, V3I). He commented how essential it was to be prepared with all resources for teaching, which meant, "the environment was nice and safe" (PF, V1I) for both PF and his students. He described how he had adopted a mindset of criticality, a criticality toward everything, including his beliefs. In his words, if his beliefs were not working, "then something [had] to change" (PF, V1I). His habit of criticality strongly resonated with the principles of critical theory, where nothing can be taken-for-granted and all personal beliefs (and theories) should be subject to scrutiny and critique (Halliday, 1998). His beliefs had been strongly influenced by his family, particularly his father, whom as a professional educator was a significant role model for PF. Other important influences he named included sports coaches and his schooling experiences (PF, V1I).
When asked to discuss which formal theories he drew upon, he named three theorists whose work had particularly influenced his thinking and teaching practice. The work of Bishop (2003) had influenced his beliefs around equity and diversity, and led him to appreciate, "everyone has a [unique] story to tell" (PF, V1I), and that he needed to listen to and respect the stories of his students. The work of Bronfenbrenner (1979) prompted him to take time to get to know the wider ecological factors influencing students' behaviour and learning, such as, the influence of home and family. The work of Vygotsky (1986) and his work around the zone of proximal development influenced how PF thought about, and used assessment information to inform his teaching. PF stated he highly valued theory, as it supported him to know "the why behind what I am doing" (PF, V1I).

PF described himself as a lifelong learner, and a prominent feature of his interviews was his propensity to ask critical questions about his practice. His questions were fuelled by his determination to continually refine and improve his teaching practice. In his first videotaped lesson, when he taught a brief warm up number game, he wanted to know if he had needed an explicit WALT 11, and "I just wasn't sure how specific it needed to be?" (PF, V1I). Here, he was questioning the kind of role he needed to enact, or how direct or explicit his teaching needed to be in that moment of time. We agreed in this instance with such a brief game he didn't need a WALT, and in our ensuing dialogue we discussed how important it is to continually question when, and how you use them. In the same interview, he asked about the pros and cons of sitting at a higher level than his students when he was teaching in a whole class setting, and asked for my thoughts about that.

Like I am up here sitting and looking down on their work, I can see a lot more so that is a benefit of it, but I just wonder how the lesson would go, if I was down at the same level, and like how the teacher is always up higher. (PF, V1I)

11 WALT is an acronym for, "We are learning to". This phrase often precedes a specific learning outcome which a teacher may share in an oral or written form with students (see Absolum, 2006).
In this excerpt, PF challenged traditional hegemonic power relationships between students and teachers, and he identified how an often invisible discourse, the use of space (Yates & Ussher, 2008) had inscribed unequal power relations. In our ensuing dialogue, we concurred when teaching the whole class it is advantageous to be able to see all students, but in small group work he might consider sitting at the same height as his students, and ultimately flexibility is needed around different contexts. This excerpt illustrated how PF was prepared to critically reflect and analyse taken-for-granted aspects of his teaching, in order to challenge hegemonic teacher-student power relations (Ball, 1995; Giroux, 2003; van Es & Sherin, 2002).

Across his interviews, his critically reflective questions explored a wide range of foci within his practice, including seeking advice on management strategies, such as, "I like, I've noticed when I clapped that, I wasn't loud enough, or they weren't ready for it, or if it was too loud in the first place, just wanting your thoughts on gaining attention?" (PF, V2I). His question here evidenced the focused attention with which he has observed and critically reflected upon his practice, and revealed his determination to continually refine his practice. He also asked questions around content knowledge, for example, in his mathematics lesson, "Do I cover subtraction, or do I keep going with addition" (PF, V1I). Here, PF was seeking advice at a micro level to identify the next steps in his mathematics teaching, and at a macro level to identify a logical progression in advancing students' addition and subtraction knowledge. As we watched his videotaped teaching, he often directly asked my opinion on his teaching performance. For instance, in his first videotaped lesson, one child had lost focus and he was unsure if this needed his intervention, "Yeah, so just that little bit where he got distracted on, like I was wondering what, who, should I have been watching..., I was just wondering what your thoughts are on it?" (PF, V1I). Across his interviews, there was a vulnerability in how PF was prepared to ask hard questions about his practice, questions that had potential to expose his areas of weakness. His questions revealed his attitude of open-mindedness (Dewey, 1933), wherein multiple aspects of his practice were available for our scrutiny and critique. This mindset of
Immanent critique (Habermas, 1984a), revealed his determination to continually refine and inform his practice in advantageous ways for his students (Giroux, 2003; Kincheloe & McLaren, 2005).

A particular focus for PF was how he was using praise in the classroom, and in his first videotaped lesson he noticed he was not using praise as much as he had thought.

It’s just what I thought I was doing, I am not actually doing it that much, because I feel like I have got to do it more I have to..., because they need it, it motivates them I don’t know, feel good about themselves, and they can take risks if you keep doing it like that, and they were, they were still taking risks and they were guessing, and stuff but, I am just wondering if I did it more? (PF, V1I)

In this excerpt PF wrestled with finding congruence between his enacted practice, and his personal belief that praise when used effectively (not too little, or too much) had potential to support students to feel safe, and to take risks. I next challenged his thinking, posing the question, "so how do you use praise that really counts..., what is the difference?" (Interviewer, V1I). His reply identified he needed to become more specific in his use of praise, and where he explicitly named not only desired behaviours, but also used praise to focus on actual learning, for example, "refer to the WALT as well" (PF, V1I). He described his management of the learning environment as 90% praise where he had developed a habit of catching students on task, rather than focusing on negative behaviour.

It appears that the combination of our dialogue and his criticality enabled him to think about praise and its use in deeper and more complex ways. In his third videotaped lesson it was evident that insights from our dialogue had prompted subtle shifts in his practice, where he was now more conscious of actively connecting praise to learning, rather than only using praise to reinforce desired behaviours. He also identified he was still working on the balance of not overusing praise, where instead he would seek to use praise to recognise students' exemplary or high achievements (PF, V3I).

In his initial interview PF identified a barrier to his critical reflection, as "I guess not being on the other side, not seeing myself" (PF, II). Video afforded him multiple opportunities to view his teaching from the other side, or where he could closely focus on students and their engagement,
so that bit was really cool, the opportunity to realise that, and see who was really... paying attention, or getting on to work straight away, or just how they did it, did the work, as most of the children were on task. (PF, V2I)

He explained here, that when teaching there is often so much going on it is impossible to stand back and observe how engaged and responsive students were to his teaching. Video provided him that opportunity, and the opportunity to observe himself teach on more than one occasion was significant. In his final videotaped lesson, he commented on his desire to keep growing as a teacher.

Interviewer: Mmm, so you’re happy with your teacher identity, the way you look, sound and project yourself?
PF: Yep yep... I’d like to be... and there’s a lot that I do like, mmm and how I’ve grown
Interviewer: Fantastic, yeah
PF: But I can still see a lot of room for improvement, or what to improve on, or what to do more of, and where I want to be. (V3I)

This excerpt illustrated how PF had the opportunity to affirm and track changes in his teaching, and importantly to identify where he could still improve and refine his practice. In his final videotaped lesson when asked how he had grown from his first lesson, he described how he developed "a hyperawareness as a teacher" (PF, V3I). For example: he now knew which factors to pay attention to, and those he could afford to let go, he knew when to be directive and in control, or when to offer students’ choice, and he could now better read, and flexibly respond to students’ observed needs. While these changes were in large part due to his extended practice in schools, observing himself teach enabled him to name and own resultant changes. Changes that gave clearly him pride and pleasure, "yep, what I’ve grown into, I am very pleased with" (PF, V3I).

**Wider factors impacting critical reflection: National standards - "It didn’t have a massive impact on me" (PF, V3)**

When asked about wider factors impacting his critical reflection, he immediately identified national standards as an area of concern. He critiqued the notion of having a one size fits all tool, believing it
caused additional and unnecessary pressures on already busy teachers (PF, V1I). In his second interview, he reflected on the Minister’s proposal to increase class sizes, and his surprise at the fervour with which his school management team had reacted against the proposal. In his final videotaped lesson, his dialogue returned to national standards and that even in his final extended practicum block, "it didn’t have a massive impact on me" (PF, V3I). However, by the end of the year with the support of his associate teacher, PF was pleased he had been able to track shift in some of his students' literacy levels, as revealed in his comment, "when national standards got done halfway through the year [he] was below, but now he’s above, it’s yeah that’s just what national standards... just proved it" (PF, V3I). We can only second-guess if this positive experience, of having an instrumental tool with which to evidence his students' progress, tempered his earlier critiques around national standards. PF also commented how his school chose to use just two of the available four point descriptors, (at, above, below and well below standard) when reporting students' progress to parents. For example, his school only used working towards, or at the standard. By choosing to not use the below standard descriptor to report to parents, PF witnessed how his school had resisted labelling children in deficit ways. While his dialogue around wider factors impacting his critical reflection remained largely abstract, rather than practical, it revealed his political consciousness and his preparedness to critique proposed government initiatives during 2012. PF was also aware as a teacher he was joining a powerful professional community, whom he had witnessed actively resist and overturn proposed government policies.

**Analysing shift: It used to be - "How am I going to teach these children over a whole day, now it’s I don't have enough time" (PF, V2I)**

In the following excerpt of text, from his second interview using videotaped teaching, I had just asked PF if there were any insights from his first lesson that had influenced his subsequent teaching. In our ensuing dialogue he talked about insights from his first lesson, and his experience in the classroom more generally.
1. Interviewer: [Is there] anything else at all, from the first lesson?

