SECONDARY TEACHER EXPERIENCES OF PROFESSIONAL DEVELOPMENT: A FOCUS ON SUSTAINED APPLICATION TO PRACTICE

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ABSTRACT

Despite considerable growth in the theory of professional learning and development (PLD), improvements to teacher practice often remain inconsistent or short lived. A review of literature suggests that understanding how teachers learn will need to address how teachers make sense of new theories that confront their beliefs. Sensemaking involves teachers negotiating new theory to suit their situation, and is influenced by the professional communities in which they practice.

Qualitative data was gathered by way of individual interviews of six teachers, and two managers responsible for professional learning, in two randomly selected Auckland state-funded secondary schools. Official documents from each school were also analysed.

The findings indicate that PLD programmes that promoted sustained improvements to practice gave specific attention to establishing a culture of professional learning based on the teaching-as-inquiry model. Structured staged activities, the primacy of evidence, duration and professional interactions all encouraged teachers to enact changes to practice, which in turn challenged their pre-existing assumptions.

PLD programmes are more likely to achieve sustained improvements to practice if they promote opportunities for teachers to negotiate the theories that they apply in their practice, enable teachers to confront their personal pre-existing beliefs through enactment of changed practice, and situate these processes in professional communities.
ACKNOWLEDGEMENTS

Completion of a thesis is similar to a major Himalayan expedition. For me to finally step on the summit of a distant peak required the ongoing support of many.

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<td>BES</td>
<td>Best Evidence Synthesis</td>
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<tr>
<td>BYOD</td>
<td>Bring Your Own Device</td>
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<tr>
<td>IT</td>
<td>Information technology</td>
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<tr>
<td>ICT</td>
<td>Information and communication technology</td>
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<td>PB4L</td>
<td>Positive Behaviour for Learning</td>
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<td>PD</td>
<td>Professional development</td>
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<td>PLC</td>
<td>Professional learning community</td>
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<td>PLD</td>
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<td>The Substitution Augmentation Modification Redefinition Model</td>
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<td>TOD</td>
<td>Teacher-only day</td>
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<td>TPACK Model</td>
<td>Technological Pedagogical Content Knowledge Model</td>
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<td>TQ</td>
<td>Teaching as inquiry</td>
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<td>Unitec Research and Ethics Committee</td>
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<tr>
<td>MVC</td>
<td>Mountain View College</td>
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<td>VHS</td>
<td>Valley High School</td>
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CHAPTER ONE: INTRODUCTION

The topic of this research

“Hurricane winds sweep across the sea tossing up twenty-foot waves; a fathom below the surface turbulent waters swirl while on the ocean floor there is unruffled calm.”

Cuban (1994, p.2)

In the last decade or so, the growth in the theory of professional learning and development (PLD) has accelerated considerably. However, Larry Cuban’s metaphor still finds resonance with many, if not most, stakeholders in professional learning and development activities in educational contexts. Little seems to change.

This research adopts the meaning of ‘professional learning and development’ as defined by the Teacher Professional Learning and Development: Best Evidence Synthesis Iteration (BES) (Timperley, Wilson, Barrar & Fung, 2007) as that which comprises both the dissemination of information to professionals for the purpose of changing their practice (professional development), and the internal process of creating professional knowledge (professional learning).

One might expect a school’s PLD programmes to introduce staff to new theories for improving teaching and learning. The extent to which teachers understand the new theories would be a narrow measure of success of a PLD programme. As we shall see, professional learning involves more than theory acquisition. This may explain the tendency for New Zealand educators to refer to ‘professional learning and development’ as a single phrase. A successful programme, however, is more than professional learning. It must also lead to changes to teacher practice, without which improved outcomes for students is not likely to ensue (Timperley & Alton-Lee, 2008).
In the next section I have outlined my own experiences of PLD. The upshot is that my practice has changed only slowly despite the considerable time and money expended in providing and participating in PLD programmes. My experiences of PLD and changing practice provided the inspiration for the topic of this research. This research focused on the gap between PLD and sustained improvements to practice. The research concentrated on the experiences of teachers because only they can explain what they think when tasked with integrating new theory into practice.

The rationale for this research

This research springs from my personal disappointment with experiences of professional learning and development spanning seventeen years as a teacher of English in Auckland, state-funded secondary schools. My career includes a decade of work as a dean, and a decade of curriculum management. I took part in PLD on topics ranging from the finer points of Shakespeare to engaging students in writing, from restorative practices in pastoral care to responding to diversity among the student population, and from NCEA programme design to task management. The content, however, is not what disappoints me. In fact, I usually found the content to be relevant to my practice and supported by a sound rationale.

These PLD experiences came in a variety of forms including off-site seminars and workshops, where I was one of only a few from my school to attend, to onsite versions of a similar format involving whole-staff participation. Over the years, the format has gradually changed from typically a presentation by an expert speaker to a shortened version but with increased use of practical examples and statistical evidence, often followed by discussion in small groups. In the last several years, the format of PLD has been spread over longer time frames with multiple points of contact between the provider and participants. Of course, being a teacher, I noticed considerable variability of oral and visual presentations, but generally I seldom questioned the method of the providers for promoting my learning. My disappointment with the format of PLD has only been realised in hindsight.
Meanwhile, my practice has changed but only slowly, if it has changed at all. Any improvements to my practice seemed at best to bear a fuzzy cause-effect relationship with my PLD experiences. Most improvements occurred some time after – usually years after – the occurrence of PLD where I learned the theory, and the theory is intertwined with other theory and other issues and ideas associated with conducting lessons. Furthermore, some of the objectives of the new pedagogies presented at PLD continued to be problems to be solved even after incorporating practical lesson ideas presented at the same PLD. A good example is PLD purported to improve outcomes for cultural diversity.

In my experience, performance appraisal systems provided little motivation to attempt changes to practice because they did not adequately measure the extent to which I had effectively incorporated new theories into my practice. For most of my career, managers have relied on rare observations of my lessons as direct evidence of my practice. My performance in the classroom was more often than not appraised against perfunctory checklists or very generalised performance standards. These approaches seemed to avoid the central question of whether PLD programmes had been effective in improving outcomes for students. I could conjure a lesson that would meet the performance criteria but managers did not seek evidence that my performance would be sustained.

Meanwhile, the pressures to change continued to mount. Gradually, schools where I worked had shifted their espoused pedagogical vision toward increased responsiveness to the needs of each student, toward promoting learning processes over knowledge acquisition, and toward a relationship-based model of classroom management. Furthermore, digital technologies in the form of students’ own devices could complement learning in every lesson in every subject. These changes have occurred since I entered the profession. New teachers seemed more likely to fit the new pedagogical vision. So I felt the need to change but forces greater than these expectations seemed to tie me back to how I had always done things. What factors would overcome these forces?
Perhaps my experiences are shared to a greater or lesser extent by other teachers. School leaders and teachers both pay a price for PLD programmes. Leaders seek to find resources for teacher time and expertise, while teachers seem to always have pressing problems of the busy day to attend to. All educators have an interest in making PLD programmes more effective, so that professional learning may be effectively applied by more participants and be more effectively applied by each participant. An increase in efficacy is also an increase in efficiency. How can PLD providers ensure that the winds of change are felt on the ocean floor?

The Best Evidence Synthesis on Professional Learning and Development

The Teacher Professional Learning and Development: Best Evidence Synthesis Iteration (BES) (Timperley et. al., 2007), is a comprehensive summary of an extraordinary meta-analysis of nearly one-hundred studies of PLD projects from New Zealand, the United Kingdom, the United States and other countries. Its aim is “to consolidate the evidence around the emerging knowledge base on how to promote teacher learning in ways that impact on outcomes for diverse students” (p. 1). As such, it represents a watershed for the theory of professional learning and development: it explodes many myths and points clearly to patterns common to successful PLD activities. It seemed sensible to come to grips with the overall findings of the BES before commencing a new study into this field.

In the BES, the phrase ‘professional learning and development’ comprises both the dissemination of information to professionals for the purpose of changing their practice (professional development), and the internal process of creating professional knowledge (professional learning) (Timperley et. al., 2007). The BES recognises that most of its core studies identified a “typical sequence of activities” (p. 197) in three generalised stages: first, professional development, second, professional learning, and third application to practice. The literature relating to PLD
is far reaching. The BES makes it clear, however, that theory and research around the sustained application of professional learning to teacher practice is relatively undeveloped.

The BES defines sustainability as the continued application of teacher practice after the professional development providers have withdrawn (Timperley et. al, 2007). Processes that support long-term sustainability, suggest the authors, are likely to be more important than short-term engagement with professional development. Despite the incisive findings on which aspects of PLD are more likely to lead to improved outcomes for students, the BES acknowledges that the greatest gap in the core studies was the lack of evidence of sustainability. Only seven studies (of the ninety-seven that met the criteria for inclusion in the meta-analysis) provided sufficient evidence of sustainability for the authors to offer analysis. The BES states: “Sustainability was not a neglected issue but it was treated as an article of faith more than a condition subject to empirical verification” (p. xxxiv).

**Research aim and questions**

The overall aim of this research was to examine the relationship between teachers’ experiences of PLD and their tendency to make sustained changes to their practice, from the point of view of the teachers.

The following three research questions guided this study:

1. What are teachers’ perceptions of the relationship between their experiences of PLD and their tendency to make sustained changes to their practice?

2. What are teachers’ perceptions of the barriers to sustained changes in their practice?
3. What are teachers’ perceptions of the factors that influence sustained changes in their practice?

**Outline of thesis**

This thesis is organised into five chapters, summarised as follows:

**Chapter One: Introduction**

This chapter outlines the topic of the research and the reasons for its inception. The definition of professional learning and development is provided here, and a rationale for a review of the literature for each of the themes in Chapter Two is provided.

**Chapter Two: Literature Review**

The literature review covers four themes. The first three, namely learning processes, negotiation of meaning, and professional development activities, were selected following a reading of the *BES*. The fourth theme, the teaching-as-inquiry model of professional learning, was included because of its emphasis in the *New Zealand Curriculum* (Ministry of Education, 2007).

**Chapter Three: Methodology**

This chapter begins with an academic justification for the selection of a qualitative research methodology in the interpretivist paradigm. The research settings and sample, and the data gathering tools are described and justified. The method of organising and analysing the collected data are explained. Issues of validity and ethics are also considered.

**Chapter Four: Findings**

This chapter sets out the findings from the collected data. The data has been coded and grouped according to themes and subthemes that emerge from the data.
Chapter Five: Discussion and Conclusions

The chapter begins with a discussion of the findings using the relevant literature from Chapter Two. Findings that provide insights into the literature themes are highlighted and discussed. The conclusions that follow are direct answers to the research questions stated in Chapter One. The chapter includes recommendations for those who design PLD programmes, and suggestions for further study on this topic.
CHAPTER TWO: LITERATURE REVIEW

Introduction

This chapter reviews the literature regarding a number of themes that emerge from the wider literature on PLD programmes. The literature highlights the divide between what teachers learn about new ideas presented to them, and what they actually do in their lessons. The four literature themes discussed in this chapter have been selected for their relevance to the relationship between PLD programmes and sustained improvements to practice, and to the factors that influence this relationship. The need to challenge teachers’ existing beliefs and assumptions is established and the complexity of professional learning is recognised. This chapter also considers the contribution of three possible elements of PLD programmes to their effectiveness, namely, negotiation of the meaning of new knowledge, professional communities, and the teaching-as-inquiry model of professional learning.

Professional learning

New theory, gathered from professional development, is carried in the minds of the practitioner to where it is applied. The BES explains that teachers’ existing beliefs and assumptions about learning and their practice context influence the process by which teaches learn (Timperley et. al., 2007). This section expands on these concepts. It begins by clarifying the distinction between professional development and professional learning. The literature regarding the processes by which teachers learn new theory is then discussed. There is a particular focus on how teachers’ underlying beliefs and assumptions can inhibit professional learning. The section finishes with a discussion of the literature regarding the complexity of teacher learning.
Professional development and professional learning

The Teacher Professional Learning and Development: Best Evidence Synthesis Iteration (BES) (Timperley, et. al., 2007) analyses how professional development – that is, the dissemination of new pedagogical theory - generates professional learning through its context, content, the learning activities and the learning processes involved, and in turn identifies factors that influence the degree to which the delivery of new ideas affects teacher learning. The core studies were very descriptive about the nature of professional development. The physical location, the time of the day, whether participation is voluntary or not, and the number of hours spent on professional development, are all, of themselves, indeterminate or insufficiently causative of the effectiveness of professional development (Timperley et al., 2007). Instead, the BES found that the content of professional development was more important than the context in a programme’s effectiveness. Effective content included understandings about how theory would translate into practice, the assumption that teachers are a key influence on student learning, and activities designed to engage teachers’ existing theories which enabled learning processes to occur (Timperley et. al., 2007).

On the issue of time resources, the BES distinguishes between release time for teachers, extended timeframes and frequency of contact. The BES found that positive outcomes were recorded in core studies of programmes with and without provision of release time, and therefore concluded that how the release time was used determined its influence on changing practice (Timperley et. al., 2007; Wayne, Yoon, Zhu, Cronen & Garet, 2008). Extended timeframes for professional development programmes and frequency of contact between providers and participants were found by the BES to be probably necessary because the process of changing teaching practice required challenging existing beliefs (Adey, 2006; Kahlle & Kronebusch, 2003; Saxe & Gearhart, 2001; Timperley et. al., 2007; Wayne et. al., 2008). The need to challenge teachers’ existing beliefs is discussed later in this chapter.
Learning processes

A body of theory has developed to explain the significantly uncertain relationship between the provision of professional development initiatives and their intended changes to long-term practice (Coburn & Russell, 2008; Cohen & Ball, 1990; Hannay & Earl, 2012; Opfer & Pedder, 2011; Spillane, 1999; Spillane, Reiser & Reimer, 2002). Timperley and Alton-Lee (2008) argue that the substantial literature about the factors that influence how students make use of learning opportunities - what is referred to as the “black box” (p. 340) - should now be matched by studies into the second black box located between professional learning opportunities and professional practice. The BES distinguished three levels of cognitive process involved in professional learning: cueing and retrieving prior knowledge; becoming aware of new information and skills and integrating them into current values and beliefs; and creating dissonance with their current position (Timperley et al., 2007).

Following a case study of the implementation of new reading instruction pedagogy to teacher practice Coburn (2001) argued that unless PLD programmes engage teachers’ current beliefs about learning and about their practice environment, then teacher practice is not likely to change. Sometimes, teachers miss the core message of the new theory and merely adopt a recipe of changes to practice while their beliefs remain undisturbed. This is called over-assimilation (Timperley, et. al, 2007; Timperley, Parr & Bertanees, 2009). Timperley (2011) commented: “When the theory behind a strategy is poorly understood these adaptations are likely to be inconsistent with the theory underpinning them” (p. 63). One-off professional development courses provided of the kind often offered by outside experts with a limited timeframe are unlikely to challenge existing beliefs (Timperley et. al., 2007).

Drawing from Spillane et. al.’s (2002) theories of change psychology, Timperley and her colleagues (2007) state that teachers make sense of new learning through “a complex process involving interaction between an individual’s existing cognitive structures (knowledge, beliefs, and attitudes), the situation in which they practise, and the providers’ messages” (p. 198). This theory has been made explicit in many
studies (for example: Borko, 2004; Coburn, 2001; Goldsmith, Doerr & Lewis, 2014; Langton, 2014) and in literature reviews (for example: Clarke & Hollingsworth, 2002; Desimone, 2009; Opfer & Pedder, 2011).

Spillane (1999) argues that the extent to which teachers apply new pedagogical theory to their practice depends on their enactment zones. Enactment zones refer to “…that space where reform initiatives are encountered by the world of practitioners and ‘practice’, delineating that zone in which teachers notice, construe, construct and operationalize the instructional ideas advocated by reformers” (p. 144). Enactment zones are where new ideas are converted to changed practice. Conventional views of professional development tended to explain teachers’ adaptations of pedagogical initiatives, or the rejection of them, as attributable to situational factors. Spillane introduces a cognitive frame to the mix, where attention focuses on how teachers interpret the new theory (Coburn, 2001; Langton, 2014; Spillane, 2000; Webster-Wright, 2009).

**Teachers’ beliefs and resistance**

Goodson, Moore and Hargreaves (2006) state: “...teachers are more likely to become engaged in change efforts if, in their design or development, they are inclusive rather than exclusive of teachers’ meanings, missions, and memories” (p. 56). Teachers beliefs and values are heavily influenced by their individual life history (Coburn, 2001; Goodson et. al., 2006; Opfer & Pedder, 2011; Timperley et. al., 2007). A teacher’s life history includes his or her professional history (Goodson et. al., 2006; Timperley et. al., 2007). An experienced teacher has a greater wealth of professional knowledge and so is likely to integrate new knowledge quickly, “but this is likely to be the case only when the new information is consistent with current values, beliefs, and practices” (Timperley et. al., 2007, p. 13). Changing core beliefs is more difficult for experienced teachers because it first requires confronting existing beliefs about practice and about education constructed during the considerable number of years of active teaching already completed (Goodson et. al., 2006). Furthermore, teachers may have formed beliefs about what makes good teaching from the models used by
those who have taught them, including the ten thousand hours of pre-tertiary education received by teachers as young people long-before they enter a teacher training programme (Richardson, 2003).

Beliefs and assumptions are seldom discrete ideas held as true by an individual; instead, they are integrated with each other into a ‘worldview’, that is, a complete frame of reference with which to interpret new experiences (Coburn, 2001). That means that teachers’ belief systems are inseparable from their life histories and contribute to their sense of personal and professional identity (Gu & Day, 2007). Kelchtermans (2005) conceptualizes professional identity as a dynamic and socially dependent concept. He therefore prefers the term ‘self-understanding’ over the term ‘identity’, the latter implying completion and a static condition. When Spillane et. al. (2002) proposed a cognitive frame for teacher sensemaking, they recognized the relationship between reform efforts and teachers’ emotions when core beliefs are challenged. Teachers gain self-esteem when their practice reflects their core beliefs. Spillane and colleagues state: “This self-affirmation bias can affect judgments, exerting pressure in favor of the view that what one has done in the past has value or that whatever threat is challenging self-esteem can be discounted” (2002, p. 402). The challenge, therefore, is not just about creating dissonance between existing beliefs and new theories; educational leaders must also manage powerful emotional responses to change that frequently affect experienced teachers (Richardson & Placier, 1998). As Goodson et. al. (2006) explain, the negative emotions associated with reform may stem from nostalgia for an idealised past in the face of the perceived threats of the present. They may feel social nostalgia for the lost sense of belonging to a group of like-minded individuals, and they may feel political nostalgia for the lost status within the institution that recognized their expertise. Furthermore, teachers’ past experiences have generated teachers’ missions that were valid for their time and are still held as valid now:

Understanding resistance to change as a process of fulfilling, preserving, and protecting the missions and memories of one’s generation draws attention to a positive sense of what teachers are fighting for... rather than merely what they are opposed to or against. (p. 44)
In a study of nineteen teachers across a variety of educational contexts, Darby (2008) found that teachers often felt fear and intimidation when their core beliefs were challenged because such beliefs were inseparable from the teachers’ self-understanding. Gu and Day (2007), in their study of the whole-career stories of three teachers, focus on the teacher’s resilience, that is, the qualities that enable the teacher to overcome the negative emotional responses to change. PLD initiatives that challenge teachers’ core beliefs are more likely to achieve sustained change if they also nurture teachers’ resilience.

Life histories include the individual teacher’s stages of career. In a longitudinal study of nineteen teachers across their respective careers, Hargreaves (2005) found that the responses of teachers to proposed reforms tended to align with career stages. Young teachers tended to already have adapted to the insecurity of modern professional life and exhibited enthusiasm and optimism. By contrast, for teachers at the end of their careers “as... their experiences of repetitive educational change wear them down, and impending retirement weakens the grip that others have over them, most teachers become resistant to and resilient toward change efforts outside the classroom, and concentrate their remaining energies and rewards on a more relaxed sense of accomplishment within it” (p. 981).

**Challenging teachers’ underlying beliefs**

Exposing, confronting and changing the underlying beliefs and assumptions of educators is a difficult task (Timperley et. al., 2007). Argyris (1977) provides a compelling model for overcoming the barriers to organisational learning by making a crucial distinction between ‘single-loop’ and ‘double-loop’ learning. Single-loop learning is a process that “enables the organization to carry on its present policies or achieve its objectives” (p. 116). Single-loop learning is therefore a process by which the change is preprogrammed and does not involve a redesign of the programme. The values underlying single-loop learning are essentially defensive (Cardno, 2012). Double-loop learning, on the other hand, is a process “not only of detecting error but of questioning the underlying policies and goals” (Argyris, 1977, p.116). Double-loop
learning enables changes in human understandings and beliefs to determine how the process should be changed. However, the barriers to confronting existing beliefs run deeper and are more subtle, because managers tend to impose single-loop thinking when devising processes for double-loop learning (Argyris, 1977). More recently, Chris Argyris (2010) explained that if an organisation’s discourse around a new initiative is governed by unspoken rules, such rules “were undiscussable and their undiscussability undiscussable” (p.67), hence entrenching single-loop thinking. New pedagogies, although identified by managers as the solution, are imposed on the staff instead of developed with staff. The defensive overarching values that guide attempts at double-loop learning will themselves inhibit the effectiveness of the learning.

Argyris asserts that a theories-of-action analysis can break the built in systems that entrench single-loop thinking. Individuals use theories to guide and justify their actions. Therefore, these theories-of-action can be tested by the effectiveness of actions in achieving the values people hold (Argyris, 1977; Cardno, 2012; Dick & Dalmau, 1999; Robinson & Lai, 2005). All theories-of-action have two forms: the espoused theory is the theory that people believe are the basis of their actions; and the theory-in-use is the theory that is implied by their behaviour (Argyris, 2010; Dick & Dalmau, 1999). Distinct from theories-of-action are the actions themselves, which Argyris and Schön (1974) divide into defensive behaviours (known as ‘Model 1’) and productive behaviours (known as ‘Model 2’). Dick and Dalmau (1999) state, “Model 1 might be characterised as adversarial, competitive, and narrowly rational. Model 2 is more consensual, more open to change, and provides more opportunity for choice” (p. 47). Model 1 behaviours involve filtering of information (Cardno, 2012) to avoid threats to predetermined processes because (like single-loop learning) maintaining processes presides over challenging beliefs. Model 2 behaviours, on the other hand, involve “generating information in an effort to increase the possibility of critical reflection-in-action” (Cardno, 2012, p. 45). In Model 2 behaviours, like double-loop learning, the processes are subservient to the need to challenge beliefs and change beliefs.
Moving from single-loop learning to effective double-loop learning may be best achieved by moving from Model 1 behaviours to Model 2 behaviours. Dick and Dalmau (1999) use the ‘information chain’ to analyse the way in which wrong assumptions by one individual about another’s beliefs is self-perpetuated and entrenches single-loop learning. They argue that if you change any of the links in the chain then you will change the others. According to Dick and Dalmau (1999), if you change beliefs and feelings then actions will also change, but it may be easier to change actions first, which will in turn change beliefs and feelings. They state, “An environment which rewards participation, joint problem solving and openness can be expected in the long term to move values more towards Model 2” (p. 46). Dick and Dalmau (1999) assert that an organisation with an ‘identification culture’ will manipulate staff directly through traditional socialisation processes of imitation and external rewards. An organisation with an ‘internalisation culture’ helps staff locate common self-governing values (Dick & Dalmau, 1999). The rewards and penalties are directed at Model 2-type actions because “An internalisation culture, even if less cohesive, is more responsive to its external environment. It can transform dramatically over time as its underlying identity and unity undergo successive changes through double-loop learning” (p.44).

The strategy of imposing Model 2-type behaviours to nurture double-loop learning has been successfully applied in New Zealand in a two-day appraisal training course (Piggot-Irvine, 2003) and in a school-wide action research project by senior management of a school for high needs children (Piggot-Irvine & Doyle, 2010). Both initiatives aimed at establishing a more transparent and consensual relationship between managers and staff to enable beliefs to be surfaced, challenged and altered. An extensive study of appraisal systems in New Zealand school recognises the gap between espoused intentions of appraisal improving student learning and the reality of appraisal systems treating student learning as undiscussable. As a response, the study proposes redesigning appraisal processes based on Model 2 behaviours (Sinnema, 2005). Robinson and Lai’s (2005) work sets out a holistic examination of teacher thinking and action. They see teacher practice as a collection of spontaneous solutions to everyday problems encountered in the working day, based on
accumulated experience – so much so that teachers themselves are often not able to offer an immediate explanation as to why they chose a certain response to a problem. Teacher’s actions in the classroom can be seen as navigating a large number of ‘constraints’, or what the teacher believes as what is possible given the present situation. Dudley (2013) refers to these beliefs about constraints as ‘filters’ because they are pre-programmed ideas about what factors need to be taken into account and which do not. Robinson and Lai (2005) summarise their approach to creating a school culture of professional learning and improvement as follows:

Improving your school and your teaching requires understanding the theories of action that control the practices you want to improve. Once you understand the relevant theories of action, you can communicate your genuine appreciation of what people are up against and be more insightful in discussions about what and how to improve. In short, improvement starts with describing, explaining, and evaluating the current situation, not with a critique and a set of recommendations. (p. 211)

**Recognising the complexity of professional learning**

Various theorists offer long lists of the “myriad of contexts” (Desimone, 2009, p. 181), in which professional learning occurs. Such lists include mentoring relationships, group discussions, class observations, curriculum materials, professional networks, self-reflection, self-initiated professional study (Desimone, 2009), “a brief hallway conversation with a colleague, or after school when counselling a troubled child” (Borko, 2004, p. 4), and “every time a lesson is taught” (Guskey, 2000, p. 19). Recognising this, Desimone (2009) proposed five core features of effective professional development (content focus, active learning, coherence, duration and collective participation) and argued for future studies to focus on their measurement to enable comparability of data. However, Opfer and Pedder (2011) have pointed out that some professional development programmes with all of the features present have found null results while in other studies teacher learning has occurred despite the lack of the core features in the professional development. Desimone’s model retains, essentially, the process-product conceptualisation of professional learning.
Clarke and Hollingsworth (2002) argue that PLD programmes must give attention to all domains - new theories, teacher beliefs, practice and outcomes - in order to ensure sustained, principled, changed practice is achieved. They note in particular that teacher beliefs may not shift until they enact a theory-informed change in practice and reflect on the outcomes. Indeed, Fullan (2014) encourages teachers to embrace digital technologies in their classrooms, even if they feel unprepared, because the possibilities offered by “the unplanned digital revolution” (p. 145) are expanding so rapidly that they cannot be controlled by any traditional means. He likens the phenomenon to “a social epidemic or positive contagion” (p. 149).

