

**TEACHERS AS LEARNERS:
PROFESSIONAL LEARNING IN THE
LIVES OF TEACHERS**

Submitted by

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STATEMENT OF AUTHORSHIP AND SOURCES

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All research procedures in the thesis received the approval of the relevant Ethics Committee.

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ABSTRACT

This interpretative study explored the professional learning practices of teachers in a range of Queensland State schools. While teacher learning is regarded as a cornerstone of school reform, our knowledge of the role professional learning plays in changing teacher practice is scant. Therefore, the purpose of this research was to listen to the voices of practitioners in order to better understand the situated worlds of teacher-learners and how to support them and their learning in this time of constant and inescapable change and to answer the question: *What experiences foster teacher learning to enhance the quality of the experience of schooling offered to students?*

The following three research foci guided the study towards answering this important question.

Research Question 1: How do teachers and those who support teacher-learners understand 'professional learning'?

Research Question 2: How and why do teachers engage with professional learning throughout their careers?

Research Question 3: How do schools and school systems support teacher learning?

This study was situated in Queensland and invited participation from 47 government schools (Appendix 1) that were the workplaces of approximately 800 teaching staff. A selection of school administrators and classroom practitioners from sites within this cohort provided in-depth case studies for the research.

The participants inhabited an extensive geographic area so data were gathered using a variety of written, face-to-face and electronic methods. A focus group interview was used to gather contextual information from school administrators about the ways in which teacher learning contributed to the effectiveness of their schools, and 50 teachers completed an open-ended questionnaire about their professional learning experiences. From this cohort, 22 teachers participated in semi-structured

interviews in which practitioners shared with the researcher, the narratives about their experiences as teacher-learners.

The philosophical framework of Constructionism underpinned this research with the understanding that knowledge is socially constructed and multiple views of reality are possible based on individuals' experiences. Learning is viewed as a process of discovering new understandings as the learner interprets their contexts and actions in their environment. Language and culture are our ways of making meaning from our experiences; hence the theoretical perspective of Symbolic Interactionism was employed in this study to understand the meanings participants made of their professional learning journeys.

An Interpretive Educational Case Study approach was used to acknowledge the unique contexts of teacher-learners and to reveal the conditions under which teacher learning might be possible. Together these strategies revealed a comprehensive picture of the learning journeys of the participants and the ways in which their career-long learning contributed to the capacity of their schools to provide quality learning experiences for their students.

The research proposes a new framework through which to appreciate the intricate interconnection between teachers and professional learning across their careers.

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CHAPTER 1

THE RESEARCH DEFINED

1.1 Introduction

Those who teach do so in an increasingly complex contemporary education context. Competing demands are exerted on many levels and such demands have resulted in changes to the very nature of teaching and the work that teachers do. Changing community expectations, waves of educational reform both nationally and internationally and the decentralisation of decision making to school communities have altered the social and political landscapes within which Australia's schools and teachers must now function. In order to better understand how teachers operate within this shifting milieu, the focus of this study was the importance of teacher learning as a career-long endeavour in a rapidly changing society.

1.2 Research Context: A Summary

The impact of global economic and technological change on life in the 21st century has been considerable and has meant that educational policy in Australia has become linked to economic planning. Education as an economic asset has increased in importance over the past two decades (Keating, 2004) as successive Commonwealth and State governments have worked to internationalise the Australian economy. Education currently provides a competitive advantage in a globalised world:

Education was once clearly part of the broad social policy, especially as a means of achieving a more equitable society. Now it is increasingly a subsector of economic policy as well. It is argued that a better educated labour force is likely to be more technologically adaptive, more flexible and more creative in making decisions and deploying resources (Education Queensland, 1990, p. 36).

Indeed, a well-educated workforce capable of lifelong learning is fundamental to the employment and growth that benefits all Australians (Commonwealth of Australia, 2003) because "today knowledge is the most important factor behind society's creation of value and continued welfare" (Lindbald, 2001, p. 2). As a consequence,

“each teacher must now be a professional who clearly meets corporate goals, set elsewhere, manages a range of students well and documents their achievements and problems for public accountability purposes” (Day, Kington, Stotart, & Sammons, 2006, p. 173). For their part, educational authorities are concerned with classroom practices and the ways in which teachers themselves learn in order to prepare students for the globalised workforce (Newmann, Marks, & Gamoran, 1996). In other words, schools can be no more effective than the teachers and administrators who work in them, consequently these are critical times for education in Australia because:

over the next decade, Australia’s teaching force will be replenished as thousands reach retirement. In the same time, high quality teaching standards are being set, and provision is being made for ongoing professional learning for all teachers ... In just 15 years, to 2001, the median age of the teaching population rose from 34 to 43 years, 44 percent being older than 45 years. In the light of this generational change, attracting, recruiting and retaining people to teach will become a to national priority (Skilbeck & Connell, 2003, p. xix).

In order to attract, recruit and retain a skilled teaching workforce, it is necessary to understand the needs of teachers as professionals and as adult learners. Consequently, this study explores the concept of teachers as learners by examining how classroom practitioners engage with learning throughout their professional lives and the factors that motivate such engagement. It points to the ways in which teacher learning might contribute to the capacity of schools to meet the diverse and changing needs of 21st century students and proposes a framework through which to view professional learning that is situated in practice, teacher-centric in design and authentic in nature.

1.3 Research Problem and Purpose

While teacher learning is believed to be the cornerstone of quality teaching (Swennen & Bates, 2010), there is an apparent incongruence between what literature identifies as effective methods of ensuring the quality of practice in the nation’s classrooms and the practise of professional learning in today’s schools. The ongoing professional learning of teachers is regarded as critical to educational reform,

yet report after report depicts the state of teachers’ professional development practice as deficient ... We continue to know relatively little about what

teachers learn from professional development (Fretchling, Sharp, Carey, & Baden-Kierman, 1995) let alone what students learn as a result of changed teaching practice (Supovitz & Poglinco, 2001). ... To create excellent programs of professional development, it is necessary to build an empirical knowledge base that links different forms of professional development to teacher learning (Fishman, Marx, Best, & Tal, 2003, p. 3).

Surprisingly, while vast amounts of human and financial resources are directed towards teachers' professional development each year, there are some significant gaps in our knowledge about the value of professional development:

The journey taken by researchers since the 1960s in search of answers appears, 40 years later, to have only begun casting light on what really matters in affecting students' experiences and outcomes in schooling, namely, teacher quality (Rowe, 2003, p. 15).

As part of that journey, the language used to describe teacher learning has evolved too. Studies about how teachers learn (Beijaard, Korthagen, & Verloop, 2007; Buczynski & Hansen, 2010) often refer to the professional development of classroom practitioners and the distinctions between this concept and contemporary understandings of teachers' professional learning will be explored in detail in Chapter Three.

Scholarly interest has recently focused on teacher learning as the need for an increasingly skilled workforce makes "high-quality educational provision an imperative - especially high-quality teaching" (Ingvarson & Rowe, 2008, p. 5). Not only is it interwoven with the larger social and economic issues of change management, workforce planning and school reform (Commonwealth Department of Education Training & Youth Affairs DETYA, 2001), but the effects of quality teaching on students' educational outcomes have been shown to be greater than students' own demographic characteristics (Darling-Hammond, 2000).

Despite a reliance by educational reformers on teachers as integral agents of reform and renewal (Ball & Cohen, 1999), the linkages between teacher learning and student learning have proven difficult to establish (Loucks-Horsely & Matsumoto, 1999). The professional learning of teachers is presumed to be an important contributor to quality teaching but teacher learning is a comparatively new field of enquiry (Bransford, Brown, & Cocking, 1999) and "relatively little systematic research

has been conducted on the effects of professional development on improvements in teaching” (Garet, Porter, Desimone, Birman, & Yoon, 2001 p. 917). Indeed, a number of past reform initiatives have failed as a consequence of inadequate attention to the quality of teacher learning (Hanushek, 2004).

Such information adds to a compelling case for researchers and policy makers to better understand how teacher learning might be cultivated and supported and this study provides specific data called for by the Queensland Government:

There should be a growing body of locally conducted research, aimed at enhancing teaching and learning, on which to base educational decisions. Such a body of research should be competently conducted and produced, generalisable and relevant to education in contemporary Queensland (Freebody, 2005, p.3).

Teachers concur that ongoing professional learning is an important element of quality teaching (Queensland Board of Teacher Registration, 2004) and Ashby (2009) identifies continuing professional learning as pivotal to ensuring teacher quality. In addition, the role of the principal is critical for engendering and sustaining teacher learning (McLaughlin & Talbert, 2001). Therefore, the perceptions of school administrators as well as teachers were used in this study to examine the dissonance between what research findings suggest and how teachers’ professional learning is enacted. Three specific research questions were employed in an effort to reveal the real-life experiences of teachers as learners.

1.4 Research Questions

The overarching concern that prompted this study was: *What experiences foster teacher learning to enhance the quality of the schooling experience offered to students?* To address this concern, three strands of inquiry were employed to listen to the voices of teacher-learners and understand how to appropriately support them in this time of constant and inescapable change. These three strands became the specific research questions that guided the conduct of the study:

Research Question 1: *How do teachers and those who support teacher-learners understand ‘professional learning’?*

Research Question 2: *How and why do teachers engage with professional learning throughout their careers?*

Research Question 3: *How do schools and school systems support teacher learning?*

Together, these questions provide the scaffold for an examination of the situated lives of teacher-learners. They are nested in the complex network of relationships that describe teacher-learners and engagement with professional learning throughout their careers.

1.5 Research Paradigm and Design

The philosophical assumptions that guided this research were concerned with the nature of the reality experienced by each participant therefore, there was a need to gather contextual information (Guber & Lincoln, 1994) as well as specific data about the professional learning experiences of participants. The nature of teacher learning was investigated through the experiences and perceptions of school administrators and practising classroom teachers. This required the research to be context-sensitive and involved shared participant narratives from specific locations and at particular points in time. Moreover, the researcher became an instrument of data collection and analysis and hence, became a participant in the study itself.

In order to understand the idiosyncratic realities constructed through social interactions as individuals made meaning from their experiences, the epistemology of Constructionism (Kloos, 2008) was employed in this research. Such an epistemology supports the understanding that the teachers in this study constructed personal meanings from their learning encounters as they interpreted their professional learning in the light of the unique personal circumstances within a specific school context. Consequently, the need to understand the socially constructed realities of the participants invited an interpretivist approach where people were seen as the “creators of their world, making sense of their world, not restricted by external laws, creating systems of meanings” (Sarantakos, 1998, p.40).

Within the theoretical perspective of interpretivism, symbolic interactionism provided the specific interpretive lens used to view each participant's perceptions of their learning. For the symbolic interactionist, learning is "an unfolding process in which individuals interpret their environment and act upon it on the basis of that interpretation" (Morrison, 2002, p. 18). This perspective is in accord with this study's exploration of teachers' professional actions as being based on the interpretations of their contexts and their subsequent learning experiences within that context.