2. PF: Just seeing the preparedness

3. Interviewer: Mm hmm

4. PF: Is one, you can obviously see how prepared I was in some parts of the lesson, like again like, I remember watching the maths one and just the little things, like maybe not having the mats out there ready in maths, instead of handing them out and not having to manage it, it’s all those little things that take time to manage

5. Interviewer: Mmm

6. PF: So you try and micro manage that, and the mats are there, and they’re ready to learn and it’s the same thing in this video with the, like the stamp just that, those little things taking care of them, getting them out of the way so I can just quickly go round

7. Interviewer: Yep, yeah and that’s about time itself, as well isn’t it?

8. PF: Yeah

9. Interviewer: Being fairly pushed

10. PF: Yep, yeah exactly like there’s not much time that we’ve got to teach them on each, I remember always thinking like when I’m starting this teaching career and going into practicums and seeing, like if I don’t help how am I going to teach these children over a whole day...but now it’s turned into I don’t have enough time

11. Interviewer: That’s a huge shift isn’t it?

12. PF: Yeah, I don’t have enough time to teach all the stuff that I’ve got for them and what I want to do

13. Interviewer: Mmm

14. PF: Mmm

15. Interviewer: That’s a powerful thing to think actually, you used to be scared of not being able to fill the day

16. PF: Yeah and I’m worried about
17. Interviewer: And now you’re really worried you can’t get through it all

18. PF: Yeah [both giggle]

19. Interviewer: How has that shift happened?

20. PF: Just being in more. I don’t know, probably being more excited about knowing the children and what I can teach them, like knowing the children is a big thing, having those relationships there and knowing, like a little thing I might find about trains and I know the children in my class love trains and there’s a few of them that’s all they write about sometimes

21. Interviewer: So knowing them more as learners?

22. PF: Yeah, and knowing how, and what will motivate them, so I find all that stuff, but I’ve still got all the other stuff, that like that the school’s going to do, cause I’m trying to stick to [names his school], their plan that they have made

23. Interviewer: Yep

24. PF: So trying, yeah doing that and then knowing I’ve always got something to back up

25. Interviewer: Mmm, so a mixture, it’s a mixture of things yeah yeah, I think that’s an exciting thing to consider in your own practice

26. PF: Yeah

27. Interviewer: How you have shifted

28. PF: Yeah

29. Interviewer: It’s a huge shift from second year to third year

30. PF: Mmm

31. Interviewer: And it’s about just the teaching practice too

32. PF: And you can put that down to me knowing the children more

33. Interviewer: Definitely yeah, and just having familiarity with the school programme
34. PF: Yeah exactly

35. Interviewer: And routines and timetables

36. PF: Yeah, 'cause I used to think that I had to come up all the, everything, and how to teach them, but most of it is there, done by or with you

37. Interviewer: And through syndicate planning

38. PF: Yep yep

39. Interviewer: And things thank goodness,

40. PF: Yeah

41. Interviewer: You wouldn't survive otherwise

42. PF: No. (V3)!

CDA: Textual analysis and discourse practices

From lines 1-9 at my request to discuss insights from his previous lessons, PF chose to reflect upon the discourse of the teacher as a manager, in this instance a manager at a micro level. He shared in his first videotaped lesson he realised how crucial it was to have all resources ready and prepared prior to teaching. In his final videotaped lesson, he observed how his concern to be prepared at a micro level had been worthwhile, "just that, those little things getting them out of the way, so I can quickly go around" (line 6). With no particular agenda in line 7, I affirmed his comments, and suggested that time is also a resource needing management, and invited his further comment. In line 10, he described a shift in how he thought about his practice, where once he felt nervous about how he would fill in an entire day of teaching, he now does not have enough time to cover all his planned teaching. In lines 11-18, with humour we pondered the significance of this shift in his thinking. In line 19, I opened a space in which we could both come to understand how such change had happened. Our dialogue here was a jointly negotiated co-construction, where our conversation gently unfurled with each of us able to share ideas in a reciprocal manner as we sought to
understand this shift in his thinking (Hennessy & Deaney, 2009a, 2009b). In line 20, drawing upon his personal beliefs and experience in the classroom, PF began to theorise this change, and how knowing his students as individuals had supported his ability to plan an authentic and engaging programme for his students. In line 21, I affirmed his comment, and gently prompted his further dialogue. In line 22, he commented how he could also draw upon his school, and their plans as a back up for his teaching. From lines 23-35 we jointly reflected how it was a mixture of things, for example, knowing your students and having familiarity with schoolwide routines and planning. In line 36, he captured the essence of this shift, that he no longer felt solely responsible for the management and day-to-day running of his class programme, instead he now understood he was part of a professional team who work collegially to plan and run programmes. The text closed with our agreement that this was a huge relief, to be part of a team made teaching feel like a manageable and sustainable career. Across the text, despite our unequal power relations, we were genuinely able to listen to and build upon each other's contributions, with the shared goal of understanding how such shift had occurred in his reflective thinking.

CDA: Social Analysis

So, why choose this text for analysis? It does not capture critically reflective thinking in any real sense; instead PF reflected upon how he had changed over a period of time. The text captured a moment of reflective repose, in which PF with a quiet assuredness disclosed self-knowledge about whom he is as a teacher, and how his experiences in the classroom have affirmed his choice of profession. Across the text he drew upon personal beliefs, experience and theory to make sense of his emerging teacher identity (see Mockler, 2011; Stenberg 2010), all tacitly framed by a wider discourse of professionalism, and what it meant to be a professional teacher. PF stood back from the micro level of his practice, and considered how he had changed from a nervous novice who could barely fill a day of sustained teaching practice, to a confident professional who had established effective relationships with his students, and who was excited to teach. Implicit too, within the text
was his palpable sense of relief that he was not singularly responsible for his students and their programme, instead understanding that his colleagues and school wide management systems all support his work. His moment of contemplation is powerful, he has repositioned himself from becoming, to being a professional teacher, and importantly he knew how that transformative shift had occurred. The text, although not critical in any sense, reminds us of how important it is to create space for reflective thinking in its myriad of forms.

Exit interview - post intervention: "Examining my growth has been quite fascinating to me" (PF, EI)

PF described a major benefit from his participation in the project was his new awareness of self, his knowledge of "where I am heading and who I am, as a teacher" (PF, EI). He explained his surprise at how much he had grown, and that "I just wouldn't have grown as much if I didn't do this" (PF, EI). The project had given him opportunity to think deeply about his practice, and to identify what made a difference. He highly valued the opportunity to see himself teach, where he could revisit his videotaped lessons with multiple different lenses (PF, EI). Observing himself teach across videotaped lessons meant he was able to target specific aspects of practice to refine and improve. His participation in the project had also given him a window into the tertiary world of conducting research, which remained a long-term goal for PF.

His understanding of critically reflective practice now encompassed "looking at both positives and negatives and where to next?" (PF, EI), and to actively seek multiple perspectives, in order to co-construct new understandings, that might otherwise remain invisible. Critically reflective practice meant "critically diving into something, rather than just skimming over it" (PF, EI), and he identified dialogue with others was crucial to this process. When prompted, he also discussed how our dialogue around wider forces had made him more politically aware, and how that awareness had made him "more sure of his understandings" (PF, EI). Critically reflective practice meant he would both critique and seek to work productively with wider factors impacting his work, for example, the national standards. PF went on to describe the importance of leadership in schools, and how one of
the roles of school principals is to work productively with wider forces in ways that will advantage all students in their care (PF, EI).

It is interesting to note that PF did not name beliefs or theory within his description of critically reflective practice. However, we have evidenced his continual theorising of his videotaped teaching practice using both his personal beliefs and formal theory, perhaps to the point where they have become a naturalised part of his practice, and in keeping with his mindset of criticality, that they too were available for our scrutiny and critique.

Five key insights emerge from PF's participation in this research project. First, we have evidenced a preservice teacher with a natural proclivity toward critique, who from the onset of the project adopted a habit of criticality toward himself and his wider environment. Across interviews he independently asked hard questions about his practice in order to continually refine and improve his practice. I note this observation to draw attention that this is not always the case, and as discussed in the literature review reflective practice is a skill that cannot be assumed (Hatton & Smith, 1995; Jones & Jones, 2013). Second, we have seen how asking PF to discuss his personal beliefs and theories as he watched his videotaped teaching supported him to rationalise a foundation for his practice, or where there was praxis across three texts of beliefs, theory and his videotaped teaching (Ginsburg, 1988). Third, while his understandings of critically reflective practice remained relatively stable pre and post intervention, PF now more highly valued co-constructed reflective dialogue with others as a source with which to consider and re-consider his practice (van Es & Sherin, 2002). This understanding highlights the benefits of reflecting with an other, rather than alone (Day, 1999). Fourth, a CDA analysis of our dialogue highlighted a rare moment of co-construction (Hennessy & Deaney, 2009a, 2009b), where our desire simply to understand what had prompted change, opened a transformative moment in his reflective thinking and reminds us of the power of reflective thinking in all, not only its critical form. Fifth, we have evidenced it was only when prompted that PF spoke about wider societal and political forces impacting his critically reflective thinking, and while he
identified how this dialogue further supported him to understand his practice, without prompting such discussion, this is an area at risk of remaining invisible and silent. It appears hugely important preservice teachers have opportunity to discuss wider forces impacting their reflective thinking, in order that they understand the complexity in which their daily work is immersed, that they have opportunity to talk back to discourses that might otherwise constrain their reflective thinking, and that they can consider productive ways with which to work with wider forces (Ball, 1995; Fendler, 2003; Giroux, 1988; Habermas, 1984a; Richardson, 1990; Yost, et al., 2000).

Conclusion

The six vignettes have captured the unique narratives of each participant and have honoured their voices and experiences across the research project (Chiserati-Strater, 1996). The vignettes have revealed surprising insights into how differently each participant had experienced their initial teacher education course, and how their personal beliefs powerfully shaped their emerging teacher identities. We have observed there are few guarantees of how each participant valued and used formal theory from their teacher education course to make sense of, and critically reflect on their emerging teacher identity and teaching practice. However, across vignettes, we have evidenced how all participants highly valued the opportunity to observe themselves teach on videotape, and that having more than one opportunity to do so was significant in allowing them to target and track changes in their teaching practice across time.
CHAPTER SIX: REFLECTIONS - SUPPORTING PRESERVICE TEACHERS' CRITICALLY REFLECTIVE PRACTICE

Critically reflective practice, as evidenced in the discussion of findings chapter, cannot be assumed as an innate skill, rather it is a skill that needs to be taught and practiced within (and beyond) teacher education programmes (Hatton & Smith, 1995; Jones & Jones, 2013). The problem of how best to support preservice teachers' critically reflective practice has long vexed teacher educators; finding solutions to this challenge has been central to this research project's field of inquiry. In this final chapter, I first evidence patterns and disjunctions from across participants' experiences in the research project, and identify how key findings from that discussion relate to and contribute knowledge to the reflective practice literature. Implications for teacher educators in their role of supporting critically reflective practice are next discussed. I then examine a number of limitations implicit within the study, and signal possibilities for future research in the field of reflective practice.

Before highlighting key findings from across this research project, I wish to acknowledge and thank all my participants for their candour and honesty as they talked about their videotaped teaching across interviews. I wish to remind readers I have (re)constructed, not merely represented, each participant’s narratives (Chiserati-Strater, 1996), and as such, each of their narratives remain partial and incomplete. In representing the idiosyncratic complexity of each participant’s experience, I have sought to consider and celebrate broad aspects of their practice, and to understand these were deeply unique to each participant.

Across this project I have asserted that critically reflective practice involves praxis across a complex intersection of three texts. These three texts include beliefs, theory and practice, where beliefs and theory inform practice, and practice informs theory and beliefs. In order to be able to articulate and defend a foundation for their practice, teachers need to critically examine and articulate the beliefs and theories that inform their practice, and if these are (or are not) evident in their practice, and
why. In this way, beliefs, theory and practice have potential to inform each other in a recursive cycle. Critical reflection also positions teachers as agents of social change who are able to question and challenge the beliefs and theories underpinning their practice, and the wider societal factors (historical, institutional, cultural, social, and political) impacting their practice, and who routinely consider the technical and ethical implications of their actions within their context.