In their literature review, Opfer and Pedder (2011) propose a vision of teacher learning that “recognizes the overwhelmingly multicausal, multidimensional, and multicorrelational quality of teacher learning and its impact on instructional practices” (p. 394). They advocate a shift in focus from professional development activity to “consider the individual and school orientations to learning systems that mediate teacher learning and teacher change” (p. 394). They view professional learning as residing within three overlapping and continually evolving systems: the individual teacher system, school-level systems, and systems of learning activities. Hannay, Erb and Ross (2010) suggest that the catalyst for changed practice may originate from anywhere and from any element of a teacher’s professional environment. In an extensive study of the impact of school principals on student outcomes the domain with the greatest effect size was found to be “leading teacher learning and development” (Robinson, 2011, p. 9). The key to improving teacher practice is not performance checklists but “through creating learning situations that promoted inquiry habits of mind throughout the school” (Timperley, 2011, p. 60). A systems-wide approach is favoured by Fullan (2014). He identifies two sets of school management strategies – drivers - which leaders may believe lead to greater levels of success for their school. Fullan arranges the drivers in a figure which is replicated in Figure 1.
Wrong | Right
---|---
Accountability | Capacity building
Individualistic solutions | Collaborative effort
Technology | Pedagogy
Fragmented strategies | Systemness

**Figure 1: Right and wrong drivers of educational change**


Fullan (2014) explains that “The four ‘right drivers’ must form the foundation and guiding principles of action and integrate the beneficial aspects of the wrong drivers into the service of change” (p. 26).

**Negotiating meaning**

In this section I will discuss the phenomena of new pedagogical theories being altered between their initial dissemination by the provider of professional development to those who implement the theories in practice. The *BES* (Timperley, et. al., 2007) defines ‘negotiated meaning’ as follows:

> During the process of professional learning, providers and teachers need to engage with each other’s theories about what constitutes desirable practice and about the beliefs on which that practice is based. They can then negotiate their way to improved theories, using improved student outcomes as the criteria for judging the success of the negotiated theory. (p. 283)

This definition incorporates five key elements which are supported by the relevant literature, and each element is outlined below. The five elements are that negotiation is: an overt process; involves multiple parties; results in a singular negotiated theory; results in a more effective theory; and is necessary. What follows is an outline of each element.
The first element is that ‘negotiated meaning’ is an overt process conducted through communications between providers and teachers. It is not the same thing as sensemaking, although it may arise from a need to make sense of new theories (Timperley et al., 2007). Sensemaking is a socially situated process (Coburn, 2001) but the outcome for each individual remains unique because each maintains a unique set of beliefs (Spillane, 1999). Negotiation of meaning is similar to co-construction, which is a “process of collaborative learning in which two or more people collaborate to jointly construct new knowledge” (Timperley et al., 2007, p. 282). Richardson and Placier (1998) recognise that negotiation may be more effective at the group level: “…the individualistic and empowering form of staff development be extended to the group level … [where] the focus is on developing and agreeing upon the longitudinal goals and concerns for all students” (p. 7).

The second element is that negotiation is a process carried out by two parties who may bring to the process different or competing interests. The terms negotiate and mediate (Coburn, 2005), highlight the difference between the respective positions of managers and practitioners regarding what constitutes best practice at the outset of the negotiation process. The plurality of the parties in the process indicates that teachers shape reform as much as they are shaped by it (Coburn, 2005). Timperley and Parr (2006) advocate for a “theory competition approach” (p. 246) to guide the process of negotiation, where both change initiators and change implementers must “… be prepared to both critique the other’s theories and have their own theories critiqued” (p 248). When new learning does not challenge the teacher’s existing theories then it risks being “layered onto existing practice, not replace it” (Timperly et al., 2007, p.xxxix); at a minimum the new theories may become dispersed and diluted amidst a mix of old and new theory (Bransford, Derry, Berliner, Hammerness & Beckett, 2005; Cohen & Ball, 1990).

The third element is the singularity of the negotiated theory. The terms incorporate (Mayrowetz, 2009), assimilate (Cohen & Ball, 1990), coherence (Carver & Feiman-Nemser, 2009), reorientate (Ainscow, Booth & Dyson, 2006) and integrate (Coburn, 2001) suggest that the new learning becomes part of the teacher’s understanding of
education as a singular whole. Timperley and Parr (2006) state that the process of negotiation enables both managers and practitioners to understand each other: “... successful change is that which achieves mutually desired outcomes” (p. 232-3).

The fourth element is that the negotiated theory is more effective or more appropriate for the context in which it will be applied when compared to the original theories advocated by the initiators. The result of negotiation is not compromise but improvement (Coburn, 2001). Teachers should not be regarded as “subverting the intent of policy or thwarting implementation” (p. 162) but doing what is “necessary and unavoidable” (p. 162) to achieve effective change. The negotiated meaning as an adaptation of the original intent is, therefore, a refinement (Timperley et. al., 2007) or transformation (Coburn, 2001) of the PLD theories as originally communicated. Timperley and Parr (2006) state: “There is often an assumed superiority of program initiator theories over those of the practitioners. Yet policy makers do not necessarily get it right and there is much practical wisdom held in schools” (p. 247). The adaptation of a theory in response to local conditions carries the risk that only the superficial parts of the strategy are implemented without a transfer of the theory’s core principles and may result in little or no change in teacher effectiveness (Bransford, 2005; Cohen & Ball, 1990; Timperley, et. al., 2007).

The fifth key element in Timperley et. al.’s (2007) definition of negotiation of meaning is that negotiation between provider and practitioner is necessary to achieve positive change. The BES asserts that PLD programmes were less effective when the learning activities were either totally prescribed by the provider or totally selected and regulated by the participants (Timperley et. al., 2007). Self-regulated learning, according to Timperley et. al. (2007), is “The ability to use metacognitive strategies to plan and monitor one’s own learning” (p. 284), and involves treating teaching staff as “able to construct their own learning experiences and develop a more effective reality for their students through their collective expertise” (p. xxv). However, the self-regulated approach to professional learning is unlikely to yield improved outcomes for all students (Timperley et al, 2007). Similarly, Timperley et. al. (2007) state that prescriptive PLD programmes “... where outside experts develop
recipes for teaching (typically based on research about what works for students) then present prescribed practices to teachers with an underpinning rationale and monitor their implementation carefully to ensure integrity” (xxvi), tend to have limited impact. Furthermore, when a typical PLD initiative is scaled up, often in its latter stages, authority and knowledge need to be transferred from the external providers to the teachers and their immediate managers. These are the conditions for “self-generative reform” (Coburn, 2003, p. 7). The problem is that such ‘up-scaled’ projects often become solely defined by increased participation at the expense of evaluating the depth and sustainability of changed understandings and practice among the participants (Timperley et al., 2007). Effective up-scaling of PLD programmes requires more than the staff buy-in associated with the initial adoption and implementation of the programme. Coburn (2003) concludes “… that developing the capacity to provide reform-related professional development or other structures for ongoing teacher and administrator learning may be a central feature of shifting authority and ownership for the reform” (p. 8).

The literature supports the mix of teacher discretion and expert guidance for effective PLD programmes. For example, a study of American high schools found that self-regulated collaborative learning practices risked confirming and entrenching previously held beliefs about minority races (Lipman, 1997). A study of twenty-three elementary teachers in Los Angeles concluded that the teacher learning programme that guided participants to appropriate pedagogies was more successful than alternative programmes that relied more on self-regulated learning (Saxe & Gearhart, 2001). In their review of literature, Darling-Hammond and Richardson (2009) argue in support of a mixed model of professional development involving outside expertise and internal teacher collaboration. Stallings and Krasavage (1986) pose the issue as “… how to keep the momentum, not merely maintain previously learned behavior” (p. 137), and suggest that teachers must internalise new teaching strategies to engender a desire to keep learning. Richardson and Placier (1998) recognise that teachers are unlikely to be pinned to a static pedagogy. Hughes (1997) suggests that veteran teachers will integrate new theories into their existing knowledge”, and Penuel, Fishman, Yamaguchi, and Gallagher (2007) state
“... teachers filter policy demands and messages from professional development about teaching through their own interpretive frames” (p. 931). Therefore, some form of symbiosis is likely to be required between the polarised elements of prescription and self-regulation (Guskey, 2009), requiring a negotiation between the parties of what the PLD knowledge means for teacher practice.

The need to negotiate meaning may be motivated by a pragmatic desire for coherence or alignment with other professional learning: “A professional development activity is more likely to be effective in improving teachers’ knowledge and skills if it forms a coherent part of a wider set of opportunities for teacher learning and development” (Garet, Porter, Desimone, Birman & Yoon, 2001, p. 936). Furthermore, teachers are more likely to commit to an innovation if they perceive it to be congruent with an established broad vision of pedagogy because teachers tend to identify with such a vision (Penuel et. al., 2007). The pressures of multiple and apparently conflicting pedagogical reforms may need to be understood together in order to maximise effective implementation of either of the reforms (Ainscow et. al., 2006; Mayrowetz, 2009).

Timperley and Parr (2006) distinguish between teachers’ understanding of new strategies for teaching and their understanding of the problem that the strategies are designed to address. Discussing the process of negotiation by schools of government educational policy, they state:

> Unless these types of national concerns are debated and understood in ways that lead to their becoming local concerns, the motivation for the teachers to address such disparities in their classes is likely to be missing. Concerns ‘out there’ need to be translated into concerns ‘in here’ if change is to be successful. (p. 246)

If the teachers understand the problem then they will seek to learn the strategies on offer to solve it, even before they have had a chance to verify their effectiveness.

The process of negotiation of meaning is likely to be ongoing and cyclical, an element not included in the BES definition. Timperley and Parr (2006) comment: “Creating
new knowledge involves negotiating, renegotiating and then again renegotiating meaning as problems become redefined and new evidence is brought to the table for consideration and interpretation” (p. 36). Two studies, both examining how schools integrate seemingly opposing policies of inclusion and standards-based assessment, each demonstrate that teachers’ experiences of implementing those policies altered the approach of the reforms (Mayrowetz, 2009; Ainscow et. al., 2006). In his theoretical analysis, Windschitl (2002) argues that the application of student-centred, constructivist pedagogies in lessons requires teachers to think in the same way as the students. This in turn caused teachers to apply a constructivist approach when negotiating external reform initiatives.

Earl and Timperley (2015) redefine negotiation as “… building knowledge at the nexus between innovation and evaluation” (p. 38). They suggest that:

The nexus is meant to be a place of creative dissonance and intentional interruption of ‘taken for granted’ ideas using evidence; capitalising on a mix of expertise, theories about how the world works and the pragmatics of what is possible in a particular context. It can be messy and ordered, risky and disciplined. (p. 38)

The authors argue, “The power of negotiating meaning in the nexus often lies in blurring the space between them, with innovators taking on evaluation roles and evaluators becoming involved in the innovation” (p. 38). The merging of the roles makes negotiation truly a form of co-construction. All parties are searching for solutions to problems from the other participants, which may require interdisciplinary innovation to find a solution that resides somewhere other than where the problem arises (Blackwell, Wilson, Street, Boulton & Knell, 2009).

**Professional learning communities**

The literature related to leading pedagogical change frequently refers to PLCs as offering considerable potential for enhancing the effectiveness of PLD programmes. (Fullan, 2014; Robinson, 2011; Timperley, 2011). The BES found that “The opportunity to process the meaning and implications of new learning with one’s
colleagues appears to be fundamental to the change process, where that change impacts positively on student outcomes” (Timperley et. al., 2007, p. 201). This section of the literature review explores the qualities of professional groupings and how they influence learning and practice.

To understand the potential value of a professional learning community (PLC), it is important to review the broader concept of communities of practice, as promulgated by Etienne Wenger. The latter is defined as: “... groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger, McDermott & Snyder, 2002, p. 4). They are ubiquitous:

Communities of practice are everywhere. We all belong to a number of them—at work, at school, at home, in our hobbies. Some have a name, some don’t. Some we recognize, some remain largely invisible. We are core members of some and occasional participants in others. Whatever form our participation takes, most of us are familiar with the experience of belonging to a community of practice. (p. 5)

The creation of a community of practice is often fluid, and its members may come and go with varying degrees of participation (Wenger, 1999). Communities of practice are so numerous, natural and often intangible and transitory, that members may often be unaware of the existence of the community or even of their membership of it (Andrew, Tolson & Ferguson, 2008; Wenger, 1999). However, a community of practice is more than just a network of like-minded individuals; the members also share a common enterprise (Wenger, 1999).

The value of communities of practice arises from the conceptualisation of learning as a social phenomenon (Coburn, 2001; Lave & Wenger, 1991; Robinson, 2011; Timperley et. al., 2007). Coburn (2001) refers to collective sensemaking as sensemaking that is influenced by the interactions between individuals especially professional communities. Organisations that nurture communities of practice will benefit from the creation, retention, refinement and generation of shared knowledge (Lave & Wenger, 1991; Wenger et. al., 2002). Regarding the members of
such communities,

However they accumulate knowledge, they become informally bound by the value that they find in learning together. This value is not merely instrumental for their work. It also accrues in the personal satisfaction of knowing colleagues who understand each other’s perspectives and of belonging to an interesting group of people. (Wenger et. al., 2002, p. 5)

Communities of practice therefore affect how individual members make sense of new theories (Penuel et. al., 2007). Coburn’s (2001) study revealed that teachers made different meanings of new reading pedagogies because they inhabited different informal social groupings within the same workplace.

PLCs are the subject of much literature because of their potential to enhance the learning capacity of schools and its staff. Stoll, Bolam, McMahon, Wallace and Thomas (2006) describe capacity as “a complex blend of motivation, skill, positive learning, organisational conditions and culture, and infrastructure of support” (p. 221). In their review of the relevant literature, Stoll, et. al. (2006) suggest the following definition of PLC:

PLC may have shades of interpretation in different contexts, but there appears to be broad international consensus that it suggests a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way ... operating as a collective enterprise. (p. 222-3)

The factor that differentiates a PLC from a community of practice is that the former exists for the purpose of affecting improvements to practice (King, 2002; Vescio, Ross & Adams, 2008). A community of practice without such a purpose may not achieve any change in practice (Timperley et. al., 2007) because it may reinforce the status quo instead of challenging it (Timperley & Parr, 2006). Little (1999) highlighted this distinction: “Not all strong professional communities derive their strength from a commitment to learning and an ethic of service to students. Some unite to protect traditional conceptions of practice even in the face of persistent student failure” (p. 28).
PLCs can exist at different levels within a school, can be school-wide and can include staff across multiple schools (Bolam et. al., 2005; Coburn, 2001; Grossman, Wineburg & Woolworth, 2001). In relation to secondary schools, Bolam et. al. (2005) concluded:

... the departmental structure often produced small professional learning communities, with their own distinctive ways of working together, although one-teacher departments in smaller secondary schools faced quite different issues. Location was also sometimes crucial, for example staff in relatively remote schools found it difficult to share experience beyond their own school. (p. 148)

Furthermore, despite the word professional in its name, membership of a PLC need not be restricted to trained teachers because in some educational contexts, support staff and other stakeholders contribute to student learning (Bolam et. al., 2005). It may be more appropriate to “focus on people ‘being professional’ rather than ‘being a professional’” (p. 149). Barriers to improving practice vary from teacher to teacher in type and intensity. Such experiences should be valued as part of the “diverse expertise to contribute to the community’s intellectual resources” (Palincsar, Magnusson, Marano, Ford & Brown, 1998, p. 8).

A number of authors have listed characteristics of effective PLCs. Bolam et. al. (2005) have conducted a large scale research project involving 393 English schools (from pre-school to secondary) and sixteen case studies. Their project outlined five characteristics of effective PLCs, namely: “shared values and vision, collective responsibility for pupils’ learning, reflective professional inquiry, collaboration focused on learning and group as well as individual, professional learning” (p. 145). They added three more characteristics “inclusive membership; mutual trust, respect and support; openness, networks and partnerships” (p. 145). Meanwhile, Timperley et. al. (2007) identified two, more generalised qualities of PLCs that promoted teacher and student learning: “a hybrid of the older emphasis on community and mutual support and the more recent cognitive orientation towards professional learning” (p. 203) and “a focus on analysing the impact of teaching on student
learning” (p. 204). Vescio et. al. (2008) present an overview of ten American studies together with the Bolam et. al., (2005) research, and identify the following four characteristics of PLCs that successfully changed school cultures: collaboration; a focus on student learning; teacher authority; and continuous teacher learning. In her study of the development of a teacher video club, van Es (2012) decided on three central features of effective PLCs: collegial and collaborative interactions; participation and discourse norms for productive collaboration; and focus of activity on teaching and student learning.

There are many other lists of qualities of effective PLCs in the literature (for example, Lee, Zhang & Yin, 2011; Palincsar et. al., 1998) but the qualities listed in these tend to include the same elements of the lists outlined above, although in different combinations. Vescio et. al. (2008) recognise that the “multifaceted interweaving” (p. 84) of the many variables that contribute to operation of PLCs renders distinctions between them very difficult. As an example of the overlap of the qualities listed in the literature, Bolam et. al. (2005) list elements of trust, respect and inclusiveness separate to collaboration, while van Es (2012) include such qualities within the scope of collaboration: “It may be that an important element in building community is first learning to collaborate - feeling comfortable initiating ideas, listening to one another, and supporting one another’s analyses” (p. 190). Another example is that the PLC quality of focusing on the impact of practice on learning identified by Timperley et. al. (2007), includes evidence or “the presence of artefacts that served to ground teachers’ deliberations in the realities of practice” (p. 204). This is included in Bolam et. al.’s (2005) discussion of reflective professional enquiry.

Vescio et. al.’s (2008) reference to “teacher authority” in PLCs is similar to Timperley et. al.’s (2007) discussion of “collective responsibility” which is included in their notion of a mutually supportive community. The latter found that “norms of collaboration and collective responsibility for student learning replaced norms of individualism and autonomy” (p. 205). Collective responsibility extends to responsibility for the processes of the PLC (Vescio et. al., 2008). Bolam et. al. (2005)
assert that it is necessary and beneficial to “make explicit use of the idea of a PLC, and the terminology, and to seek a shared understanding of it in order to promote and sustain a PLC” (p. 150). The participants’ knowledge of how to conduct themselves in a PLC includes dialogic norms for responding to unfavourable ideas from colleagues, before building capacity for improved teaching (Dooner, Mandzuk & Clifton, 2008; Grossman, et. al., 2001; van Es, 2012). This suggests that schools with effective and enduring PLCs already in place will be able to function productively sooner. A PLC may become ineffective if participants are forced to conform to the group’s shared goal (Dooner et. al., 2008). A PLC may include a pedagogical expert, often from outside the school, who may act as a facilitator (Saxe & Gearhart, 2001) to overcome a “norm of silence about the effectiveness of teacher practices” (Timperley, 2011, p. 48). If the expert is withdrawn, the responsibility for learning and for the process will the most likely fall on the remaining participants (Coburn, 2003).

The ubiquity of PLCs has incited Fullan (2010) to warn that if “the theory of action underpinning PLCs is not deeply enough specified by those adopting PLCs, they will again fall short of getting results” (p 30). The theory of action for a PLC must include the challenging of theories of action of teachers. He says that PLCs are not a programme innovation but about establishing enduring capacities for learning.

The teaching-as-inquiry model of professional learning

This section of the literature review was included because of its emphasis in the New Zealand Curriculum (Ministry of Education, 2007). The literature review describes the principles on which the teaching-as-inquiry model is based, and recent critiques of its usefulness.

The New Zealand Curriculum document includes a section titled “Effective Pedagogy: Teacher actions promoting student learning” (Ministry of Education, 2007, p. 34), which specifies “broad statements of pedagogical approaches for which there is
evidence of a positive impact on student learning” (Sinnema & Aitken, 2013, p. 151-152). Included in the effective pedagogy section of the *New Zealand Curriculum* is the statement: “The evidence tells us that students learn best when teachers ... inquire into the teaching-learning relationship” (Ministry of Education, 2007, p. 34), and is accompanied by the visual representation of the teaching-as-inquiry model shown here in Figure 2.

![Teaching as Inquiry Diagram](image)

*Figure 2: The teaching as inquiry model*
Source: Ministry of Education, 2007, p. 35

The teaching-as-inquiry model first appeared in a similar form in the *Effective pedagogy in social sciences/tikanga ā iwi: Best evidence synthesis iteration (SSTAIBES)* (Aitken & Sinnema, 2008). The authors of the SSTAIBES organize their findings around four mechanisms which are highly synthesized themes found to be running through the research literature on social sciences education. They included the teaching-as-inquiry model as its fifth finding, precisely because of the difficulty in answering the question of ‘what works?’. The answer “depends on the context. This means that it is important to also understand why, for whom and in what circumstances a particular teaching approach is effective” (Aitken & Sinnema, 2008,
Sinnema and Aitken (2011) explain that synthesising and categorising research findings presents two problems for the practitioner. The first is that the generalisations lose their connection to the reality of teacher’s practice, creating what Spillane et. al. (2002) describe as “a critical tension between the abstract and the concrete in communicating the ideas” (p. 393). The second problem for the practitioner is that the strategy presented by a specific study may only be effective for a very narrow range of circumstances, and teachers will tend to opt for clear strategies rather than delve into the factors that made it effective. For example, in a study of physics teachers’ implementation of a new curriculum, Fernandez and Ritchie (2003) noted “The old ‘prescription’ mentality, that is, teaching to the prescription, re-emerged and the need to change pedagogy was de-emphasized” (p. 96).

The teaching-as-inquiry model is designed to overcome the two problems described above (Sinnema & Aitken, 2011). It involves inquiry activities at three points in the cycle: the focusing inquiry answers the question “What is important (and therefore worth spending time on), given where my students are at?” (Ministry of Education, 2007, p. 35); the teaching inquiry answers the question “What strategies (evidence-based) are most likely to help my students learn this?” (p. 35); and the learning inquiry answers the question “What happened as a result of the teaching, and what are the implications for future teaching?” (p. 35). Academic research can be used in two ways in the model: to better understand the evidence derived from their own practice, and to develop “better-informed conjectures about what might enhance learning for students in their classrooms” (Sinnema & Aitken, 2011, p. 8). The model is underpinned by three attitudes (Aitken & Sinnema, 2008; Sinnema & Aitken, 2011). The first is open-mindedness, a willingness to consider unfamiliar approaches. The second is fallibility, an acceptance that a strategy – however supported by research – may not be effective in the unique circumstances of the teacher’s situation. The third attitude is persistence, a willingness to continually persevere with selection and experimentation of alternative pedagogies. So, Sinnema and Aitken (2011) sum up the purpose of the teaching-as-inquiry model as follows: “In a sense, it provides a bridge between the statements of valued student learning, and
the kinds of approaches that increase the likelihood of that learning being achieved for individual students and the system as a whole” (p. 3).

Sinnema and Aitken (2011) explain that the rationale for the teaching-as-inquiry model is also drawn from the literature of practitioner inquiry. For example, it shares the experimental nature of action research as teachers are encouraged to apply unfamiliar strategies. It differs in that the chosen strategy may not need to be proven to work in the present situation. Cochran-Smith (2009) refers to this approach as an exploratory and local approach to evidence construction:

Our point here is that creating a culture of evidence and inquiry in teacher education is not about asking questions that confirm what is already known or endeavouring to prove that existing policy, curriculum, and organizational arrangements are effective. Rather, the idea is to ask open-ended questions that emerge from the everyday work of practice informed by larger debates and controversies in the field. (p. 464)

The model shares similarities with teacher inquiry which concerns the rectification of inequity in the classroom. The inherent social purpose of education was identified by Cochran-Smith (2009):

Although we use the term social and cultural practice to describe teacher education, rather than the term ideological practice, to avoid misunderstandings and negative connotations, our point is that teacher education is neither neutral nor value-free but is instead rooted in cultural practices and ideals, whether these are stated explicitly or not. (p. 462)

The teaching-as-inquiry model is succinctly reproduced in the New Zealand curriculum and omits any reference to the three attitudes that appear in the SSTAIBES (Benade, 2015; Sinnema & Aitken, 2011). It does, however, include the initial rationale from the SSTAIBES: “Since any teaching strategy works differently in different contexts for different students, effective pedagogy requires that teachers inquire into the impact of their teaching on their students” (p 35). The teaching-as-inquiry model has also been reproduced in the Best evidence synthesis iterations
(BES) on professional learning and development (Timperley et. al., 2007) in relation to professional learning and development, most obviously in diagrammatic form inside the front cover. The BES does not explicitly conclude that what works in PLD includes teaching as inquiry, but the findings across the BES appear to support teaching as inquiry as an effective model for professional learning and development. The BES included in its framework for mapping the studies any data related to “Conceptual understandings and skills deepened through the professional learning activities related to ... methods of inquiry into the adequacy and improvement of own practice” (Timperley et. al., p. 30). Consequently, the authors were able to make this conclusion regarding the capacity of inquiry processes to challenge teachers’ pre-existing beliefs:

> Dissonance was created by demonstrating the effectiveness of alternative teaching approaches. The studies that reported this learning process all related to the professional development of teachers working with students from low-income communities where reading levels typically fell well below the national average. ... These studies found that once teachers had used the new teaching approaches with their own students and seen the positive impact on achievement, most became convinced of the value of the new learning and also of their own agency in their students’ learning outcomes. In most cases, this process resolved the dissonance and resulted in reconstructed practice. In some cases, ... the end result was rejection. (p. 152)

In relation to teachers’ capacity to regulate their own learning, the BES found:

> Teachers who had inquiry skills and content knowledge, and who received support from their leaders, were in a position to regulate their own learning. ... [S]elf-regulated learners are able to answer three questions: ‘Where am I going?’, ‘How am I going?’, and ‘Where to next?’ (p. 196)

They state that evidence-informed inquiry must be included in the core business of schools.