An interpretive educational case study approach (Yin, 2009) was used to examine the phenomenon of teacher learning that occurred within unique settings of a range of schools. The approach offers an empirical method of inquiry to investigate contemporary phenomena in real-life contexts (Yin, 1994) and provides the opportunity for the rich description of the individual perceptions of the teachers and school administrators bounded within the five schools used as interpretive educational cases in this study.

Six school administrators and 50 classroom practitioners contributed their knowledge and understandings in a focus group, open-ended questionnaires and semi-structured interviews. Data were gathered through analysis of questionnaire responses and transcripts of the focus group and semi-structured interviews. The latter included a story-line (Gergen, 1988) that enabled the interviewees to graphically represent their learning experiences and to provide their personal interpretation of their data.

Data sets were analysed using Constant Comparative Method (Glaser & Strauss, 1967; Strauss & Corbin, 1994) that allowed for the collection of data and its analysis and interpretation to occur simultaneously and interactively. Data were coded to reveal relationships between the learners, their learning and the contexts within which the learning took place. Propositions about the motivations and practices of teacher-learners began to emerge and, by comparing data from a number of sources, a picture of professional learning in the five case schools was built into themes that underpin the findings of this research.

1.6 Significance of the Study

This research offers a vantage point from which to view the processes at work as teacher-learners engage in the business of learning. It is grounded in the context of Queensland schools and uses the voices of practising teachers and their school administrators to present an authentic snapshot of the lived experiences of *teachers as learners*.

This study is significant for four reasons. First, Australia's current cohort of teachers has been found to be the most experienced and best qualified the nation has produced (McRae, Ainsworth, Groves, Rowland, & Zbar, 2001) yet the nature of schooling and levels of student achievement have changed little in recent decades (Lingard, Mills, & Hayes, 2000). This study examined the processes at work in the lives of 21st century teacher-learners in order to better understand how their learning might contribute to enhancing the quality of professional practice.

Secondly, the impending departure from the nation's schooling systems of many of its most experienced practitioners presents significant and immediate challenges for education policy makers in Australia. Teachers who feel supported in their professionalism and their learning endeavours are more likely to remain committed to their classroom roles (Goodall, Day, Lindsay, Muijs, & Harris, 2005) therefore, a more comprehensive understanding of the effects of professional learning from a practitioner's view point may better position the education community to make informed decisions about how to attract, educate and support experienced teachers.

Thirdly, teachers have indicated that working collaboratively with peers is their preferred mode of continued learning (Queensland Board of Teacher Registration, 2002), but empirical literature suggests that we know little about how teachers learn in collaborative settings (Warren Little, 2002). In fact falling participation rates, particularly of younger teachers, in formal professional associations, indicate the need to know more about the collaborative learning teachers do and the systemic support required to foster and sustain collaborative professional learning.

Finally, the professional learning practices of Australian teachers have been criticised as ineffective (Fishman et al., 2003) and attention is now being paid to whether the current teaching workforce will be capable of responding to the challenges of successfully educating the citizens of the knowledge society. Some think that “reform will require a significant upgrading of the teaching workforce” (Hanushek, 2004, p. 21) and a fundamental component of this upgrading is teacher learning. As a consequence, it is imperative that such learning is better understood in order that schools and school systems can provide relevant structures and support.

Therefore, because of the links between teacher learning and a skilled teaching workforce, this study derives its significance from its exploration of how and why teachers engage in career-long learning. Makers of educational policy need to know not only that teachers are engaging in professional learning, but that such learning contributes to the successful practices of teacher-learners.

1.7 Structure of Thesis

This study was an exploration of the professional learning experiences of teachers and their school administrators. Chapter One of this thesis has been used to define the research problem that justified the study, described the design of the research and explained its significance.

In Chapter Two, the study is situated within the global, national and local contexts that influence teachers’ professional learning and provides a contextual framework that scaffolds the thesis. The purpose of the study is elaborated in this chapter.

In Chapter Three a review of literature relevant to this study is provided. Literature about understandings and nomenclature of adult learning informed the discussion of how the perceptions of professional learning have changed over time and the importance of these in the modern age. Literature about professional learning in education provides an appreciation of the learning from systemic, school and teachers’ personal perspectives. It contributed to the discussion of teachers’

motivation for undertaking professional scholarship and their commitment to learning.

In Chapter Four of the thesis, the design of the study and the methodology of its conduct are detailed. Locating this study within the epistemological frame of Constructionism afforded the opportunity to focus on the ways in which participants constructed meaning from their learning encounters. The theoretical perspective of Interpretivism, and more specifically Symbolic Interactionism, provided an opportunity for the voices of the participants to narrate their stories of adult learning. The data collection methods and the techniques employed to analyse data generated by the study are also addressed in this chapter.

In Chapter Five detailed descriptions of the five interpretative educational cases employed in this research are provided and the participants are introduced. The focus group, open-ended questionnaire and semi-structured interview data are elaborated in this chapter to address the three research questions that guided the study.

In Chapter Six, the findings of this study from across the data sets are presented. Issues drawn from administrators and teachers in the five interpretive educational cases coalesce to reveal the major themes that emerge from the research.

In Chapter Seven of the thesis the theoretical focus on teacher-learners is examined and the study's findings are discussed in the light of scholarly literature.

In Chapter Eight a selection of current models of teacher learning are introduced and their deficiencies in their understanding of the modern teacher-learner are highlighted. A new instrument, the Phase Shift Framework of Teacher Learning, is proposed to assist with understanding of teachers' professional learning behaviours. The Framework was generated from data gathered in this research.

Chapter Nine concludes the thesis with a summary of the conduct of the study, its findings, use of the Phase Shift Framework of Teacher Learning and recommendations for issues of further research.

CHAPTER 2

THE RESEARCH CONTEXT

2.1 Introduction

The contemporary context in which teachers engage in the business of teaching continues to become increasingly complex. As will be discussed in this chapter, global, national and state demands are exerting unique pressures on schools and their teachers in ways not previously experienced. These unique pressures are manifest in growing societal demands for improved quality of teaching and teachers based upon increased professional knowledge about learners and learning. The focus of this study was the importance of teacher learning as a career-long endeavour in a rapidly changing society.

2.2 Global Context: An Emerging Knowledge Society

Lifelong learning is an enabler in achieving enhanced life outcomes, both economic and personal (Billett, 2007). For that reason, the learning adults do throughout their lives has become a focus worldwide. The *World Education Report* produced by UNESCO in 2000 declared:

The right to education is one of the most important rights proclaimed by the Universal Declaration of Human Rights, because education is considered by the Declaration to be not only a right in itself but also a means of promoting peace and respect for human rights and fundamental freedoms generally (p. 7).

Since the 1960s, the notion of the right of each young person to a basic education has developed into a concept of lifelong learning defined as:

a continuous process which stimulates and empowers individuals to acquire all the knowledge, values, skills and understanding they require throughout their lifetimes and to apply them with confidence, creativity and enjoyment to all roles, circumstances and environments (Longworth & Davies cited in Australian National Training Authority, 2000, p. 8).

This definition evolved from a humanistic tradition focused on the individual as a self-directed and self-motivated learner. As well, the right to be able to learn was not only

applied to the young person but to every person. Learning could be ongoing throughout one's life.

Indeed, the world of business had embraced the concept of ongoing learning in the 1930s with John Dewey's (1938) work on experiential learning. Publication of Douglas McGregor's *The Human Side of Enterprise* in 1960 placed adult learning in the business domain and thirty years later, Peter Senge's (1990) seminal work revisioned the corporate landscape. The language of the learning organisation invaded the boardroom and a business was seen as:

a place where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together (Senge, 1993, p. 484).

In times of rapid change, only organisations that were flexible and adaptive would prosper and that organisations learn only through individuals who learn. Individual learning does not guarantee organisational learning but without it, little organisational learning occurs. Senge's work (1990) highlighted the crucial role played by networks, communities of practice, and learning collaboratives in the development and transfer of knowledge in a learning organisation. An important ingredient of organisational learning is the way in which members of an organisation learn together through their work. Each worker influences the learning of other members of the team and is, in turn, influenced by their co-workers thereby improving the organisation's competitive advantage.

A subtle shift from a focus on the physical capital of a contemporary organisation towards managing knowledge and learning as a key strategic priority is identifiable (Bartlett & Goshal, 1993). Organisations are conceptualized as social communities that specialise in the creation and transfer of knowledge. This new paradigm of competitiveness emphasises a resource-based view of organisations, and human competencies are seen as a vital resource (Garavan, Morely, Gunningle, & Collins, 2001). The knowledge possessed by individuals within an organisation only becomes useful to the extent that it influences organisational actions, and the transformation of knowledge into corporate actions is now acknowledged as at least as important as the accumulation of knowledge itself (Pfeffer & Sutton, 1999). The

explicit and tacit knowledge that employees offer the workplace, their human capital, offers organisations and nations a competitive edge (Kogal & Zander, 1999). Hence, in order to maintain their competitive advantage, today's organisations recognise the need to be continually enhancing their employees' knowledge through ongoing work-related strategic learning.

2.2.1 The knowledge society and schools.

Schools have encountered many of the same conditions and challenges experienced by the business sector. This has largely been due to governments' belief that, for public education to address the challenges of preparing students for the anticipated demanding and competitive futures, schools need to be subjected to the disciplines of the marketplace (Geijsel, Sleegers, Leithwood, & Jantzi, 2003). Consequently, the role of schools and schooling in our society has undergone a paradigm shift from social justice providers to providing workers for the knowledge society. Education is now seen as a commodity (Monahan, 2004) and schools are understood to be in the business of learning and the construction of environments that enable the learning of core knowledge, skills and attitudes (Tschannen-Moran, Uline, Woolfolk Hoy, & Mackley, 2000). To this end, teacher knowledge, as human capital in the classroom, is a critical factor influencing student achievement (King & Newmann, 2001) and is presumed to play a crucial role in the learning process. Consequently, the continued development of teachers' knowledge and skills has become a major focus in the drive to improve student achievement.

This drive towards the "commodification of education" (Monahan, 2004, p. 287) caused changes in the ways in which schools are run. Effective school leaders in the 21st Century often converse in the language of management and marketing as well as that of education:

School principals are now having to be "multilingual", operating within multiple and competing discourses such as managerialism, entrepreneurialism, emergent professionalisms, diverse community politics, technologies of accountability and testing (Gewirtz, Ball & Bowe, 1995 cited in Hayes, Christie, Mills, & Lingard, 2004, p. 532).

Just as schools have adopted the language of the business world to describe their roles and organisation, they have also incorporated this language into their

understanding of learning. Learning is measured in outcomes, communities are viewed as stakeholders, teachers are education's human resources and principals manage not only school budgets but the achievement of learning outcomes.