This project has sought understandings around the following primary research questions:

1. In what ways does asking preservice teachers to discuss their personal beliefs; formal theory, and wider societal factors (social, cultural, historical institutional, political) in relation to their own videotaped teaching, support them to critically reflect upon their practice?

2. Across interviews using videotaped teaching, in what ways did dialogue between each preservice teacher and the interviewer support, or not support, preservice teachers’ critically reflective practice?

**Praxis: Personal beliefs, formal theory and videotaped teaching practice**

Across vignettes, it was evident that all participants drew upon both their personal beliefs and formal theory with which to reflect upon, and/or change their practice, and to articulate a foundation for their videotaped teaching practice. However, this propensity was evidenced in different ways among participants. To understand this phenomenon, I next in turn examine key findings from participants as they discussed: their personal beliefs, formal theory, wider factors impacting their reflection, and videotaped teaching, and how these findings relate to current literature from the field of reflective practice. The reported findings raise a number of implications, which are discussed in a following section.
Personal beliefs: Three key findings

It is widely acknowledged that asking preservice teachers to identify and challenge their personal beliefs can support them to change their practice (Carson & Fisher, 2006; Fook, 2006; Fook & Gardner, 2007; Larrivee, 2000; Thomson & Thomson, 2008). At the beginning of the project participants expressed a diverse range of beliefs, drawn from both positive and negative life experiences, observation and significant others. Across their participation in the project, they were asked to consider if their personal beliefs were evident, or not in their three videotaped lessons.

Personal beliefs: Key finding one

Asking participants to consider congruence and dissonance between their beliefs around their videotaped teaching prompted change for all participants in their reflective thinking and/or practice. This strategy was powerful, where personal beliefs acted as a filter not only from which to critique their practice, but also to affirm their practice, and where both lenses were equally important. While a number of scholars (Carson & Fisher, 2006; Fook, 2006; Fook & Gardner, 2007; Larrivee, 2000; Thomson & Thomson, 2008) asserted the process of examining one’s personal beliefs may bring about critique and changes in one’s practice, this project suggested that personal beliefs are a valuable point of reference from which preservice teachers can both affirm, and/or critique and change their practice.

Personal beliefs: Key finding two

At the onset of the project, the majority of participants expressed a number of beliefs that resonated with tenets of critical theory and social justice. Analysis of the data around beliefs suggested two related findings. It appeared when preservice teachers value beliefs underpinned by social justice, they were open to the possibility of critically reflecting upon their practice, and that their social justice beliefs strongly informed their critically reflective practice. For instance, one participant, whose beliefs included supporting students' self-management and autonomy, actively
sought strategies to validate and maximise student voice and independence. Another participant, who highly valued inclusion, made real efforts to differentiate his/her teaching to accommodate diverse learners. Within the reflective practice literature, I have found no other direct discussion or other evidence of a potential relationship between preservice teachers' social justice beliefs and their critical reflection. I later signal this as an area worthy of further empirical research.

**Personal beliefs: Key finding three**

A willingness or preparedness to critique one's beliefs and practice cannot be taken for granted, and analysis of data suggests this takes a degree of self-confidence. This was observed in the case of one participant who identified feeling vulnerable in the classroom, his/her reflections tended to remain descriptive rather than critical. This suggests the risk of critiquing his/her practice may have further undermined his/her already vulnerable self-confidence. While it is commonly understood that reflective practice is not an innate skill (Hatton & Smith, 1995; Jones & Jones, 2013), this project suggests that a lack of self-confidence in one's own practice may be a barrier to critically reflecting upon one's practice.

**Formal theory: Insights from preservice teachers**

While all participants drew upon personal beliefs to reflect on their practice, participants drew upon formal theory in surprisingly different and complex ways. Some of their descriptions of formal theory comprised: resistance to theory, a reluctance to discuss theory unless requested to do so, resistance at having to listen to and/or write theory down as part of course work, a preference to discuss theory with peers in class to find out what works in practice, and a preference of learning from observing their associate teacher's practice. From a critical theory perspective, theory is never neutral, and both personal and formal theory needs to be the subject of scrutiny and critique (Richardson, 1990). In two vignettes, the data illustrated how participants used formal theory as a site of affirmation and resistance. In terms of resistance, one participant challenged adopting an
authoritative teacher identity presented in his/her course work, and another participant, incited by a formal course reading, discussed his/her resistance to rigidly implementing school plans and curriculum. A third participant spoke about how he/she always sits on the fence with theory, and will draw upon its insights only when theory did not compromise his/her personal beliefs. This observation highlights the tension of blending personal beliefs and formal theory, and it appears in this case, that when these two are in conflict, personal beliefs may subjugate formal theory.

For some participants, blending personal and formal theories with practice had become an engrained natural part of their practice, which richly informed their teacher identity and teaching, and supported them to articulate a foundation for their practice. This was evidenced in the following participants' comments: "Theory gives practice a name", and "I'm doing it for a reason, like theory has become part of what I do". Another participant routinely drew upon personal and formal theories to critique his/her teaching practice. All aspects of their his/her, including their personal beliefs and formal theory, were available for scrutiny and critique. He/she described their habit of criticality, or Immanent critique (Habermas, 1984a), as a life-long commitment.

As noted in the literature review, while educational theory often only invites one to affirm dominant ideologies, it can also create spaces to allow us to imagine other ways of being (Ball, 1995). With one participant, the data illustrated a glimpse of that possibility, where being exposed to future focused literacy theory enabled them to become a change agent within their school setting. It has long been recognised how challenging it is for preservice teachers to impact change in schools (Zeichner & Gore, 1990), however, as evidenced in this case, when preservice teachers are exposed to, and are supported to enact cutting edge research and theory, they can initiate change in schools.

Two insights around the course delivery of formal theory were apparent in participants' dialogue. One participant shared he/she often felt excluded from tertiary learning because he/she could not access the meta-language in which formal theory is so often couched. The participant’s critical
reflections on their tertiary course prompted them to ensure that he/she, and his/her students had
access to the meta-language required for learning. A second key insight was around the danger of
teacher educators presenting formal theory as one size fits all, or where theory was used to privilege
existing educational ideas and practices. While one participant found course content delivered in
this manner to be easy to lift and use in their practice, from a critical theory perspective this was
problematic, because all theory is value-laden; it will by default include or exclude different interests
in any given context (Giroux, 2003).

Formal theory: Key finding

As evidenced across participants, there are no guarantees about how, and indeed if preservice
teachers will make theory to practice connections regarding their practice. A common theme within
the reflective practice literature is the challenge for teacher educators of how best to support
preservice teachers to make theory to practice, and practice to theory connections in meaningful
ways (Korthagen & Kessels, 1999; Korthagen, 2010). Albeit with a small number of participants, this
project has evidenced that preservice teachers experience and apply formal theory from their
teacher education programmes in complex and highly individualised ways.

Wider factors: Insights from preservice teachers

In this project, when participants were prompted across their interviews to reflect on wider factors
(historical, institutional, cultural, social, and political) impacting their practice, their critical
reflections were largely focused around how to work productively with the national standards, and
their critique of the governments' proposed changes for education during 2012.

The strategy of asking participants to discuss wider factors appeared to heighten their critically
reflective thinking around contemporary government initiatives and policy. Some participants for
example, observed how their school had modified the government's recommended four-point scale
with which to judge children's performance against the national standards. This modification had been designed to minimise potential harmful effects of leveling children's learning against a pre-set standard, particularly for children who would otherwise be labeled as below the standard.

Participants' observations and reflective dialogue around their school's resistance to slavishly implementing the national standards was powerful. Their reflective dialogue captured their interest and focus of how to work with the national standards in ways that would potentially advantage, rather than disadvantage students in their immediate and future practice. In critical theory terms, they had resisted a positivist rationality (Habermas, 1984), or mindset of simply accepting prevailing educational policy, and instead adopted a reflective scepticism toward what might otherwise have remained a taken-for-granted tool of accountability. Participants' experiences in schools during this period also prompted their understanding they were joining a powerful professional community that could speak back to, and at times overturn proposed government initiatives.

**Wider factors: Key finding**

Unless preservice teachers are prompted to critically reflect upon wider factors (historical, institutional, cultural, social, and political) impacting their work, this is an area at risk of remaining invisible and silent. Nonetheless, when asked to reflect upon wider factors impacting their work, the reflective dialogue prompted useful changes in their thinking, and/or practice. A key understanding advocated within academic literature is that critically reflective practice needs to engage with both personal and societal levels of critique (Ball, 1995; Evans, 2013; Freire, 1999; Giroux, 1988; Habermas, 1984a; Richardson, 1990; Yost, et al., 2000); this understanding has permeated this research project's design. Analysis of data from this project suggests that unless preservice teachers are directly asked to discuss wider factors impacting their reflection and practice, their reflective dialogue tends to remain focused at a personal, rather than societal level. However, in order for preservice teachers to understand the complexity in which their daily work is immersed, this
research project proposes it is essential teacher educators make time for reflective dialogue around wider historical, institutional, cultural, social, political factors that surround and impact their work.

_Videotaped teaching: Insights from preservice teachers_

All participants identified manifold benefits for themselves and/or their students, when observing and discussing their videotaped teaching practice with an other. Some of the benefits noted by participants are well documented in the reflective practice literature, for instance: being able to pick a particular lens with which to attend and focus (Hamilton, 2011; Tan & Towndrow, 2009; van Es & Sherin, 2002, 2008), to examine your practice from your students’ perspective, to focus on student engagement and dialogue (Calandra, et al., 2006; Harford & McRuaire, 2008), to gain insight into what it is like to be a student in your class, and to pose critical questions about taken for granted aspects of your practice (Harford, et al., 2010).

Participants identified multiple other benefits around the use of videotaped teaching that are less explicitly documented in the reflective practice literature. These included: to build and affirm one’s self confidence, to identify congruence and/or dissonance between one’s beliefs and formal theory, and to use that knowledge to refine and inform one’s practice. Other affordances of videotaped teaching described by participants were: to observe and understand how you teach, to target specific areas of one's practice to improve, and across time to visibly track changes in your practice, and to support you to articulate a rationale for your practice. Videotaped teaching provided an opportunity to gaze at and reflect upon aspects of practice ordinarily invisible for one's scrutiny, such as: students' respect for their teacher, to understand you are never finished, rather always growing as a teacher, and to develop self-knowledge about who you are as a teacher that would be unavailable without video as a mirror on one’s practice. These benefits capture how the participants valued the experience of observing themselves teach across their three videotaped lessons.
Videotaped teaching: Key finding one

Across all participants we have evidenced praxis, where across videotaped episodes, their personal beliefs and their formal theory recursively informed their practice, and where their practice recursively informed their personal beliefs and formal theory. As earlier discussed, this manifested itself in complex and different ways across participants. While all participants drew upon personal theory to affirm and critique their practice, some participants were resistant or reluctant to draw upon formal theory as they discussed their teaching practice. However, it appears the strategy of asking them to do so across their videotaped episodes brought about changes in their reflective thinking, and/or practice. I have been unable to locate any empirical studies that explicitly explored the praxis between preservice teachers’ personal beliefs, formal theories and their teaching practice. This research project highlights the usefulness of that strategy.