Teaching as inquiry shares significant elements with the teacher learning process known as lesson study which originated in Asia (Cajkler, Wood, Norton & Pedder, 2013; Dudley, 2013). Lesson study involves a group of teachers identifying some area
of practice that they believe could be improved. The group carries out research and formulates a specific change to practice and one of the teachers demonstrates while the others observe. Lesson study is a very prescriptive model, very much conducted in the classroom, whereas teaching as inquiry can include everything associated with lesson study but is less prescriptive.

In 2008 and 2009, the Ministry of Education undertook a full evaluation of the implementation of the 2007 Curriculum (Sinnema, 2011), including educator responses to the statement that teaching as inquiry is linked to improved outcomes for students. The evaluation found that “educators from across the system were strongly receptive to the teaching-as-inquiry model” (Sinnema & Aitken, 2011. p. 11), but there were three specific issues of concern: practitioners often confused teaching as inquiry with inquiry learning; a lack of attention to data and research; and a very slow increase in the extent to which inquiry practices had been implemented (Sinnema, 2011). In a report on the Literacy Professional Development Project, Parr and Timperley (2010) assert that inquiry processes are an influential factor at all levels of educational organisation including as a tool for those who are creating the structures that support PLD:

Evidence-based inquiry into effective practice, together with coherence in terms of goals, is the key paradigm that connects the different contexts for learning. Inquiry in the current project was conceptualized as a set of interactions within and between communities of practice and represents a dynamic model, one that uses, in an ongoing fashion, evidence to develop and to change practices, working from established learning needs at all levels. (p. 169)

Sinnema, Sewell and Milligan (2011) conducted an action research project involving 26 teachers who participated in a PLD programme explicitly based in the teaching-as-inquiry model and six academic educational researchers. The researchers and teachers collaborated to bridge the gap between theory and practice: “Bridging this gap involves bringing together discourses of both those who have researched effective teaching, in an academic sense, and those who seek, from a practitioner’s perspective, to teach in ways that improve learning for students” (p. 248). They
concluded that the effectiveness of, and teacher engagement in, the teaching-as-inquiry process were enhanced by this form of collaboration.

The teaching-as-inquiry model does have its critics. Dr Leon Benade has recently critiqued the inclusion of the model among the effective pedagogies listed in the New Zealand curriculum (Benade, 2015). The study involved interviews with 25 teachers in six schools representing a range of adaptations to the concept of 21st century learning, as described by the Ministry of Education. Benade found that the data supported four criticisms of teaching as inquiry in the New Zealand Curriculum. The first is that the curriculum document omits the three underpinning attitudes described by Sinnema and Aitken (2011). Benade comments “What remains then is no more than an instrumental formula for teachers to follow, with no requirement they examine their fundamental beliefs and assumptions” (p. 116). His second criticism is that the language used to describe the model in the curriculum refers to the teacher in the singular, indicating “the lack of a collaborative dimension” (p. 117). The third criticism is that few teachers have utilised research in their experiences of teaching as inquiry. Benade’s fourth and last criticism is that “the language of social justice or criticality is utterly absent from the [teaching-as-inquiry] model, as it was from the discourse of the participants” (p. 117). On all four counts, notes Benade, his findings suggested that reflective practice was a more effective model. Benade defines reflective practice as “the on-going, regular and persistent use of reflective tools to engage, individually and collectively, in critical thinking about various aspects of practice (teachers’ work)” (p. 110).

**Conclusion**

The literature review indicates that research into the relationship between PLD and sustained changes to practice must focus on how teachers make sense of the new theories with which they are presented. Lasting change in teacher practice is unlikely if teachers’ underlying beliefs are not surfaced and challenged. The influences on teacher beliefs, and the processes that enable such beliefs to be surfaced, are
complex. Rarely do teachers reproduce the theory underpinning PLD content faithfully in their next lesson. Instead, teachers’ sensemaking is likely to lead to negotiation of theory between managers and teachers. The communities of practice in which teachers participate have the potential to influence how teachers make sense of new theories. Given the emphasis on the teaching-as-inquiry model of professional learning in the New Zealand Curriculum (Ministry of Education, 2007), the teachers in this study may have experienced PLD based in this model.

The literature review confirms that this study is justified. Not enough is known about the ‘black box’ of teacher learning (Timperley & Alton-Lee, 2008, p. 340), especially the factors that influence or inhibit the extent to which teachers apply new theories in their practice.
Chapter Three: Methodology

Introduction

This chapter describes and justifies the choice of an interpretivist approach which underpins the methodology in this research. It then sets out the considerations for selection of the sample of participants, the sample of documents and the contexts for the research. The two data collecting tools are described and justified. How the research design supports the validity of the findings is explained. The chapter finishes with an explanation of how the research design addresses particular ethical considerations.

Methodological considerations

My research focused on secondary teachers’ perceptions of PLD experiences, especially when attempting to apply what they have learned to their practice, and then sustain those changes. The data required for such research consist of teachers’ descriptions of what they have experienced and what they think in response to their experiences. This study is consistent with interpretivism, a specific epistemological approach to the creation of new understandings. Interpretivism seeks to “understand and describe social action” (Davidson & Tolich, 2003, p. 27) and regards humans as “social beings who create meaning and who constantly make sense of their worlds” (p. 27). Appropriate evidence in the interpretivist view of the world tends to be “embedded in the context of fluid social interactions” (p. 27). The following is a series of elements of interpretivist research associated with this project:

Qualitative data: The raw data gathered in the course of this research was incapable of scientific measurement (Davidson & Tolich, 2003; Guba & Lincoln, 2005). This is because the gathered data consisted mainly of educators’ descriptions of the
meaning they ascribe to their actions, not the actions themselves. The qualitative raw data was subjected to subsequent data analysis processes to recognise patterns across multiple participants (de Lansheere, 1997), using the technique known as simple thematic coding (Bryman, 2012). These patterns are better described as a consensus of the group rather than laws or statements of probability for the individual (Guba & Lincoln, 2005).

Understanding of human behaviour: Social research “is concerned with the empathetic understanding of human action rather than with the forces that are deemed to act on it” (Bryman, 2012, p. 28). My research investigated the relationship between teachers’ experiences of recent professional development and their tendency to sustain the application of learning to practice. In doing so, this study set out to reveal teachers’ perceptions of factors that support or inhibit sustained application of new learning to their practice. The acquired understandings may inform those who design professional development programmes.

Multi-variant subject – inductive approach: In common with most educational research topics, the specific focus of my study – that is, teachers’ responses to PLD programmes – is beset by a seemingly endless list of possible factors that come to bear. “Consequently,” states Keeves (1997), “it is necessary to provide an account of the whole in order to understand the interrelations between the parts” (p. 278-9). One major consequence of this characteristic is that the research could not proceed with a clear hypothesis to be proven by specific data (a deductive approach); rather, theory was developed from the complex data gathered as a whole (an inductive approach) (Davidson & Tolich, 2003).

Interpretivism and subjectivity: The interpretivist paradigm is so called because the subject matter can only be revealed through interpretation by others (Davidson & Tolich, 2003). The participants in this study described their interpretation of their experiences of PLD programmes. Furthermore, I was required to interpret the research participants’ responses. On both counts, the data was necessarily subjective (Cohen, Manion & Morrison, 2007). Bringing the two layers of
interpretation together, Bryman (2012) states “it is the job of the social scientist to gain access to peoples’ ‘common sense thinking’ and hence interpret their actions and their social world from their point of view” (p. 30). The interview technique was the primary tool for achieving this end.

*Constructivism and co-constructivism*: Because one aim of this study was for participants to reveal their thinking, this research embraced the constructivist tradition of social research that denies the existence of social reality as independent of the participants (Bryman, 2012). Guba and Lincoln (2005) describe this as anti-foundational. Constructivism includes the concept of co-constructivism, often called social constructivism (Liu & Chen, 2010). Co-constructivism recognizes that the researcher is a “passionate participant as facilitator of multivoice reconstruction” (Guba & Lincoln, 2005, 196). I therefore developed a dialogue with interviewees both before and during the interview, that is, in addition to the predetermined interview schedule (Creswell, 2013). This enabled shared understandings to be formed and encouraged greater depth of answers (Fontana & Frey, 2005). Co-construction is consistent with principles of whakawhanaungatanga, which can be defined as the process of establishing relationships in a Maori context to enable a more culturally responsive research methodology (Bishop & Glynn, 1999). The authors state that this is likely to involve a “spiral discourse... using collaborative storying and restorying” (p. 174).

**Research sampling**

**Sampling model**

I applied the purposive sampling model to the selection of both the research settings and the interviewees, and the criteria for selection was deliberately limited to meet resource constraints. The interpretivist approach supports the purposive sampling model for sample selection, the aim of which was to maximise the probability that the data will reveal the multi-causal and complex nature of the human behaviour
being studied (Cohen, et. al., 2011). Purposive sampling involves selecting participants and contexts on the basis that their characteristics serve the research aims (Creswell, 2013, Bryman, 2012). The interpretivist approach also supports sample selection based on convenience for the researcher (Cohen et. al., 2011). Time, geography and financial resources required the selection criteria to be deliberately limited to ensure that this project is feasible. The selection criteria are explicitly recognised below.

**Research settings**

I applied the purposive sampling model to the selection of schools for this project. The first criterion was that the schools should be secondary, teaching years nine to thirteen, because my desire to conduct this research arose from my experiences of working in the secondary sector. The departmental structures that dominate in secondary schools enabled this study to recognise how generic PLD programmes may have been received by individual staff working in different departmental contexts. The second criterion was that the schools be state-funded and not integrated, because such schools are the educational setting in which the majority of teachers apply their practice. The third criterion was that the schools have a current roll of more than 1000 pupils, because this is the practice context of a majority of New Zealand secondary school teachers. Implementation of PLD programmes in larger schools often require a process of increasing the programme’s scale which raises issues of whether the school has ongoing PLD structures in place to sustain the application of new learning after the external provider has withdrawn (Coburn, 2003). This was a small-scale study so I decided to limit the geographic scope of possible schools to those in central or west Auckland. I sought variety among the teachers’ professional backgrounds (which is outlined below). Decile categorisation was not part of the criteria. I used the annually-updated Ministry of Education’s (2015) spreadsheet, *School Directory*, to identify schools that meet my three criteria and selected five schools to approach.
In order to gain access to these schools I approached the principals of each of the five schools directly by email to ask for permission to conduct this research in their schools. The principal of one school immediately declined, and two agreed in principle to consider contributing to the project. Both principals referred me to the PLD manager in the school who became my liaison person for the duration of my involvement in the school. I met briefly with the PLD managers of each school to outline the nature and process for my research and to answer any questions they had. I provided a Principal’s Information Sheet (see Appendix A) and the Principal’s Consent Form (see Appendix B) to the PLD manager who presented these to the principal. I obtained the consent from each of the principals on 1 July 2015. I informed the principals of the two undecided schools that I did not need their contribution and thanked them for their consideration.

Finally, it is important to note that, although this research was conducted in only two schools, it is not a case study of those two schools. The reader should regard this research in the way it was intended: research into the experiences of six teachers and two PLD managers in two central Auckland secondary schools.

**Participant selection**

Four members of staff were interviewed in each of the two selected schools, making eight interviews in total. Three of the four interviewees in each school were current classroom teachers in order to concentrate data on how teachers alter their practice following their participation in PLD programmes. I asked staff for expressions of interest in person at a staff meeting, and later by email. The criteria for selection for this group was teachers who both engage in formal teaching for the majority of their working week and have participated in PLD in the last eighteen months. Because I received more than three expressions of interest in each school, I applied a second criterion, namely to ensure variety in terms of number of years teaching and subject area. Variety helps to reveal the experiences that are more likely to be shared by a wide range of teachers (Bryman, 2012).
The other two interviewees comprised the member of the senior leadership team in each school who was responsible for the provision of PLD programmes for the school’s staff. The PLD manager in each school was identified by their respective principals when I gained the latter’s consent. Although there was only one person within each school that met this criteria, the PLD manager was informed of their right to not be involved and that the research would discontinue in that school if he or she did not grant consent or subsequently revoked consent. The data collected from this interview was intended to provide an understanding of the employer’s rationale for the PLD programmes provided in each school, its expectations for staff in relation to PLD, the details of PLD programmes, and evaluations of the effectiveness of such programmes. The sample was limited to eight interviews in total because this was a small-scale study, and because this research required deep and time-consuming analysis of each interview transcript.

**Recruitment process**

The principals of the two schools identified their respective PLD managers and informed them of my intention to invite them to be involved in the research. The principals consented to me making contact with the PLD manager directly. During meetings with the PLD managers to discuss the scope and methods of research, I provided a copy of the PLD Manager’s Information Sheet (Appendix A) together with the PLD Manager’s Consent Form (Appendix B). The PLD managers each signed the consent form on 1 July 2015. The research could only proceed in a particular school if the respective PLD manager provides his or her informed consent in writing.

Recruitment of teacher interviewees commenced only after consent from the principal and the PLD manager had been obtained. With the principal’s permission, I spoke briefly at a whole-school staff meeting, inviting teachers to indicate their interest in participating in the study. I distributed the Teacher’s Information Sheet (Appendix A) to all staff at the meeting. A follow-up email was sent to all staff later the same day by the PLD manager, which included the information sheet as an attachment and an embedded link to my email address, and repeated the invitation
to teachers to express their interest. This recruitment procedure ensured that staff could become involved while their identity remained confidential to me. I received six expressions of interest by email from one school and five from the other. I responded to each email by either corresponding by email or by telephone conversation, to ascertain whether each respondent met the purposive criteria, namely teachers who both engage in formal teaching for the majority of their working week and have participated in PLD in the last eighteen months. During this process I offered the respondents the opportunity to ask questions about any aspect of the project. Because I had more than three interested teachers from each school that met the first purposive criteria, I selected three based on the secondary criteria, namely to ensure variety in terms of number of years teaching and subject area. I sent the Teacher’s Consent Form (Appendix B) by email to the six selected interviewees for their perusal. All six of the selected interviewees signed a copy of the consent form at the start of their individual interview.

**Document sample**

The second method of data collection was documentary analysis. I provided a schedule to each of the PLD managers that outlined the scope and nature of documents that may contribute to my research. The schedule is included at Appendix C. The schedule specified three criteria, namely, that the documents be official school documents, that they should relate to PLD programmes which were being implemented between the start of 2014 and the present, and that they communicate some aspect of the PLD programmes experienced by staff at the school. The time constraint criterion was designed to concentrate the research on PLD programmes that teachers were experiencing or had recently experienced at the time of the interview. Which documents met these criteria was determined by the principal or by the PLD Manager.
Semi-structured interview

Rationale

The first method of data collection used in this research was semi-structured interviews. Three teachers and one PLD manager in each of two schools were interviewed in this manner. The Interview Schedules are provided in Appendix D. The benefit of this method was that it was more likely to ensure the participants felt sufficiently unconstrained in the scope of their answers and offer a full picture of their thoughts on the topic (Fontana & Frey, 2005). The semi-structured interviews balanced the benefits of both the structured interview and the unstructured interview (Fontana & Frey, 2005; Hind, 2000; O’Toole & Beckett, 2013). The questions are standardized to encourage answers that support the research aims, aiming at maximising rich, relevant data in the time available. Standardised questions also promote comparability of responses across the different interviewees (Bryman, 2012). The focus of each question is limited to the purpose of this research and to the three themes outlined in the literature review. The questions are also deliberately open to enable the interviewee to develop an in-depth and unique answer. The interview questions used in this research encouraged interviewees to describe experiences of specific PLD programmes that they have identified, and separately to describe their experiences of PLD programmes generally. I frequently used the technique of probing to encourage elaboration by interviewees of relevant ideas raised by an answer (Babbie, 2007).

Managing the disadvantages

The open questions posed in the semi-structured interviews posed a risk that the interviewee might make “tacit assumptions” (Krueger, 1994, p. 65) about what the interviewer wants, interpret ambiguities in the questions in a way that the researcher did not intend (Bryman, 2012) or offer answers that simply do not relate to the topic (Babbie, 2007). This risk is diminished by dialogue between interviewer and interviewee to increase mutual understanding and reduce assumptions (Burns,
2000; Fontana & Frey, 2005). In this study, dialogue began when the interviewee first learned about the research topic from my oral presentation at the staff meeting, or from the invitation email, and from the participant information sheets which were distributed through both events. The dialogue continued during my conversations with the teachers who had expressed an interest as part of the vetting process. Most importantly, the element of dialogue was created by the structuring of questions. No question was discrete. Each question was asked in the context of the interviewee’s understandings that have been already constructed during the course of previous dialogue and previous questions in the interview itself (Burns, 2000). Furthermore, I used the technique of prompting and probing to encourage development of ideas that contributed directly to the research aims (Babbie, 2007; Bryman 2012). The technique of dialogue is a recognised tool of co-constructivism (Liu & Chen, 2010).

Two other issues were addressed in the design of the interview process. Firstly, the interview questions encouraged the participants to evaluate and critique their PLD experiences, something they may be reluctant to reveal in other contexts. Interviewees place their trust in the researcher with that information. Such trust, warn Fontana and Frey (2005), can be difficult to acquire and is fragile once gained. Maintenance of trust is discussed in the ethical considerations below. Secondly, I was careful to not influence the interviewee’s understanding (Bryman, 2012; Fontana & Frey, 2005; Hinds, 2000) or to pass judgement on the interviewee’s ideas (Hinds, 2000). To do so would be to assess the idea against some external reality, which is antithesis to constructivism (Guba & Lincoln, 2005).

The interviews were recorded as an audio file, which were then transcribed into text. Each interviewee had the opportunity to read and make amendments to the transcript.
Documentary Analysis

Rationale

Documentary analysis was chosen as a second method for gathering data. Documentary analysis had the potential to provide understandings of the messages communicated to the staff by the providers and managers of PLD programmes in the school. Documentary analysis could contribute to the research aims as secondary sources; that is, an existing data set which presents understandings of their authors that may complement or compete with the perceptions of the interviewees’ PLD experiences (Bryman, 2012; Davidson & Tolich, 2003). Documents were chosen as a source also because they are likely to reflect each school’s PLD vision and perhaps the culture and processes of the school in which the PLD occurs. As Bryman (2012) explains, documentary analysis can reveal “divergent interpretations among different groupings of key events and processes” (p. 551). Documentary analysis had the advantage of enabling me to gather the data when and how I wished, and transcribing was not necessary.

The following is a list of the documents included in the documentary analysis. The names of the two schools in which the research was conducted have been changed in the interests of anonymity.

From Mountain View College

- Mountain View College Charter 2015
- Our Voices: Narratives of educational experiences of students at Mountain View College 2012 (2nd Edition)
- TQ@MVC [online document relating to an action research project conducted from 2012 to 2014]
- Mountain View College Effective Teacher Profile
- Mountain View College Performance Appraisal Manual
- Mountain View College School Wide Major Incident Form.
- Mountain View College School Wide Restorative Reflection Sheet
From Valley High School

- Valley High School Charter 2015
- VHS Teaching and Learning Policy, July 2013
- The Teacher-Led Innovation Fund Project Concept Form [for Reflective Coaching Inquiry]
- Tuesday Outline of Meetings for 2015
- Thursday Outline of Meeting for 2015
- PD Plan 2015 [slide presentation]
- Reflective Coaching Inquiry [booklet for staff]
- Teaching as Inquiry Plan version 6
- What does good pedagogy look like at Valley High? [slide presentation]

Managing the disadvantages

Documentary analysis raises issues of credibility and representativeness (Wellington, 2000). Like all qualitative research, what each documents represents was subjective because it may only be credible as a representation of what the author had experienced. Documentary analysis can reveal divergent understandings among authors of documents, and between authors and interviewees (Bryman, 2012). Another issue is that the meaning of a document depends on the social context in which they are created (Wellington, 2000). Therefore, during analysis I had to keep in mind each document’s intended and actual audiences, and the contexts of their distribution (Bryman, 2012).

Analysis of data

One of the problems posed by both the data collection methods is that they did not provide clear, discrete answers to the research questions. While it is true that the interview questions were carefully structured, the open–ended nature of these questions meant that the answers inevitably often wandered from the focus of the
specific question. Indeed, it is desirable that the participants exercised their freedom to describe their whole experience as they see it (Davidson & Tolich, 2003). Some of the free-ranging answers provided data for many elements of the research topic. Furthermore, the text of the documents used in this research had not been filtered by questions in the way that the interview data had, and the research aims themselves were deliberately broad in nature to enable exploration of whatever themes emerge from the data (Cohen et. al., 2007). Data that indicated some aspect of the research questions were often dispersed across answers to many questions. What all this means is that it was necessary to analyse the data simply to make sense of it.

After recording and transcribing the data, I gave considerable attention to the system for categorising each datum. I avoided immediately sorting data into the themes presented in the literature review because I wanted to retain “the integrity and wholeness of each individual” (Cohen et. al., 2011, p. 551), avoid decontextualisation of the data, and ensure that I could remain responsive to the data (Cohen et. al., 2011). Instead, I sorted the interview data first into categories which align with key elements or themes of the participants’ experiences of PLD programmes as they emerge in the interview transcripts. This process is called simple thematic coding (Bryman, 2012; Cohen et. al., 2011). The documents were coded after completion of the coding of the interview data when the main data themes had already been identified. In this way, the relevance of the documentary data was determined in relation to the themes emerging from the interview data.

The method of establishing the themes was similar to that described by both Bryman (2012) and Cohen et. al., (2011). Each paragraph of the eight transcripts, and of the documents, was systematically analysed and any ideas that related to the research aims was given an initial code that indicated the nature of the idea. Some extracts were entered under multiple codes to reflect their relevance to a range of ideas. During the coding process, I frequently reviewed the existing codes to identify similar ideas and collect them under the same code. At the end of the coding
process, I grouped the codes into the six themes, which emerged as dominant across the data as a whole. The six categories are as follows:

1. The nature of the programmes
2. Professional development content
3. Iterative cycle of review
4. Programme sustainability
5. Learning processes
6. Professional communities

The data in each of the six emergent themes, was further sorted according to the source of the data, namely the interviews with the PLD managers, the interviews with teachers, and the schools’ documentary evidence. This is how the data is presented in Chapter Four. The advantage of this organisation system is that it maintains internal validity (Bryman, 2012) by ensuring an audit trail of where the data comes from.

The whole analysis process was aided by the use of maxQDA computer software. This software enabled me to ascribe several levels of coding to any datum and to collate them according to any chosen code or group of codes.

**Validity**

This research sought credibility through its validity, not its reliability. Reliability in quantitative research is concerned with the replicability of data. This is a qualitative study, the focus of which is understanding teachers’ experiences of PLD activities. What this study has discovered about teachers’ experiences of PLD programmes may or may not be replicated if the research tools were applied to other secondary school teachers. The point is that replicability was irrelevant in this research (Davidson & Tolich, 2003), because “the premises of naturalistic studies include the uniqueness and idiosyncrasy of situations, such that the study cannot be replicated –
that is their strength rather than their weakness” (Cohen et al, 2007, p. 148).

Validity, on the other hand, is the basis of rigour for research in the interpretivist paradigm. The validity criterion shifts its application from the method – which is the pre-occupation of the positivist paradigm – to the interpretation of the data (Guba & Lincoln, 2005). Validity for this research was established in three ways (Bryman, 2012; Cohen et al, 2007; Davidson & Tolich, 2003; Guba & Lincoln, 2005). ‘Internal validity’ is concerned with whether the researcher’s findings can be sustained by the data. This means that the findings are credible because they are auditable and logically lead to the findings. Internal validity requires sound record-keeping of each step of the process (Guba & Lincoln, 2005). This has been given considerable attention by way of including the source of each datum in the findings section. ‘External validity’ is concerned with whether the results speak for other similar subjects who were not part of the sample. In the interpretivist paradigm generalisability is represented by comparability and transferability, the test of which will be to what extent the situation described in the research is typical of other situations. In this project, I set out to record sufficiently rich data so that readers can assess to what extent the findings are transferable. I did this by including substantial verbatim quotations, and by maintaining the descriptive style of the interviews in the findings. ‘Content validity’ is concerned with whether the methods cover all of the aspects that are relevant to the focus of the study. In this project, content validity was promoted by ensuring that the interview questions encourage the interviewees to describe aspects of their experiences that are relevant to the research questions, and by applying ‘constant comparison’ of data coding with the concepts that the research intends to examine (Bryman, 2012).