The view that knowledge, as capital, is valuable when those who generate it are the ones to share it, explain it to their colleagues and watch as others implement that knowledge (Garavan et al., 2001), is forcing educational reformers to rethink the nature and value of ongoing teacher knowledge development. Individual teacher learning is assumed to be central to the enhancement of student achievement, thereby encouraging a culture of lifelong learning in the teaching workforce is a major plank of policy makers' planning.

However, the very structure of schools presents some barriers to the implementation of Senge's (1990) ideas about organisational learning. Often, teachers work and learn alone without the collaboration of professional colleagues, their co-workers, making sharing and collegial problem-solving difficult tasks. Thus, the commonly understood corporate model of professional learning becomes problematic in the educational context. In education, professional learning in its current state is poorly conceived and deeply flawed. Teachers lack time and opportunities to view each other's classrooms, learn from mentors and work collaboratively. The support and training they receive is episodic, myopic and often meaningless (Darling-Hammond, Chung Wei, Andree, Richardson, & Orphanos, 2009).

2.2.2 The knowledge society and classrooms.

The work that teachers do is situated not only within the social and political contexts of the times but also within the pedagogical context of our knowledge of learners and learning. Teachers' work has been redefined in a shift away from the concept of teachers as the transmitters of knowledge towards a new vision of teachers as "learning entrepreneurs, managers of producers" (Ministerial Advisory Committee for Educational Renewal, 2004). A major impact on teachers' work has been brought to bear by the changing needs of students themselves. The pedagogies necessary to meet the needs of students vary from those of earlier times. The role of the teacher

has been influenced by a movement away from coherence pedagogies “based on the conception that interaction between educators and learners is a self-managed and relatively autonomous system” (Andriekienė, 2009, p. 15) and towards the pedagogies of complexity. These pedagogies assume that humans come to make sense of and interact with an ever-changing world using dynamic and emergent processes (Kuhn, 2008). The latter perspective presents a constructionist point of view whereby learning is constructed within multifarious and changing environments in which the learner acts, reacts, and interacts. Thus, while the work of twenty-first century teachers is increasingly outcomes-oriented and data driven, their roles are imbued with a new complexity because of a focus on global as well as national, state and individual needs in education.

However, while much of the social and political milieu of current day education has undergone transformation, there has been only minimal improvement in student achievement (Rowe, 2003). Thus, for education to be the powerful driver of social and economic development that governments and communities demand, professional learning by teachers is an essential ingredient in the provision of quality schooling (Keating, 2004).

In addition to new expectations placed on schools, educational reforms and moves towards the marketisation and self-management of schools mean that understandings of teachers’ professional identity and the role of teacher learning are being challenged. There are a number of paradoxes about the nature of teaching. Firstly there is:

evidence that teachers are being deskilled and their work is being intensified. The second is that, while it is acknowledged that rethinking classroom practice is exceptionally demanding, fewer resources are being allocated to teacher learning. Third, the teaching professional is being exhorted to be autonomous while at the same time it is under increasing surveillance by politicians and the community to be more accountable through standards regimes and rituals of verification (Sachs, 2003, p. 123).

So, with conceptions of teaching and teachers in flux, it is important to listen to the voices of classroom practitioners and school administrators so that a deeper understanding of what teachers value in the professional learning experience is generated.

2.3 National Context

In Australia, renewed political attention is being paid to education, training and adult learning in an attempt to market lifelong learning to the broader community (Ministerial Advisory Committee for Educational Renewal, 2004). The impact of global economic and technological change on life in the twenty-first century has been significant and educational policy in Australia has become intrinsically linked to economic planning (Keating, 2004). Despite predictions to the contrary, education as an economic asset has increased in importance over the past two decades (Keating, 2004). Successive Commonwealth and State governments have worked to internationalise our economy, and education is now largely seen in human capital terms (Gilead, 2009) providing a competitive advantage in a globalised economy.

State education in Australia has moved much strategic decision-making closer to school communities. This has been done in the belief that local challenges are best met by local solutions. Moves towards decentralised decision-making and school-based management have carried with them the expectation that students' learning outcomes would be improved but, similarly to the global experience, research in Australia shows that there has been little effect on the achievement of students in this country (Lingard et al., 2000).

Most of the restructuring moves in education Australia-wide have been motivated by expectations of better student outcomes but few have paid attention to the pivotal role teachers play in improving academic outcomes and equality of access to educational opportunities (Doecke, Parr, & North, 2008). Teachers have not participated in restructuring efforts despite their intimate responsibilities in the reform process:

Restructuring to this point has been done to teachers rather than with them; they have been the objects rather than the subjects of educational policy (Lingard et al., 2000, p. 100).

After reviewing school-based management reforms in five countries, including Australia, Whitty, Power and Halpin (1998) reflected that education policies might in fact exacerbate the inequities of access to and equity in education in the nation. Indeed there is little evidence of any direct cause and effect between self-

management and improved student achievement (Caldwell, 1998). Reform and restructuring efforts nationwide have met with limited success and “the relationship between changes in formal structure and changes in teaching practice is necessarily weak, problematic and indirect” (Elmore, Peterson, & McCarthy, 1996, p. 237) and reinforces the notion that “the paradoxes and irony of school reforms are many” (Dalin, 1998, p. 1060).

Concerns have also included changing classroom practices and the ways in which teachers themselves learn in order to improve student outcomes:

Teachers and their practices are central to achieving socially just outcomes. The good news is that high-quality teaching can improve outcomes for all students. The bad news is that the highest quality teaching is not commonplace (Lingard et al., 2000, p. 110).

In times of change, schools can be no more effective than the teachers and administrators who work in them and “investment by the Federal Government in teacher quality ... has as the main aims, the updating and enhancement of teachers’ skill and knowledge and improving the status of teaching” (Skilbeck & Connell, 2003, p. 38). The quality of teachers’ understandings about effective pedagogical practices and the needs of their students are vital to educational reform, however large-scale change seriously erodes employees’ commitment to an organisation at the very time that even greater commitment and performance is demanded (Senge, 2000). Successive national governments have exerted growing demands on schools and their teachers in the key areas of curriculum and assessment. In doing so, the working and hence the learning environments of teachers has been imbued with many changes that have gathered pace over time. These circumstances mean that teachers in the midst of large-scale reform initiatives have been asked to exert extra effort in the classroom while additional time and energy is simultaneously expected to manage change at the whole-school level. In these critical times, the learning that teachers do and the learning that they facilitate for their students are in the spotlight:

Teacher training is lifelong learning. There is an expectation of knowledge workers that people who do such work have high levels of formal education and regularly upgrade their stock of complex knowledge on a voluntary basis and are paid well (Australian National Training Authority, 2000, p. 15).

Change “cannot be effected from outside a person” (Korthagen, 2004, p. 101) and “public theory can only influence educational practice if it is translated through the personal” (Kubler LaBoskey, 2006, p. 119) therefore, as a society and as an economy, it is essential that we listen to the voices of teachers that:

need to be examined and questioned; they must be analysed in terms of the broader time and place in which they are situated (Kubler LaBoskey, 2006, p. 119).

This study offers a platform for such an examination of the professional learning practises of teachers as it allows classroom practitioners and school principals to narrate their stories.

2.3.1 Requirements for teacher learning in Australia.

Teacher learning is no longer an optional activity in Australia. A draft set of standards for teachers is currently being developed nationally to describe what teachers should know and be able to do. These standards attempt to make explicit the knowledge, skills and dispositions required of teachers in Australia and note that “teacher quality is linked to continual professional learning and its application to teaching practice” (AEEYSOC National Standards Expert Working Group, 2010, p. 3) as teacher-learners engage individually and collegially in learning that enhances their professional knowledge and practice.

Only recently has documented professional learning become a pre-requisite for retaining teacher registration in Australia. For example, Victorian teachers are required to prepare annual Professional Development Plans and to engage in “up to 100 hours of recognised professional development activity over 5 years” (Victorian Institute of Teachers, 2008, p.1). That State’s registering body believes that “when teachers identify the activities that contribute most to their professional learning, they are articulating where their professional knowledge and practice has been supported or enhanced” (Victorian Institute of Teachers, 2008, p. 2). The professional learning activities recognised for teacher registration in Victoria include a wide range of formal and informal activities that teachers undertake such as “courses that lead to formal qualifications, activities sourced from PD providers, professional reading, professional meetings and school- or work-based PD activities” (Victorian Institute of

Teachers, 2008, p. 3). Accredited activities are expected to contribute not only to professional practice and knowledge, but also to teachers' well being.

Likewise, teachers in New South Wales [NSW] are required to complete fifty hours of "professional development and fifty hours of teacher identified professional development or undertake undergraduate studies or undertake postgraduate studies" (New South Wales Institute of Teachers, 2009, p. 8). Teacher identified activities may include conferences, workshops, forums, courses, observing colleagues' classes, in-house training, research, delivery of professional development, preparation of articles published in professional journals and working with industry. In NSW, teachers are advised that:

professional development strengthens your knowledge base and supports your commitment to effective teaching and learning. It allows you to build and refresh your skills and to participate actively in your career development. You should have access to, and engage in, high quality professional development for the whole of your teaching career (New South Wales Institute of Teachers, 2009, p.1).

West Australian teachers are advised that professional learning is at the centre of teacher professionalism and the West Australian College of Teaching recognises:

the centrality of professional learning to building status and fulfilling a professional commitment to improving student outcomes. As professionals, teachers need to update their skills and knowledge continuously, not only in response to a changing world, but in response to new research and emerging knowledge about teaching and learning. There is a growing recognition that highly skilled and knowledgeable teachers have the greatest impact on student achievement (West Australian College of Teaching, 2009, p.1).

Western Australia is the only national jurisdiction to make the formal distinction between professional learning and professional development:

Teacher professional learning is an ongoing process supported by planned learning activities and programs designed to enhance professional knowledge, practice and engagement. Professional development refers to what teachers do and experience that provide the opportunities to enhance professional knowledge, practice and engagement. Professional learning describes the professional growth in knowledge, skills and attitudes that come from being engaged in professional development activities, processes and experiences.

Teachers and other educators often use the terms "professional learning" and "professional development" interchangeably. The College uses the term "professional learning" to reflect more accurately that it is not just the knowledge gained in a professional development session that makes the most

difference to professional practice, but how this knowledge is applied (West Australian College of Teaching, 2009, p.3).

In South Australia and the Northern Territory, teachers currently have no requirements for prescribed professional learning in order to retain their professional registration. Furthermore, in the Northern Territory, teachers need only satisfy their Teacher Registration Board that they are a fit and proper person who holds suitable “educational qualifications, is competent to teach (including having a good command of the English language), is of good character as determined by the Board; and is not disqualified, in the Territory or elsewhere, from registration as a teacher (Teachers Registration Board of the Northern Territory, 2010, p. 1).

Similarly, for teachers seeking to maintain their registration in Tasmania, the Teachers’ Registration Board in that state requires that teachers “have appropriate qualifications, can communicate in the English language at a professional level and are of ‘good character’ as independently determined by the Board” (Teachers Registration Board of Tasmania, 2010, p.1). It does not require documented professional development to be undertaken.