Videotaped teaching: Key finding two

In all of the six vignettes, it was evident that each participant at times drew upon technical, pedagogical and critical lenses (Larrivee, 2008a) with which to discuss their videotaped teaching practice. While data analysis evidenced multiple examples of pedagogical reflections, as noted in chapter five, this was not surprising when participants were often implementing pedagogies for the first time. While the reflective practice literature debates the notion of hierarchical levels of reflection (Bleakley, 1999; Fendler, 2003), the findings from this project suggest that the complexity of teaching requires preservice teachers to be able to flexibly use technical, pedagogical and critical lenses with which to reflect. Across participants, it was evident all three lenses were valuable in refining and informing their practice.

Videotaped teaching: Key finding three

All participants commented on how important it was to have multiple opportunities to observe themselves teach. Having multiple opportunities meant they could target areas to refine and change, and across videotaped episodes could visibly evidence such change. This finding concurs
with other empirical studies: for example, Hamilton (2011), Tan and Towndrow (2009), Sherin and van Es (2009), and also speaks back to a concern raised in Wang and Hartley's (2003) review of twenty-three studies involving videotaped teaching. Wang and Hartley posed the following question, if video technologies change teachers' knowledge, can such change be transferred into their ongoing practice? Findings from this project suggest that providing preservice teachers with multiple opportunities to observe themselves teach, powerfully supports them to transfer new learning into their on-going practice, and that allow them to evidence and own resultant changes.

While there are multiple benefits using videotaped teaching, it is far from a neutral intervention. One participant's comment highlights this tension; "It matters who is sitting behind it, and how it is used". I next report findings from this project's second primary research question, how our dialogue did, or did not support preservice teachers' critical reflection.

**Dialogue, videotaped teaching and critically reflective practice**

Dialogue with an other around videotaped teaching has been construed as one of the most significant factors in prompting change in preservice teachers' reflective thinking and/or practice (e.g. Hennessy & Deaney, 2009b; Powell, 2005; Tan & Towndrow, 2009; Yaffe, 2010). While many studies have analysed dialogue from audiotaped interview transcripts, as identified in the literature review, such analysis has often solely focused on the preservice teachers' transcribed oral text or monologue. There has been little attention paid to which factors within dialogue between the preservice teacher and an other have prompted change in preservice teachers' reflective thinking, and/or practice. I first share how using CDA to analyse moments of shift in preservice teachers' reflective thinking, and/or practice contributes additional knowledge to this identified gap in the reflective practice literature. This section concludes with a summary of how participants spoke about how they did, or did not value our dialogue across their videotaped lessons.
How dialogue prompted shifts in preservice teachers’ reflective thinking, and/or practice: Insights from preservice teachers

As a tool, CDA enabled me to drill down into selected excerpts of our dialogue, in order to understand how the text had been constructed, and to identify institutional and societal discourses that were impacting its production (Phillips & Jørgensen, 2002). An affordance of CDA was how it highlighted insights from successful and unsuccessful strategies in prompting shift in participants' reflective thinking, and/or practice. I next share examples of both.

In the heat of the moment dialogue is fluid, complex and shifting, and is never free from the effects of discourse (Sandretto with Klenner, 2011). In one participant’s excerpt of text, my analysis revealed the use of a simple phrase; "you'll never know all of it, you'll have to find it out", rather than a collective we, implied our unequal power relations. I had mistakenly implied that I, as the more experienced other, was all knowing and no longer needed to find new information out. Even though a prime focus of my dialogue had been to mitigate the effects of our unequal power relations, in this instance I failed. A close analysis of that text has raised my awareness that even a simple pronoun can re-inscribe unequal power relations, and how we need to critically listen and read how our social use of language has potential to advantage and disadvantage our own, and other's agency in speech (Ainsworth & Hardy, 2004).

Across a number of vignettes, CDA revealed a prevalent theme in participants' dialogue. It revealed participants' close focus on their emerging teacher identity, and how they sought to close the gap between their espoused personal beliefs, and/or formal theory (Stenberg, 2010). CDA suggests the strategy of affirming how participants spoke about changes in their emerging teacher identity across videotaped episodes prompted a stronger belief in themselves as teachers. This strategy was powerful; it confirmed how their critical reflections across time had wrought positive change, even when that process had at times been challenging and uncomfortable.
CDA revealed further dialogue strategies that appear successful in prompting shifts in reflective thinking and/or practice. These strategies included: leaving a sentence unfinished or hanging, in order to create a space where the preservice teacher could build upon a suggested idea or critique, and the strategy of suggesting an idea rather than telling, so that the preservice teacher (rather than their mentor) could own any resultant change in their thinking and/or practice. This strategy was strongly informed by Gibran's (1926) notion that "no one can reveal to you aught, but that which already lies half asleep in the dawning of your knowledge" (p. 53), and was particularly useful when a participant sensed an issue within their practice, but perhaps with vested interests, they needed gentle encouragement to consider alternative practices (Day, 1999). For example, one participant had replicated their associate teacher’s guided reading practice, and while the participant was aware the practice was less than ideal, he/she needed gentle encouragement to shift his/her practice.

Another key strategy in supporting critically reflective dialogue was the ability to adopt multiple roles, such as: to just listen, to affirm, to scaffold, to teach, to query, to challenge, to celebrate, to model being a life-long learner, and to open a safe space where participants could play one discourse off another in order to critically reflect upon the efficacy of their practices within their context (Fairclough, 1992, 1995). Dialogue is a two-way street, and the ability to adopt multiple roles was contingent on being able to listen to, and respond in the heat of the moment to the lived effects or consequences of one's speech. This process is fragile, and as Habermas (1984a) suggests, the possibility of miscommunication is ever present. From data analysis, I was aware that at times participants misread my attempts to adopt a particular role, for instance, they may have read I was challenging, rather than affirming their practice. The findings from this project suggest, when engaged in supporting critically reflective practice, having a meta-level consciousness of a range of roles, and being able to use these in a flexible and responsive manner is paramount.

Employing CDA to analyse one participant’s shift in thinking accentuated the usefulness of reflective practice in all, not only its critical form. For one participant I chose to analyse an excerpt of text that
was reflective, but not critical in any sense of the word. Across the text, with no particular agenda, the participant contemplated how across his/her videotaped episodes he/she had re-positioned his/herself from becoming, to being a professional teacher, and importantly knew how that transformation had occurred. The excerpt captured a moment of co-construction, where each of us were able to share ideas in a reciprocal manner (Hennessy & Deaney, 2009a, 2009b). Such dialogue is rare, and reminds us of the value of dialogue where we have no particular agenda, where we can simply listen without wanting anything from it (Heshusius, 1994), and how teacher educators need to make time and space for reflection in its myriad of forms.

A challenge within this research project was that some participants were resistant or reluctant to draw upon formal theory to make sense of their practice. The dialogue strategy of repeatedly asking them to do so across videotaped episodes appears to have produced benefits. For instance, it prompted them to make conscious connections between theory and practice that may otherwise have been lost, and in some cases to critically reflect upon their own and observed practices in order to change their practices. I acknowledge this finding is somewhat optimistic, particularly when not all participants in their exit interviews mentioned theory as part of their understanding of critically reflective practice. Nonetheless, this research project asserts it is essential to support preservice teachers to make meaningful connections between theory and practice, and that it appears when preservice teachers indicate reluctance to do so, patience, persistence, and creating safe space for dialogue are crucial strategies.

As evidenced across this research project, to support shift in preservice teachers’ reflective thinking and/or practice requires delicate and sensitive work. While Day (1999) has argued it is much easier to reflect with an other, rather than by yourself, I next summarise key insights from how participants did, or did not value our dialogue. One participant commented, that as a more experienced other, I could see things within their practice he/she could not, and that I was prepared to both affirm and critique his/her practice. Another stated that our dialogue had opened his/her mind to different
theories and strategies, and had prompted him/her to think more deeply about his/her practice. Other participants highly valued the rare opportunity to spend one-on-one time examining their practice, and how our collaborative dialogue around their videotaped teaching enabled them to target goals, and across time visibly evidence positive changes in their practice. Another participant at the end of the project commented how he/she more highly valued reflective dialogue with others, as a source from which to re-consider and inform his/her practice.

As discussed in the methodology chapter, the interviews around videotaped teaching had been designed to include both unstructured and semi-structured questions. One participant commented how he/she appreciated the opportunity to independently assess his/her performance as a teacher without always having to rely on the judgement of an other. The participant’s comment underscores how important it is that at times, as teacher educators, we just listen, and let preservice teachers control the focus and agenda when they are reflecting on their practice. I remain pleased the interview design within this project supported that opportunity.

In summary, this section has reported insights from a critical discourse analysis of dialogue in which shift was evident in preservice teachers’ reflective thinking, and/or practice, and has captured insights of how preservice teachers did, or did not value reflective dialogue. In doing so, this project contributes knowledge to the reflective practice field around which dialogue strategies appear to support and/or limit preservice teachers’ critical reflection.

**Implications**

This section outlines implications for teacher educators drawn from participants’ experiences in this research project; in particular it makes recommendations around how we might inform our own practices in supporting preservice teachers’ critically reflective practice.
Implication one: Praxis around beliefs, theory and videotaped teaching supports critical reflection

This project has asserted that critical reflection involves praxis between personal beliefs, formal theory and videotaped teaching practice. Thus, when teacher educators are engaged in scaffolding critically reflective practice, findings from this project recommend asking preservice teachers to use their personal beliefs and formal theory as a reference point from which to consider the efficacy of their videotaped practice. In scaffolding critically reflective practice, teacher educators might encourage preservice teachers to use personal and formal theories to both affirm and identify areas of dissonance between their espoused beliefs and their enacted practice. This strategy appears useful in breaking down the theory-practice dichotomy, and potentially makes preservice teachers' theories (both personal and public) available for their scrutiny and critique, as well as sites of affirmation for their enacted practice. This recommendation concurs with Griffiths and Tann's (1992) notion that "personal and public theories need to be viewed as living tendrils of knowledge which grow and feed into practice" (p. 71), and Halliday's (1998) assertion that all insights and theories must be subject to interpretation and critique.