Validity can also be achieved when two or more data gathering methods or sources of data reveal similar findings (Bryman, 2012; Cohen et al, 2007), referred to as triangulation. In order to promote triangulation, this research used two independent methods of data gathering, namely semi-structured interviews and documentary analysis. It also gathered data from three different sources, namely teachers, PLD managers and documents. The data within each theme was sorted into the sources
with the intention of identifying thematic similarities between them. The findings from each data set could then be compared. The more similar the findings then the more we can have confidence that the findings are valid (Davidson & Tolich, 2003).

Throughout this research, I have maintained ‘reflexivity’, that is, an acute awareness of how my assumptions and beliefs could have affected my interpretation of the data (Guillemin & Gillam, 2004; Mutch, 2011). In both Chapter One and Chapter Five, I have included descriptions of my own experiences of PLD programmes so that readers can ascertain the influences that come to bear in my interpretations of the data.

**Ethical considerations**

This research was approved by The Unitec Research and Ethics Committee (UREC) on 27 June 2015. All applications to UREC for approval must address ‘eight guiding ethical principles’ which are set out in their guidelines (Unitec Research and Ethics Committee, 2010). This section will focus on the four of these principles which have had a bearing on the way this research has been conducted. The useful discussion in Bryman (2012), Davidson and Tolich (2003) and Wilkinson (2001) have formed the foundation of my approach to ethical considerations.

*Informed and voluntary consent:* The participants’ informed consent is necessary to ensure that they are acting autonomously and in their eyes their well-being will be preserved (Wilkinson, 2001). The recruitment process section of this chapter outlined three levels of consent before data gathering could commence, namely the principal’s consent, the PLD manager’s consent, and the teachers’ consent. In each case, the consenting party was provided with a participant information sheet before giving written consent. The information sheets described the research topic, the range of topics to be covered in the interview, and the expected time to complete.

*Respect for the rights of confidentiality and preservation of anonymity:* The ethical principal of minimising harm to the participant creates the imperative to ensure that
the identity of the interviewees remains confidential (Bryman, 2012). I am grateful to the participants for the candid and personal nature of their answers to the interview questions, which they may not have divulged in other contexts. They have entrusted me with that information on the condition that it cannot be used against them. The consent forms provided an unconditional assurance that the identities of the schools and the participants will remain confidential to my research supervisors and to myself, and asserted that they had an absolute right to discontinue at any time up to two weeks following finalisation of the transcription. In this research, I have used pseudonyms when referring to individual participants and their schools. I have also deliberately used broad descriptions when referring to the schools and for any professional or personal data so that a reader cannot discern any of the participants.

**Minimisation of harm:** I undertook to minimise inconvenience to interviewees by travelling to a mutually agreed location that enables the smooth completion of the interview but is also convenient to the interviewee. All eight interviewees could nominate the location for their interview; they all elected to be interviewed in a private room in their school. The interview questions, and the interviewer’s questioning, prompting and clarifying skills, were crafted to ensure that the total interview duration was minimised and remained focused on the area of inquiry.

**Cultural and social sensitivity:** The interviewee purposive selection criteria did not specify ethnicity or social criteria. However, because of the diversity among Auckland secondary teachers, particular interviewees may represent a range of cultural and social backgrounds. Before I approached any schools, I consulted with Ms Nicole Job, Lecturer of Education in the Education Department, at Unitec University of Technology. She has responsibility for embedding the Maori dimension across the teaching programmes in the Department, and has been designated the role of Kaiārahi for the Department. My discussions with her helped me to gain an understanding of the issues that may have arisen if any of the interviewees identified with Maori culture.
CHAPTER FOUR: FINDINGS

Introduction

This study utilised two methods to gather data, namely interviews and documentary analysis. A total of eight interviews were conducted, four in each of two schools. Each group of four interviews comprised one interview of the school’s manager in charge of the provision of professional learning and development, and one interview for each of three of teachers from the same school. Documentary analysis covered analysis of documents and websites that were offered by each manager, which in his or her opinion were official documents of the school and related to the provision of professional learning and development in the school. As I have explained in Chapter Three, the findings are arranged into six categories. These categories are not directly aligned to the themes identified in the Chapter Two literature review and instead represent groupings of frequently occurring common ideas among the ideas expressed in the interviews and documents. The categories are listed here:

1. The nature of the programmes
2. Programme content
3. Iterative cycle of review
4. Programme sustainability
5. Teacher learning processes
6. Professional communities

The first category has been included to inform subsequent references to specific programmes in the rest of this chapter and in Chapter Five. The findings are further sorted into the sources of the data:

1. School’s documentary evidence
2. The managers’ perspectives
3. The teachers’ perspectives
The nature of the PLD programmes

Schools’ documentary evidence

Intentions of school senior leadership and governance

The 2015 school charter for both Mountain View College and Valley High School explicitly recognised the inquiry model for all PLD in the school. The Mountain View College School Charter 2015 states:

Professional development is centred on pedagogy that reflects ‘Teaching as Inquiry’, a core element of the New Zealand Curriculum. There is an understanding that an underlying principle of all professional development will be cultural responsiveness. Such an approach ensures that national and local priorities for students are addressed. (p. 2)

Mountain View’s 2015 Annual Plan gives much attention to the incorporation of professional inquiry into its organisational systems, appraisal systems and use of data. It then lists the ‘priority PDL’ as e-learning, literacy and academic writing, culturally responsive practices, and Positive Behaviour for Learning (PB4L). Similarly, the Valley High School Strategic Plan 2015-2017 states that the school will provide excellent teaching firstly by “engaging all teachers in a whole staff professional development programme designed to enable all teaching staff to develop their practice through teaching-as-inquiry” (p. 1). Valley High’s Annual Plan 2015 also identified a wide range of pedagogical objectives: ‘learning conversations’, ‘a wide repertoire of ICTs’, ‘Positive Behaviour for Learning School-Wide’, ‘peer support’, and ‘modern learning environment design’.

Structure of professional learning and development

Valley High School distributed to its staff an outline of meetings for Tuesdays and Thursdays afterschool. Two Tuesdays are designated as teacher-only days. Some of these meetings are designated for progressing PLD programmes. The 2015 outline, for example, indicated that both teacher-only days and two further afternoons were
designated for implementing teaching as inquiry, while two afternoon meetings had been designated for learning conversations. Other pedagogical initiatives were not represented on the outline. The outline designated nine Thursday afternoons for meetings of “Learning Area Pods”, eight for “Committee Meetings”, eight for “Task Group Meetings” and six for “Middle Managers’ Forums”.

Although I made specific reference to schedules of meetings or allocated times for professional learning when discussing the Document Schedule with PLD managers, Mountain View College did not provide such a document. Therefore, this study is unable to present documentary evidence of Mountain View’s allocation of time to professional learning and development.

Managers’ perspectives

Teaching as inquiry

Both managers described their school’s implementation of the inquiry model of teacher learning. At Mountain View College, the manager had conducted a school-wide action research project over three years, finishing with the evaluation phase in 2015. The entire project was underpinned by the inquiry model:

So we’ve got professional inquiry. I don’t classify that as just teaching as inquiry because it is much bigger than that. We started with the notion of teaching as inquiry. I stripped that back to a very simple structure of professional inquiry that you can apply to anything. We had a situation with our restorative practices team but the teaching as inquiry model doesn’t actually fit. So we stripped it back and came up with a very simplistic model that can be applied to anything across the school. That got fleshed out for teaching as inquiry, learning as inquiry, inquiry governance, etc. That has been an ongoing PD because it is an action research project which stretched from 2012 until now. (Terry)

The project began with an investigation into the students’ experiences of education at Mountain View College:
There was 140 pages of student stories. That formed the backbone of the entire PD programme. I got the stories by interviewing 90 students in focus groups, 6 to 8 in each group. All of that was transcribed. Every teacher has been given a copy. (Terry)

The Mountain View manager explained that staff conducted a “massive” literature review, although he does not specify who did this:

This was about kick-starting pedagogical change. The information that we gathered indicated that there were very high levels of transmissive and didactic and traditional teaching happening at this school. That was about affecting pedagogical change as quickly as possible because of time and financial constraints. (Terry)

The next step was for all staff to attend a three-day hui to analyse the evidence. During the hui, “The profile of the ideal teacher at Mountain View was put together, how we carry out the observation, so it’s open and transparent” (Terry). So, staff were trained at the hui both to understand “how the coding system works for the observation system we are going to use” (Terry) and to understand the kind of teaching that was expected of them as described in the ideal teacher profile. The Mountain View manager summarises the process from there:

From that, we went into a cycle of teachers being observed, getting critical feedback, constructing a goal, go away for a term and a half inquiring into their goal and come back to a cross curricular pedagogical group. They would discuss their inquiries, then present evidence to people around them. (Terry)

The process described so far was conducted as part of the three-year action research programme which was resourced by release time. In 2015, the teaching as inquiry model continues, but under different conditions: “The inquiry drives the appraisal. It is working for some people and for some it is not. I would have preferred last year’s system to have continued but due to financial constraints it couldn’t” (Terry). Terry said that the formal training in the process of teaching as inquiry was discontinued and teacher release time had been curtailed.

Valley High School’s manager explained that teaching-as-inquiry had been launched in her school only this year. She describes it as:
That’s the project, the teacher lead innovation project, that the whole staff is working on. Its reflective coaching and inquiry where teachers are basically asked to identify, based on data, any areas of under performance in their classes (and it doesn’t have to be under achievement). They have to research some interventions, get together in a coaching trio. (Shelly)

So, both schools applied the same model but Valley High did not launch it as part of a school-wide self-reflection as Mountain View did. The Valley High manager says that their programme is supported by external expertise running whole-staff training “around the language of coaching”, and by eight to ten middle managers attending a three day off-site course on coaching colleagues.

**E-Learning and ICT**

Both managers reported that their staff were undergoing training for the introduction of digital technologies in learning programmes, although the Mountain View College manager treated it as a higher priority than Valley High School. This is because at Mountain View, BYOD had commenced for all year 9s in 2015 and each year nine in subsequent years would do the same, making all students subject to BYOD by 2019. Mountain View College had been preparing for three years before 2015. Terry commented that “The initial concept of e-learning and how we were going to do it had morphed dramatically over the three years”. The first two years of this training, managed by a deputy principal who has now left, was fraught (according to the current manager) largely because of a lack of clear vision around the intended outcomes of that training:

This change had occurred and we weren’t going to use a learning management system and the IT manager I think panicked because we were adrift and decided that we need Moodle, and a decision was made and we had to up-skill people in how to use that. It’s all about pedagogical shifts and curriculum redesign. It’s huge. Throw everything out. Not so much start all over again but how do you blend technologies. (Terry)

Staff training for e-learning at Mountain View occurs in two forms: teacher-only days and training organised by the department through department meetings. One of the
two teacher-only days was designated for e-learning. Terry was not satisfied with this structure:

This is where it comes back to not having a regular slot every week, so trying to bring about a large-scale pedagogical change has been quite difficult. (Terry)

By contrast, the manager at Valley High School explained that a group of staff were currently exploring the implications of e-learning for future professional development programmes:

The ICT lead team at the moment is working on looking at our BYOD journey and linking that to our PD Committee. I am on the ICT lead team and there is a number of other members also on the PD Committee, so looking at the interface between those two. (Shelly)

**Student learning conversations**

The manager at Valley High School identified student ‘learning conversations’ as a significant change in pastoral care practice requiring teacher learning. She described a learning conversation as a conversation between a form teacher and a student about the students’ academic achievement and comments by subject teachers. The aim of a conversation is to help students understand how they can personally enhance their achievement. The initiative commenced in 2014 with form teachers conducting learning conversations with all of their year nine students four times in the year. Valley High operates vertical form classes. In a learning conversation, the form teacher asks set questions: “the guiding questions are around setting goals, student self-efficacy, students making decisions about where they’re going next in their learning” (Shelly). One purpose of the learning conversations programme is to enable “student voice” (Shelly) to be heard by those responsible for their pastoral care and academic pathways. In 2015, the programme has been extended to include both year nine and year ten students. Staff professional development occurred in nine onsite, afterschool, all-staff meetings through 2014, initially with external experts. In 2015, however, “There is not a huge amount of PLD time devoted to that
given that we had the year last year” (Shelly). The manager at Mountain View College did not refer to learning conversations, or their equivalent, at all.

**Positive behaviour for learning (PB4L)**

Both schools are conducting PLD programmes for PB4L. The manager at Mountain View describes the purpose of this programme as “teaching appropriate behaviours as part of what you do in the classroom” (Terry). His school has dedicated one of its two teacher-only days for training in this programme. The manager of Valley High School reported that her school had commenced in 2015 a professional development programme for PB4L. She says that the initiative is in its early stages: “It’s really about getting things in place this year, and set up, collecting data again in terms of values, what the kids want, what the staff want. Probably not doing anything too active until next year” (Shelly). She states that this year they have established a PB4L lead team.

**One-off individual PLD**

Both schools supported individual teachers participating in subject-specific PLD programmes. These courses were chosen by the attendees as the need and opportunity arises, provided the teacher could link it to improving his or her practice. The manager at Mountain View commented: “People find a course that they want to go on. They apply and we decide yes or no depending on the rationale that they give, how they are going to utilise it to change their practice” (Terry). Likewise, the Valley High manager stated, “…we try and structure the form in a way to include how you’ll feedback and how you will incorporate this into your practice. So we are asking staff to think about it beforehand” (Shelly). The manager at Mountain View had rejected only one application to attend subject-related training, and the Valley High manager said that regarding “things like best practice workshops, that’s a no-brainer, we send everyone that we can within constraints” (Shelly). At Valley High School, individualised training could include leadership skills as well as subject area training.
**Teachers’ perspectives**

***Teaching as inquiry***

All six teachers acknowledged their involvement in a process that they recognised as teaching as inquiry. Judy from Valley High described her experience as follows:

> It was probably getting us to interrogate our own practice and work out what is and isn’t working with a small focus and work to change that and if that didn’t change then we would work to change it again so it is using that teaching as inquiry model that is in the curriculum whereby you interrogate, you change, you investigate, you change again and you find out what the kids know and what they want and you just keep going, that is what that is. (Judy)

All three of the Mountain Valley teachers described having completed a cycle of inquiry in 2014, which had been proscribed in common for all staff. David reported that this was supported by trained in-house facilitators. In 2015, the process had been devolved to the departments. Kim and Erica’s descriptions appeared to be drawn only from 2014 experiences. David in the other hand, reported that:

> ... it’s created a, a framework for me to develop myself and I’m still using it, even though TQ’s kind of, it’s not dissolved but it’s not what it was. And so I’m now applying that to other forms of PD that haven’t been quite so successful, to try and get the kinds of learning I need from it. (David)

Kyle and Judy reported that staff at Valley High School had been expected to carry out “self-directed” (Judy) inquiries in previous years. In 2015, the process had been formalised with staff organised into coaching trios, off-site coaching training for some staff, guidelines for each step and how to carry-out conversations within the trios.

***E-Learning***

All six of the teacher interviewees identified e-learning as a significant focus of their professional learning in the last eighteen months. The three Mountain View College teachers (David, Erica and Kim) said that they had attended onsite, whole-school e-learning training several times in the last two or three years during teacher-only
days. This year, all Mountain View staff were required to complete an online course on digital citizenship in their own time (Kim and Erica). David, said that this year his department was the main structure in which he and his colleagues learned how to change their practice in relation to blended e-learning. The three teachers believed that e-learning training in the school was driven by the commencement of the staged introduction of BYOD, and this was a strong motivator for engaging with the programme:

> It’s coming in at year 9, so I do tend to ignore it a little bit because I only teach year twelves and thirteens. And then I have mini panic attacks that they are going to be year twelves eventually. (Kim)

The interviewees from Valley High did not significantly identify school-wide training for e-learning, with only one of the three identifying a single school-run session (Vicky). However, e-learning training still formed a significant focus for their learning because new knowledge was sourced in other ways: Vicky and Judy greatly appreciated attending respectively an off-site music technology exhibition and a film-makers’ symposium. Meanwhile, Kyle said his e-learning training directly benefitted from training run in his department.

**Learning conversations**

Only one teacher out of the six, Judy from Valley High School, referred to training for the school’s learning conversations programme. Although illness caused Judy to miss much of the training in 2014, “everybody else here would have spent their year doing that and that was part of our appraisal, it was one of our appraisal objectives” (Judy).

**Positive behaviour for learning (PB4L)**

Only one of the three teachers from Valley High School referred to the PB4L programme, commenting “They’re, they’re still in the creation phase of some of that, gathering information, training a team. It hasn’t really come to the whole staff yet” (Vicky). All three teachers at Mountain View could recount details of their PB4L training. Kim was in fact the PB4L coach for her school, which involved attending
offsite training with twelve members of the PB4L lead team, and with the PB4L Leader. She described the programme as “...trying to achieve full-school cultural shift as a whole school in the way that we manage children’s behaviour and build relationships with them” (Kim). The other two Mountain View teachers, David and Erica, described their PLD as occurring during teacher-only days and the school was making gradual progress.

One-off individual PLD

Five of the six teacher interviewees spoke at length of experiences of PLD from off-site providers for their specific needs in the school. This learning consistently focused on subject-specific knowledge, although both Kim and Erica reported that the PLD event was also used to disseminate policy messages from the Ministry of Education. These learning programmes always involved meeting other educators and presenters off-site who conducted courses ranging from one to three days. Three of the teachers reported three or more such PLD events since the beginning of 2014.

Summary of findings for the nature of PLD programmes

The findings in this category indicate that although the schools had selected several PLD programmes in common, the context, resourcing and level of priority were specific to each school.

The schools’ charter documents show that both schools intend professional development and learning to be based on the inquiry model. Mountain View College had conducted a large-scale action research project over the last two years. The charters specify several pedagogical initiatives to be applied in the present year. However, the interviewees state that the teaching-as-inquiry model involves teachers selecting their individual inquiry focus. Therefore, the focus of whole-school professional development does not necessarily limit the focus for teachers’ inquiries.

Teachers described their participation in both off-site subject-specific professional development programmes as well as onsite whole-school programmes. The offsite
programmes tended to be selected by the participant but there was no direct
evidence that the focus of such learning was linked to the teachers’ individual
inquiries. The teachers had experienced a similar range of whole-school professional
development programmes. Such programmes related to the school culture or
pedagogies common to all teachers, and were identified in the schools’ charters.

**Professional development content**

**Schools’ documentary evidence**

**Schools’ pedagogical vision**

The charter documentation from both schools spelled out an overall pedagogical
vision, which encompassed a suite of pedagogical theories. The Valley High School
Charter 2015 describes its vision for the school as “an inclusive learning community
where... students receive a balanced and personalised education which addresses
the needs of the whole person in a caring and supportive climate”, “where...
diversity is embraced...” and “students feel safe”. This vision is supported in many
places in the Valley High Charter, including the intention to measure effectiveness by
“The proportion of these students who pass their papers and successfully complete
their degrees and diplomas”. The corresponding document at Mountain View
College is even more direct: “Our Mission: Enabling Learning... Our Vision: Learning
that is innovative, individualised and connected”. This is supported later in the
document by a rejection of a “one-size-fits-all” approach, and references to cultural
responsiveness, and inclusion. Such descriptions do not specify particular identifiable
pedagogical theories.

**Selection of professional development content**

The charter documentation for both schools identify a similar range of desired
pedagogies which together represent a comprehensive strategy to create the vision
that each charter describes. Phrases identifying pedagogical programmes such as
PB4L, e-learning, cultural responsiveness and personalised learning appear in the strategic plan sections of both charters. The theories (or programmes to learn such theories) are drawn from the broad vision.

Both schools specify a written description of the ideal teacher for their school. The profile used by Valley High School appears in its teaching and learning policy and at Mountain View it is contained in a separate document called “Profile of an effective Mountain View College teacher”. Although the language of the latter is more generalised, the profile documents describe similar ideals.

Both schools position the teaching-as-inquiry model of professional learning as an overarching framework through which individual teachers learn and apply new understandings about effective teaching. In both the Mountain View College Strategic Plan 2015-2017 and in the Valley High School 2015 Annual Plan, establishing the inquiry model is the first priority for achieving excellent teaching. The Valley High School Teacher-Led Innovation Fund application form stated that the funds would be used to support “developing a reflective school wide coaching model that scaffolds the process of self-reflection, teaching specific coaching skills targeted to deepen the level of teaching inquiry”. The Our Voices and the TQ@MVC documents from Mountain View stated that their action research project included observations of all staff which informed their individual inquiries.

Managers’ perspectives

Selection of professional development content

The managers’ descriptions revealed that specific pedagogical theories had been selected for professional learning in a range of contexts. For example, the manager at Mountain View College said that the inquiry model was applied to governance and leadership as well as to teaching, so that the focuses of PLD programmes were selected by the Board and by leaders based on what they understood to be the needs of their learners. He also explained that teachers selected their inquiry focus from the broader theory presented in whole-school programmes:
I think a really well-structured, non-smorgasbord approach to PLD where you have got regular PD and people understand the rationale behind it and are using it to drive their own inquiries and reporting back on those inquiries and sharing those experiences, and ensuring that those professional conversations are continuing. (Terry)

Shelly explained that at her school, any professional development initiative would need to be approved by the ‘PD Committee’, and this committee even had the power to propose new programmes. Regardless of the origin of the idea, a programme was unlikely to be introduced unless both senior leaders and the PD Committee reached a consensus as to its appropriateness of the programme for the school. Shelly said that the PD Committee was also consulted on the professional collective learning needs of the staff before a decision was made as to the selection of external expertise brought in for whole-school PLD. Similarly, discussion topics for the ‘Learning Area Pods’ (groups of teachers with a shared interest) were selected to align with the school’s PLD programme for the year to ensure that the topics were coordinated and relevant to the context in which they would apply. Shelly stated that Valley High School’s 2015 appraisal process required staff to work towards their inquiry goal that they have identified in the teaching-as-inquiry process.

Regarding the content of individual professional development, Terry believed that “those one-day courses are a waste of money” (Terry), but his school supported staff attending best practice workshops and training related to curriculum organisation. Shelly’s said that the school supported individuals enrolling in off-site courses provided it related to his or her appraisal goal or would benefit his or her practice.

**Adaptation of professional development content**

The managers of both schools described a number of instances involving adaptation of the content of a pedagogical theory to better fit the circumstances of their respective school. One good example is this manager’s description of his conscious
rejection of the Te Kotahitanga model of improving teachers’ cultural responsiveness:

“TK is like an external model that you try to fit your school into, so the learning that I took from that was that you can’t do that. It doesn’t work because every school context is different... because schools are made of people and people are different everywhere. So it was about developing a model that would work for us”. (Terry)

A consequence of the adaptation of pedagogy was, Terry said, that his school had chosen to avoid programmes run by external providers in favour of “in-house” (Terry) programmes.

Furthermore, both managers indicated that the rationale for deciding what a particular pedagogical theory means to the school was based on an understanding of the needs of their learners, and the needs of their teachers. At Mountain View College, most of the evidence was generated as part of the action research project launched in 2012. At Valley High School, the implementation process for PB4L had been deliberately slow to “ensure that we get the right fit” (Shelly). Equally, the schools responded to understandings of how teachers would apply the theory in practice specifically at their respective schools. In relation to Mountain View’s broad approach to professional learning, Terry said “It was about what is happening at our school and what can we do as practitioners to bring about change” (Terry). For him, bridging the gap between theory and practice was very important: “This is probably the tenth time this week I have quoted this saying: theory without practice is empty; practice without theory is blind” (Terry). In relation to the expansion of the learning conversations programme at Valley High School, Shelly said:

“... it needs to work at our school. The staff need to have involvement about what that process might look like. At the moment the conversations are shared with the child, the form teacher and the head of house. How do we inform subject teachers?” (Shelly)

Shelly indicated that adaptation was ongoing:

... there were lots of questions like should we be recording conversations on the student management system or should we be recording conversations through a
Google doc, or should we be involving senior students in a tuākana kind of relationship. I guess it has been an evolving thing, based on our students, their feedback and staff feedback. (Shelly)

Technology or pedagogy

The manager of Mountain View College commented that he had to redefine the focus of their PLD programme for e-learning from substitution of pen and paper for devices, to transformation of teaching practice that enables flipped classrooms. The process of understanding how technology can contribute to best practice pedagogy has been enhanced by the teaching-as-inquiry programme in the school:

It’s really interesting because now that we have started to talk about a framework for learning going back to the theory, in actual fact what they’re finding is, well, we’ve done all this stuff but really it’s only substitution and modification, it’s not at the transforming level of change. (Terry)

The manager at Valley High School did not raise that issue.

Teachers’ perspectives

Selection of professional development content

The two teachers who provided details of their experiences of teaching as inquiry (Vicky and David) both emphasised that they had selected the inquiry focus: “So it wasn’t learning as defined by someone else. It was me trying to figure out what I needed to learn and then going out to try and find those sources of learning” (David). David’s inquiry goal was to use more culturally responsive practices in lessons especially to among a culturally diverse group of students. Vicky’s inquiry goal was to enable new students in her lessons to overcome the barrier of not knowing the language conventions of her subject.

Five of the six teachers said that when they participated in professional development that was not provided by their school’s managers, they had selected the focus. Furthermore, teachers selected elements from within the content presented in such
programmes. For example, in discussing a professional development course on vocational pathways, Erica said, “we have just taken elements of it and ... adopted them ... for example we focused on one pathway last term which was health” (Erica). Vicky described how she had consciously rejected ideas about the design of assessment tasks she had received during subject-related PLD courses.

**Adaptation of professional learning content**

Three of the six teacher interviewees indicated that they had adapted their learning from subject-related professional development to fit the circumstances of the context in which it would be applied. Erica had decided to apply professional learning about whole-school systems for vocational pathways to areas not envisaged by the course she attended. Kyle said he had altered the way he would apply the professional development he had participated in from a focus on refugees to a focus on fee-paying international students. Vicky described her thinking when considering new ideas: “Oh, I could use that ... I've got this kind of group and they've got these kinds of needs. What kind of ways could I use that technology with this group?” (Vicky).