In summary, most Australian education authorities have articulated the importance of teacher learning to improve the quality of teachers’ pedagogical practice. When teacher-learners engage in professionally learning both individually and collectively they “support the learning and wellbeing of students and colleagues by contributing to the school, wider school community and the profession” (AEEYSOC National Standards Expert Working Group, 2010, p. 3).

2.4 Queensland Context

As in other Australian states and territories, Queensland’s teacher registration body, the Queensland College of Teachers, has recently recognised the “importance of ... continuing professional development” (Queensland College of Teachers, 2010, p. 4) in their updated registration policy that requires teachers to record evidence of their professional learning. The following list of activities of continuing profession development is provided for Queensland teachers:

active contribution to education system initiatives, pilots, trials and projects; courses, workshops (including school-based), conferences, vacation schools or online courses relevant to teaching context; syllabus, curriculum and assessment professional development; training for and development from participation in national and state test marking; teacher consistency of judgement procedures; formal presentations to colleagues on classroom practices, research findings or contemporary issues in education; leading school-based curriculum and/or policy development; preparation for and development through providing collegial professional support for preservice or beginning teachers as part of supervising/mentoring role; educational research/action research projects; active involvement in approved overseas teacher exchange, encompassing pre-preparation, on-site professional development and subsequent reporting; professional reading linked to activities such as research, preparation of articles, presentations to colleagues and professional practice; formal study leading to a qualification in education or field related to teaching area (Queensland College of Teachers, 2010, p. 2).

There is an expectation that “through engagement with a variety of professional development opportunities, teachers have the opportunity to enhance their practice, support student learning and ensure high educational standards” (Queensland College of Teachers, 2009, p. 1).

In examining the context of this Queensland-based study, a number of political decisions have impacted significantly on education in the State. Moves toward school-based management of State schools have had a profound effect on the organisation of schools and on the learning of its teachers. These moves reach back to the 1980s with reports such as *Focus on Schools* (Education Queensland, 1990), *Leading Schools* (Education Queensland, 1997) and *Future Directions for School-based Management* (Education Queensland, 1998) that gave way to the more pragmatically titled *Education and Training Reforms for the Future* (Lingard, Hayes, & Mills, 2002). Following is a summary of these initiatives and the pressures they have exerted for change in State schools.

Focus on Schools (Education Queensland, 1990) openly fostered a managerial approach to State education. It was hoped that the changes it proposed would promote the participation of a wide range of stakeholders in education, increase the community understands of educational issues and improve employees' satisfaction

with their roles in the organisation. What it did was highlight the tensions for schools of being both autonomous and accountable.

Leading Schools (Education Queensland, 1997) emphasised an increased focus on student outcomes. It brought with it a holistic transformation of the Queensland Department of Education and overtly used school principals in the role of change agents. This reform was met with serious opposition from the Queensland Teachers' Union and resulted in industrial action throughout the State. The incoming Labor Government dismantled the Leading Schools program soon after taking office in 1998.

Future Directions for School-based Management (Education Queensland, 1998) made recommendations that focused on student outcomes while opting for a flexible model of school governance. It identified the responsibilities of the Department and individual schools, with an insistence that schools operate within Education Queensland's strategic framework. It also increased the accountability aspects of the work of schools in relation to systemic and community reporting structures.

A major rationale for the introduction of school-based management in Queensland government schools was the belief that local decision-making could meet systemic needs with local solutions and lead to improved student outcomes. There is little research to support this link (MacDonald, 1991) thus, as is the case elsewhere in Australian and internationally, the emphasis has turned to improvements in the quality of teachers and their teaching as ways to improve student achievement (Ingvarson & Rowe, 2008).

2.5 Purpose of the Research

What this review of the context has shown is that much is expected of the professional learning teachers undertake but little is known about how such learning occurs or how best to foster and sustain it. Due to "new demands placed upon schools and teachers in our current learning society, experienced teachers are expected to learn continuously ... Against this background, the question of how experienced teachers learn is highly relevant" (Beijaard et al., 2007, p. 107).

However, while the current context of the teacher-learner is one of heightened expectation that they can and will bring about change, approaches to professional learning found in the corporate world become problematic in the field of education (Senge, 2000). The very structure of schools means that teachers find it difficult to collaboratively solve professional problems. Consequently, the purpose of the research was to listen to the voices of practitioners in order to better understand the situated worlds of teacher-learners and how to support them and their learning in this time of constant and inescapable change.

Scholarly interest (Metz, 2008) has focused on teacher learning because of its interconnections with the larger social and economic issues of change management, workforce planning and school reform (Commonwealth Department of Education Training & Youth Affairs DETYA, 2001). Quality education is an important factor in preparing future citizens of a knowledge economy (Ashby, 2009) and the need for an increasingly skilled workforce makes “high-quality educational provision an imperative - especially high-quality teaching” (Ingvarson & Rowe, 2008, p. 5). This is of consequence to the study because it is teachers who are most intimately involved in executing educational initiatives in the 21st century and their continued learning is integral to reform.

Globally, nationally and state-wide, communities place great trust in the ability of teachers and their teaching to enhance the lives of students and to benefit the society as a whole. Hence, makers of educational policy need to know not only that teachers are participating in continuing professional learning, but that such learning is effective in developing the quality of classroom practice throughout a teaching career and this study adds to this empirical knowledge base about *teachers as learners*.

CHAPTER 3

LITERATURE REVIEW

3.1 Introduction

Teacher learning is understood to be a cornerstone of school reform and renewal (Hirsh, 2009) and is acknowledged as a valuable social investment in times of rapid change (Ingvarson & Rowe, 2008). However, as has been demonstrated, little is known about how teacher-learners develop and assimilate new understandings and skills into their repertoires (Fishman et al., 2003) and an apparent dissonance exists between what literature identifies as effective modes of skilling Australia's teachers and the lived experiences of many classroom practitioners. Thus, this review of scholarly literature focuses on aspects of professional learning pertinent to teachers' work lives. The review explores current perceptions of professional learning in the community generally and in educational circles in particular, and how such conceptualisations influence the behaviours of teacher-learners. It investigates how personal dimensions contribute to the ways in which teachers access professional learning and considers, in turn, how professional learning contributes to the capacity of schools to meet the diverse needs of their students. In presenting this review of research literature, it is acknowledged that the strands of literature reviewed create a complex web of interconnections. The elements come from varying ideological frames of reference that constitute differing and, in some cases, competing beliefs and priorities. Together the strands of literature presented provide an holistic view of the current issues in the field.

The literature review is organised into two sections, the first is an examination of learning generally and its conceptualisations and history. An appreciation of this broader view contributes important perspectives to the discussion of how adults acquire and develop new knowledge and understanding and how professional learning is understood across professions. The second section of the review focuses specifically on how professional learning is conceptualised within the field of education. It examines the learning that teachers do throughout their careers as

individuals and in communities. The literature has relevance to each section of the study and provides the major themes for the analysis of data.

3.2 Early Ideas of Professional Learning

Historically, theories about learning reach as far back as Darwinism when it was postulated that there was a relationship between learning and the environment (Malone, 1990). The publication of *Adult Learning* in 1928 (Thorndike, Bregman, Tilton, & Woodyard) brought ideas of intelligence, memory and learning to the forefront of psychological research. Since the 1950s, educational psychologists have been curious about aspects of problem solving and cognitive development and the second half of the twentieth century saw the rise of the theories of andragogy (Knowles, 1968) and self-directed learning (Tough, 1967). These were the first attempts to define adult learning as a unique field, separate and different from the learning of children.

Andragogy was underpinned by assumptions that the learner was mature and brought rich life experiences to formal learning. Adult learners possess “a repository of information, consisting of direct experimentation and realities” (Ahedo, 2009, p. 67) that they bring to the learning and are focused on a goal that is related to the practical application of the learning. Learning was assumed to be problem-centred and linked to changes in social roles (Malone, 1990) which created significant motivation for the adult learner. Self-directed learning embodied the idea of everyday learning that, while organised, did not rely on an instructor. It’s self-directed nature motivated the learner and fostered transformational learning (Brookfield, 1986) through critical reflection (Mezirow & Associates, 2000) that promoted emancipatory learning and social action (Cranton, 1994). The theory of self-directed learning formed the basis for much of the work in the field of adult learning and today “remains a viable arena for theory building related to adult learning” (Merriam, 2001, p. 11).

Theories of adult learning now focus on the interactions between the learner and the contexts within which the learning takes place (Ahedo, 2009). This view of the adult learner takes “a holistic view of learning as involving the whole person within his or

her sociocultural community” (Webster-Wright, 2009, p. 706) and highlights the evolving nature of an understanding about how adults learn through work.

3.3 Organisational Benefits of Professional Learning

While learning is an individual activity, the learning by many individuals benefits the whole. Network learning is more than the sum of the parts; it is a synthesis (Kekale & Viitala, 2003). Individual learning is a necessary first step, but it is not sufficient to achieve organisational learning (Argyris & Schon, 1978). A linchpin for turning individual learning into organisational learning is the dissemination of knowledge between individuals that entails the sharing of knowledge, skills and insights in a collaborative exchange of differing perspectives and understandings (Shaw & Perkins, 1992). When employees view knowledge as a public good belonging to the whole organisation, knowledge flows easily (Ardichvili, Page, & Wentling, 2003). By establishing conditions for individual workers to learn and to share their learning within the organisation, the value of the organisation’s human capital is substantially increased.

Traditionally, professional learning, whether individual or communal, was underpinned by “a common concern with continuity of practice” (Billett, 2007, p. 56). However, research now indicates that the development of links between workplace learning and change, rather than continuity, is critical to corporate success (Sefton, Waterhouse, & Cooney, 2009). Unfortunately the result of linking workplace learning to change, particularly in times of rapid change, has been an emphasis on “the obsolescence of present knowledge ... [reinforcing] the view of learning as ‘filling up’ a reservoir of knowledge in a professional’s mind that will run dry if left too long” (Webster-Wright, 2009, p. 712).

3.4 Nomenclature of Professional Learning

As well as the many ways of thinking about professional learning, numbers of widely used terms are associated with this complex concept. While many of the meanings overlap and intersect, each has emerged from a specific set of circumstances and perspectives. The nomenclature used to describe the learning adults do during their

careers may be used interchangeably, but each term connotes a slightly different idea about how adults develop their professional skills and understandings over the passage of a career. Training and development, in-service education, professional development, continuing education, lifelong learning, and professional learning are all terms for the learning that adults undertake in their professional lives (McRae et al., 2001). The language used to describe professional learning is important however, “the same words spoken by different people can mean different things” (Doecke et al., 2008, p. 9). There is little consensus about how professional learning should be defined or understood “and there is no agreement about an overarching definition for all the professional learning practices encompassed by these various words” (Doecke et al., 2008, p. 18).