Implication two: It is a mistake to assume preservice teachers will draw upon formal theory to make sense of their practice

A surprise finding of this project was the incredibly unique and diverse ways participants did, or did not draw upon theory to make sense of their practice. Their responses covered a wide continuum, from complete resistance, to routinely using personal and formal theory to critically reflect on their practice. While the full study involved only six participants, it is not unreasonable to contemplate that such a variety of responses to formal theory might be present in any cohort of preservice teachers whom we teach. While all participants drew upon personal theory as a source from which to critically reflect on their practice, this was not always the case for formal theory. Valuable insights
emerged from participants' narratives regarding why this appeared to be the case. In order to honour and respond to participants' voices, I next pose a range of critically reflective questions for teacher educators to consider around their course delivery and use of formal theory.

• How can we make time to ask, listen and respond to how individual preservice teachers prefer to make sense of formal theory, and respond to their suggestions in our regular teaching practice?

• How can we ensure preservice teachers have access to, and have opportunities to use the meta-language of theory to make connections with their practice?

• How, across a teacher education programme, can we ensure we expose preservice teachers to a range of theories, and explicitly expose its different, and/or multiple purposes? For example: theory that is practical, theory that is conceptual, theory that might be used as a source of resistance to hegemonic practices and/or policies, theory that can be used to defend a rationale for one’s practice, cutting edge theory that carries with it the possibility of change and transformation, and so forth? (Ball, 1995; Dewey, 1904a; Richardson, 1990; Smyth, 1989, 1992).

These questions are designed to prompt teacher educators to consider and potentially re-consider their delivery of formal theory, in order that preservice teachers are supported to consciously draw upon a variety of theories, and can make meaningful theory to practice connections to support their critically reflective practice.

Implication three: Wider factors - making the invisible and silent open to critique and debate

Despite my efforts, unless preservice teachers were prompted to discuss wider factors (cultural, social, institutional, historical and political) impacting their reflective thinking and/or practice, their dialogue tended to focus on personal rather societal factors. This may have been because for empirical and conceptual reasons, I had positioned them as the subject of the video (see Clarke, 1995; Harford & McRuaire, 2008; Harrison & Yaffe, 2009; Orland-Barak & Rachamim, 2009; Sharpe,
et al., 2003; Zhang, et al., 2011). Their focused attention on their emerging teacher identity and practice may have precluded their attention toward wider factors that were omnipresent and daily surrounded their practice, factors such as, political policies and educational discourses around the management of learning and behaviour, and so forth.

Another potential reason was we cannot assume that preservice teachers had personal knowledge of wider societal factors impacting their critically reflective thinking, or that they had interest in such factors. However, findings from this research project strongly suggest teacher educators need to engage preservice teachers in critically reflective dialogue around wider factors. This is paramount for two key reasons; in order that they understand the complexity in which their daily work is immersed, and that they critically reflect on how to work productively with wider factors, that if left uninterrupted, have potential to both advantage and/or disadvantage students whom they teach.

**Implication four:** Dialogue - *a crucial but complex factor in supporting preservice teachers’ critical reflection*

This research project’s finding that dialogue with an other whilst watching one's videotaped teaching is a crucial factor in promoting change in preservice teachers' critically reflective thinking, and/or practice concurs with many other studies (e.g. Hennessy & Deaney, 2009b; Powell, 2005; Tan & Towndrow, 2009; Yaffe, 2010). In particular, this study has highlighted the fragile and complex nature of dialogue, where the lived effects, or consequences of our dialogue offer both promise and perils in regard to scaffolding critically reflective practice (Habermas, 1984a). I next pose a range of critically reflective questions for teacher educators to consider around their dialogue, when scaffolding critically reflective practice.

- How can we ensure our dialogue supports a mix of strategies, for example, where preservice teachers have opportunity to select the focus and agenda as they are
reflecting on their practice (Clarke, 1995; Youens, et al., 2014), alongside semi-structured dialogue?

- How can we create safe spaces for preservice teachers to play off one discourse from another, in order to consider the efficacy of their beliefs (personal and formal), and/or their enacted practice? (Fairclough, 1995)

- How can we carefully listen to the ebb and flow, or the lived effects of discourse within dialogue, and flexibly adopt multiple roles dependent on context, and our professional judgement?

- How can we provoke, rather than tell, in order to support preservice teachers to make and own shifts in their reflective thinking, and/or actions? (Gibran, 1926)

- How can we support preservice teachers’ to use and value multiple reflective lenses with which to consider their practice? (Larrivee, 2000, 2008a)

- How can we support reflective dialogue in all, not only its critical form? (Larrivee, 2000)

The most important insight of all around dialogue is that we do not risk assuming our dialogue is having its intended effect. Instead, we need to ask preservice teachers if our dialogue is in fact, helpful or not in scaffolding their critically reflective practice, and that we are prepared to review and change our practices in light of their feedback.

**Limitations**

No research project is without limitations. In this section I critically reflect upon three aspects of this project that had potential to constrain reported findings. The first limitation relates to the small number of participants who included; both male and female, with an age band of 20 to 36 years, and who identified their ethnicity as either Māori or European. In the last two decades, New Zealand has been identified as one of a small number of countries described as superdiverse in terms of its languages and cultures. For example, New Zealand is home to over 160 languages, and Auckland, our largest city, is one of the most culturally diverse cities in the world (Spoonley & Bedford, 2012).
With predictions that New Zealand's multi-ethnic depth will continue to increase (refer to stats.govt.nz), it seems important that as researchers, where possible we recruit participants from as diverse a range of ethnicities as possible, in order to reflect New Zealand's superdiversity. Thus, a limitation of this project was that reported findings only drew upon participants from Māori and European ethnicity.

A second possible limitation was my decision in chapter five to only report three of the six participants' findings under each of the two sections titled: The power of dissonance, and Wider factors impacting critical reflection. This decision was made because in these two sections across all participants, there was a great deal of overlap in participants' reflective dialogue, and important insights could be captured from three, rather than all six participants. In this way, I avoided the reported findings becoming repetitive for the reader, and the discussion chapter from becoming excessive in length. It is important to note all participants were asked the same base set of questions, and I could have drawn upon any participants' findings to capture the same key insights around the power of dissonance and wider factors impacting their critical reflection.

A third possible limitation was that all participants' volunteered to join the project knowing its focus of inquiry was to support their critical reflection. As such, one might predict that all participants had an inclination or predisposition toward critical reflection, and that this potential characteristic might have biased reported findings. However, the primary research questions have revealed how differently each participant engaged with the project, and one of the project's key findings suggests that we cannot make assumptions about how preservice teachers critically reflect upon their practice.
Future research

One key finding from this project proposes there may be a potential relationship between a preservice teachers' espoused social justice beliefs and their openness toward critically reflecting on their practice. While other studies have examined preservice teachers' different beliefs and their relationship with their practice (Zheng, 2013), and how videotaped teaching has supported changes in preservice teachers' beliefs (Wedman, et al., 1999), I have been unable to locate empirical studies that have explicitly explored this key finding. There are many possible factors known and unknown, such as, life experiences, and/or exposure to social justice theory within course work that might foreground a preservice teacher's openness toward social justice beliefs, and/or their critical reflection. This is an area to signal as worthy of further empirical research, to further examine and understand the possibility of a relationship between preservice teachers' beliefs and their openness to the possibility of critical reflection.

A second area of future inquiry would be to engage preservice teachers in reflective dialogue around their videotaped teaching, but where they could have agency in choosing with whom they wished to engage in discussing their videotaped teaching. For example, they might choose their peers, their associate teacher, their mentor lecturer, and so forth. As discussed in the literature review, empirical studies have drawn from all, and/or some of the named sources, but none that I have located have made this a choice for preservice teachers. As evidenced in this project, relationships are pivotal in creating a safe space for critically reflective dialogue. With choice available, preservice teachers would have agency to choose someone whom they trusted to support their critical reflection. Within such a project, as in this, I would recommend having a mix of unstructured and semi-structured reflective dialogue that supports participants’ agency, and the researcher to pursue dialogue around their focus of inquiry.
A major problem with critically reflective practice is how it remains a messy and ill-defined topic (Akbari, 2007; Bleakley, 1999; El-Dib, 2007). I recommend a further area of inquiry where preservice teachers within their course work are explicitly introduced to a range of different reflective practice taxonomies, each with its own specialist meta-language. As discussed in the literature review there are multiple reflective practice taxonomies from which to choose (refer table one). When reflecting upon their practice, preservice teachers could then choose to draw upon one or many taxonomies, or could create their own using an eclectic mix of meta-language drawn from across taxonomies. A study designed in this manner could examine which reflective lens preservice teachers were drawing upon when reflecting upon their practice, and which appeared most significant in shifting their reflective thinking, and/or practice. While a few empirical studies have used one or other taxonomy to discuss and report preservice teachers’ reflection (e.g., Hatton & Smith, 1995; Jay & Johnson, 2002), the specialist meta-language of reflection often appears to have belonged to the researcher, rather than the preservice teacher. I have been unable to find empirical studies that supported preservice teachers to first build a broad specialist meta-language of reflective practice, from which they can agentically draw upon to critically reflect upon their practice.

Building on this study, another area of inquiry to pursue would be to conduct a longitudinal project that tracks graduates from a teacher education course into their first two years of teaching. Step one could involve ascertaining which beliefs (both personal and formal) and wider factors were impacting preservice teachers’ critically reflective thinking during their course of study. In step two, a follow-up study could ascertain which of their espoused beliefs (personal and formal) remained stable, or shifted in the real world of teaching with its manifold responsibilities, and how wider factors impacted their reflective thinking and practice. It would be interesting to understand which factors appeared to impact their critical reflection in both the short and long term.
Closing remarks

This research project has come full circle. Its reported findings rest on participants' individual and collective insights around which factors appeared to support and/or limit their critically reflective thinking. Such insights were only made available from participants' courage and preparedness to use videotape as a mirror on their practice.

In order to respect and honour participant's voices, as teacher educators we need to show that same courage and be prepared to gaze at, and critically reflect upon, our own practices. In particular, we need to critically reflect on how our teaching, course delivery and content, and our reflective dialogue as mentors, all have potential to support and/or hinder critically reflective thinking. In order to maximise our potential in supporting critically reflective practice, we need to ask, rather than assume, that our practices are meeting the diverse needs of our preservice students.

At the conclusion of this thesis, my passionate interest in how best to support preservice teachers' critically reflective practice continues. Findings from this project provide a platform from which I will continue to grow and refine my practice both as a teacher educator and researcher. My experience of writing this thesis in a part-time role has at times been both challenging and rewarding, and in many ways documents how I have grown from self-doubt, to having greater trust in myself across the multifaceted aspects of my work, particularly as a researcher.