Two teachers were aware that whole-school professional development programmes had also been adapted. David said that the teaching as inquiry process for professional learning “was tailored to Mountain View and tailored to our teachers and our systems and tailored to the goals of ours” (David). Erica explained that during the PB4L programme, staff at her school were asked to define which behaviours fitted into a hierarchy of seriousness for purposes of creating a school code of conduct.

**Programme content aligned with current learning**

Two teachers commented that selection of whole-school professional development content should be aligned and concurrent with professional learning needs in the school. Kim said:
With PB4L, it aligned with the school’s beliefs and values around restorative practice, academic counselling, student driven curriculum... that relationships are the core of that stuff, so we are investing time, money, people, hours into that because it aligns with everything else that we are doing. (Kim)

Judy was concerned that the need for staff training on e-learning at her school had not been adequately addressed because other professional development topics had been given greater priority. However, Kim’s comment suggests that too many initiatives can make PLD programmes unmanageable:

I think our principal is an incredibly efficient gatekeeper. I have worked in a ... school where there was staff suffering from initiative fatigue because there is just layer upon layer upon layer. (Kim)

Judy shared the same sentiment: “Building on what's gone before - not painting the house a different colour every year” (Judy).

Three of the six teachers (Kim, Judy and Vicky) identified usefulness to their practice needs as a positive factor that promoted sustained application of professional learning. Here is one example:

There was one I was involved in a couple of years ago here that just was not helpful because the facilitator was unable to take what the group was interested in, the facilitator had an issue, had an area of learning that he was passionate about and it was just so not useful for, for a non-core subject. (Vicky)

To put it succinctly, “Well if I don’t need it I don’t use it” (Judy).

**Integrating theory with practice**

Five of the six teacher interviewees commented that professional development content was more likely to result in sustained practice if it integrated theory with practice. For example, Erica and Kim described PB4L programmes and spoke favourably of how time was given to consideration of how the theory could be applied in their school. Judy felt that short-term professional development could be transformational, even without follow-up tasks, if it presents an idea which can be directly applied to her lessons. Judy said that she felt the need for ideas about
practice when reading academic literature. This can be overcome through the teaching-as-inquiry process because the teacher selects research specifically to solve a problem with practice (David and Judy). David warned that it could be difficult keeping the inquiry – and the content of the research – narrow enough to be immediately applicable in lessons. These experiences showed that teachers were more likely to engage with theory if it was accompanied by how it could be applied in practice. An emerging idea from three teachers (Vicky, Erica and Judy) was that examples of theory in practice were necessary to justify the use of the theory; the theory gained legitimacy through practical examples. For example, Erica remained sceptical about a new Ministry guideline, presented at a PLD seminar for vocational pathways, that did not also describe what this might look like in practice. Conversely, two teachers (David and Vicky) doubted the benefits of learning how to change practice without also knowing the theory behind it. Vicky commented: “that’s why that teaching-as-inquiry stuff resonates so well for me because it’s about ‘Why are you doing that? What’s your evidence? What’s the change you hope to make? What made you make that decision?’” (Vicky).

**Technology or pedagogy**

All six of the teachers distinguished between learning how to use digital technologies and learning how such technologies could enhance learning in the classroom, the latter clearly being more important to them. The teachers acknowledged that digital technologies enabled a dramatic change to teaching and learning and therefore they looked for guidance on the new pedagogy as well as proficiency with the technology itself. The reason given, as David put it, was: “Like if you do one in the absence of the other... It won’t be successful”. Judy expressed it this way:

... all that e-learning stuff you know you can use every flash harry thing in the book but if there’s not some reason for teaching and learning to use it then there is no point, you may as well use a pen and paper. The pedagogy has to come first. (Judy)

Teachers from both schools thought that the PLD they had attended relating to digital technologies had not adequately addressed the issue of how technology could enhance the application of pedagogy in the classroom.
Summary of findings for professional development content

All eight interviewees have indicated that both selection and adaptation of pedagogical ideas occur at various levels and contexts in both schools. Managers were more likely to identify these processes in relation to whole school professional development, while teachers were more likely to identify them in relation to their inquiry focus or individual professional development. The vision of education described in the schools’ charter documentation sets an overarching paradigm of pedagogical philosophy from which specific professional development programmes are selected. Teachers reported that selection and adaptation occurred within established whole-school PLD structures, in the structured teaching-as-inquiry model, and in the unstructured processes of applying teacher-initiated learning (such as off-site subject-related courses). The extent to which teachers learned new ideas or the extent to which they chose new ideas for practice depended in part on their belief that the ideas were relevant or useful to their current situation. The definition of the pedagogy that is actually applied in the schools is shaped by an understanding of the implications for practice. The pedagogical theory is not the sole determinant of practice; rather, experiences of its application cause the theory to be adopted, adapted or rejected. In order for teachers to learn and apply new pedagogical theories aimed at improving student achievement, both schools have in the last two years prioritised teaching as inquiry so that teachers are essentially learning how to learn. Consistent with the schools’ visions for professional learning, training for e-learning was shifting from technical expertise to using it to enable pedagogical change.
Iterative cycle of review

Schools’ documentary evidence

Primacy of Evidence

The *Mountain View Charter 2015* referred to the 2014 explicit goal: “School-wide use of quality data to inform professional inquiry model” and went on to state specific targets for staff proficiency for accessing student data and establishing a dedicated team to manage information systems. That school’s report titled *Our Voices* outlined the three data sources for its action research project. It also lists the qualitative findings of that research. The second goal of *The Valley High School’s Strategic Plan 2015-2017* is to provide excellent teaching by “using assessment data to inform teaching and learning strategies” and this is supported by its 2015 annual plan which intends to promote evidence-based evaluation by students as well as teachers and managers. That school’s innovation grant application referred to the school’s plan to complete the “Quality Service Audit”, a far-reaching qualitative survey of how the school is meeting the needs of its diverse community. It also states “Narrative reflection from students to gauge changes in perception of teaching practice” will inform the teaching as inquiry process. The same school’s *Teaching and Learning Policy July 2013* specifies the ideal teacher as someone who “aspires to ... use assessment data to facilitate improved learning by tracking the academic progress of students and adjusting teaching practice accordingly”. The schools’ documentation as a whole placed a high-priority on evidence-gathering and professional development decisions based on evidence.

The schools’ documents indicated that reflection on evidence would steer PLD toward priority learners. The innovation fund application by Valley High School for Reflective Coaching Inquiry noted that the “Priority learners will naturally be targeted in this inquiry process as they are often over-represented in underperformance data”, and the Mountain View College charter asserts that their
inquiry model and cultural responsiveness approach “ensures that national and local priorities for students are addressed”.

Managers’ perspectives

Centralised data gathering

Terry at Mountain View College explained that from 2012 to 2014, trained facilitators gathered evidence across the whole school in a number of ways: student narratives of their experience of school life, by recording student engagement in lessons, ten minute observational walk-throughs, students’ emotional responses to lessons, and teacher self-efficacy surveys. Terry said that the first aim of this data gathering was to “track shifts and departments, individual shifts”. Another aim was “kick starting pedagogical change” (Terry). The range of data types enabled Terry to identify a gap between the students and teachers descriptions of the quality of teaching. Terry recalled difficult conversations with staff during the whole-school hui. His response was “It’s not about them. This is what the data is saying. This is what we have to fix to move forward” (Terry). He commented that the data showed teaching had become more student-centred over the course of the project. The third aim was to “…deprivatise classrooms so that other teachers can see in… It’s about sharing that knowledge. It’s about having an opportunity for teachers to share their inquiries” (Terry).

At Mountain View, the data relating to a specific teacher could be filtered to inform the teachers’ individual inquiries. This is why at Mountain View the evidence-gathering tool remains constant across all teachers and throughout the inquiry cycle. The teachers co-constructed their inquiry goal with a trained facilitator. Terry commented that teachers “…wanted the observational feedback because it was often the only time they sat down with somebody to discuss, in depth, pedagogy. There was a motivating factor to stay kind of moving and challenging themselves” (Terry). In 2015, however, time resources for the training and release of the trained facilitators had been greatly reduced. Terry believed this threatened the effective continuity of the inquiry model at his school.
Decentralised data gathering

By contrast to Mountain View, Shelly reported that at Valley High the teachers were more involved in the creation of evidence. For example, teachers constructed the “descriptive observation sheet” (Shelly), which a colleague would use to record evidence of teacher’s practice in relation to the inquiry focus. Also, they made written notes of the learning conversations as a form of evidence that could inform subject teacher practice. The expansion of the learning conversations programme at Valley High was in response to evidence of the teachers’ experiences of the programme. Shelly warned that the evidence gathering processes needed to be quick for teachers – that “it’s about the process not the product” (Shelly). Regarding the implementation of teaching as inquiry at Valley High School, Shelly believes that teachers are unlikely to have changed their practice, but they will have identified the areas of underperformance. 2015 was about up-skilling the teachers about the process, which will continue for the foreseeable future.

Teachers’ perspectives

Expectations of improved practice

Four of the teacher interviewees recognised the importance of choosing an appropriate individual inquiry goal in the teaching-as-inquiry model of professional learning. The goal needed to be very specific to be manageable. A typical comment would be: “And when you are trying to do too many new things, it’s so far outside of your normal practice that it’s just about impossible to manage.” (David). Judy warned that a very narrow focus could enable some teachers to avoid making a meaningful change to their practice. Three teachers (David, Judy and Vicky) noted that identifying a meaningful but manageable inquiry focus required skill and assistance from colleagues.

The inquiry focus represented a declaration of what each teacher was working towards. Three teachers recognised that the requirement for lesson observation and generation of data tended to motivate teachers to work on their inquiry focus. The observation data became evidence of participation in the process:
I didn’t get much of an opportunity to sit there and go, oh I’m doing this when in actual fact I hadn’t been, because what I was saying I was doing, also needed to be backed up by the observation data. There wasn’t any wiggle room. (David)

So teachers encountered two levels of expectation: first to participate fully in the teaching-as-inquiry process, and second to work towards their individual inquiry goal.

*Enacting changes to practice*

Three teachers reported that they had enacted changes to their practice before they fully believed that it would work. One reason given by two teachers was to experiment with an idea: “If you give it a bash and it works and you think okay I’ll use this, it’s good, it works” (Judy). Kyle said that his experience of working in Asia made him more accepting of following prescribed practices. The most common reason given for attempting a change in practice without believing in it was to meet the expectations of colleagues in the inquiry process.

Implementing e-learning was a special case. Three teachers recognised that BYOD had arrived, or was imminent, and this forced teachers to change their practice. Once digital technologies were in common use, teachers were more likely to seek professional knowledge of blended e-learning best practice. David’s comment was “the reality is … now everyone’s got these devices, there’s pockets of development occurring all over the show” (David).

*Evaluating changes to practice*

The teachers’ comments revealed that the two schools applied different approaches to the gathering of evidence for the teaching-as-inquiry programme. At Mountain View College, all participants were observed by colleagues who had been trained in facilitation, using a predetermined system that recorded student engagement and student responses in a feedback form. This occurred before and during the teacher’s altered practice. At Valley High School, teachers would determine the kind of
evidence they would need to inform their inquiry and the observer would be looking specifically for evidence related to the inquiry.

Five of the six teachers gave descriptions of the use of evidence for their professional learning and development. These five teachers affirmed the significance of evidence in influencing the effectiveness of the programmes. The teaching-as-inquiry programme “was all evidence driven” (David). Generally, it was an essential part of determining what needed to change (David, Kim, Vicky, Judy and Erica). The evidence convinces the teacher what works and what doesn’t (Kim and David). Judy pointed out that some staff feared evidence because “they are scared of failure” (Judy). David commented that “there’s not actually a lot that the school can do I suppose, short of providing some more vision and stuff like that around what it should look like,” (David) and the real learning occurred when reflecting on evidence.

At both schools, reflecting on the implications of evidence occurred with colleagues (David, Kim, Vicky and Erica). David commented that the colleagues involved in his inquiry would learn from his evidence also. Kim summed it up:

Engaging in conversations and the reflective dialogue that occurs helps us all reflect on what we are doing and think about the things that we’ve changed have worked. Even talking about stuff that we’ve tried but it hasn’t worked. (Kim)

Three of the five teachers (David, Judy and Vicky) commented that it was important to repeat the cycle of enacting changes to practice and using evidence to inform future changed practice. Reflection on the evidence often caused a refinement or redefinition of the inquiry focus (David and Judy). Repetition of the cycle created duration for the implementation of ideas (David, Judy and Vicky). David and Judy felt that even if an inquiry problem had not been solved, the process of reflection and refinement was success in itself:

I think it is going to be interesting when we get to the end of our first year with the range of different things that people have chosen as to how they have managed to succeed, but maybe succeed isn’t the point, it is just doing it and finding stuff out. (Judy)
Evidence had influenced PLD in ways beyond the teaching-as-inquiry model. Reflecting on other teachers’ experiences was an important part of Vicky’s professional development on promoting literacy. David said that evidence of teachers’ proficiency in using digital technologies influenced the content of e-learning training. Kim thought that PB4L implementation should be based on data. Erica used data about the number of careers conversations her students had received to prioritise her interventions.

**Summary of findings for iterative cycle of review**

The findings across all three data sources clearly point to the primacy of evidence gathering and evidence-based reflection in systems of professional learning. References to such use of data at multiple levels in both schools have been inextricably linked to the inquiry model of professional learning. Data and reflection appear to go hand in hand. Both schools gathered school-wide data through centralised management systems for use in multiple reflection processes. Centralised data gathering was more prominent in the findings for Mountain View College than it was for Valley High School, but this reflects the “kick-start” (Terry) approach to changing pedagogy initiated in 2012 at Mountain View. Both teachers and the professional development manager at that school are acutely aware of the need to ensure both that relevant data continues to be generated but in a less centralised professional learning environment, and that the reflection on practice enabled by such data is still possible. Meanwhile, Valley High School has taken the approach of supporting teachers to create the data they need as an essential component of their teaching-as-inquiry process, while continuing with far-reaching centralised data gathering. The findings from the teacher interviews provided further depth to the idea of the primacy of data in professional learning and development. Teachers indicated that the steps of goal setting, enactment of changed practice, and subsequent reflection, were all underpinned by the constant of data. The enactment step is carried out to generate comparative data. The steps are cyclical so that data derived after an intervention is treated as the same as data
derived at the start of an inquiry. The emerging understanding of the five teachers who described this process is that the constant refinement or redefinition of the inquiry goal is an important element of judging the success of the teaching-as-inquiry model.

Programme sustainability

Schools’ documentary evidence

Commitment to programme duration

The documentary evidence indicates that both schools are strongly committed to implementing professional learning and development programmes over an extended period. This includes broad visionary language such as that their staff “continuously reflect” (Effective Mountain View College Teacher Profile). It also includes assertions that specific programmes continue over extended periods such as PB4L implemented over three years (*Mountain View College Charter 2015*), or taking the next steps in a predetermined e-learning strategy (*Valley High School Charter 2015*).

Commitment to empowering staff for inquiry

The documents also show that both schools intend to embed the teaching-as-inquiry process as a model for professional learning for a number of identified pedagogies, and to achieve this by empowering its staff to conduct the process. For example the *Valley High School Strategic Plan 2015* includes an objective to “Engage all teachers in whole staff professional development programme designed to enable all VHS teachers to build skills of coaching, inquiry and reflection”. The *Mountain View College Annual Plan 2014* includes the goal “Sustainable ‘inquiry’ model developed and in place for 2015”.

The schools elected to follow slightly different models for developing the skills required for collegial facilitation of the process. The Valley High School *Teacher-Led
Innovation Fund Concept Form indicates that the school will train twelve staff who would role-model the facilitation of goal setting and reflection in the coaching trios, and more staff would be trained in this skill in future years. The document goes on to explain: “Rather than a mentoring role, the coaching model allows all staff to stand equally and coach each other rather than advise”. Meanwhile, Mountain View’s documents indicate that they have established a dedicated team of observers and facilitators whose work required significant release time; the Mountain View Charter 2015 makes the comment:

There have been resourcing challenges that have limited the extent to which release time for teachers has been possible and that has slowed down progress towards developing middle leader confidence with observational data collection and feedback. (p. 7)

Valley High’s innovation fund application and Mountain View’s website for their action research project indicate that both schools aim to enable authentic teacher reflection of their practice, rather than treating it as a “box-ticking exercise” (Teacher-Led Innovation Fund Concept Form).

Accountability for teaching-as-inquiry process

The documentation for both schools acknowledges that staff are expected to complete staged tasks as part of their participation in the teaching-as-inquiry process. For example, the Valley High School Teacher-Led Innovation Fund Concept Form states that the inquiry process at that school aims to “… provide accountability by scaffolding a robust process for teachers to follow through the inquiry cycle so that they find the inquiry both manageable in terms of time and meaningful in terms of making shifts in practice”. The documentation shows that Mountain View has aligned their annual appraisal process with the teaching-as-inquiry model. That school’s Performance Appraisal Manual 2015 outlined the steps, term by term, for carrying out the inquiry process. The documentation for Valley High School had not yet explicitly linked teaching-as-inquiry with appraisal.
Managers’ perspectives

Time resources

Terry described how considerable time resources had been devoted to his school’s action research project, both in the initiation phase and in the carrying out of the teaching-as-inquiry programme. The action research project is described in the first section of this chapter. Terry believed this has brought significant shifts in pedagogy. However, he notes that “We have had a reduction in time allowance this year” and “That’s highly frustrating, considering the PD needs of our staff at the moment” (Terry).

Both managers pointed to the link between scarce time resources for their staff and the design of their programmes. Shelly put it this way:

Time is really, really tricky for teachers in all aspects. It’s about finding ways to support teachers to have more time for these things to be manageable... So I guess, having staff skilled in keeping the administration brief but still meaningful... (Shelly).

Both Terry and Shelly recognised that the requirement for each teacher to record their actions and reflections at each step of the process enables managers to ensure that everyone has participated.

Duration and continuity

Terry and Shelly argued that programmes of teacher learning and development with a longer duration enabled staff to better understand the present situation before embarking on changed practice: “take it really carefully to ensure that we get the right fit” (Shelly). Continuity was important because “when they went on to the next inquiry, they could build on what they had just done” (Terry). Regarding teaching-as-inquiry, both managers emphasised that teachers’ participation in the staged tasks “wasn’t forced” (Terry) and that “It’s about the process and I don’t want to say you must write four pages” (Shelly). Terry recognised that the continuity of the teaching as inquiry programme in his school had been hampered by resignations of those with
responsibility to manage the implementation of such programmes, whether at middle management or senior management level.

Teachers’ perspectives

Duration of programmes

Four of the six teacher interviewees attributed the increased effectiveness of PLD programmes to their duration. The quality of duration was identified in a wide range of programmes: a single inquiry cycle could take a term and a half (David); professional coaching was developed over several learning events (Judy); the PB4L programme was implemented over three years (Kim); and the restorative practices programme was described as “a five year journey to embed restorative practices” (Kim). Judy warned that multiple programmes may cause insufficient time given to any one particular programme.

The same four teachers spoke about how participating in programmes of greater duration supported their understanding of the theory (David, Judy, Erica and Kim). Erica explained that implementation of the PB4L involved “scoping the systems that are currently in place” (Erica). Two teachers commented that they had not retained the specific detail of any one particular learning task, but rather “the way that it is sustained is what embeds it as a practice” (Erica). Kim and Erica gave similar comments about duration contributing to the enculturation of the new theories: “It is embedding I think. It is that process of embedding it into everyday so that it stops being PB4L if you like and just becomes the Mountain View Way” (Erica); “when you are doing something that is about school cultural change you need to be patient, you need to take those steps” (Kim).

Time resources

Five of the six teacher interviewees specifically highlighted time resources as a key factor influencing the extent to which teachers sustained changes to their practice (David, Judy, Kyle, Kim and Vicky). Kim described the problem this way:
…every one of us is drowning in our own little pool of whatever, and everybody’s pool is different and we all think our pool is worse than everybody else’s but we’re all just drowning in our own pools, so you can’t just add something else in without taking something away. Nothing was taken away. No time was allocated to do it.

(Kim)

Two teachers, Kim and Judy, commented that a teacher’s time scarcity may need to be understood within the context of his or her professional and personal situation. Kim noted that her management responsibilities had doubled in eight years without any decrease in her teaching time to do it, and this affected her capacity to devote time to improving her practice. Both teachers referred to family obligations as competing with professional learning outside of timetabled classes. A third teacher, Kyle, noted that his reduced teaching load as a provisionally registered teacher helped to reduce the time he spent at home working on tasks related to PLD programmes. Judy and Vicky suggested that time dedicated to professional learning tended to improve the quality of thinking experienced by teachers during such time. For example, Judy said:

But maybe you get so caught up in the day-to-day thing you can’t step back. It’s about time... because for a lot of people with five classes they are just running from one to the next to the next, and they don’t have that time in their school day to think... (Judy)

Judy’s also commented “It’s about finding some headspace.... Maybe time creates the headspace” (Judy). Importantly, both teachers noted that such thinking centred more around how to apply skills in their practice than understanding the theory.

Scarcity of time could apply to the programme providers or implementers as much as it applied to teachers (David, Kyle and Kim). This could be a constraint on professional learning activities, especially meetings, when the programme relied on appointed trained facilitators’ time (David and Kim).
**Checkpoints for programme activities**

All of the five teachers who had experienced the teaching as inquiry model believed that the provision of follow-up activities was a significant factor in that programme’s success. For example, David said:

> the teaching-as-inquiry stuff has been really good because it’s felt like it’s been sustained and continual with sort of like time lines and dates and expectations and then observations to sort of check that it’s actually occurring in the classroom or you know what you’re espousing is actually showing up. (David)

Three teachers (Erica, Vicky and Judy) highlighted the lack of follow-up activities after attending off-site subject-related courses as a negative factor, whereas the Ministry’s PB4L programme included regular checkpoints over its three-year implementation period. Only one teacher (Judy) referred to the appraisal system as a factor motivating her to complete follow-up activities, and thereby apply their learning to practice. All of the teachers were motivated to complete follow-up activities because they involved sharing with at least one colleague. Communications from providers or managers that offered more learning or support did not of themselves provide motivation. However, more personal communications from one’s manager had a motivating effect because they carried an expectation that tasks would be completed (Kyle, Vicky and Judy). Follow-up tasks that consisted of a sequence of steps acted as guidelines for teachers, and this was preferable to solely observation:

> If it’s short and, and kind of standalone and doesn’t recur, you know, you’ve done this and we’re going to come into your classroom in six weeks’ time and check that you’re actually doing it and that doesn’t happen, or there’s no carry on, no follow-up, it’s as good as useless. (David)

Kim described how such activities created a sense of urgency: “Stuff can very quickly end up in the important but not urgent quadrant of life. That box is probably overflowing in my professional life” (Kim). David and Judy warned that the written component of follow-up tasks could constrain the teacher. “I did feel like the paperwork was a bit clunky, was a bit big, a bit bureaucratic” (David). Three teachers (Kyle, Judy and Vicky) said that prescribed follow-up tasks needed to be flexible.
enough to ensure that real learning occurs, so that “It is clear that we are doing it for our own sake and our students’ sake, rather than something to tick a box. It’s kind of personalised” (Kyle).

**Summary of findings for programme sustainability**

The teaching staff, the managers and the documentary evidence indicate that both schools have ensured that PLD programmes run over an extended duration. Interviewees suggest that duration enables individual staff and groups of staff to consider whether a particular new theory should be adopted, and how a new theory can be adapted to fit their present situation. Duration enables opportunities for cycles of enactment of goal setting, evidence collection and evaluation to take place.

The evidence strongly suggests that the imposition of staged tasks for programmes (often called follow-up activities or checkpoints by both the managers and the teachers) was a significant influence on achieving sustained application of learning to practice. Imposing prescribed staged tasks is justified for two reasons. First, the staged tasks represent a sequence of reflection and enactment through which the participants experience learning. Secondly, the staged tasks provide evidence of the staff member’s participation in the process. The knowledge that staff are required to present evidence, inquiry goals and reflection to another colleague is a powerful motivator for the teachers involved in this research. It seems that the fact of impending scrutiny by a colleague was a greater motivator than the appraisal system per se, as suggested by the lack of reference by the teacher interviewees to appraisal when discussing the inquiry process. On the other hand, the managers and the school’s documentation showed that one school had integrated teaching-as-inquiry into its appraisal process while the other intended to do it in 2016. The staged tasks for implementation of new pedagogical practices stemmed from the schools’ commitment to the inquiry process, not the pedagogical theory or the appraisal process. The managers of both schools would be justified in claiming that teaching as inquiry had become part of the culture of his or her school.
Time resources were an important factor in the success of professional learning and development programmes. This was an issue for the teaching staff participating in programmes, for the persons responsible for implementing programmes, and for enabling staff to be trained in the skills for facilitating the teaching-as-inquiry process. The evidence from these two schools supports the argument that the time issue is not just about relieving a teacher from regular duties but ensuring that the release time is dedicated to the inquiry process.

Learning processes

Schools’ documentary evidence

The intention to create a professional learning culture

The charter documentation for both schools clearly asserted the intention to create a professional learning culture in their school. However, neither set of documents describes the qualities of such a learning culture other than listing the range of pedagogies that meet the respective school’s vision, and specifying teaching as inquiry as the intended model for professional learning and development.