Although there is a range of terms currently used for professional learning, recently the language used to denote the career-oriented learning of Australian teachers has subtly altered. This alteration reflects a growing, though still incomplete understanding of the processes at work for teacher-learners in schools. The large-scale review of teacher learning in Australia, the *National Mapping of Teacher Professional Learning Project* notes that:

the differences between present-day understandings of professional learning are partly captured by changes in language. Although one state (Queensland) has actually reverted to the term, ‘professional development’, in order to name the professional learning activities in which teachers engage, the preference in other states appears to be to use the term ‘professional learning’. The latter connotes individual autonomy and motivation, an image of professionals consciously monitoring their professional practice, learning from their work, and arriving at new understandings or knowledge on that basis. Such learning is typically situated learning, reflecting the professional experiences and insights that become available to teachers within their local school communities. The former term, ‘professional development’, is usually taken to mean activities done at the behest of employers or systems, involving knowledge that is delivered by outside experts (Doecke et al., 2008, p. 9).

Semantic difficulties also confound attempts to compare the quality and effectiveness of professional learning initiatives because of the multitude of meanings and expectations placed on such learning. Nevertheless, as twenty-first century professionals, teachers find it increasingly necessary to update their skills and knowledge in order to remain competent and to progress their careers, so it is necessary to find out how teachers view professional learning and what meanings

they ascribe to the various terms employed to denote it. Consequently, the first research question that focussed this study became:

How do teachers and those who support teacher-learners understand 'professional learning'?

Data to address this question will be gathered from the principals' focus group and from the experiences of teacher-learners in the five case schools.

In order to better understand how professional learning is conceptualised, a number of models of learning will be discussed in the following section.

3.5 Models of Professional Learning

Models of effective professional learning possess some common characteristics. They focus on teachers as proactive participants in the learning and they display some cognisance of the school contexts in which their learning will be applied. They view learners as active participants in the learning and strategically link learning processes to enhancing the professionalism of teachers (McRae, et al., 2001, p. 129).

Models are useful tools for research because they assist in identifying important concepts and significant issues and relationships. The process of model building requires isolating core categories, issues and problems and looking for patterns of relationships between the elements (Zuber-Skerritt 1995). However, models of professional learning are most often lists of strategies and "there are no published models for the making of systems-level professional development policy" (Luke & McArdle, 2009, p. 231).

The selection of models that follow, while by no means exhaustive, are included in this discussion because they have contributed understandings that have shaped the thinking about how adults learn throughout their careers. They have also contributed to the design of this study as a reflective learning experience for participants and the development of a new framework for teacher learning presented in Chapter 8. This

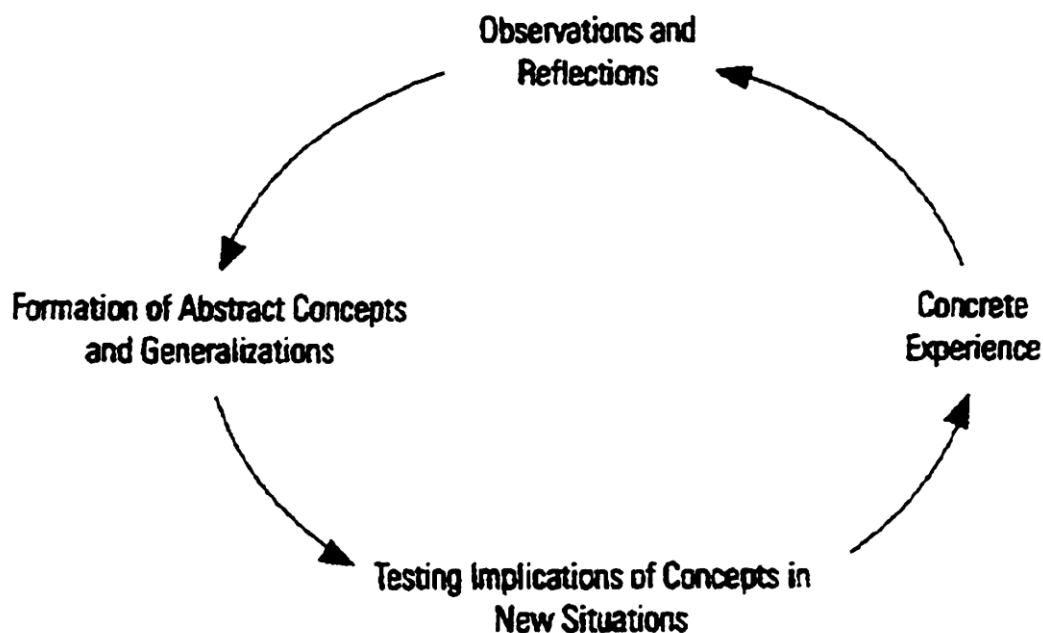
model was developed in response to the data generated by participants in this study and provides an alternative lens through which to view teacher learning.

3.5.1 Experiential Learning Cycle.

An early model that explained the learning of adults was the Experiential Learning Cycle. The model is attributed to the work of David Kolb and Roger Fry (Kolb & Fry, 1975) and has since been built on by others, most notably by Peter Jarvis (1995). The Experiential Learning Cycle postulated that the learning of adults involved a “direct encounter with the phenomena being studied rather than merely thinking about the encounter, or only considering the possibility of doing something about it” (Borzak, 1981, p. 9).

Kolb’s original model (Figure 3.1) consisted of four elements:

1. observation and reflection
2. the formation of abstract concepts
3. testing implications in new situations and
4. concrete experience (Russell 2008).



Source: D.A. Kolb, *Experiential Learning: Experience as the Source of Learning and Development* (Englewood Cliffs, New Jersey: Prentice-Hall, 1984), p. 21.

Figure 3.1 Experiential Learning Cycle from Kolb’s original work

Kolb's work marked a dramatic shift away from the reductionist view of human behaviour and applied a scientific perspective that "moved educational thought from the locus of the instructor back to the learner" (Kelly, 1997, p. 1). Central to Kolb's model was the important role experience played in the learning and, while acknowledging the behaviourist theories that went before, Kolb grounded the experiences of the learner squarely in the forefront of meaning making. Another key contribution Kolb's model made to our understanding of how adults learn was to identify the significance of reflection in the learning process.

Use of the story-line strategy in this study offered participants a structured way in which to reflect on their experiences as teacher-learners.

3.5.2 Learning Process Model.

Jarvis' adaptation of the Kolb model incorporated a number of additional features. He recognised that different responses were possible in learning situations and that interaction between the learner, the environment and the learning were crucial.

Jarvis' Learning Process Model posits that:

1. Adult lifelong experiences can be used as a foundation to build on learning
2. An adult's self-concept of independence empowers learners
3. The development of adults' social roles enhances their motivation to learn (Russell 2008).

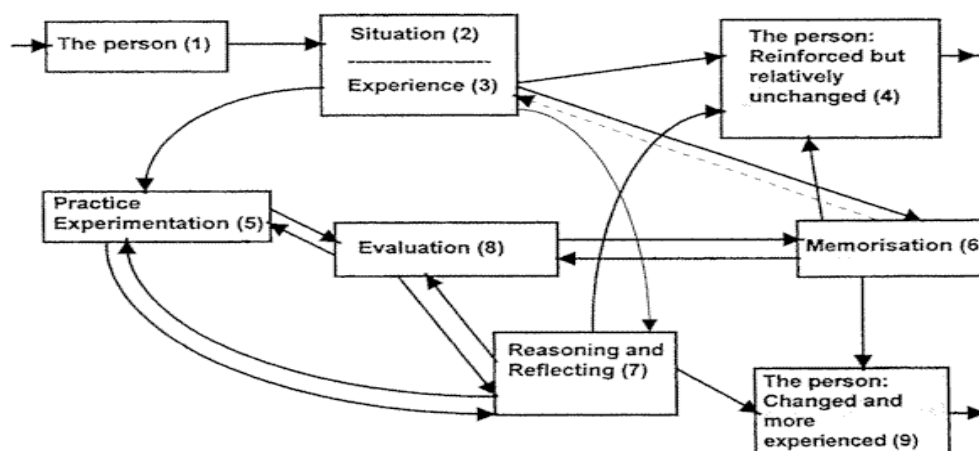


Figure 3.2 Learning Process Model adapted from Kolb's model

For Jarvis, the complexity of the learning process meant that his model underwent a number of iterations (Jarvis, 1995, 2004). Differing from Kolb, Jarvis believed that experience alone does not assure learning. He understood that only when reflection upon that experience took place did learners transform their experiences into a range of learnings. This constructionist perspective is based on the understanding that people “construct fundamental dimensions of themselves through the learning process” (Le Cornu, 2005, p. 168) and that learning is intimately linked to the learner’s learning environment.

Use of focus group and semi-structured interview strategies in this study honoured the links between the participants and their learning environments by situating their roles as teacher-learners within their schools, the contexts for learning.

3.5.3 Action Learning Process.

Action learning is a process of reflection and critical inquiry that augments practitioners’ knowledge of their practice, learning associated with their practice. The Action Learning Process (Argyris & Schon, 1978) entails a cyclical structure also based on Kolb’s understandings that learning involves participants in planning, acting, observing, and reflecting. However, collaboration is a major feature of action learning with teams of learners working and learning with and from each other to explore possible ideas and solutions, asking questions to stimulate new ideas and actions, and reflecting on them (Senge, 2000). Discussion and reflection are used to inform decision making so that weaknesses and areas of practice for improvement can be identified. Figure 3.3 illustrates the Action Learning Process.

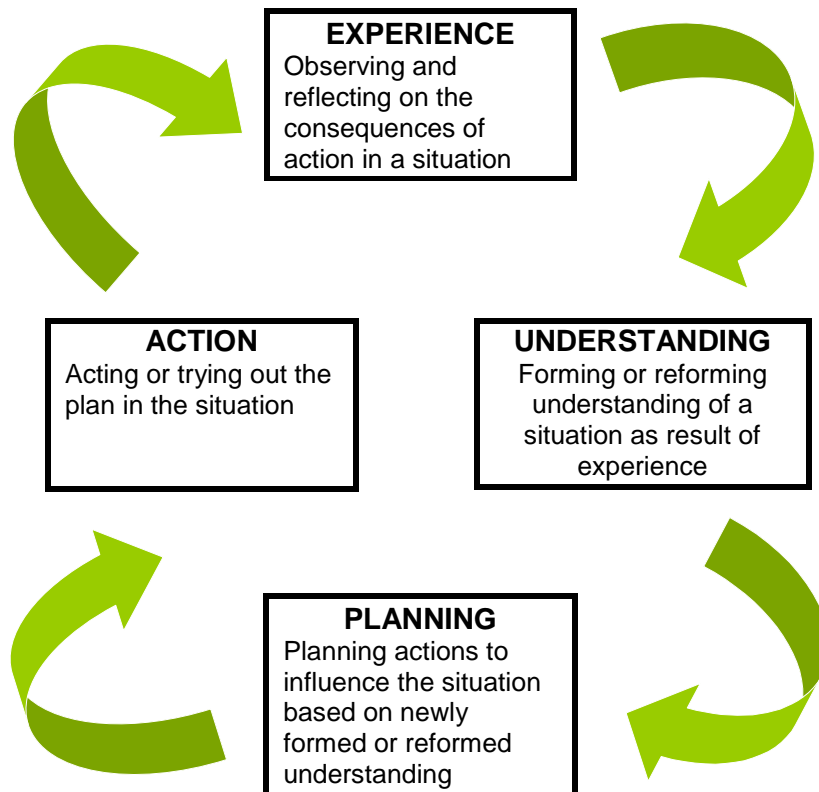


Figure 3.3 Action Learning Process

The Action Learning Process relies on collaborative inquiry to “make reasoning explicit and confrontable” (Putnam, 1991, p. 101). For teachers, action learning has been used to take advantage of insights collaboratively constructed in the learning process (Salaway, 1987). Use of teams of participants in this study honoured the constructionist paradigm on which the research was based and allowed knowledge to be jointly constructed and interrogated.