I conclude with the voices of one of my participants, who at the end of the project described critically reflective practice as, “looking at what you’re doing, continually questioning why you are doing it, and what you can do to improve it”. This simple statement, reveals how critically reflective practice has supported the participant to adopt a habit of criticality, in order to understand and rationalise their teaching practice. As evidenced across this thesis, videotaped teaching and dialogue are two factors that have supported preservice teachers' critically reflective practice. I thoroughly
recommend that teacher educators consider the use of videotaped teaching and dialogue in scaffolding preservice teacher’s critically reflective practice. In pursuit of that goal, as teacher educators, we need to ensure we develop and model a mindset of criticality toward our own practices.
References


Sandretto, S., & Tilson, J. (2014). "The trouble with the future is that it keeps turning into the present": Preparing your students for their critically multiliterate future today. *SET: Research Information for Teachers, 1*, 52-60.


Appendix A: Definition of critically reflective practice for this research project

Critical reflection involves praxis (Ginsburg, 1988) across a complex intersection of three texts. These three texts include beliefs, theory and practice, where beliefs and theory inform practice, and practice informs theory and belief (Anderson & Freebody, 2012; Argyris & Schön, 1974; Brookfield, 1995, 2009; Carr, 1987; Carr & Kemmis, 1986; Carson & Fisher, 2006; Fisher, 2003; Fook, 2006; Fook & Gardner, 2007; Griffiths & Tann, 1992; Halliday, 1998; Larrivee, 2000; Le Cornu & Ewing, 2008; Pajares, 1992; Thomson & Thomson, 2008; Walker, 2003). In order to be able to articulate and defend a foundation for their practice (Dewey, 1904a, 1904b; Richardson, 1990), preservice teachers need to critically examine and articulate the beliefs and theories that inform their practice, and if these are (or are not) evident in their practice, and why (Anderson & Freebody, 2012; Argyris & Schön, 1974; Brookfield, 1995, 2009; Carr, 1987; Carr & Kemmis, 1986; Carson & Fisher, 2006; Fisher, 2003; Fook, 2006; Fook & Gardner, 2007; Griffiths & Tann, 1992; Halliday, 1998; Le Cornu & Ewing, 2008; Pajares, 1992; Thomson & Thomson, 2008; Walker, 2003). In this way, beliefs, theory and practice have potential to inform each other in a recursive cycle (Carr, 1987; Carr & Kemmis, 1986; Walker, 2003). Critical reflection positions teachers as agents of social change who are able to question and challenge the beliefs and theories underpinning their practice, and the wider societal factors (historical, institutional, cultural, social, and political) impacting their practice, and who routinely consider the technical and ethical implications of their actions within their context (Ball, 1995; Brookfield, 1995, 2009; Carson & Fisher, 2006; Evans, 2013; Fook, 2006; Fook & Gardner, 2007; Freire, 1999; Giroux, 2003; Habermas, 1974, 1984a; Halliday, 1998; Lakomski, 1999; Popkewitz, 1990; Richardson, 1990; Smyth, 1989, 1992; Yost, et al., 2000).
## Appendix B: Analysis of articles related to use of videotaped teaching (modified from Trip & Rich, 2012b)