Two documents from Mountain View College go into some detail about the value of teaching as inquiry. The first, namely Our Voices (a report on the gathering of evidence from students about the quality of teaching), highlighted the gap between teachers’ espoused theories and their theories-in-action, and used that to develop key steps in their teaching-as-inquiry process. The second document, TQ@MVC (an online guide for staff of the teaching-as-inquiry process), highlights the necessity of contextualising learning:

Professional development that focuses on new practices decontextualised from the demands of classroom teaching and learning (e.g. one off or one-day or off-site courses) is not likely to be translated into that environment. Teachers might find the information interesting but rarely apply it, given the many demands of their students and the curriculum to be taught when they return ...
It also notes that teaching as inquiry can create the conditions for challenging teachers’ existing beliefs: “Evidence from inquiry can create a sense of dissonance that has the potential to generate new knowledge and practices of how we do things”.

Internal documents from Valley High School indicated a similar awareness of teaching-as-inquiry, although the language was less specific. That school’s innovations fund application 2015 stated that the “model proposed will help to arm teachers with the skills to reflect on what they have the power to change about their pedagogy in their classrooms”. The slide presentation titled VHS PD Plan 2015 informed staff that they were expected to identify a “challenging inquiry”, and suggested that redefining learning experiences for improving students’ writing was more challenging than, say, learning how to use a new computer application.

Managers’ perspectives

Creating a culture of professional learning

Terry believed that he needed to create a culture of professional learning, and this justified the action research project:

I believe it is often about the mindsets that teachers come into the classroom with so it’s about changing the way teachers are thinking, and ensuring that the thinking is lined up with what they are doing. It’s about ensuring that their espoused theories and their theories in use are all lined up together. (Terry)

Terry used the term “mindsets” twelve times in his interview. He thought that teacher mindsets were created because “anyone who goes through a full compulsory education system sits through about 10,000 hours of teaching. Often it is quite traditional. It’s what you know. It’s what you revert back to in times of stress” (Terry). The one-year teacher training programme, he said, was inadequate for shifting mindsets for many trainees. Staff held beliefs that presented a barrier to accepting the need to embark on professional learning and change. For example, “there were the deficit mindsets that came through from the self-efficacy survey”
(Terry). He thought that a barrier to changing teacher mindsets was the belief that “they have been doing a good job a long time” (Terry). He was conscious of the memory many staff had of previous professional development systems, which he believed created expectations of how PLD should be administered.

Terry also believed that digital technologies forced staff to confront their beliefs about education:

For a huge number of our staff, this major digital disruption in education ... is highly confronting and challenging for people who have been teaching for a long period of time. For many staff members their mana is because of their content knowledge, and they are still the fount of all knowledge. In actual fact students can now access even more knowledge online. It is quite difficult for people to get their heads around that. (Terry)

*Working within a culture of professional learning*

Shelly’s suggested that her school enjoyed an established culture of professional learning. She identified structural elements of professional learning processes as barriers to sustained improvements in practice, rather than teacher mindsets. In relation to the learning conversations programme at her school, she cited time resources and the manageability of the written component of the process. There appeared to be considerable support for the theory behind the programme: “This has always been a school where the staff listen to the students. That’s the ethos of the school, but I think it is strengthening” (Shelly). Experiencing the programme confirmed its worth in the minds of the teachers: “I think the success of the programme was the student feedback last year. That made staff think: I want to keep going” (Shelly). Regarding the teaching-as-inquiry programme, Shelly explained that the emphasis in 2015 had been on training staff in the specific skills involved in the inquiry cycle and coaching trios: “Next year, it is not going to be so much about those skills because we have developed them in the first year, so let’s have a real think about the depth of our inquiry” (Shelly). For both programmes, staff were overlaying new information onto their existing understandings. Shelly did not speak
of staff resistance to these changes. The teaching-as-inquiry model was being implemented in what appears to be a culture of professional learning.

At Shelly’s school, the existence of a culture of learning was further indicated by the degree of democracy afforded to staff. Shelly’s answers tended to suggest that staff claimed ownership of the professional development and learning programmes, and that she was speaking on behalf of the staff. Here are two examples:

... and we’re going to talk about this on Tuesday – it’s going to be heated. It could go on forever. We might need to camp here! It would be interesting, it will be a robust and meaty discussion. (Shelly)

I think people relish the fact that they have a lot of say. The staff are very empowered at this school. That’s not to say that every staff member will always have their needs met, but every staff member knows that they have a lot of opportunities to voice their opinion, and to really nut out issues and what they have to say will be valued by their colleagues and my senior management. (Shelly)

**Teachers’ perspectives**

**Teacher ‘buy-in’**

All six of the teacher interviewees identified ‘teacher buy-in’ as a factor influencing the success of PLD programmes. The phrase ‘buy-in’ was consistently used by the teachers to describe their own or other teachers’ willingness to participate in a PLD process. There was general approval for the principles of the teaching-as-inquiry process. Here is a typical comment:

... in my mind I was, like, this seems obvious. It’s what you would do in a professional manner anyway but it’s, but it’s guided by and managed with sort of policy and, and the strategy of the school you know. (David)

Kim and Erica noted that the PB4L providers required a high approval rate among the staff before the programme begins. Four teachers (David, Vicky, Kyle and Judy) commented that the functioning of professional learning groups was hampered by individual staff who were not willing to participate in the tasks expected of the
group. Three teachers (David, Kyle and Erica) felt that the school leaders were instrumental in garnering teacher buy-in to a learning programme. Three teachers (Kim, Judy and Erica) warned that multiple programmes competed for teachers attention and tended to reduce buy-in for some teachers. Vicky’s comment was typical: “…keep building but don't keep adding extensions on us. ... It's like jumping with what's the latest buzz word, let's go with that” (Vicky).

**Cueing prior knowledge and adding to existing knowledge**

For two teacher interviewees (Vicky and Judy), off-site subject-related professional development was valuable because it reaffirmed their current knowledge. For example, Vicky said, “I think what it does is either affirm what I'm already doing or remind me that I shouldn't do something so that's immediate impact and that's really strong” (Vicky). For four teachers (Kyle, Kim, Judy and Erica) such programmes often added to the their existing knowledge. Kyle and Vicky relied on such programmes for adjusting assessment and moderation procedures. Three teachers (Judy, Kyle and David) commented specifically on training that added to their technical expertise but did not challenge teachers existing ideas about pedagogy. For example, David said:

But it still felt like it was about sort of gimmicks. It was about, like, do this, or you can do this, or dah dah dah, it wasn’t like... It just felt like there wasn’t much. I felt like I left not really knowing what I was supposed to do. (David)

**Confronting and replacing underlying beliefs**

Teachers identified ways that they and their colleagues had been challenged on their underlying beliefs as part of PLD programmes. Although, whole-staff, in-house professional development events (such as would occur on teacher-only days or afterschool staff meetings) included some activities designed to surface teachers underlying beliefs, most teachers spoke of this process in relation to their participation in the teaching-as-inquiry programme. The teaching-as-inquiry programme at both schools supported challenging underlying beliefs in two ways. The first way, identified by all five of the teachers who had experienced the
programme, is to motivate teachers to behave with their colleagues in a way that is more reflective, consensual and discursive:

I think for some people it would have been really challenging so what it was expecting of us was not necessarily a change; it was expecting a certain process, so it was expecting that people undergo a particular process to get to a result at the end. (Judy)

The second way, identified by three teachers, is by motivating teachers to enact changes in practice whether or not they have changed their underlying beliefs, so that teachers may review their beliefs based on experiences of their actions. David described this as:

So then what you do is you realise if those things that you are doing, which you can see you are doing and the kids can see you doing and the observer can see you are doing, are actually having an impact on engagement. (David)

Three teacher interviewees recognised that some of their colleagues were capable of reverting to traditional didactic models of teaching despite having recently learned and understood more student-centred and relational pedagogies. Three teachers thought that this phenomenon occurred because of the nature of teaching:

... even if you have this really amazing epiphany about the stuff just due to the constraints of teaching and time and the busy-ness of the job, you immediately fall back onto base line practice, which is survival mode. You know, like teacher tells the kids, do these worksheets. (David)

You get straight in and you have all the things that are going on and the classrooms are busy and the first thing that happens when you are under stress is you go back to your tried and true way of doing things ... whether it is right or wrong, because you just haven't got the time or the energy... you are just exhausted. (Judy).

If we were given a bit of time to sit back and go, let me think about this before we actually did it, because for a lot of people with five classes they are just running from one to the next, to the next and they don’t have that time in their school day to think about that. (Judy)

... you’re presenting something you’re not particularly clear about yourself then you feel a bit of a fool sometimes because you don’t own it. (Vicky)
Erica described it as “slipping into bad habits”. Some wouldn’t do it “because it is uncomfortable” (Judy) or they were “probably annoyed about having to change, annoyed of constant change” (Kyle).

Four teachers made reference to professional history as influencing the extent to which teachers could adapt to a new theory, and this included the teaching-as-inquiry model as much as new pedagogies. For David, teaching-as-inquiry “didn’t feel like anything out of the ordinary, to be discussing real hard evidence from what I was doing in the classroom with others” (David), and Erica explained that her professional experiences caused her to question the authority of programme providers because “… as an intelligent member of the audience you kind of, well hold on, how can we have faith in you and your model” (Erica).

Summary of findings for learning processes

The findings present teacher acceptance of the need to learn as distinct from the actual learning that affects their underlying beliefs about teaching practice. Both schools intended to create a culture of professional learning but had taken different approaches to the creation of such a culture. A more developed learning culture means that staff are more open to reflecting on evidence of their practice, and identifying the need to inquire into an area of practice. When the action research project was commenced in 2012 at Mountain View College, the manager reported resistance not just to new pedagogies, but also to establishing the need for, and a model for, professional learning and development. Learning about digital technologies tended to add to existing knowledge rather than challenge beliefs. The perceptions of the teachers and managers in this study suggest that professional learning and development programmes that successfully promoted sustained improvements to practice gave attention to the teachers experiencing enactment of changes to practice even when they had yet to adopt new beliefs to replace their pre-existing ones. According to one of the managers, teachers’ professional histories (including their own education) are a major contributor to a teachers’ current ‘mindset’. The teachers perceived that the nature of teaching is such that some
teachers who have participated in significant PLD may still be inclined to revert back to more traditional, teacher-centred approaches to curriculum delivery. Perhaps the most penetrating finding comes from the two teachers who described how a teacher’s ability to incorporate new theories into their everyday practice depended on finding sufficient ‘headspace’.

**Professional communities**

**School documentary evidence**

*Intention to promote professional communities*

The charter documentation for both schools did not explicitly state their Boards’ intentions to utilise professional communities to support professional learning and development. However, the profiles of the effective teacher for each school included these qualities:

… collaborate with and support colleagues in professional learning communities to learn about and implement best practice teaching and learning strategies. *(Valley High School Teaching and Learning Policy July 2013)*

Actively participate with learners and communities in robust dialogue for the benefit of learners and their achievement. *(Profile of an Effective Mountain View College Teacher)*

Each school had additional documentation relating to their respective teaching-as-inquiry programmes. Valley High School’s application form for innovations funding recognises that teachers need reflective coaching skills to more effectively contribute to the learning of their colleagues through the teaching-as-inquiry process. Mountain View College’s online document titled *TQ@MVC* did not outline how professional communities would contribute to that school’s action research project or to the teaching-as-inquiry programme.
Managers’ perspectives

A wide range of professional communities

Both Shelly and Terry outlined long lists of the many formally constituted professional groupings, largely performing the functions of consultative committees, covering topics such as curriculum, staffing, health and safety, and so on. The detail that the two managers provided about operation of professional communities tended to relate to those associated with each school’s teaching-as-inquiry programme.

Sharing in professional communities

Terry stated that one objective of Mountain View’s action research project was to “deprivatise classrooms” (Terry)

It’s about sharing good practice. Teachers work in isolation for most of the day. … So how do you showcase some of the really amazing innovative practice that is occurring amongst the staff as a way of showing what can happen as a way of transforming education? (Terry)

Shelly’s description of the teaching-as-inquiry programme at her school indicated that sharing of the inquiry evidence and reflections is limited to within each teacher’s coaching trio. She described the work of this group as follows:

The idea of these coaching trios is not about someone coming in and telling you how to teach. You create the descriptive observation sheet you need to give you information that you need for your inquiry. They come in and describe what they see. You critique it and have that discussion within your trio. (Shelly)

Shelly said that teachers were expected to post their inquiry topic on a shared online document so that teachers could make voluntary connections with likeminded colleagues beyond their coaching trios.
Leadership in professional communities

Terry said that his school had trained a dedicated team of facilitators for the teaching-as-inquiry programme and it is the loss of resourcing for their release time that has impeded the ongoing implementation of the programme. Regarding professional communities generally, Terry said he believed that “it is the middle leaders in large high schools that make a difference” (Terry), and the variability of department success reflects this. Shelly did not discuss the significance of leadership or facilitation of professional communities, other than regarding the reflective coaching roles in the teaching-as-inquiry programme.

Self-affirmation in professional communities

Terry said he deliberately mixed dissenters with early adopters in the PLCs that he instigated as part of the teaching-as-inquiry programme. He believed that teachers’ need for self-affirmation motivated some of the dissenters to participate:

... we used a circular table with six people, you could not get away for an hour and I kept coming back to people, and I knew they had done nothing. They shifted and they squirmed in their seats, and next time round they had stuff done. (Terry)

Terry believed that PLCs are a very effective way for teachers to learn about the reality of their teaching and this is essential to triggering change. He says that teachers continue with teacher-centred pedagogies because of their self-image as the “fount of all knowledge” (Terry). By contrast, Shelly did not comment in detail about the rationale for professional communities or how teachers responded to them.

Teachers’ perspectives

A wide range of professional communities

When asked whether they had participated in a PLC, the six teachers identified a wide range of professional groupings in which they had participated. Four teachers specifically identified the group activities in the teaching-as-inquiry programme as
PLCs. David identified the “school-wide assessment team” and Kim identified the PB4L lead team. Kyle identified the group of pre-registered teachers who met regularly at his school. Erica and Vicky identified meetings with an all-staff PLD focus, and Vicky and David identified the small groups in which staff were placed during all-staff PLD. Judy, Vicky, David and Erica identified departmental meetings, and other groups of staff (such as e-learning and heads of department). All of the teachers, except Erica, identified subject-related off-site meetings and conferences, including cluster meetings as professional communities. Judy believed that professional communities included “Facebook and the emailing that happens on a regular basis, almost every day. Someone is talking about something and we are answering questions”. Judy and Vicky extended the idea of community to the informal communications that occur by colleagues in their workplace everyday, such as:

... sitting around eating lunch or standing around the unit ... or looking over the shoulder of someone else, walking in and out of each others’ classrooms, just going ‘Wow, that is really cool. What did you do there?’ That to me is proper learning and it is what comes up when you don’t know it is going to happen. (Judy)

Whether or not each of these groupings or communities fit an academic definition of PLC, in the minds of the teachers they contribute to their professional learning.

**Structured activities in professional communities**

The teachers believed that a professional community was more likely to contribute to their learning if its activities were structured. For example, Kim stated:

> I would call the PB4L a professional learning community, because we meet regularly and we work together to implement the plan. We meet every two weeks at 7.30 in the morning, have breakfast. We have an annual plan, we track the annual plan.

(Kim)

Kyle said that his group of pre-registered teachers met three times per month and the participants were expected to demonstrate how they had progressed toward the professional standards. Vicky described in-depth how a whole-school programme for training teachers to implement literacy strategies owed a large part of its success to the progression of structured tasks from one meeting to the next. David commented
that when Mountain View College devolved the teaching-as-inquiry programme to departments, it seemed less effective because it had become less structured. Vicky thought that an effective PLC would most likely carry out the steps of the teaching-as-inquiry model.

Judy described in detail the effect of the reflective coaching training that she and nine others had received, the main purposes of which was to give teachers the skills to guide academic conversations during the teaching-as-inquiry process. This involved a predetermined set of questions and ways to guide colleagues through the conversation:

What I discovered from that coaching stuff is that there is a script and it is a role play to help the other person get what they want and if you have never experienced that sort of thing or been to that course or anything you won’t know that’s going to happen and you might spend your hour and a half with your ... coaching trio just having a kind of bitch and nothing ever happens. (Judy)

Judy commented that the language of coaching is not natural and that both parties to the conversation needed to be willing and able to use the language for the conversation to be effective. It is less likely to work in informal groupings.

**Shared problem solving in professional communities**

All six teachers recognised that some professional communities were more successful because the participants shared a common goal. That means, according to David and Erica, that the PLC that supports teaching as inquiry works better if its members’ individual inquiry focuses are similar, to engender “… that collaborative approach to problem solving in that space” (David). More broadly, a department could share a common goal of specialist curriculum delivery (Judy) and the whole staff could share a goal of implementing digital technologies (Erica). A shared goal contributed to the motivation of the participants:

And you start embedding in your practice as a group because you have got accountability because you are in a group. Then I can see that it would be a model that would work better than just an individual, because really individually you have
got no - it’s not even accountability in a sense - but there is no moderator. It’s easy to fall back on your own practice. (Erica)

Vicky valued the collective goal because she enjoyed being part of a team: “If there was a group of us, that would make it more exciting. Super exciting, to be part of a team... It doesn't mean I wouldn't do it by myself but it would make it really exciting” (Vicky).

**Teacher interaction in professional communities**

All six teachers identified the interaction between members of a professional community as essential not only to its success, but also its reason for being. Vicky summarised this notion:

> Because of the sense of bringing stuff to the group and sharing as a group and helping each other out, that kind of ethos of the group, that fits my understanding of a professional learning community, in a broad sense. (Vicky)

Erica and David noted that smaller groups were often employed during whole-staff training events to enable individual teachers to share their ideas.

A strong theme that emerged was that teacher interactions within communities provided valuable understandings about the practical realities of the context that are not necessarily available from other sources (Kim, Judy and Vicky). Vicky’s comment was:

> ... you're really debating what's happening in the classroom. And the reality, not the theory about it, but what is happening in the classroom in front of you. But what if? What do I do when this happens? How do I deal with this? What if a kid presents work like this? Can I do anything with that? You know, throwing examples around. (Vicky)

Three teachers used the word ‘osmosis’ to describe informal learning from one teacher to another within communities.

**Leadership in professional communities**

Five of the six teacher interviewees believed that leadership was often a factor in the successful operation of a PLC. When a professional community was defined by a
clear goal, leadership was more likely to include facilitation of a process and to impose structure on the group’s activities (David and Judy). Judy commented that skills gained from reflective coaching training enabled her and others to keep colleagues’ inquiry focuses manageable. David had the same view of trained facilitators:

... the facilitator is kind of like an outside role. They just make sure the discussion stays positive and stays focused because teachers are very good at going sideways, and ... that it was inquiry focused. ... so yeah, it was really well done. (David)

David pointed out that when his school devolved the teaching-as-inquiry programme to departments, his department deliberately recreated the leadership structures that had been apparent in the centrally run teaching-as-inquiry programme. Several professional development programmes had adopted the strategy of training a lead team who would in turn lead in smaller groups among the wider staff: PB4L (Kim), teaching-as-inquiry (David) and literacy strategies (Vicky). Even large groups could be effective with a strong and competent leader (Vicky). Outside the teaching-as-inquiry programme, effective facilitation was considered to be helping teachers follow the key elements of the inquiry model (Vicky, David and Judy).

**Professional self-affirmation in professional communities**

A strong thread, in the interviews of four teachers, was the power of professional self-affirmation to motivate teachers to take action. Here is a typical comment:

...there was an expectation that you had something to bring back to the meeting and because we did it so often, if you really weren't doing it, it got quite uncomfortable because the whole group would know that you didn't do anything this week. (Vicky)

David said that the members of his teaching-as-inquiry group seemed more motivated to share the evidence of their inquiry when they had actually carried out the tasks. Likewise, Vicky and Judy thought some teachers might avoid embarking on the inquiry process to avoid revelations about their practice:

... they are scared of failure which is dumb because everyone fails so you have to give stuff a go. If you don’t give stuff a go you’re never going to know if it’s going to work or not and I guess some people don’t give stuff a go. (Judy)
For the reluctant teachers that do participate, Erica and Vicky thought that teachers were motivated to do so to be seen to be doing the best for the students: “I’m assuming it was because they felt embarrassed. I’m hoping that it was because they saw that other people were having success.” Kyle and David recognised that teachers are unlikely to be willing to share their unsuccessful professional experiences if there is not a climate of trust in the professional community.

Summary of findings for professional communities

Teachers and managers at the two schools studied perceive that professional communities are a very significant factor in creating motivation among teachers who are reluctant to change or reluctant to enter into reflection on their practice. However, this is more likely to be true for PLCs that are specifically designed to collaboratively solve problems of practice. Leadership of professional communities tends to align with the level of structure of activities carried out by the members. In the minds of the teachers, the factor that is most likely to distinguish a PLC from other forms of professional community is the element of a shared goal. Professional communities could be influential on teacher practice in a wide range of forms and contexts. It appears that the motivation experienced by teachers from participating in professional communities stems mainly from the teachers’ need for self-affirmation. This study has found that professional communities generally, including informal communities, helped to establish the standard among the profession, and to exchange ideas related to application in specific contexts. More formal PLCs created the circumstances needed to motivate reluctant teachers to actively participate in reflective practice.

Summary of findings chapter

The schools’ charters suggest that both schools intend professional development and learning to be based on the inquiry model. The teachers had experienced a similar range of whole-school professional development programmes which
reflected the schools’ visions expressed through their respective charters. The focus of whole-school professional development does not necessarily limit the focus for teachers’ inquiries. Teachers also participated in off-site professional development programmes mainly relating to the delivery of their subject.

Teachers’ and managers’ perceptions indicate that selection and adaptation of pedagogical ideas appears to occur at whole school and individual levels. The charters of both schools set an overarching vision of pedagogical philosophy from which specific professional development programmes are selected. The definition of the pedagogy that is actually applied in the schools is shaped by an understanding of the implications for practice. The pedagogical theory is not the sole determinant of practice; rather, experiences of its application cause the theory to be adopted, adapted or rejected. The documentary evidence and the PLD managers’ interviews indicate that both schools have in the last two years prioritised teaching as inquiry so that teachers are essentially learning how to learn.

At the two schools where this study took place, gathering evidence and evidence-based reflection dominate in systems of professional learning. Reflective practice may be subordinate to the drive to make data available for reflection and the continual return to such data for reflection.

Programme duration, checkpoints and time resources were all significant factors that promoted sustained application of professional learning to teacher practice. Duration enables individual staff and groups of staff to consider how new theories can be adapted to fit their present situation, and enables opportunities for cycles of enactment of goal setting, evidence collection and evaluation to take place.

In the two schools studied, professional communities are a very significant factor in creating motivation among reluctant teachers, especially for PLCs whose shared goal is to collaboratively solve a specific problem of practice. Professional communities generally, including informal communities, informed teachers of the changing standard among the profession.
CHAPTER FIVE: DISCUSSION AND CONCLUSIONS

Introduction

This chapter discusses the research findings in relation to the literature on sustainability of PLD programmes. This chapter then provides conclusions to the three research questions, and highlights some recommendations that may be useful when considering a PLD programme in an Auckland secondary school.

This study has focused on the factors that affect the extent to which six teachers in two Auckland secondary schools apply their learning from PLD programmes to their practice. The literature review in Chapter Two identified the need to challenge teachers’ existing beliefs and assumptions as central to lasting change. Teachers make sense of new learning through the interaction of their beliefs and their practice environment. The pedagogical theories forming the subject of PLD programmes are altered by negotiation between those who manage their implementation and those who apply them to practice. This literature review also indicates that both professional communities and teaching-as-inquiry have the potential to contribute to the implementation and sustainability of new learning from PLD programmes. Chapter Three explained the interpretivist approach that guided this study and the data collection methods. Data was collected through documentary analysis and individual interviews with three teachers and a PLD manager in each of two schools.

Chapter Four set out the findings from the data, arranged in six themes as they emerged from the data. In summary, the findings from the data show that the teaching-as-inquiry model of professional learning was an important tool for teacher learning in the two schools studied. Meanwhile, the content of the whole-school PLD programmes was aligned with the vision for pedagogy described in each school’s charter while off-site individual PLD programmes were generally subject specific. Pedagogical theory was the subject of selection and adaptation at institutional and
individual levels, based on understandings of the implications for practice. Experiences of applying theories to practice informed the selection and adaptation processes. Evidence underpinned PLD programmes. The findings also suggested that programme duration, checkpoints and time resources influenced sustainability, and that professional communities instilled motivation to attempt changes to practice.

The literature on professional learning was included separately in Chapter Two to inform the subsequent literature themes of negotiation, professional communities and complexity. What follows here is a discussion of four issues arising from the findings: negotiation; professional communities; the teaching-as-inquiry model of professional learning; and complexity. Professional learning underpins each issue.

Discussion

Negotiation of meaning

The charter documentation from both schools outlined a clear vision for the desired pedagogy in each school. The visions contained a similar suite of desired pedagogies including cultural responsiveness, restorative practices, the use of digital technologies and student-centered learning. What is clear from the manager and teacher interviews is that these pedagogies had been subject to significant processes of negotiation, including selection and adaptation, as they filtered down to teacher practice. As Penuel et. al (2007) have commented, teachers are more likely to support a particular innovation if it complements the broad vision of pedagogy with which they already identify. Kim explained her school’s selection of PB4L in similar terms:

> With PB4L, it aligned with the school’s beliefs and values around restorative practice, academic counselling, student driven curriculum... that relationships are the core of that stuff, so we are investing time, money, people, hours into that because it aligns with everything else that we are doing. (Kim)
The findings in this study suggest that teachers were less likely to support a new initiative if it competed for their attention among multiple programmes. This is consistent with Garet et. al.’s (2001) conclusion that PLD activities need to be coordinated, and with Mayrowetz’s (2009) conclusion that apparently conflicting pedagogical theories need to be presented as an integrated whole.