3.5.4 Metacognitive Model for Sustainable Professional Learning.

Built on the Action Learning Process, this model also synthesises learning in to four steps:

1. Learning
2. Practice
3. Reflection and
4. Reconstruction.

Critical reflection is central to the Metacognitive Model for Sustainable Professional Learning (Yeigh, 2008) and enables learners to establish contextual insights about

the learning as it occurs. Critical reflection “continually transforms both the content and processes via a set of reciprocal, interactive relationships that shape the learning according to the restructuring of ongoing cycles of inquiry” (Yeigh, 2008, p. 12).

In this model, conceptual understandings build a common professional language, a metalanguage, to enable teachers to discuss pedagogical skills and experiences and to develop the methods and strategies to be used in the inquiry. The same language is later used to interpret and critique the learning. Three levels of evaluation (self-evaluation, collaborative evaluation, and meta-evaluation) are used to plan, observe and reflect in order to develop collaborative skills and strategies and co-create knowledge and interdependencies. Sustainability is one of the claims of the model and this is achieved by the “participatory framework in which personal perspectives exist within the wider range of diverse understandings, goals, and values relating to the larger vision of learning being developed” (Yeigh, 2008, p. 13). Figure 3.4 illustrates the Metacognitive Model for Sustainable Professional Learning.

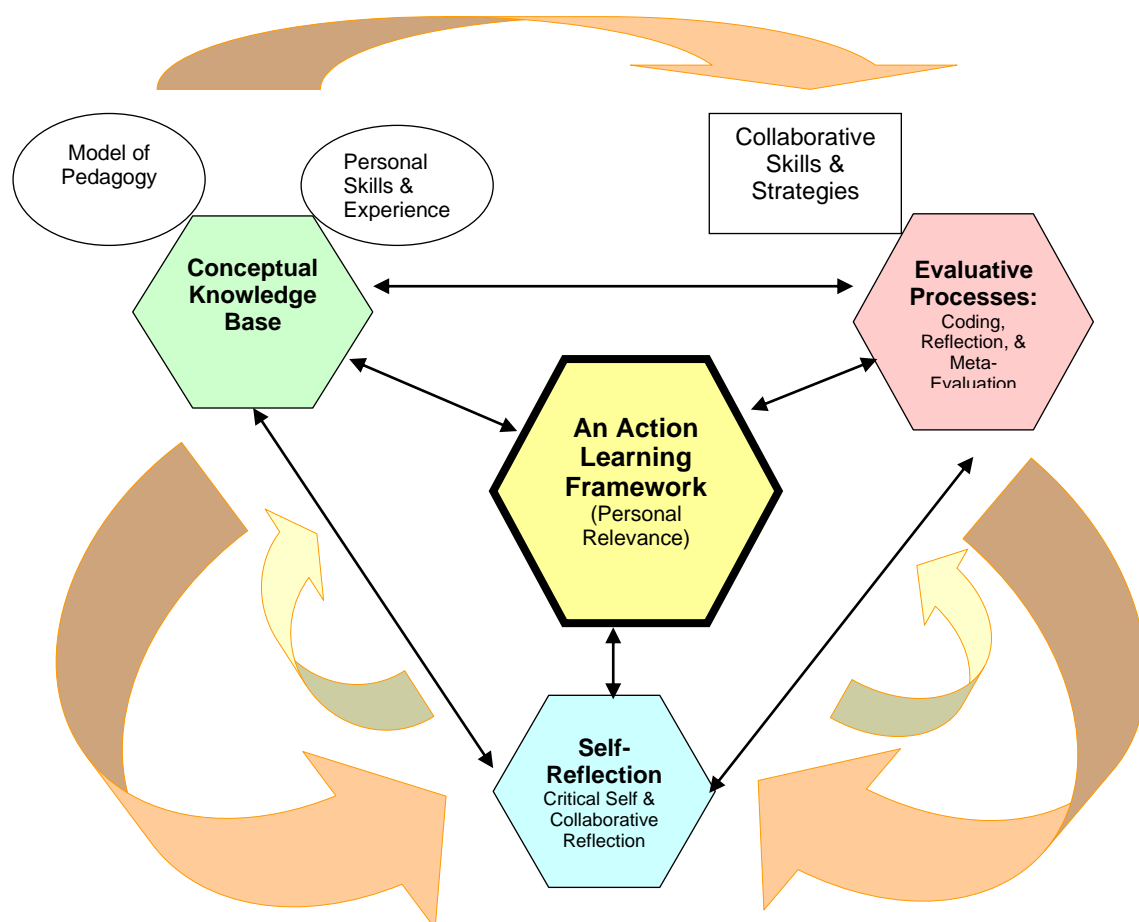


Figure 3.4 Metacognitive Model for Sustainable Professional Learning

3.5.5 Phase Shift Model of Teacher Learning

In this research, participants were offered an initial opportunity to reflect on their practice as learners by completing an open-ended questionnaire and then to undertake a more in-depth reflection through participation in a semi-structure interview. Self-evaluation was built into the interview process through the use of the story-line strategy.

While these models explore a universal understanding of adult learners and their learning, they concentrate on structures and processes while excluding important factors and facets that the learner brings to the learning. These issues will be discussed further in Chapter 8 with the introduction of a new framework with which to understand teacher learning, the Phase Shift Framework of Teacher Learning.

3.6 Professional Learning in Education

The learning teachers do is specific subsets of professional learning and the models discussed previously have influenced the practices of professional learning for teachers. Learning to teach is “complex and occurs over a professional lifetime” (Beynon, Geddis, & Onslow, 2001, p. 76) as practitioners acquire experiences and develop understandings:

that empower (1) individual educators, (2) educational teams, and (3) the educational organisation to improve (4) curriculum, (5) instruction, and (6) student assessment in order to (7) facilitate student growth and development (Gordon, 2004, p. 5).

Empowering individuals and educational teams within schools builds the capacity of teachers to affect student learning while the elements of improvement of curriculum, instruction, and student assessment have more direct impact on students' learning outcomes. The final element, facilitating student growth and development, is the ultimate purpose of all professional learning that teachers undertake (Gordon, 2004).

3.6.1 Ages of teacher learning.

The field of research specific to teacher learning does not have a long history, as the work of Hargreaves (2000) demonstrates. Hargreaves conceptualised the history of

teachers and their learning into four broad 'ages' based on the changing social contexts of schools and learners. While not discrete, these ages describe the changing nature of how the professional learning of teachers was viewed and enacted:

1. The pre-professional age, prior to the 1960s, was marked by mass public education where teachers were engaged in traditional "recitation-like patterns of teaching" (Hargreaves, 2000, p. 154) using very few resources with large groups of students. Order and control were paramount and knowledge was seen as 'transmitted' and largely unquestioned. Teaching was managerial in nature and teachers learned "through practical apprenticeship, and one improved as a teacher by individual trial-and-error" (p. 156).

2. The age of the autonomous professional began in the 1960s and teachers enjoyed a licensed autonomy (Dale, 1988). Classroom pedagogy was contested and debates about child-centred and subject-centred approaches impacted on teachers' continuing professional development. Teachers worked largely in isolation and there was an expansion of teacher development and in-service education that took the form of workshops and courses delivered by experts (Hargreaves, 2000).

For teachers in Australia, access to professional development became a political issue in the 1970s when *Schools in Australia*, later to become known as the *Karmel Report* (Karmel, 1973), found it necessary to argue the case for teachers' ongoing professional learning. In the current political climate, there is no longer a need to argue for the professional development of teachers; it is accepted that this is a necessity if schools are to meet current and future educational challenges.

3. The age of the collegial professional from the mid 1980s brought increasing teacher autonomy and increasing complexity in schools. Many teachers faced having to teach in ways they had not been taught themselves (McLaughlin, 1997) and the world and teachers' work was changing rapidly. The role of teachers expanded to include collegial endeavours such as consultation and collaborative planning with the move to:

build strong professional cultures of collaboration to develop common purpose, to cope with uncertainty and complexity, to respond effectively to rapid change and reform, to create a climate which values risk-taking and continuous improvement, to develop stronger senses of teacher efficacy, and to create ongoing professional learning cultures for teachers that replace patterns of staff development, which are individualized, episodic and weakly connected to the priorities of the school (Hargreaves, 2000, p. 166).

Working in collegial ways placed much greater demands on teachers' time.

4. The final age is the post-professional or post-modern age. Since the turn of the millennium, two main factors have impacted on teachers and their teaching. Globalisation of the world's economies and the revolution in communication has brought unprecedented changes to schools and teachers. Growing cultural diversity and challenges to the knowledge and beliefs that underpin the curriculum have been coupled with centralised control and testing and less reliance on teacher judgement. Schools have become largely self-managing and the accompanying absence of system-level support has created huge vacuums of professional development at the local level (Hargreaves, 1994). This stage relates to the present time.

3.6.2 Practices and problems of teacher learning.

The professional knowledge base that teachers need is knowledge about the ways in which their teaching affects what students know and believe and what students do with their knowledge (Steffe, Thompson, & von Glasersfeld, 2000). It requires teachers to engage with that knowledge "on an ongoing basis as lifelong learners" (Coolahan, 2002, p. 13) themselves and strive to "understand the principles by which their actions shape the learning process going on in the minds of their students" (Nuthall, 2004, p. 295), so that they are able to effectively teach students from various backgrounds.

Australian research (Doecke et al., 2008) confirmed the findings of a 2001 national survey that the professional learning of teachers "has a history of raising vexing questions, and frequently the same vexing questions" (McRae et al., 2001, p. 1).

These questions concern the nature of effective teacher learning as, whilst consensus does exist about the value of professional learning (Ingvarson, Meiers, & Beavis, 2003), there is less agreement on what constitutes quality professional learning for teachers.