<table>
<thead>
<tr>
<th>Authors/Date</th>
<th>Participants</th>
<th>Video procedure</th>
<th>Reflection Method</th>
<th>Data Collection</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borko, Jacobs, Eiteljorg and Pittman (2008)</td>
<td>Sixteen middle school math teachers; half attended monthly professional development workshop</td>
<td>Recorded at least one lesson; some teachers shared their video with the group; group discussions were recorded and analysed</td>
<td>Coded their videos and shared with group</td>
<td>Coded teacher discourse during group discussions; established categories from topics consistently discussed</td>
<td>Teachers talked in a more focused, in-depth and analytical manner about specific issues. They focused more on content and student thinking and the teacher’s role in probing thinking.</td>
</tr>
<tr>
<td>Bryan and Recesso (2006)</td>
<td>Science student teachers</td>
<td>Recorded at least once with a max of three; video streamed across the local school system</td>
<td>Identified instances that supported or contradicted their personal teaching statement; presented clips to peers; discussed outcomes and reasoning; identified a concrete solution</td>
<td>Recorded weekly cohort meeting, analysed student teachers’ own written Video Analysis Tool (VAT) comments; Analysed student teachers’ video(s)</td>
<td>Better prepared to think through and tackle demanding issues in their teaching; more engaged in thoughtful, structured dialog in supervisory conferences; aware of the complex nature of teaching and learning.</td>
</tr>
<tr>
<td>Calandra, Brantley-Dias and Dias (2006)</td>
<td>One preservice teacher</td>
<td>Recorded self during two different teaching cycles</td>
<td>Edited videos for meaningful teaching incidents; discussed edited video with cooperating teacher</td>
<td>Used Grounded Theory to analyse data: audiotaped teacher conferences, full videos of teaching episodes, edited videos, debriefing session (post-conference), final interview</td>
<td>Final video-stimulated interview demonstrated high reflection on the Sparks-Langer et al. reflective scale. This contrasted with low reflection when not guided or video enhanced.</td>
</tr>
<tr>
<td>Study</td>
<td>Participants</td>
<td>Methodology</td>
<td>Analysis</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>-------------</td>
<td>----------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Calandra Brantley-Dias, Lee and Fox (2009)</td>
<td>Group A used guided and collaborative reflection. Group B created video vignettes.</td>
<td>Videotaped one episode of teaching; looked for two critical incidents. Group A debriefed with mentors and used Critical Incident Analysis. Group B edited videos for two critical incidents and used the same reflection form as Group A.</td>
<td>Data sources included Group A five video vignettes and five CI written reflections, Group B five written reflections on CIs. Sparks Langer rubric analysis tool.</td>
<td>Students who developed video vignettes produced longer and more multifaceted reflections. Video group described transformations in their thinking.</td>
<td></td>
</tr>
<tr>
<td>Clarke (1995)</td>
<td>Four preservice science teachers</td>
<td>Five cycles of three day periods in which six stimulated video recall lessons. Stim recall interviews held each lesson with school advisor, in all 180 videos.</td>
<td>Constant comparative method, data sources included transcripts of videotapes, and stim recall sessions.</td>
<td>Students were able to frame and re-frame their practice in a variety of new and novel ways. Students able to theorise particulars of their own practice and were able to entertain uncertainty about their practice.</td>
<td></td>
</tr>
<tr>
<td>Hennessy and Deaney (2009a)</td>
<td>Four teachers</td>
<td>Videotaped over six lessons, teachers kept unstructured reflective diaries and lesson plans for analysis. Semi-structured interviews held with teachers post filming, videos viewed independently and collaboratively, researchers and participants identified critical episodes, analytical notes on time coded grids.</td>
<td>Data sources, videotaped lessons, semi-structured interviews transcripts, student focus group interview transcripts, copies of student work and lesson plans, teacher diaries.</td>
<td>Teacher and researchers theories were modified by deconstruction and reconstruction of practice. One year later, teachers reported profound impacts, increased reflectiveness and critical analysis and re-evaluation of teaching practices.</td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Participants/Methods</td>
<td>Data Collection/Analysis</td>
<td>Findings/Implications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Martin-Reynolds (1980)</td>
<td>Thirty student teachers were recorded (18 experimental, 12 control)</td>
<td>Split Screen Analysis with one camera on the teacher and the other on the students</td>
<td>Reviewed tape one on own; filled out Video Self-Report Form (VSRF); reviewed same tape with their mentor; second recording was viewed just by the student teacher and another VSRF was filled in. Used Flanders Interaction Analysis to analyse verbal communication and Love Roderick Scale for non-verbal communication; pre- and post-tests were compared. Focus from pre-test to post-test was dramatically shifted away from self to students in both groups, so treatment was not effective; video analysis caused shift.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meade and McMeniman (1992)</td>
<td>One chemistry teacher</td>
<td>Videotaped using two cameras and a vision mixer which allowed the researchers to track the teacher and students in any area of the classroom</td>
<td>Four video stim recall sessions</td>
<td>Analysed the sessions by coding the comments using Shulman’s six categories of knowledge; pre- and post-interviews. The process helped make the teachers’ implicit theories about teaching explicit.</td>
<td></td>
</tr>
<tr>
<td>Miller (2009)</td>
<td>Five preservice social science Teachers</td>
<td>Each participant videotaped at least one of their lessons and viewed the videotape on their own.</td>
<td>Two- to 3-hour seminar with five to six peers; used the Critical Friends Group protocol to guide problem-based conversations: shared a 10- to 15-minute segment of teaching video. Analysed interviews, observations, videotapes, discussion transcripts, lesson plans, reflective papers and student work; looked for codes and patterns; used constant comparison. Teachers learned how to adapt lesson models to meet student needs, generalize beyond particular problems for future teaching, and clarify and challenge their teaching practices and assumptions about learning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orland-Barak and Rachamim (2009)</td>
<td>One preservice teacher</td>
<td>Mentor observes and videotapes one student lesson. Reflective conversation post lesson is also videotaped, both student and mentor keep reflective journals</td>
<td>Action research mentoring model where both student and mentor individually watch videoed lesson and videoed reflective conversation, both meet to discuss video, semi-structured interview is also videotaped. Multiple data sources, transcriptions of mentoring interviews, video recordings of lessons and observations, journal writing by student and mentor, discourse analysis of data. Multiple benefits for student and mentor, able to examine gaps between espoused theories and actual practice, allowed both introspection to aspects of practice and development of reflective thinking.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Participants</td>
<td>Methodology</td>
<td>Findings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pailliotet (1995)</td>
<td>Preservice teachers</td>
<td>Preservice teachers were videotaped teaching a lesson.</td>
<td>Teachers analysed their videos according to three levels: literal observation, interpretations, and evaluation. They shared observations with the whole group. Data were analysed for common themes. Deep viewing helped preservice teachers to examine their personal beliefs about teaching.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Powell (2005)</td>
<td>Six experienced teachers working on an in-service Masters of Arts degree</td>
<td>Teachers were videoed for 30 minutes while they were teaching with active learning strategies</td>
<td>Teachers used a reflective framework that focused on intentions, self-awareness, practical and technical reflection, perceptual awareness and critical reflection. The reflective dialogues were audiotaped and transcribed. Transcriptions were coded using NVivo. Teachers’ tacit assumptions about active learning were made explicit. Video sequences provided teachers with a context for investigating dimensions of their professional practice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rich and Hannafin (2008)</td>
<td>Four elementary education student teachers</td>
<td>Used video analysis tools (VAT) three times throughout their student teaching to analyse their instructional decisions</td>
<td>Used the VAT to upload video and reflect on teaching; looked at instructional decisions and changes but determined their own focus. VAT comments; participant interviews. Instructional decisions were student centred when they focused on pedagogical strategies and teacher centred when on administrative issues.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Romano and Schwartz (2005)</td>
<td>Ten first-year teachers</td>
<td>Videotaped three times during their first year</td>
<td>Used different technologies (electronic portfolios, online discussion board and video) to reflect on their own teaching. Three open-ended interviews (following video-taping), electronic portfolios, surveys, online discussion board transcripts. Teachers indicated that videotaping was the most important means for facilitating reflection because it helped them to see mannerisms and make changes in their teaching.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rosaen, Lundberg, Terpstra, Cooper, Fu and Niu (2010)</td>
<td>Four preservice teachers</td>
<td>Made a video case study of their teaching for a self-selected audience</td>
<td>Students given some instruction on video software to make a case study, could share with peers, public or mentor. Data included initial and exit transcribed interviews, video case studies analysed using ‘within and across’ case study analyses. Video provided a lens that allowed close analysis of teaching, to make thinking explicit, and discussion central impetus for change.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authors</td>
<td>Study Details</td>
<td>Methods</td>
<td>Data Sources</td>
<td>Results</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>---------------</td>
<td>---------</td>
<td>--------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>Rosaen, Lundberg, Terpstra, Cooper, Niu and Fu (2010)</td>
<td>Five internship teachers</td>
<td>One English lesson videotaped then organised into a video case study, focus on examining how well they supported class discussions</td>
<td>Students given some support with construction of a case study prior to creating one, shared with researchers</td>
<td>Data sources included initial and semi-structured exit interview transcripts and case study videos. Transcripts were coded for cross case study analysis. Each time interns interviewed they became increasingly focused on problematising their practice, stimulating insights into teaching and learning.</td>
<td></td>
</tr>
<tr>
<td>Sharpe et al (2003)</td>
<td>Preservice teachers</td>
<td>Preservice teachers recorded themselves and selected a 3-minute clip to share.</td>
<td>Preservice teachers had a live video conference with peers and university supervisors</td>
<td>Preservice teachers filled out a questionnaire about the technical and pedagogical advantages and disadvantages of Multipoint Desktop Video Conferencing. Felt that the video clips should have been longer; watching themselves and their peers was beneficial; and supported development of more critical analysis.</td>
<td></td>
</tr>
<tr>
<td>Shepherd and Hannafin (2008)</td>
<td>Three preservice social studies teachers (two female and one male)</td>
<td>Recorded an entire class session of themselves teaching; analysed active engagement; repeated the process three times, linked to course e-portfolio</td>
<td>Reflective questions helped participants to review how their instruction was supposed to influence active engagement, whether or not it did, and what they would do differently next time to promote it.</td>
<td>Video recordings; answers to reflection questions; teacher interviews, data analysed using case-based methods, open-coding and constant comparison, triangulation. Considered diverse classroom perspectives that had not been considered previously; developed improvement plans; change their opinions of teaching outcomes based on examination of video evidence.</td>
<td></td>
</tr>
<tr>
<td>Sherin and van ES (2009)</td>
<td>Group A: four middle school math teachers; Group B: seven fourth and fifth grade math teachers</td>
<td>Math lessons were recorded and then watched and discussed at monthly meetings. Group B also met with researchers to watch brief 3 minute clips of published mathematical video material, 'noticing interviews'</td>
<td>Video clubs: teachers met monthly to watch and discuss video clips from their classes. Meetings videotaped and transcribed</td>
<td>Data included videotaped lessons, and video club meetings, transcripts of videos and interviews, and field notes. Data coded using published frameworks. Increased focus on interpreting student mathematical thinking over time; looked at a wider range of factors rather than just pedagogy; knowledge based reasoning was developed, post video-reflections informed reflections-in-action.</td>
<td></td>
</tr>
<tr>
<td>Study Source</td>
<td>Participants</td>
<td>Methodology</td>
<td>Data Sources</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>--------------</td>
<td>-------------</td>
<td>--------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Tan and Towndrow (2009)</td>
<td>One science teacher</td>
<td>Videotaped science lessons</td>
<td>Teacher shared videotaped lesson with students who filled in a feedback questionnaire and then teacher met with her researcher who acted as a critical friend</td>
<td>Video became a trigger that shifted the teacher's pedagogical and assessment practices; however, dialogue between students, teacher and the researcher was a crucial factor in this process.</td>
<td></td>
</tr>
<tr>
<td>Tripp and Rich (2012a)</td>
<td>Seven teachers</td>
<td>Four lessons videotaped Teachers defined teaching goals to work on and to focus their video analysis Teachers met with either peers or supervisors to discuss videoed lessons using MediaNotes (video analysis tool)</td>
<td>Data sources; researcher observed discussions between teachers and supervisors using video, semi-structured interviews post four video lessons. Data analysed using domain taxonomic analysis and NVivo to code data</td>
<td>Video enabled teachers to 'see' the need to change practices, to gain new multiple perspectives, to focus analysis in order to target and implement changes in practice. To develop empathy and understand their problems common to group.</td>
<td></td>
</tr>
<tr>
<td>van Es and Sherin (2002)</td>
<td>Four middle school mathematics teachers</td>
<td>Teachers met monthly for a year to watch and discuss video clips</td>
<td>The researcher facilitated the meetings using open-ended questions. Video clubs were videotaped and discussion was analysed.</td>
<td>There was a shift in what the teachers noticed. There was a shift in how the teachers discussed what they noticed.</td>
<td></td>
</tr>
<tr>
<td>Study Authors (Year)</td>
<td>Focus</td>
<td>Teachers</td>
<td>At Meetings</td>
<td>Data and Analysis</td>
<td>Findings</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------</td>
<td>----------</td>
<td>-------------</td>
<td>-------------------</td>
<td>----------</td>
</tr>
<tr>
<td>van Es and Sherin (2008)</td>
<td>Seven teachers (Mathematics focus)</td>
<td>Teachers joined a video club that met ten times over two years. At each meeting two teachers shared videotaped lesson clips recorded by the researcher</td>
<td>At video club meetings teachers were prompted by the researcher to 'notice and interpret' students' mathematical thinking. Teachers also involved in pre and post interviews asked what they 'noticed' in published mathematical videos</td>
<td>Data included videotapes and transcripts of lessons and video club meetings, pre and post interview transcripts, coding of transcripts and video analysis</td>
<td>Teachers able to 'notice' new and noteworthy classroom events, and events appropriate for further analysis, in a group were able to prompt each other to discuss issues in an in-depth way, learned to attend to students' thinking as well as teacher pedagogy.</td>
</tr>
<tr>
<td>Wedman, Espinosa and Laffey (1999)</td>
<td>Two undergraduate students, eight elementary teachers, one secondary teacher</td>
<td>Recorded two teaching episodes that were 15 minutes in length</td>
<td>Reviewed videos for the influence class setting and the lesson had on students; met with the researcher to discuss video; responded to questions</td>
<td>Teaching beliefs questionnaire, videotapes of two teaching events, videos of the reflective conference, two post-teaching reflective conferences and a portfolio presentation</td>
<td>Teachers grew in their abilities to learn from experience and begin new practices. Identifying discrepancies between espoused and observable practices on video became a powerful leverage for change.</td>
</tr>
<tr>
<td>Welsch and Devlin (2007)</td>
<td>Preservice teachers in a special education course Group A 17 undergraduate students, Group B 17 undergraduate students</td>
<td>The experimental group was videotaped teaching, and then they reviewed the video after they taught.</td>
<td>Teachers answered six reflective questions. The control group did memory-based reflection, whereas the experimental group used the video in conjunction with their reflection.</td>
<td>Responses to each question were reviewed and given a score using a common scoring sheet by multiple reviewers.</td>
<td>There was a slightly higher mean score on reflective practices when doing video-based reflection than those doing memory-based reflections. Teachers reported that the videos were useful in their reflective practices.</td>
</tr>
<tr>
<td>Study</td>
<td>Participants</td>
<td>Methodology</td>
<td>Data Sources</td>
<td>Analysis</td>
<td>Findings</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>-------------</td>
<td>--------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Yaffe (2010)</td>
<td>Newly qualified teachers (NQT)</td>
<td>Videotaped a lesson teaching wearing video-glasses and selected events for self-reflecting on their work</td>
<td>NQTS met with expert mentor to discuss videotapes having watched them prior to meeting, mentors sought to facilitate critical reflective dialogue using van Manen's levels</td>
<td>Data sources videos, transcripts of meetings with NQTs</td>
<td>Video enabled more concentrated, self awareness of reflections and tacit knowledge could be made explicit. However teacher focus largely still on survival.</td>
</tr>
<tr>
<td>Yerrick, Ross and Molebash (2005)</td>
<td>Preservice teachers</td>
<td>Teachers made the videos from their own teaching (5-minute digital video products were made from 90-minute clips of teaching)</td>
<td>Reflected on their teaching through the videos they created; picked out important aspects they wanted to point out or discuss</td>
<td>Collected personal video reflections that showed individual learning outcomes; performed a final exit interview with each preservice teacher in which preservice teachers were asked to use illustrations from the video to rationalise their practice</td>
<td>Digital video projects shifted preservice teachers’ thinking from themselves to children’s thinking. Teachers adjusted their planning and instruction based upon reflections on videotaped lessons.</td>
</tr>
<tr>
<td>Wing-mui So (2012)</td>
<td>Twenty five student teachers</td>
<td>Video-based learning community (VBLC) established, as members student teachers had to upload a 15-minute video clip of teaching for others to view. Training provided by researchers</td>
<td>Student teachers then make comments on peers' video clips using an online platform</td>
<td>Data included comments from online platform, random group of nine students exit interviews re: efficacy of the VBLC Data was categorised using a taxonomy, exit Interviews transcribed and coded using NVivo for discourse analysis</td>
<td>Benefits of a VBLC include learning from peer-based experiences and development of self-reflection and identification of strengths and areas to work on one's teaching. Some students found it hard to give feedback.</td>
</tr>
</tbody>
</table>

N.B: This is a modified version of a table originally authored by Tripp and Rich (2012b, pp. 692-704).
Appendix C: Pilot study interview

INTERVIEW SCHEDULE: PILOT STUDY 2011
Prior to viewing the preservice teacher’s videotaped teaching practice:

- What are your current understandings of critically reflective practice in relation to your teaching practice?
- How would you distinguish critically reflective practice from other forms of reflective practice?
- What are potential barriers to critical reflection on one’s teaching practice?
- Are there any questions, or concerns you have about the project, at this time?

Interview questions using the preservice teachers’ videotaped teaching as a stimulus for critically reflective dialogue:

The first part of the interview
Will be unstructured with a focus on highlighting the preservice teacher’s voice where they can set the agenda for discussion and identify strengths or any issues of concern to them.

- Can you talk to me about your videotaped teaching? Please use the remote to share any sections you want to focus on? Prompt if necessary...

The second part of the interview
Will use structured questions (with potential prompts) to support the preservice teacher’s critically reflective dialogue around their filmed teaching.

- What are your personal beliefs about teaching?
  Additional (potential) prompts:
  - What are your personal beliefs about how children best learn, you may wish to consider pedagogies, the kind of environment, teacher identity you wish to construct, teaching strategies you employ and so forth?
  - Where do your beliefs about teaching come from?
• What factors cause you to maintain or change your beliefs?

• How does your filmed teaching reflect your personal beliefs?