Selection and adaptation occurred at the whole school level. Decisions as to which pedagogy to focus on in PLD programmes, and when, were guided by managers’ understandings of the circumstances of the situation into which they would be introduced. There were at least six instances discussed by the PLD managers in this study. For example, at Mountain View, initiating pedagogical change – and what that change might be - was based on the school-wide action research project, which the PLD manager described as “very high levels of transmissive and didactic and traditional teaching” (Terry). The PLD manager used this information to adapt a lesson observation model from the Te Kotahitanga programme that would work in their context. For Valley High School, the PLD manager described how new PLD programmes required the approval of the PD Committee. Another example is PB4L: both schools were creating their own descriptions of what it would mean for their school by taking account of the current situation for staff and students, “to ensure that we get the right fit” (Shelly).

What these examples show is that the managers and staff overtly “… engage with each other’s theories about what constitutes desirable practice and about the beliefs on which that practice is based” (Timperley et. al., 2007, p. 283). These findings align with the advice of Richardson and Placier (1998) to raise negotiation to the group level, and demonstrates that teachers shape reform as much as they are shaped by it (Coburn, 2005).

The findings show that negotiation also occurs with individual practitioners. Teachers in both schools could choose the content of the off-site subject-specific PLD courses, provided it would contribute to practice in some way. Also, the teaching-as-inquiry model for PLD in each school required participants to select their
own inquiry focus. Most of the interviewees stressed that they controlled the inquiry focus. However, this process was still subject to a strong element of negotiation by way of the conversations with the trained facilitators at Mountain View and the reflective coaches at Valley High. The latter school did not have enough reflective coaches to assist all staff but that is their intention for the future, and all staff received guidance during staff meetings about what would constitute a “challenging inquiry” (Valley High School PD Plan 2015). The appraisal process at both schools required that teachers work towards their inquiry goal. The findings show that teachers were encouraged to narrow their inquiry focus for reasons of manageability and that they appreciated the input of the facilitators or coaches.

The creation of the specific inquiry focus for each teacher was a form of sensemaking (Spillane et. al., 2002; Coburn, 2001). Teachers brought their beliefs and assumptions about learning and what was possible in their practice to the inquiry conversations. The literature on PLD recognises that factors such as personal circumstances (Coburn, 2001), work pressures (Robinson & Lai, 2005), career stages (Gu and Day, 2007) and employment history (Goodson et. al., 2006) can influence sensemaking and each of these was cited by teachers as affecting their responses to expectations to change practice. Some teachers commented that they also reflected on their practice, and made sense of new theories, separately to the teaching-as-inquiry process. The lack of input from the managers in such self-regulated learning may inhibit true negotiation (Timperley & Parr, 2006), is unlikely to challenge existing beliefs (Bransford et. al., 2005; Cohen & Ball, 1990) or lasting change for all students (Timperley et. al, 2007).

Professional learning and development programmes for e-learning at both schools helps to illustrate the ubiquity of theory negotiation. The PLD manager and the three teacher interviewees at Mountain View College explained that they wanted to learn about digital technologies because of the school’s decision to introduce BYOD to year nine students this year. The “unplanned digital revolution was upon them”, as Fullan would say (2014, p. 148). This example suggests that teachers have responded to the “constraint” (Robinson & Lai, 2005) of being expected to use e-learning, or the
“filter” (Dudley, 2013) of what teachers understood to be important. Such a response has influenced the selection of digital technologies for their PLD. As teachers have begun to learn about this area, their commitment to it has increased, in the way described by Fullan (2014) as “a social epidemic or positive contagion” (p. 149). By actively applying e-learning in their practice, they have reformulated their understandings of what technology means for their practice, shifting the focus from technical proficiency to learning about how technology can enhance pedagogy. So, changing beliefs has followed enactment, an idea advanced by Clarke and Hollingsworth (2002). Theory altered in this way is an improved theory, which better achieves the intent of the initial policy (Coburn, 2001) drawing on the knowledge of the practitioners (Timperley & Parr, 2006).

Valley High School had yet to introduce BYOD but their preparation was more formalized and, according to their PLD manager, included a discourse between that school’s ICT lead team and the PD Committee. The ICT lead team promoted innovations in technology while the PD Committee evaluated what they meant for practice. Earl and Timperley’s (2015) argue that knowledge is built at the nexus of the two elements.

The findings indicate that the whole-school PLD programmes experienced by the teachers tended to require participants to engage with the theory on a number of occasions over an extended duration. The ongoing opportunities for reflection on the theory and on the effects of its application constitute an iterative cycle. As Mayrowetz (2009) and Windschitl (2002) found in their studies, each iteration drives further adaptation of the theory and how it is implemented. PLD of greater duration may offer opportunities for multiple iterations. The theory-in-action stands alone from the academic theory that inspired it: “It is embedding I think. It is that process of embedding it into everyday so that it stops being PB4L if you like and just becomes the Mountain View Way” (Erica).
Professional communities

The effective teacher profiles from both schools, included in the documentary analysis, described teachers who engaged in communities to improve their practice. The findings on this theme match Wenger et. al.’s (2002) descriptions of communities as numerous, everywhere and fluid. The interviewees identified a wide range of professional groupings to which they or others belonged, including formally constituted teams such as committees, lead teams or professional learning groups associated with teaching as inquiry. They included natural professional groupings such as subject departments, the whole teaching staff and teachers in the wider education sector with a shared subject or management interest between schools. Communities of practice were identified as operating even when there was no continuity of those who contributed to its activities such as those who attend subject-specific seminars. These findings illustrate the literature well (Andrew et. al., 2008; Coburn, 2001; Lave & Wenger, 1991; Wenger, 1999). The aforementioned literature descriptions of communities of practice encompass professional interactions via online social media, which one interviewee specifically identified, provided the participants shared a common enterprise (Wenger, 1999).

Coburn’s (2001) landmark study found that the way colleagues interact in their employment, and with whom, shape how they each make sense of new theories. Collective sensemaking, as Coburn describes it, is an important influence on the effectiveness of PLD programmes. The interviewees described instances of PLD activities conducted in professional groups as contributing positively to their learning. All three levels of the learning processes identified in the BES (Timperley et. al., 2007) surfaced in the findings. The data showed that communities helped teachers to retrieve existing knowledge (the first level of learning process). For example, Vicky said, “I think what it does is either affirm what I'm already doing or remind me that I shouldn't do something so that's immediate impact and that's really strong”. The findings also showed that PLD in groups added to teachers’ existing knowledge (the second level of learning process), especially in relation to increasing proficiency in using digital technologies and adding to their ideas about
application of digital technologies to practice. Such learning occurred even in relatively informal groupings through what three teachers described as ‘osmosis’, reflecting the “myriad of contexts” (Desimone, 2009, p. 181) in which learning occurs. The teacher interviewees accepted that their inclusion in most of the identified communities was a natural phenomena of their professional life. This supports Wenger et. al.’s (2002) valuing of professional communities:

This value is not merely instrumental for their work. It also accrues in the personal satisfaction of knowing colleagues who understand each other’s perspectives and of belonging to an interesting group of people. (p. 5)

The third learning process, creating dissonance with current values and beliefs (Timperley et. al., 2007), did surface in the data but was associated with specific qualities of the professional community in which it occurred. The first quality of effective professional communities was a common goal of improving practice, which according to the literature differentiates PLCs from communities of practice (Bolam et. al, 2006; King, 2002; Vescio, et. al., 2008). Without a goal of “critically interrogating their practice in a … learning-oriented, growth-promoting way … operating as a collective enterprise” (Bolam et. al, 2006, p. 222-3), professional communities may miss opportunities to learn and entrench existing incorrect beliefs about teaching and learning (Little, 1999). Findings from both the teacher and managers interviews suggested that the common goal tended to motivate individual members because the group became a team where the success or failure depended on each other. Notions of teamwork for improving practice appear in the literature as “collective responsibility” (Bolam et. al., 2006, p. 145), collaboration (Vescio et. al., 2008), and most clearly in Timperley’s et. al.’s (2007) dual criteria of effective PLCs: “a hybrid of the older emphasis on community and mutual support and the more recent cognitive orientation towards professional learning” (p. 203) and “a focus on analysing the impact of teaching on student learning” (p. 204).

Another quality of effective professional communities revealed in the findings is sharing. Half of the teachers pointed to how professional communities provided
opportunities to hear about how colleagues had coped with the practical realities of their teaching context. Such experiences add “diverse expertise to contribute to the community’s intellectual resources” (Palincsar et al., 1998). Sharing experiences was an important aim of the action research project at Mountain View College in order to “deprivatise classrooms”, and staff met regularly in groups of six to discuss their progress on their inquiries. At Valley High School, staff shared their inquiry work in “coaching trios”. The experiences shared in the teaching-as-inquiry context may be more meaningful than what is volunteered in less formal professional communities. The teaching-as-inquiry model will be discussed shortly. Although the purpose of the teaching-as-inquiry model is to encourage the individual practitioner to reflect deeply and improve practice, the data from several teachers shows that sharing in a community enables others to learn also:

Engaging in conversations and the reflective dialogue that occurs helps us all reflect on what we are doing and think about the things that we’ve changed have worked. Even talking about stuff that we’ve tried but it hasn’t worked. (Kim)

The findings showed that for all of the teacher interviewees, sharing ideas and experiences was the raison d’etre for PLCs. Collaborating on solutions to problems of practice requires participants “feeling comfortable initiating ideas, listening to one another, and supporting one another’s analyses” (van Es, 2012, p. 190). It is important to note that several PLD programmes described by teachers (literacy, vocational pathways and PB4L) had asked a large group of participants to break into smaller groups to enable colleague-to-colleague interaction to occur.

According to the interview data, PLCs were more effective when they operated under a formal structure and with a facilitator. The findings indicate that group learning was more likely to be effective when it involved completing a sequence of prescribed tasks, when compared with group learning that did not, such as one-shot PLD seminars. The vital element of staged tasks is that they included the formalised recording of experiences for at least one other colleague to scrutinise, and possibly many. It is this prescribed form of sharing that created a sense of accountability to others and motivated individuals to complete each task. Taken together, staged
tasks and facilitation in PLCs are like the rules and the referee in sport. These are the terms of engagement. They enhance the effectiveness of the PLC by creating collective responsibility not just for the shared goal but also the process (Vescio et al., 2008). They make explicit the way the PLC works (Bolam et al., 2005) and establish dialogic norms for mediating competing ideas (Dooner et al., 2008; Grossman, et al., 2001; van Es, 2012). Saxe and Gearhart (2001) point out that the PLC facilitator is often an external expert, which raises issues of the transfer of authority and expertise to the school’s staff once the external facilitator is withdrawn (Coburn, 2003). Both schools in this study acknowledged the need to embed the facilitation skills among its staff to ensure “self-generative reform” (p. 7).

Teachers’ perceptions, revealed in these findings, indicate that duration, continuity and frequency of contact between members influenced the effectiveness of a professional community. These issues are more directly associated with reflective practice and therefore they will be discussed in the teaching-as-inquiry section below.

Perhaps one of the most valuable outcomes of the operation of formalised PLCs identified in these findings is that the social dimension could exploit teachers’ “self-affirmation bias” (Spillane et al., 2002, p. 402) to provoke enactment of changed practice. Teachers seek affirmation that their work is valued by others. Teachers from both schools described how some reluctant or dissenting teachers shifted from inaction to action because they did not want to be identified in the PLC as not contributing. Vicky’s comment is worth repeating:

...there was an expectation that you had something to bring back to the meeting and because we did it so often, if you really weren't doing it, it got quite uncomfortable because the whole group would know that you didn't do anything this week. (Vicky)

The findings suggest that some teachers may have felt fear of having their student data and experiences shared with their colleagues. Richardson and Placier (1998) argue that such emotions need to be managed. These findings show that negative emotions about revealing one’s performance can be outweighed by positive
emotions of wanting to contribute to a progressive team. The definition of being professional in a PLC is as much to do with the contribution to the PLC as it is about classroom practice (Bolam et. al., 2005; Palincsar et. al., 1998).

The teaching-as-inquiry model of professional learning

Both schools had adopted the teaching-as-inquiry model of professional learning as an important part of their PLD programmes. The implementation of the teaching-as-inquiry process appeared to be a higher priority than other PLD initiatives because it was intended to become the main vehicle for bringing about changed practice. The findings indicate a strong commitment by both schools to ensuring the teaching-as-inquiry process is sustainable by embedding facilitation skills among their staff, and linking inquiry goals to appraisal. The interviewees were consistent in their descriptions of the model. Judy’s is typical:

It was probably getting us to interrogate our own practice and work out what is and isn’t working with a small focus and work to change that and if that didn’t change then we would work to change it again so it is using that teaching-as-inquiry model that is in the curriculum whereby you interrogate, you change, you investigate, you change again and you find out what the kids know and what they want and you just keep going, that is what that is. (Judy)

The findings in the programme sustainability section of Chapter Four indicate that the duration and frequency of contact between participants and their facilitators during the teaching-as-inquiry process support deeper reflection and more sustained changed practice. The findings suggest this to be true for most forms of PLD experienced by the teacher interviewees. This is consistent with their view that one-shot PLD seminars were less likely to result in meaningful, sustained change because they were not long enough and did not involve follow-up tasks. The literature on professional learning processes suggests that extended timeframes and frequency of contact are probably necessary to create dissonance (Adey, 2006; Kahle & Kronebusch, 2003; Saxe & Gearhart, 2001; Timperley et. al., 2007; Wayne et. al., 2008). Without dissonance, participants may remain impervious to new ideas due to
over-assimilation and any change is superficial or short-lived (Timperley et. al, 2007; Timperley et. al., 2009).

The aspect of formality emerges from the findings as significantly affecting the extent to which the teaching-as-inquiry process supported sustained improvements to practice. Formality, here, refers to both the specification of structured activities in the form of staged tasks together with the exercise of authority to guide the completion of these tasks. Prescribed staged tasks represented a sequence of prescribed thinking and enactment through which the participants experience learning. Five of the teacher interviewees spoke about the motivating effect of carefully-designed, staged tasks. These were often called ‘checkpoints’ by the interviewees because they would normally involve recording experiences for presentation to others as evidence of staff’s participation in the process. Impending scrutiny by a colleague, especially a manager, was a greater motivator than the appraisal system.

Linked to the idea of formality was leadership. The findings show that leadership was associated with facilitation, or “reflective coaching” as it was called at Valley High School. Facilitators assisted the teachers to carry out the gathering of evidence, deciding on an inquiry focus, taking action and reflection on the outcomes. The findings showed that this kind of formality benefited any PLD programme that involved reflection on practice, including the PB4L programme, a writing pedagogy programme, and a literacy programme, as well as the teaching-as-inquiry process. Equally, teachers lamented the lack of such structured tasks in most one-shot, off-site PLD seminars. The form of leadership influenced formality around completing and recording experiences in the PLD activity.

According to the results of this study, there appeared to be a strong relationship between formalised tasks and facilitation on the one hand, and duration and frequency of contact on the other. The accountability elements generated staff commitment to completion of the staged tasks. This in turn increased the duration of the reflective process and caused teachers to enter into reflective conversations
with the facilitator. The following comment from David brings the two threads together:

If it’s short and, and kind of standalone and doesn’t recur, you know, you’ve done this and we’re going to come into your classroom in six weeks’ time and check that you’re actually doing it and that doesn’t happen, or there’s no carry on, no follow-up, it’s as good as useless. (David)

The interviewees’ descriptions of the elements of the teaching-as-inquiry model closely matched the model’s elements as described in the New Zealand Curriculum, namely the focusing inquiry, the teaching inquiry and the learning inquiry. These elements encourage participants to make changes to practice based on evidence and theory, whether or not they are proven to work, in the unique context of the individual teacher’s practice, and to repeat the cycle of inquiry continually reflecting on what has gone before. This is enactment as a means of discovering what works and what doesn’t, which for many teachers is the catalyst for changing their long-held beliefs and assumptions (Clarke & Hollingsworth, 2002). Kim’s comment was typical:

Engaging in conversations and the reflective dialogue that occurs helps us all reflect on what we are doing and think about whether the things that we’ve changed have worked. Even talking about stuff that we’ve tried but hasn’t worked. (Kim)

Here we can see a merging of the theory of teacher learning with the three attitudes which underpin the teaching-as-inquiry model as explained by Aitken and Sinnema (2008) in their best evidence synthesis for effective pedagogy in social sciences. The three attitudes are open-mindedness, fallibility and persistence. The teaching-as-inquiry model described by the interviewees were reported to generate open-mindedness about new theories to tackle a current problem, an acceptance that their chosen strategy is fallible, and that they reflect on the outcomes, change tack and persist until they will eventually adapt – or negotiate – new theories into a form that works for them and their students. This study supports Sinnema and Aitken’s (2011) contention that the teaching-as-inquiry model bridges the gap between pedagogical theory and what works in the classroom.
The primacy of evidence is implicit in the definition of the teaching-as-inquiry model in the *New Zealand Curriculum* (Ministry of Education, 2007). Both the focusing inquiry and the learning inquiry demand reflections based on evidence of what happened in the lessons. As we would expect from any practitioner inquiry process, the evidence is uniquely tied to the teacher’s own practice and so too is the inquiry focus. Inquiry focuses are “... open-ended questions that emerge from the everyday work of practice informed by larger debates and controversies in the field” (Cochran-Smith, 2009, p. 464). The two schools in this study applied different models for creating the evidence for the teaching-as-inquiry model. At Mountain View, a standardised model of lesson observation had been developed and was used regularly for all teachers. At Valley High School, each teacher developed an observation designed around the inquiry focus.

Although the teacher interviewees described the teaching-as-inquiry process in detail, and some outlined the nature of their 2015 inquiry focus, none of them gave details about the academic literature they had sought in relation to their inquiry. It would seem, therefore, that the concern noted in Sinnema’s (2011) evaluation that teachers had generally not engaged sufficiently with academic research is supported by this study.

These findings, however, do not support Benade’s (2015) criticism of the teaching-as-inquiry model as not supporting social justice principles inherent in teacher inquiry (Sinnema & Aitken, 2011). The documentary evidence from both schools indicated that the inquiry model would lead to equitable outcomes for priority learners. More importantly, the inquiry focus of both teachers who described them revealed a strong equity element. The first, David, was specifically concerned about improving his responsiveness to the cultural diversity in his lessons, and the second, Vicki, sought ways to better accommodate new students in her class who had not yet learned the language conventions of her subject.
Recognising the complexity of professional learning

In an extensive literature review, Opfer and Pedder (2011) propose a new conceptualisation of teacher learning based on complexity theory that “recognizes the overwhelmingly multicausal, multidimensional, and multicorrelational quality of teacher learning and its impact on instructional practices” (p. 394). The findings of this small-scale study are not sufficient to support such a shift in the theory of professional learning and development to complexity theory, but there is much here to paint a complex reality. Many other studies have done the same (Clark & Hollingsworth, 2002; Cohen & Ball, 1990; Desimone, 2009; Guskey, 2000, Timperley & Alton-Lee, 2008).

The teacher interviewees perceive that many factors contribute to sustained improved practice. However, these factors do not spell a guaranteed recipe for success, and the degree to which each ingredient is applied and how they are mixed simply cannot be determined by these findings. Cause and effect relationships are invisible here, in the same way that Opfer and Pedder (2011) state that studies show apparent causes leading to no improvement, and improvement having no apparent causes. In this study, four interviewees recognised that on the one hand teachers could recite sound pedagogy while on the other hand resort to old ways of teaching in the hurly-burly of the day. In the language of Argyris (2010) the espoused theories of these teachers do not match their theories in use. The literature offers explanations as to why the old behaviours surface: they represent spontaneous solutions to the problems presented by the typical teacher’s busy day (Robinson & Lai, 2005). These old behaviours are difficult to shift because they reflect deeply held beliefs and assumptions built up from life history (Coburn, 2001) and professional history (Goodson et. al., 2006), and are dressed in emotions of fear (Darby, 2008) and nostalgia (Goodson et. al., 2006), especially for mid-career professionals (Hargreaves, 2005). Together they form a complete frame of reference (Coburn, 2001). One manager repeatedly referred to this phenomenon as “mindsets”. Surfacing and challenging these beliefs clearly requires more than seminars on the latest pedagogical theory.
Although surfacing teachers’ beliefs and assumptions is the key to deep and lasting change (Coburn, 2001; Goodson et. al, 2006; Timperley et. al., 2007), this study indicates that it need not be the precursor to such change. Dissonance, the third learning process identified by Timperley et. al. (2007), may come from the enactment of changed practice itself (Clarke & Hollingsworth, 2002; Opfer & Pedder, 2011), suggested here in David’s observation:

So then what you do is you realise if those things that you are doing, which you can see you are doing and the kids can see you doing and the observer can see you are doing, are actually having an impact on engagement. (David)

As has been discussed earlier in this chapter, the issue is how to get dissenting teachers to change their practice, at least experimentally. Again, a host of factors described in this study come to bear on an individual’s decision to give it a go, but the extent to which each factor contributes probably varies according to the teacher and the context. What we do know, however, is that according to the interviewees in this study, the chance of dissonance was enhanced by engagement with the teaching-as-inquiry process conducted in PLCs.

The earlier discussion on negotiation of meaning showed how, in both schools and in a variety of contexts, theories were transferred from programme providers to practitioners, and transformed as practitioners made sense of the new theory in relation to their beliefs and the situation in which they practice. The theory competition approach suggested by Timperley and Parr (2006) is a useful model for understanding negotiation but it belies the complexity of the process that actually occurred among the interviewees in this study. How teachers negotiate with their managers is the outward expression of the sensemaking taking place in their zones of enactment (Spillane, 1999). Inside these zones, all of the teachers’ beliefs about learning and the situation are simultaneously bumping against the new theory. Negotiation processes, therefore, may include tools for surfacing and challenging the beliefs that influence how the theory will be applied in practice. The teaching-as-inquiry model described by the interviewees appears to be such a tool. It aligns with
Earl and Timperley’s (2015) new vision for negotiation as “… building knowledge at the nexus between innovation and evaluation” (p. 38). Furthermore, as the findings show, the inquiry is selected by the teacher and so too is the theory that may inform the inquiry. In this sense, the roles of innovator and evaluator begin to merge as Earl and Timperley (2015) described, especially if the inquiry process occurs in PLCs (Benade, 2015; Sinnema, et. al., 2011).

A large part of this discussion has focused on the way the two schools in this study have applied the teaching-as-inquiry model as a tool to improve teacher practice. It is one part of a whole-school, systems-wide approach to professional learning as advocated by Robinson (2011), Timperley (2011) and Fullan (2014), that promotes reflective inquiry opportunities at all levels and in all situations where learning and change is required. Such an environment can promote change in a more general way by promoting Model 2-type behaviour that is “more consensual, more open to change, and provides more opportunity for choice” (Dick & Dalmau, 1999, p. 47) and “generating information in an effort to increase the possibility of critical reflection-in-action” (Cardno, 2012, p. 45). Incentivising Model 2 behaviours is likely to lead eventually to practitioner thinking that is open to change (Dick & Dalmau, 1999), or “inquiry habits of mind” (Timperley, 2011, p. 104).

Conclusions

Research questions

This study has focused on the uncertain relationship between PLD programmes and sustainable application of learning to practice. My express intention was to give voice to the experiences of teachers who participate in PLD programmes. The research questions arose from my own experiences of PLD programmes over my seventeen years as an English teacher in Auckland secondary schools, and are repeated here:
1. What are teachers’ perceptions of the relationship between their experiences of PLD and their tendency to make sustained changes to their practice?

2. What are teachers’ perceptions of the barriers to sustained changes in their practice?

3. What are teachers’ perceptions of the factors that influence sustained changes in their practice?

I now offer answers to the research questions, based on the findings of this study.

The relationship between PLD and sustained application to learning

Teachers acquire new theories from a range of sources, not just from traditional professional development seminars, including broad communities of practice, specific PLCs, and self-selected academic literature. All of these can be included in Timperley et. al’s (2007) definition of professional development. Professional learning, however, is much more than understanding the theory; it involves transforming that theory through processes of negotiation and in relation to the teachers’ beliefs about learning and the situation in which the theory is applied.

My first conclusion, therefore, is that sustained improved teacher practice may be more likely if PLD managers shift their focus from expecting a new pedagogical theory to be applied in lessons, to creating a coherent professional learning environment in which teachers experience authentic learning opportunities (Timperley, 2011). These opportunities enable individual teachers to identify problems in their own practice, to seek relevant academic research to inform possible solutions to the problem, to enact possible solutions, and to reflect on the outcomes. Bringing theory and practice together may be the key to making PLD programmes more effective. It is not enough for PLD seminars to integrate theory with practice. Providing examples in PLD programmes of theories in practice may
serve to illustrate and explain the theory. However, if they do not match the individual teacher’s context or incorporate the beliefs that affect his or her practice, then they are less likely to trigger a lasting change in a teacher’s practice. This study supports practitioner inquiry as an important quality of a professional learning environment. According to the findings in this study, PLD programmes that create the motivation to enact regular experimental changes to practice will benefit from the mutual building of negotiated theory and practice together.

If we consider for a moment the accepted definition of professional development as theory dissemination, it is natural to think of negotiation of theory as a top-down phenomenon of adaptation of a theory as it filters down to teacher practice. This study shows that negotiation is much more complex. The forces that influence negotiation, namely innovation and evaluation (Earl and Timperley, 2015), can be located anywhere in the learning processes of the teacher acting individually or as part of a team.