Many attempts have been made to define the nature of what constitutes 'good professional development [PD]' (Berniz, 2004; Hawley & Valli, 1999; Manning, 2004) and there is agreement that most effective professional learning practices engage teachers in identifying what they needed to learn and planning the learning experiences. Teacher-learners need time to test new ideas and need support and coaching as they implement changes. Effective professional learning experiences include "activities that lead teachers to deprivatise their practice and gain feedback about their teaching from colleagues" (Ingvarson, Meiers, & Beavis, 2005, p. 16).

Through participation in structured programs, professional dialogue and from their classroom practice, it is expected that teacher-learners grow their expertise and understandings over a career. Effective professional learning deepens teachers' understandings of their students as well as their teaching and learning (Wyatt-Smith, Bridges, Hedemann, & Neville, 2008), however, "we do not fully understand the processes by which this knowledge becomes meaningful within the context of professional practice" (Daley, 2001, p. 39). Therefore, more detailed examination of the practices of teacher learning is work researchers are urged to undertake:

[This is a] task we think both worthwhile and increasingly urgent [as it] may well provide as concrete a justification of professional development spending as is ever likely to become available (McRae et al., 2001, p. 150).

Large-scale mapping of the professional learning practices of Australia's teachers (Doecke et al., 2008) found a highly professional and experienced workforce with an espoused commitment to professional development's importance and efficacy. Teachers recognised the need to review their professional knowledge and practices and to access new knowledge and skills. The study demonstrated that teachers "combine their sense of responsibility to their school communities with a strong personal commitment to continuing learning. The majority of teachers (64 per cent) give professional learning a very high priority in their work" (2008, p. xiii).

While the study demonstrated that teachers hold a positive view of ongoing professional learning, surprisingly, almost half did not rate ongoing learning “a very high priority”. Some explanation for this could lie in the types of opportunities that have been presented as learning. Activities amenable to measurable outcomes have been supported in the past yet the measurement of activities and outcomes does not necessarily equate with learning. Professional learning involves meaning making (Katz, Sutherland, & Earl, 2005) and this is “a quality not always amenable to measurement” (Biesta, 2007, p. 7).

From the viewpoint of learning and cognition, helping teachers acquire conceptual understandings of what learning is, as well as how to be good thinkers themselves, promises to produce a qualitative change in the way teachers teach (Bath, 2000). Regrettably, the professional development practices of Australian teachers have been criticized as ineffective on a number of levels and attention is now being paid to whether the current workforce will be capable of responding to future challenges. Some think not: “This analysis highlights the fact that reform will require a significant upgrading of the teaching workforce” (Hanushek, 2004, p.21).

In addition, there is a need for school renewal and teacher development at the levels of culture, policy and practice (Robinson & Carrington, 2002), but still the old models of staff development survive in a world where everything else has changed (Miller, 1995). These traditional systemic approaches to teacher learning have violated the underpinning principles of adult learning (King & Newmann, 2001). Despite our current knowledge about how adults learn, few of these principles are present in most professional development programs in schools today (Elmore & Burney, 1997; Hawley & Valli, 1999). While education authorities may see a need for mandated professional development or training to implement organisational changes, these events should not be assumed to foster professional learning. Learning may, or may not, occur at such events.

3.6.3 Links to student learning in the knowledge society.

School reform and renewal which the knowledge society demands relies on the professional knowledge and skills of teachers (Ball & Cohen, 1999; Guskey & Huberman, 1995) and, at the level of policy-making, “connections are made between improving teacher quality and improved student learning outcomes” (Meiers & Ingvarson, 2005, p. 10). However, there is little evidence that confirms this link. Research hints at the contribution teacher learning makes to students’ achievements and their experiences of schooling but “substantive and methodological issues surrounding the conceptualisation and evaluation of teacher quality are not well understood” (Ingvarson & Rowe, 2008, p. 5). Indeed, there is a noteworthy lack of evidence that associates teachers’ engagement in professional learning with their classroom practice and the need exists for a strengthening of the connections between professional learning programs and research evidence (Skilbeck & Connell, 2003).

While the effectiveness of teachers and their teaching have long been thought to be critical elements in students’ engagement and their achievement of learning outcomes, this investigation of current literature underscores the difficulty of disentangling teacher development from the many threads that create learning environments of students. It has become increasingly difficult to quantify the contributions of teacher learning to that of their students as more is understood about the complexities of learning itself (Wittrock, 2010). After accounting for socio-economic status, the differences between schools accounts for only limited differences in student achievement while teacher characteristics account for a higher proportion of the variation in student achievement than all other aspects of the school combined (Hayes et al., 2004). Yet few systemic imperatives have required teachers to upgrade their knowledge and skills in recognition of their crucial roles in school reform. Also, while we have some knowledge about the characteristics of what is deemed ‘good PD’ for teachers (Hawley & Valli, 1999), far less is understood about how professional learning influences teacher practice and outcomes in classrooms (Elmore & Burney, 1997).

Little change in school effectiveness is possible without securing the active engagement of teachers (Robinson & Carrington, 2002), but direct links between teachers' professional learning and pedagogical practice are omissions from the current body of knowledge and would seem to demand closer scrutiny given the nature of the larger debate about school efficacy. The recent discourse on teacher quality and school effectiveness focuses on how they might validly be measured and a major indicator of schools' success is seen in terms of the achievement levels of their students. However, the evidence that directly links the learning behaviours of teachers to their pedagogical practices is tenuous (Guskey, 2003). This reality is of concern given the vast amounts of resources, both human and financial, that are expended annually to support professional development activities across the nation and indeed around the world:

It would seem odd to develop and fund regular and large-scale programmes if there was no impact, but measures have been lacking (Skilbeck & Connell, 2003, p. 62).

3.6.4 Teachers as learners in the knowledge society.

Learning for teachers has for too long been viewed as the act of imparting knowledge from expert to teacher-learner (Doecke et al., 2008). Teachers attend workshops, training courses and conferences to update their knowledge and skills however, "much of what constitutes the typical approaches to formal teacher professional development is antithetical to what research findings indicate as promoting effective learning" (Bransford, Brown, & Cocking, 1999, p. 192). Indeed, systemic approaches to teacher learning have routinely violated the underpinning principles of adult learning (King & Newmann, 2001) and, despite our current knowledge about how adults learn, few of these principles are present in most professional development programs today (Elmore & Burney, 1997; Hawley & Valli, 1999). While education authorities may see a need for mandated professional development and staff training to implement organisational changes, these should not be confused with professional learning. Learning may or may not occur through such activities however, "the rhetoric of professional development often mistakenly assumes that professional development and professional learning are the same" (Webster-Wright, 2009, p. 725-6).

The development of professional understandings and skills is a non-linear process (van Eekelen, Boshuizen, & Vermunt, 2005) and, as adult learners, teacher practitioners are most often prompted by needs identified in their daily practice to engage in learning. Learning is often prompted by 'triggering events' (Spear & Mocker, 1984) "does not conform to either a linear or a spiral sequence" (van Eekelen et al., 2005, p. 447).

For this reason, it is important to develop a more sophisticated understanding of how and why teachers choose to engage in professional learning throughout their careers because "engagement is important to all with an interest in raising and sustaining standards of teaching, particularly in centralist reform contexts which threaten to destabilise long-held beliefs and practices" (Day et al., 2006, p. 601). The question then becomes: What types of learning experiences should teachers be expected to undertake so that they continue to acquire the knowledge and skill that allow them to practise their craft in ways that will enhance the outcomes of their students? This is a real and significant problem that the literature challenges researchers to investigate as change gathers pace and intensifies (Candy, 1997). The dual responsibility teachers have to facilitate the learning of their students as well as their own professional scholarship presents further challenges. Therefore, "further research in to the links between teacher [learning] networks and the practice of teaching would serve the profession well" (Queensland Board of Teacher Registration, 2002, p. 13).

3.6.5 Teacher learning across a career.

In a professional life, teachers' "professional career journeys are not adequately linear, predictable or identical - are often, in fact, unexplainable using the tools at our disposal" (Huberman, 1993, p. 264). Consequently, a typology of teachers' professional learning needs to take into consideration three levels of scholarship: 1. deliberative 2. reactive and 3. implicit learning (Eraut, 2004). Deliberative learning revolves around a "definite learning goal" (Eraut, 2004, p. 250) that is specified and planned. Reactive learning occurs by "noting facts, ideas, opinions, impressions; asking questions; observing effects of actions" (Eraut, 2004, p. 250) and implicit learning is "the acquisition of knowledge that takes place largely independently of conscious attempts to learn and largely in the absence of explicit knowledge about

what was acquired” (Reber, 1993, p. 5). Teacher-learners construct new knowledge through all three of these means and this knowledge is integrated with existing information to create new understandings (Hoekstra, Beijaard, Brekelmans, & Korthagen, 2007). What we do know is that teachers, like other professionals, develop “an integrated, holistic knowledge framework that is used in the context of the services they provide” (Daley, 2001, p. 39).

As the providers of an education service, teachers have been demonstrated to be autonomous adult scholars who learn best when they organise or have some input into the design and delivery of their own learning (Confessore, 1993). They tend to use three primary sources in their acquisition of knowledge: written materials such as journals and internet articles, formal educational programs such as accredited or non-accredited courses and informal interaction with teacher colleagues. Australian researchers (Commonwealth Department of Education Training & Youth Affairs DETYA, 2001) concluded that, while nearly 60% of respondents rated professional development very highly in their working lives, just fewer than 20% of respondents had not participated in any activity they recognised as professional development during the calendar year 2000. That research also demonstrated that more teachers were undertaking professional development than a decade previously, but a significant proportion of the teaching workforce in Australia chose not to participate in what they recognised as professional learning. Engagement in professional learning increased with teachers’ levels of experience and responsibility; highly experienced teachers had significantly higher levels of participation than those who had been teaching for four years or less (McRae et al., 2001).

Systemically, teacher learning has carried little extrinsic reward or recognition for its supposed role in improving pedagogical practice. Little attention has been paid to the individual learning needs of those undertaking professional learning (Wilson & Berne, 1999) and little support is offered to those who may have much to lose on the way to refining their practice. Experienced practitioners attempting to add new knowledge and strategies to their repertoires may encounter challenges in their first attempts and little attention has been paid to how they might be encouraged and supported through these learning phases. Teacher-learners need to be supported “to continue to learn in their own authentic way while taking into account the

expectations of their working contexts” (Webster-Wright, 2009, p. 727), and failure to encourage, facilitate and reward individual professional growth has diminished the quality of teaching in too many classrooms (Ramsay, 2000). Consequently, teachers see few benefits in participating in other than mandated activities.

As teachers move through their careers, myriad forces act upon how a professional life is experienced. However, some influences are common across professional phases and these exert a variety of impacts on “teachers’ diverse professional life trajectories. Teachers’ professional life phases, then, are essentially dynamic in nature” (Sammons et al., 2007, p. 686). Building on the work of Huberman (1993), Sammons and associates (2007) identified six professional life phases that teachers span throughout their professional lives. The six phases characterise teacher-learners as experiencing 1. a developing sense of efficacy, 2. an increasing sense of professional identity, 3. growing tensions as professional roles change, 4. work/life tensions that determine the level of engagement in professional learning, 5. motivational challenges, and 6. coping challenges as a career nears its end. These phases indicated three key influences on shaping teachers’ professional lives. They were: “(i) situated factors such as pupil characteristics, site-based leadership and staff collegiality; (ii) professional factors such as teachers’ roles and responsibilities and educational policies and government initiatives; and (iii) personal factors such as health issues and family support and demands” (Sammons et al., 2007, p. 686).