Additional (potential) prompts:

• Can you discuss ways in which your videotaped teaching reflects your personal beliefs?

• Are there examples of practice in your videotaped teaching that do not reflect your beliefs, if so can you give examples?

• Are there any barriers, that may prevent you enacting your personal beliefs, if so what are they?

• Which formal theory do you draw upon, to make sense of your teaching practice?

Additional (potential) prompts:

• Which formal theory/or theories from your teacher education programme can you draw upon, to support you making sense of your videotaped practice?

• If unsure: prompt relevant aspects of their videotaped practice to consider, for example their choice of pedagogies, the way in which they support children’s dialogue etc.

• How has (formal) theory from your course impacted your teaching practice?

• What is it that causes you to maintain or change your formal theories?

• Do you/or do you not value theory, and can you give a rationale for your position?

• Can you name any wider forces that impact on how you reflect on your teaching?

Additional (potential) prompts:

• For example, any institutional factors (at your school) that impact on the way you reflect on your teaching?
• Can you name any broader political, cultural or social factors, (for example, recent government initiatives) which impact on the way you reflect on our teaching?

• How can we critically reflect on such wider forces, in order to either problem-solve, or to work productively with them?

• How can your teacher education course support you to overcome such barriers?

**Pilot only (at end of interview)**

• In terms of design, would you prefer the videotaping to be undertaken by Jane Tilson or by an associate teacher or colleague in the school? Can you give a rationale for your choice?

• How important is it for you to be able to view your videotaped teaching prior to the interview?

• Are there any factors, I have not considered in this interview, that will be important in supporting participants’ ongoing participation in the project in 2012?

• What advice can you give the researcher to refine and improve the research questions prior to the implementation of the full study in 2012? (Share a copy of the interview schedule and invite their critique).

• Is there any information that you do not wish to have included in any unpublished/or published outcomes, conference presentations or publications resulting from this project?
Appendix D: Full study initial interview

INITIAL INTERVIEW SCHEDULE

• What prompted your interest in becoming a participant in this research project?

• What are your current understandings of critically reflective practice in relation to your teaching practice?

• How would you distinguish critically reflective practice from other forms of reflective practice?

• Are there any questions, or concerns you have about the project, at this time?
Appendix E: Full study interview using videotaped teaching episodes

FULL STUDY INTERVIEW SCHEDULE

Part one of interview: Unstructured

Talk to me about your teaching...

Part two of interview: Semi-structured questions:

1. What are your personal beliefs about teaching?
   Additional (potential) prompts:
   - What are your personal beliefs about how children best learn, you may wish to consider pedagogies, the kind of environment, teacher identity you wish to construct, teaching strategies you employ and so forth?
   - Where do your beliefs about teaching come from?
   - Which factors cause you to maintain or change your beliefs?

2. How does your filmed teaching reflect your personal beliefs?
   Additional (potential) prompts:
   - Can you discuss ways in which your videotaped teaching reflects your personal beliefs?
   - Are there examples of practice in your videotaped teaching that do not reflect your beliefs, if so, can you give examples?

3. Which formal theory do you draw upon, to make sense of your teaching practice?
   Additional (potential) prompts:
   - Which formal theory/or theories from your teacher education programme can you draw upon, to support you making sense of your videotaped practice?
   - If unsure: prompt relevant aspects of their videotaped practice to consider, for example their choice of pedagogies, the way in which they support children’s dialogue etc.
   - How has (formal) theory from your course impacted your teaching practice?
• What is it that causes you to maintain or change your formal theories?

• Do you, or do you not value theory, and can you give a rationale for your position?

4. Can you name any broader institutional, cultural, social or political factors, (for example, recent government initiatives) which impact on the way you reflect on your teaching?

• How can we reflect on such wider forces, in order to work productively with them?
Appendix F: Full study exit interview

EXIT INTERVIEW SCHEDULE

• How do you understand the term critically reflective practice?

• How do you distinguish critically reflective practice, from other forms of reflective practice?

• How have your understandings of critically reflective practice changed as a result of your participation in this project?

• Are there any other comments you wish to make in regard to this project?

• Is there any information that you do not wish to have included in any unpublished or published outcomes, conference presentations or publications resulting from this project?
Appendix G: HyperRESEARCH code map

Example of a participant code map
Appendix H: Information and consent form for principals (full study)

[Reference Number as allocated upon approval by the Ethics Committee]

[Date]

University of Otago

An exploration of the use of videotaped teaching and collaborative discussion to support preservice teachers to critically reflect on their emerging teaching practice

INFORMATION SHEET FOR PRINCIPALS

Dear Principal of___________ School,

As part of my Education Doctorate research I am seeking permission to have our third year preservice teacher who is attached to your school in 2012 for their final year practicum placement, have their teaching practice videotaped on three occasions across their February, June and August/September practicum blocks.

What is the Aim of the Project?
Internationally there is enormous interest in supporting preservice teachers to think self-critically about their teaching practice including from the UK (Hatton & Smith, 1995; Larrivee, 2008; Schön, 1983; Valli, 1992; Van Manen, 1977; Zeichner, 1987) Internationally and in New Zealand, a key aspect of the work of teacher educators is supervising the practicum experiences of preservice teachers and supporting them to reflect critically on their practice. A key challenge for teacher educators is can critically reflective practice be taught to prospective teachers, and if so how?

This research project will explore the use of videotaped teaching practice as a means to stimulate critically reflective dialogue on the part of preservice teachers. The videotaped teaching will capture observations of the preservice teachers’ regular teaching practice and will be used to support their critically reflective dialogue in an interview setting much like field notes. Only the researcher and preservice teachers concerned will view their videotaped teaching practice.

What Data or Information will be Collected and What Use will be Made of it?
The preservice teacher will attend five interviews with the researcher, an initial and exit interview exploring their understandings of critically reflective practice and how this has changed as a result of their participation in this project. With the permission of the school
the preservice teacher will organise a peer from their cohort, or if this is not possible for their Associate Teacher to videotape their teaching on three occasions in the February, June and August/September practicum blocks. The three-videotaped lessons will be used as a stimulus to generate critically reflective dialogue between the researcher and the preservice teacher concerned in an interview setting.

The interviews between the researcher and preservice teacher will be videotaped and transcribed to become data sets for analysis. To protect the identity of your school, Associate Teachers and children, pseudonyms will be used in the development of research findings, in the unpublished Education Doctorate and in any published outcomes. Only the researcher and preservice teacher concerned will have access to videotaped teaching or transcripts from the interviews.

The data collected will be securely stored in such a way that only Jane Tilson will be able to gain access to it. At the end of the project any personal information will be destroyed immediately except that, as required by the University’s research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed.

The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve your school, Associate Teachers’ and children’s anonymity.

The researcher will make the results of the research available to your school on request.

In seeking your permission to undertake this research project, I will follow the protocols for using video that will be particular to your school site. If you require me to collect individual information and consent forms from the Chairperson of the Board of Trustees, Associate Teacher with whom the preservice teacher is placed, children who may be videotaped and from their parents/guardians I am happy to provide forms to enable this to happen. Thank you for reading this information sheet, if you have any further questions regarding this research project please feel free to contact either:

Jane Tilson (Researcher) or Dr Susan Sandretto (Supervisor)

College of Education

03 479 880903 479 8820

jane.tilson@otago.ac.nz susan.sandretto@otago.ac.nz

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
References

An exploration of the use of videotaped teaching and collaborative discussion to support preservice teachers to critically reflect on their emerging teaching practice

CONSENT FORM FOR ______________________ SCHOOL PRINCIPAL

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I understand signed consent involves:
A third year preservice teacher from the University of Otago College of Education having permission to arrange to have their teaching practice filmed on three occasions by either a peer from their cohort, or their Associate Teacher. Only the preservice teacher who is videotaped and the researcher Jane Tilson will view the videotaped teaching.

My school’s protocols for using video require, or do not require the following provisos before the research project can proceed:

1. I require Jane Tilson to provide an information and consent sheet for the Chairperson of the Board of Trustees.

   Please circle YES or NO

2. I require Jane Tilson to provide an information sheet and consent form from the Associate Teacher with whom the preservice teacher is placed on practicum.

   Please circle YES or NO

3. I require Jane Tilson to provide an information and consent form from children who may be videotaped AND for their parents/guardians.

   Please circle: YES or NO

I agree to take part in this project.
This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Appendix I: Information and consent form for school students (full study)

[Reference Number as allocated upon approval by the Ethics Committee]
[Date]

An exploration of the use of videotaped teaching and collaborative discussion to support preservice teachers to critically reflect on their emerging teaching practice

INFORMATION SHEET FOR PARTICIPATING STUDENTS

Thank you for thinking about participating in this research project. Please read the information and ask questions of your teacher or researcher.

What is the project about?
Your preservice teacher is in a research project to study how they can think about their teaching in a way to keep improving their practice. To help them do this they will videotape their teaching three times in your classroom. Your preservice teacher will use their videotaped teaching to talk about their teaching with a researcher at the University of Otago.

Who will be in the project?
Only the students who have a preservice teacher involved in the research project will be invited to take part.

What will I be asked to do?
You will be asked to:
• take part in lessons with your preservice teacher.
You may be asked to:
• take part in three lessons with your preservice teacher that will be videotaped.

Only the preservice teacher and the researcher will see the videotapes of the lessons.

Please note: If you choose to not participate in the research project you will still take part in the preservice teacher’s lessons, but will sit in a part of the classroom that means you are not captured on the videotape.

Please be aware that you may decide not to take part in the project without any disadvantage to yourself of any kind.
What information will be collected?
Three videotaped lessons with my preservice teacher.

Can I change my mind?
Yes. You can change your mind and decide not to participate in the research project.

What if I have more questions?
You can contact the researcher at any time.

Jane Tilson (Researcher)
College of Education
03 479 8809
jane.tilson@otago.ac.nz

This study has been approved by the University of Otago Human Ethics Committee.
An exploration of the use of videotaped teaching and collaborative discussion to support preservice teachers to critically reflect on their emerging teaching practice

CONSENT FORM FOR STUDENTS

I have been told and/or read information about this study and understand what it is about. All my questions have been answered in a way that I understand.

I know that:

1. My participation in the project is entirely voluntary; which means that I do not have to take part if I don’t want to and nothing will happen to me. I can stop taking part at any time and don’t have to give a reason;

2. Any time I want to stop participating, that’s okay;

3. I may be videotaped in up to three lessons, but the videotapes will be destroyed after the study has ended and only my preservice teacher and the researcher will see the videotapes.

4. If I have any worries or I have any other questions, then I can talk about these to my teacher or the researcher;

5. The researcher will write up the results from this study for their University work. The results may be also be written up for in journals and talked about at conferences. My name will not be on anything that is written up about this study.

I agree to take part in this study.

.............................................................................................
(Signed(Date))

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph: 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.