This study supports the idea that professional communities offer much potential to support teacher learning and improved practice. Not only are most communities of practice the repositories of institutional knowledge, they provide shared understandings of what is right in teaching and teachers often seek professional self-affirmation from these communities. Change what the community regards as right and individuals’ notions of what is right are likely to change also (Lave & Wenger, 1991; Wenger et. al., 2002). The findings suggest that PLCs with a shared goal of interrogating practice, formal structures regarding interactions among their members, and formal structures regarding contribution to the shared goal, may help to surface teachers’ underlying beliefs about what works and what doesn’t and provide a context for reflection on those beliefs.

It is appropriate to build teacher learning processes in the zone of enactment (Spillane, 1999), the battlefield of sensemaking as it were, or “the nexus between innovation and evaluation” (Earl and Timperley, 2015, p. 38):
The nexus is meant to be a place of creative dissonance and intentional interruption of “taken for granted” ideas using evidence; capitalising on a mix of expertise, theories about how the world works and the pragmatics of what is possible in a particular context. It can be messy and ordered, risky and disciplined. (p. 38)

The teaching-as-inquiry model of teacher learning as described by the eight interviewees in this study, conducted with formal interactions between colleagues, matches the description above.

**The barriers to sustained changes in teacher practice**

When the interviewees were asked what stops them applying new theories to their practice, their answers generally did not focus on the way the theory was presented at PLD workshops, teacher-only days, and seminars, whether whole-school on-site or subject-specific off-site. Nor did any of them object to what they were learning. This is noteworthy. Their answers instead were concentrated mainly on how they made sense of what they had learned, that is, within their zones of enactment. The factors listed here are the main inhibitors to sustained application that surfaced in the data.

The qualities of perceived applicability and alignment affected teachers’ buy-in to a PLD initiative. Teachers tended to dismiss a new theory if they thought that it did not apply to their practice. The issue stems from the teachers believing that they don’t have the problem that the theory is purported to resolve. Evidence of the reality of their context or practical examples that the teachers recognise would help. A lack of alignment and coordination between PLD programmes could risk valuable time resources being divided across multiple programmes. Applicability and alignment are particularly relevant in the earlier stages of negotiation of meaning because they affect teachers’ selection of the theory that they choose to apply.

The influence of beliefs, and changing beliefs, on practice is a fact of life in education. The challenge for managers is to create genuine learning opportunities in which teachers reconsider and reconstruct their existing beliefs and assumptions in relation to the core principles of new theory and a deep understanding of their
students’ needs. Teacher beliefs run deep. They are formed over a lifetime of personal and professional experiences. They influence how a teacher responds to new theories about learning and to processes for promoting genuine learning opportunities. The relevant question is, therefore, what factors inhibit teachers experiencing such opportunities.

This study suggests that PLD programmes without staged activities over an extended timeframe are very unlikely to achieve genuine learning opportunities for teachers. Staged activities incorporate theory into practice and seek reflection on the outcomes. Staged activities without the support of accountability measures are often not completed. PLD programmes run wholly by outside providers are less likely to create accountability.

This study points to the primacy of evidence in effective PLD processes. However, the more distant the evidence context from the teacher’s situation, the less likely the evidence is to create dissonance with the individual teacher’s beliefs.

A lack of teacher willingness to share experiences and evidence among colleagues inhibits genuine professional learning. Without a willingness to share, teachers cannot access each others’ experiences regarding similar circumstances and their thoughts on strategies that could offer a solution. Sharing is the primary rationale for PLCs. A lack of willingness to share is associated with a lack of trust.
The factors that influence sustained changes in teacher practice

According to this study, sustained improvement in teacher practice is supported by teachers’ perceptions of PLD content being applicable to their practice and aligning with the school’s vision and other PLD programmes. Ensuring that new PLD content fits the needs of the practitioner and prioritizing the programmes of greater importance are likely to make PLD programmes more effective in relation to the limited time and resources available to run PLD.

Taking the findings as a whole, and inter-relationships between the literature themes, I conclude that PLD programmes may be more effective if they build processes that promote professional learning and improved practice simultaneously and continuously. This is the nature of genuine professional learning and it occurs close to practice (Timperley, 2011; Timperley et. al., 2007). These processes utilise the potential of zones of enactment (Spillane, 1999), where innovation and evaluation meet (Earl & Timperley, 2015), and explicitly enable new theory to be adapted by negotiation. The many factors that promote genuine professional learning are inextricably intertwined.

According to this study, formalised, staged activities will promote genuine professional learning. They can be formalised by requiring records of each step to be provided for scrutiny by colleagues and by being conducted with the assistance of a skilled facilitator. The staging of activities will lengthen duration, increase the frequency of revisiting the theory and practice, and help to ensure that the essential components of genuine professional learning are put in place. Formalised, staged activities go some way to creating the ‘headspace’ for teachers to think about theory and practice specifically. The provision of release time dedicated to the completion of these tasks will help. Staged activities are not performance checklists of practice but checkpoints for completion of an ongoing process of professional learning.

The staged activities could include generating contextualised evidence, learning new theory, enactment of experimental changes to practice, an iterative cycle and
practitioner reflection throughout. Evidence generated from the individual teacher’s context reveals what is working and what isn’t, at any time in the process, and may turn the teacher’s attention to his or her own beliefs and assumptions. Teachers may bring theory into their staged activities by recalling previous PLD seminars, by listening to the advice of colleagues in a range of communities, and by independent reading of the literature. Enacting experimental changes to practice is perhaps the most significant step. For the teacher it is a new way of doing things. The iterative cycle ensures that theory merges with sustained practice and continues to adapt according to new theories and contextual conditions. Deep reflection is promoted by conversations about evidence with skilled facilitators.

This study suggests that staged activities are more likely to achieve their intent if teachers complete them as their contribution to PLCs. Colleagues in communities of practice, especially goal-oriented PLCs, provide accessible sources of new ideas and theory, observations about the reality of practice and an opportunity to collectively make sense of both. Communities of practice have the potential to help teachers ascertain what is considered good practice. PLCs, however, go further: they alter the way in which teachers gain professional self-affirmation, from endorsement by their colleagues of their current practice, to endorsement of their commitment to the processes of genuine professional learning. This shift may be instrumental to creating trust so that dissenting teachers committing themselves to experimenting with new strategies. When members of a PLC engage in evaluation of individual teacher experiences and evidence presented to the group there is the chance that dissenters and early adopters discover shared core values of equitable outcomes for all students.

A further conclusion of this study is that the teaching-as-inquiry model can be adapted when applied in a particular school to increase its effectiveness. The model as described in the *New Zealand Curriculum* (Ministry of Education, 2007) is a technical recount of the iterative cycle of reflective practice, informed by evidence and theory. The teaching-as-inquiry processes described in the research data are sophisticated adaptations of the model to suit each of the two school settings. Each
school has embedded the model within and around other processes that they understood as contributing to professional learning. The development of the teaching-as-inquiry processes in each school is the result of negotiation of the meaning of the model as stated in the curriculum document in relation to other PLD theory and to their context.

Recommendations for practice

The recommendations below may be of interest to educators who have the responsibility of designing and operating PLD programmes, and are based in the findings of this study. They include school senior managers who coordinate PLD in its various forms across the school. Middle managers are included, who have been tasked with conducting a departmental PLC, or appraising the completion of PLD processes among their staff.

I recommend that:

1. PLD processes be designed to promote genuine professional learning opportunities by developing new theory and teacher practice simultaneously and continually. Principles of practitioner inquiry and teacher inquiry should govern these processes.

2. PLD processes be designed to incorporate the following qualities:

   - duration
   - frequency of activity
   - staged activities
   - recorded completion of activities
   - facilitation expertise
   - evidence gathering
   - access to new theory
– experimental enactment of changed practice
– reflection
– cyclical

3. PLD processes be embedded in carefully crafted PLCs based on a shared goal with trained facilitators.

4. Senior leadership provide financial resourcing for teacher-release time and facilitation training.

Limitations

The findings in this study are limited by the small number of interviewees and by the range of documents made available for analysis. The teacher interviewees are volunteers. It is possible that teachers who are less favourable to PLD missions and methods may have been less inclined to volunteer. Teachers who did not volunteer because they felt they were too busy to do so may have provided valuable insights into the effect of their time scarcity on professional learning. It must also be kept in mind that the two PLD managers who were interviewed designed many aspects of the PLD programmes that they were describing. They may not have been so forthcoming about criticising processes that they had promoted. The official school documents that were analysed for this study were selected at the discretion of the respective PLD managers and it cannot be assumed that the documents provide a full representation of documentary communications relating to PLD programmes at each school. This project is conducted in the interpretivist paradigm. My own experiences of seventeen years of secondary education and of professional development programmes may have affected the research process. I approached this topic with the belief that the PLD programmes in which I had participated had been much less effective than they should have been. I was looking for solutions to this problem.
Recommendations for further research

Research into teachers’ perceptions of their PLD experiences has the potential to illuminate how PLD theory is translated into sustained improvements to practice. This small scale study has only scratched the surface. However, a number of aspects within this topic may be worthy of a particular attention. I recommend further research to:

1. Identify the qualities of PLCs that promote teacher sharing, especially among dissenting or reluctant teachers.

2. Better understand how to create evidence that serves an individual teacher’s inquiry and serves the needs of the whole school.

3. Determine to what extent a particular inquiry focus affects change in other areas of the teacher’s practice.

4. Determine the extent to which the teaching-as-inquiry model has served the cause of social equity.

Final Conclusion

This research was inspired by concerns about the sluggish rate at which I and my secondary school colleagues converted new pedagogical theories into long-term changes to practice. This study has helped me to appreciate the relationship between teacher beliefs and teacher practice. Challenging teacher beliefs is the challenge. This research has accordingly focused on the qualities of processes that surface teachers’ beliefs and test them against the evidence of their practice. Processes that precipitate teacher experimentation with evidence-informed changed practice is the key to achieving sustained improvements to practice.
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APPENDIX A – PARTICIPANT INFORMATION SHEETS

Principal’s Information Sheet

Research Project:
Secondary teacher experiences of sustained application of professional development.

Supervisor:
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I invite you to give permission for this study to be conducted in your school. This study is a Masters research project. Please read this participant information sheet in full before deciding whether or not to your school as a setting for the research. If you would like further information regarding any aspect of this project, please contact any of the researchers via the phone numbers or email addresses above.

Who am I?
My name is Martin Wright. I have been a secondary school teacher of English for seventeen years and I am currently employed at Mt Albert Grammar School. For 2015, I am on leave to complete a Master of Educational Leadership and Management degree in the Department of Education at Unitec Institute of Technology, in Auckland. I seek your help in meeting the requirements of research for a thesis course which forms a substantial part of this degree.

What is the purpose of this research?
The aims of my project are:
1. To investigate the relationship between teachers’ experiences of recent professional development and their tendency to sustain the application of learning to practice.
2. To explore teachers’ perceptions of factors that influence sustained application to practice.
3. To explore teachers’ perceptions of the barriers to sustained application.

I will focus on three areas:
• how teachers negotiate the meaning of new theories with the providers of professional development;
• how teachers make sense of what they have learned in relation to their everyday practice; and
• whether professional learning communities support teachers’ sustained application of new learning to their practice.

Data will be gathered from two secondary schools. In each school I will interview three teachers and the manager in charge of professional development programmes. I will also gather and analyse official documents in each school that relate to professional development.
Who benefits from this research?
There is no direct benefit to individual participants who agree to take part in this study. However, the research may lead to a better understanding of how teachers integrate new pedagogical theories into practice, which in turn may influence how professional development programmes are designed.

How would I gather data from your school?
This study will be conducted in two Auckland secondary schools. Provided you consent, I would like to interview four of your staff to gather data relating to the purpose of the research as stated above: three of your teachers and your professional development manager. The initial approach to teachers would be by an email, containing an information sheet, from your personal assistant inviting them to express an interest. The initial approach to the professional development manager would be by yourself. Each interview would be conducted in private and at a time and location that is acceptable to the interviewee. Each interview would last between forty and sixty minutes. I will make an audio recording of each interview. I will transcribe the interviews and each of the participants will have the chance to read the transcription of their interviews and make any changes to them that they think will better represent their answers to the interview questions. The whole process, including the interview, is likely to take less than two and half hours for each participant. Also, if you consent, I will ask your professional development manager to provide the school’s official documents relating to the rationale for, provision and evaluation of professional development programmes in your school. These documents will be analysed for data that may contribute to the study.

Confidentiality and storage of data
None of the participants, yourself or your organisation will be identified in the thesis. Only my supervisors and I will have access to the transcript and data related to this project. The names of the participants will be replaced by a pseudonym in all documents including the transcript and the thesis. The audio recording and the transcript will be stored in password-protected on-line storage or in a locked cabinet and destroyed after six years from the end of the project.

Consenting to participate
If you tell me that you are interested, I will ask you to sign a consent form. By signing and returning the consent form, you are consenting to this study being conducted in your school. Participation in this study is voluntary, and you and your staff are under no obligation to consent. The participants after consenting, can choose to have any information they have provided excluded from the reporting of the data, or withdraw from further participation, at any time up to two weeks after the interview transcript has been finalised. If you withdraw your consent, then the research will be discontinued in your school.

What is the next step?
If you are interested in participating in this project, the next step is to contact me by telephone (09) 8469101, mobile phone 0272 111 508, or email mwright2@xtra.co.nz. It would be great to meet for fifteen minutes so that I can answer any of your questions. I will then provide you with a consent form for you to sign. I do hope that you will allow this study to be conducted in your school and that you will find this project of interest.

Yours sincerely

Martin Wright

UREC REGISTRATION NUMBER: 2015-1030
This study has been approved by the Unitec Research Ethics Committee from 27 June 2015 to 27 June 2016. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
PLD Manager’s Information Sheet

PARTICIPANT INFORMATION SHEET
for potential PLD managers.

Research Project:
Secondary teacher experiences of sustained application of professional development.

Supervisor:
Prof. Carol Cardno, Department of Education, Unitec University of Technology
phone: 09-8154321 ext 8406, email: ccardno@unitec.ac.nz

Associate supervisor:
Lisa Maurice-Takerei, Department of Education, Unitec University of Technology
ph: 09-815 4321 ext 8317, email: lmauricetakerei@unitec.ac.nz

Researcher:
Martin Wright
ph: 09-8469101, mob 0272 111 508, email: mwright2@xtra.co.nz

You are invited to take part in this study, which is a Masters research project. Please read this participant information sheet in full before deciding whether or not to participate in this research. If you would like further information regarding any aspect of this project, please contact any of the researchers via the phone numbers or email addresses above.

Who am I?
My name is Martin Wright. I have been a secondary school teacher of English for seventeen years and I am currently employed at Mt Albert Grammar School. For 2015, I am on leave to complete a Master of Educational Leadership and Management degree in the Department of Education at Unitec Institute of Technology, in Auckland. I seek your help in meeting the requirements of research for a thesis course which forms a substantial part of this degree.

What is the purpose of this research?
The aims of my project are:
1. To investigate the relationship between teachers’ experiences of recent professional development and their tendency to sustain the application of learning to practice.
2. To explore teachers’ perceptions of factors that influence sustained application to practice.
3. To explore teachers’ perceptions of the barriers to sustained application.

I will focus on three areas:
• how teachers negotiate the meaning of new theories with the providers of professional development;
• how teachers make sense of what they have learned in relation to their everyday practice; and
• whether professional learning communities support teachers’ sustained application of new learning to their practice.

Data will be gathered from two secondary schools. In each school I will interview three teachers and the manager in charge of professional development programmes. I will also gather and analyse official documents in each school that relate to professional development.
Who benefits from this research?

There is no direct benefit to individual participants who agree to take part in this study. However, the research may lead to a better understanding of how teachers integrate new pedagogical theories into practice, which in turn may influence how professional development programmes are designed.

How would you be involved in this project?

Provided you consent, I would like to discuss with you, in an interview, your understanding of how your school provides for the professional learning and development of its staff. The interview would be conducted in private and at a time and location that is mutually suitable. The interview would last between forty and sixty minutes. I will make an audio recording of the interview. I will transcribe the interview and you will have the chance to read the transcription and make any changes to it that you think will better represent your answers to the interview questions. The whole process, including the interview, is likely to take less than two and a half hours.

If you consent, I will also seek from you official documents relating to the rationale for, provision and evaluation of professional development programmes in your school. These documents will be analysed for data that may contribute to the study.

Confidentiality and storage of data

Neither the participants (including yourself) nor your organisation will be identified in the thesis. Only my supervisors and I will have access to the transcript and any other documents related to this project. All names will be replaced by a pseudonym in the transcripts and the thesis. The audio recordings, the transcripts and the official documents will be stored in password-protected on-line storage or in a locked cabinet and destroyed after six years from the end of the project.

Consenting to participate

If you tell me that you are interested, I will send you a consent form. By signing and returning the consent form, you are consenting to participate. The principal of your school has already consented to this study being conducted in your school. However, participation in this study is voluntary, and you are under no obligation to consent. If you do consent, you can subsequently choose to have any information you have provided excluded from the reporting of the data, or you may withdraw from further participation, at any time up to two weeks after the interview transcript has been finalised.

What is the next step?

If you are interested in participating in this project, the next step is to contact me by telephone (09) 8469101, mobile phone 0272 111 508, or email mwright2@xtra.co.nz. I will be happy to answer any of your questions. Then I will send you a consent form for you to sign. I do hope that you will agree to take part and that you will find this project of interest.

Yours sincerely

Martin Wright

UREC REGISTRATION NUMBER: 2015-1030

This study has been approved by the Unitec Research Ethics Committee from 27 June 2015 to 27 June 2016. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Teacher’s Information Sheet

PARTICIPANT INFORMATION SHEET
for potential teacher interviewees.

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Who benefits from this research?

There is no direct benefit to individual participants who agree to take part in this study. However, the research may lead to a better understanding of how teachers integrate new pedagogical theories into practice, which in turn may influence how professional development programmes are designed.

How would you be involved in this project?

Provided you consent, I would like to discuss with you, in an interview, your experiences of professional learning and development. The interview would be conducted in private and at a time and location that is mutually suitable. The interview would last between forty and sixty minutes. I will make an audio recording of the interview. I will transcribe the interview and you will have the chance to read the transcription and make any changes to it that you think will better represent your answers to the interview questions. The whole process, including the interview, is likely to take less than two and a half hours.

Confidentiality and storage of data

Neither of the participants (including yourself) nor your organisation will be identified in the thesis. Only my supervisors and I will have access to the transcript and any other documents related to this project. All names will be replaced by a pseudonym in the transcripts and the thesis. The audio recordings, the transcripts and the official documents will be stored in password-protected on-line storage or in a locked cabinet and destroyed after six years from the end of the project.

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APPENDIX B – CONSENT FORMS

Principal’s Consent Form

CONSENT FORM - PRINCIPAL

DATE: ___________________

TO: ___________________

SCHOOL: ___________________

FROM: Martin Wright

RE: Master of Educational Leadership and Management

THESIS TITLE: Secondary teacher experiences of sustained application of professional development.

1. I have been given and have understood an explanation of this research.
2. I have had an opportunity to ask questions and have had them answered.
3. I understand that three members of staff from my organisation will be interviewed for the purposes of providing data on the research topic, but I will not know who.
4. I understand that the school’s professional development manager will also be interviewed for the purposes of providing data on the research topic.
5. I understand that the school’s professional development manager will provide the researcher with official documents relating to the research topic, and that I and the PD manager will retain discretion as to whether any such document is made available.
6. I understand that my name, the names of the participants, and the name of my organisation will not be used in any public reports.
7. I understand that the researcher will ask for copies of documents that relate to the research topic and that the researcher will gather data from these documents.

I agree to this study being conducted in my school.

Signed: ___________________

Name: ___________________

Date: ___________________

UREC REGISTRATION NUMBER: 2015-1030

This study has been approved by the Unitec Research Ethics Committee from 27 June 2015 to 27 June 2016. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
PLD Manager’s Consent Form

CONSENT FORM – PLD MANAGER

DATE: ___________________

TO: ______________________

SCHOOL: ___________________

RE: Master of Educational Leadership and Management

THESIS TITLE: Secondary teacher experiences of sustained application of professional development.

1. I have been given and have understood an explanation of this research.

2. I have had an opportunity to ask questions and have had them answered.

3. I understand that I will be interviewed for the purposes of providing data on the research topic, and that the researcher will make an audio recording of the interview. I also understand that I will be provided with a transcript for checking before data analysis is started.

4. I understand that I will be asked to provide the researcher with official documents relating to the research topic, and that I and the principal will retain discretion as to whether any such document is made available.

5. I understand that neither my name nor the name of my organisation will be used in any public reports.

6. I understand that I may withdraw from the research process. I also understand that I may withdraw any information that has been provided for this project up to two weeks after finalisation of the transcript.

I agree to take part in this project.

Signed: _____________________

Name: _______________________

Date: _______________________

UREC REGISTRATION NUMBER: 2015-1030
This study has been approved by the Unitec Research Ethics Committee from 27 June 2015 to 27 June 2016. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Teacher’s Consent Form

CONSENT FORM - TEACHERS

DATE: ___________________

TO: _____________________________________

SCHOOL: ___________________________________

FROM: Martin Wright

RE: Master of Educational Leadership and Management

THESIS TITLE: Secondary teacher experiences of sustained application of professional development.

1. I have been given and have understood an explanation of this research.

2. I have had an opportunity to ask questions and have had them answered.

3. I understand that I will be interviewed for the purposes of providing data on the research topic, and that the researcher will make an audio recording of the interview. I also understand that I will be provided with a transcript for checking before data analysis is started.

4. I understand that neither my name nor the name of my organisation will be used in any public reports.

5. I understand that I may withdraw from the research process and that I may withdraw any information that has been provided for this project up to two weeks after finalisation of the transcript.

I agree to take part in this project.

Signed: ___________________

Name: ___________________

Date: ___________________

UREC REGISTRATION NUMBER: 2015-1030

This study has been approved by the Unitec Research Ethics Committee from 27 June 2015 to 27 June 2016. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
APPENDIX C - DOCUMENT SCHEDULE

Schedule of Requested Documents

Thesis Title: Secondary Teacher Experiences of Professional Development: A Focus on Sustained Application To Practice

Researcher: Martin Wright

Date: ____________________________

School: ___________________________

Manager of PLD Programmes: ____________________________

In order to gather data for my research project, please supply me with any documents that you believe meet all of the following criteria:

1. Are official documents of your school; and
2. Relate to PLD programmes which were being implemented between the start of 2014 and the present time; and
3. Communicate at least one of:
   a. the school’s policy, strategic or organisational elements relating to the provision of PLD programmes in your school; or
   b. the pedagogical knowledge of PLD programmes; or
   c. the learning opportunities of PLD programmes; or
   d. the effect of PLD programmes; or
   e. the evaluation of PLD programmes.

I give my assurance that:

• Only you and the principal have discretion to determine which documents meet the above criteria and whether to make them available to me.
• The documents that I received will be used for the sole purpose of gathering data on the research topic and will only be accessible to my research supervisor and myself.
• The research report will not include any data from or regarding the documents that would make it possible for readers to identify your school, the authors, or any of the staff.
• Once the research report is written, digital and hardcopies of documents will be stored with other files related to this research in a locked cabinet at Unitec for a period of six years after the report is finished.

Delivery of the documents:

• My preference is to receive a digital copy of the documents, which can be attached to an email and sent to mwright2@xtra.co.nz.
• If you are unable or unwilling to send a digital copy of any of the documents, then I am willing to visit your school and procure a photocopy of such documents.
APPENDIX D – INTERVIEW SCHEDULE

PLD Manager’s Interview Schedule

Interview Schedule – PLD Manager

Research Title: Secondary teacher experiences of sustained application of professional development.

Researcher: Martin Wright

Interviewee: __________________________

Date: __________________________

Time: __________________________

Location: __________________________

1. Describe your school’s vision for your students?
2. What do you think are some of the main challenges to overcome when trying to attain the school’s vision?
3. Please outline the school’s programme for professional learning and development.
4. How does your school select the content of the PLD that your teaching staff participate in?
5. Please outline two of the most important professional development initiatives run in your school since the start of 2014.
   Let’s focus on one of those, the one you described as [ _____ ].
6. What did the programme involve?
7. How has teaching practice changed as a result of this programme?
8. What factors most influence how much teaching staff are able to achieve the long term changes in their teaching practice that is expected by this programme?
   Let’s turn our attention to the other key PLD programme in your school, the one that you referred to as [ _____ ]. [repeat questions 6 to 8]
9. I am interested in how professional learning communities operate in the school. What do you understand a professional learning community to be?
10. How does the school actively encourage PLCs?
11. What factors, if any, do you think are likely to prevent teachers from applying what they have learned in PLD programmes to their practice?
12. If you were able, what changes would you make (if any) to your school’s PLD programmes to overcome some of the barriers to changing practice?
Teacher’s Interview Schedule

Interview Schedule - Teacher

Research Title: Secondary teacher experiences of sustained application of professional development.

Researcher: Martin Wright

Interviewee: ______________________________

Date: __________________

Time: __________________

Location: ________________________________

1. What participation in PLD programmes does your school expect from you?
2. Generally, how effective have these PLD programmes been in improving the way teachers teach?
3. Can you please give a summary of the professional development initiatives you have been involved in since the beginning of 2014?
   One of the programmes you were involved in was [  ].
4. What do you think that programme was trying to achieve?
5. What did the programme involve?
6. What changes do you think the PLD programme was requiring of you? How did that go?
7. For you, what factors most influence how much you are able to achieve long term changes in your teaching practice that is expected by this programme?
   I would like to move onto another programme that you have been involved in, the one about [  ]. [Repeat questions from previous section]
8. Are you involved in any professional learning communities in your school?
9. Can you describe how this PLC works?
10. Does a PLC support change in teachers’ practices? Why? Why not?
11. What supported you to make any sustained changes to your teaching practice as a result of PD?
12. What hindered any change?