Throughout all the phases, a supportive school culture is crucial in maintaining practitioners’ sense of effectiveness. This is especially so in the final years of a teacher’s career. However, this research challenges “traditional ‘stage theory’, which conceptualises teachers’ professional development as moving through a number of linear skills development stages associated with increased effectiveness - from being a ‘novice’ through to ‘advanced beginner’, ‘competent’, ‘proficient’, and ‘expert’” (Sammons et al., 2007, p. 686). The study concluded that professional learning alone “is unlikely to exert a major impact on teacher effectiveness. It needs to take place within professional, situated and personal contexts which support rather than erode teachers’ sense of positive identity and which contribute ... to their capacities to maintain upward trajectories of commitment” (Sammons et al., 2007, p. 686).

In contrast, mandated professional development is often presented in situations removed from teachers' specific work contexts and provide few opportunities to collaborate with peers. They consist of sessions that are brief with no opportunity for sustained study, experimentation and feedback and teachers have little influence over the substance and process of sessions. A closer focus on the knowledge and skills that enhance teaching and learning necessitates a change in the manner in which professional learning is currently structured and "targeted strategies of professional learning and development" (Day, Sammons, Stobart, Kington, & Gu, 2007, p. 237) is necessary to foster and sustain the teacher-learner:

The sharing of expert knowledge about effective teaching practices will require an approach to teacher professional development rather different from the professional development to which teachers commonly have been exposed. In contrast to many past professional development programs which have not had an explicit focus on teaching practices (Cuttance & Stokes, 2001), professional development to support quality teaching must be focused on knowledge and skills with the demonstrated potential to improve teaching and student learning (Masters, 2003, p. 47).

Accordingly, a move away from delivering episodic professional development and towards context-specific support of professional learning that meets the needs of the teacher-learner at different phases of a professional career and within their particular teaching contexts is a necessary first step. All learning is situated within a context and the contexts within which teachers learn plays an important role in mediating that learning. Teachers' contexts include their "priorities, interests, circumstances and history ... but tend to remain tacit and relatively invisible" (Warren Little, 2002, p. 902). Consequently, an exploration of the contexts of the teacher-learner is valuable to this discussion.

3.6.6 Contexts for teacher learning in the knowledge society.

Teachers' working contexts also provide their contexts for their learning and literature on the socialisation of teachers "emphasises the dominant influence of the school context on teacher behaviour" (Brouwer & Korthagen, 2005, p. 145). While individual teacher learning is presumed to be central to the enhancement of student learning, the contribution teachers and their professional learning make happens within the broader construct of a school community. Schools provide the cultural settings that include the backgrounds of students, the curricula offerings and the

different professional and cultural backgrounds of the teachers themselves. The quality of teacher learning cannot be viewed in isolation as it is heavily influenced by the environment within which it takes place. Some studies (Borko, 2004; Cochran-Smith & Lytle, 2001, 1993; Little, 2002; Wells, 2001) argue that the cultures of the professional communities in which teachers operate are more important factors in determining the effectiveness of professional learning programs or practices than the particular characteristics or qualities of the individual teachers within those communities (Doecke et al., 2008, p. 18-19). So although teacher learning benefits the individual, it also builds systemic capacity (Senge, 2000). Perversely though, the structures of school systems and schooling in Australia ensure there are radical differences in the environments in which teachers practise their craft and undertake their learning (Keating, 2004). The decentralisation of the control for the delivery of education services to schools has meant the design of local structures and systems to meet the needs of local students and communities.

While much professional knowledge is anchored in the specific contexts of teachers' schools, professional knowledge may need to change significantly as teachers move into different teaching contexts. The contexts for occupational learning play important roles in the creation of the professional lives of teacher-learners and it can be argued that an understanding of the contexts within which learning is situated is critical to any judgement of value (Doecke et al., 2008).

Consequently, as professional practice is profoundly influenced by the organisations within which teachers work, the design of professional learning opportunities should recognise how individual teachers learn and also how schools as organisations affect, and are affected by, teacher learning (King & Newmann, 2001). Schools that function as learning communities respond "creatively and adaptively to changes in education and society. All of the community's members are valued and share a common purpose in the pursuit and achievement of quality education" (NSW DSE Training and Development Directorate, 1996, p. 8), so it can be seen that the facilitation and support of collegial communities of teacher-learners is important.

3.6.7 Teacher-learners and professional community.

Teachers say that the most effective method of furthering their own learning is networking and interacting with their colleagues (Queensland Board of Teacher Registration, 2002). Australian researchers (Queensland Board of Teacher Registration, 2002) confirmed the work of others (Cuttance & Stokes, 2001; DuFour & Eaker, 1998; McLaughlin & Talbert, 1993) who concluded that the most promising strategy for sustained, substantive school improvement is developing the ability of teachers to function as a professional learning community. Teachers work and learn within formal networks such as professional associations as well as within informal, opportunistic collegial networks.

The implications of the utilisation of both formal and informal networks for the provision of professional learning opportunities for teachers are profound (Commonwealth Department of Education Training & Youth Affairs DETYA, 2001). One implication of the use of collegial networks as a source of teachers' ongoing learning is that it must be recognised that professional learning can and does take place on-the-job as teachers collectively find solutions to problems and challenges and use these situations as opportunities for learning (Retallick, 1997). In addition, the practical knowledge for teaching is not usually based on educational research (Cochran-Smith & Lytle, 1990; Connelly & Clandinin, 2000), but is highly personal and contextualised (Mayer, 2002) and based on engaging with colleagues (Tripp, 1993). Therefore, providing opportunities to develop collegial relationships and to engage in professional dialogue should be an essential element of the organisation of schools.

Networks of colleagues are a critical means of knowledge transmission (Nowlen, 1988) that allow practitioner knowledge to be built into a trustworthy knowledge base that can be assessed and shared widely in the profession (Hiebert, Gallimore, & Stigler, 2002). However, while communities of practice and teacher networks have been identified as key instruments for redefining teaching practice within the profession (Wilson & Berne, 1999), little knowledge is available about the operation of professional networks in the context of Australian schools.

The power of collegial networks to facilitate and support professional learning is undervalued (Queensland Board of Teacher Registration, 2004). Teachers have identified collaborating and interacting with colleagues as the most valuable professional learning strategy in which they are involved (Queensland Board of Teacher Registration, 2002), consequently, investigation of the contribution that collegial relationships make to teacher learning “would serve the professional well” (Queensland Board of Teacher Registration, 2002, p. 51).

Whether formal or informal, professional networking is about making contacts; developing relationships; exchanging information; asking questions; sharing resources; and linking with colleagues inside or outside one’s individual school context. Collaborative learning demands active participation in the development of “shared knowledge and meaning as a result of a negotiation process” (Van der Linden, Erkens, Schmidt, & Renshaw, 2000, p. 211) and successful teacher networks build strong professional communities that provide opportunities for teachers to develop deeper subject-matter knowledge, greater pedagogical expertise, a collaborative culture, the skill of reflecting on their own practice, links with other professionals and strategies for organisational change, including preparation for assuming leadership roles. External networks take teachers outside the limited worlds of their own classrooms and schools and strengthen their content and pedagogical knowledge (Queensland Board of Teacher Registration, 2004).

When teachers participate in professional networks outside their schools and then share their newly acquired knowledge within their own school contexts, the impact of professional learning is multiplied (Morris, Chrispeels, & Burke, 2003). Professional learning communities are able to affect the culture of a school by constructing a collective efficacy (Goddard, Hoy, & Hoy A., 2000) where teachers believe that they can work collaboratively to bring about change. Additionally, when teachers have opportunities for collaborative inquiry and the learning related to it, they are able to develop and share a body of wisdom gleaned from their experience (McLaughlin & Talbert, 1993). This perspective assumes that teachers share their individual learning, resulting in more widespread learning or change within organisations. However, literature indicates that dissemination within schools is not yet prevalent

and little is known about the formal and informal processes by which teachers share their learning in school and school systems (Collinson, 2004).

While informal networks often focus on the resolution of common problems, formal professional associations offer teacher-learners opportunities to engage with learning communities centred on their specific curriculum areas. A study entitled *A Way Forward: The Future for Teacher Professional Associations and Networks* (Queensland Board of Teacher Registration, 2004) concluded that entire education systems benefit from the work of professional communities. Consequently, formal associations of teachers deserve recognition for the important contributions they make to teacher professionalism by helping teachers translate theory into practice, providing collegial support, establishing and maintaining teacher standards, ensuring currency of knowledge and encouraging teachers to develop new practices. However, the study also identified common issues that formal teacher associations encountered in delivering their services. Many experienced difficulties in attracting new and younger members, particularly primary school teachers, and in maintaining viable resource bases. The workload of executive members was a major issue, but foremost was the difficulty of providing for regional and rural members (Queensland Board of Teacher Registration, 2004).

3.6.8 Community as a learning construct.

Networks of learners operate within the three dimensions of domain, community and practice (Wenger, 2000). Domain is defined as what the community is about; community is the key players in the network; and practice is what the community knows. These dimensions highlight the evolutionary, organic nature of learning networks. They grow and change as the needs of their members change. Therefore, it is a difficult task to define specifically what a professional learning community is, although some have tried:

A learning community is a group of people who take an active, reflective, collaborative, learning-oriented and growth-promoting approach toward the mysteries, problems and perplexities of teaching and learning (Mitchell & Sackney, 2000, p. 87).

An effective professional learning community has the capacity to promote and sustain learning of all professionals in the school community with the collective purpose of enhancing pupil learning (Bolman, McMahon, Stoll, Thomas, & Wallace, 2004, p. 137)

We do know that community, a common theme in the literature of learning organisations, implies relationships between learners. It can be used to denote both similarities and differences. The term can describe the elements members of a specific group have in common with one another or to exclude others by symbolising those characteristics that separate the group from other groups. The definition of community can therefore be used as exclusionary (Smith, 2002) (M. K. Smith, 2002) as well as to define inclusion. Use of the terms learning communities; communities of practice; professional communities of learners; communities of continuous inquiry; and improvement and learning collaboratives all acknowledge that learning occurs when members of a community share their understanding of an issue or a problem. These synonyms embody a notion of learning together for the good of the whole.

Communities of practice (Wenger, 1999) are groups of people who share concern, a set of problems or a passion about a topic and who deepen their knowledge and expertise by interacting on an ongoing basis. Such liaisons are increasingly viewed as effective ways to create a learning organisation where employees share their knowledge and create a pool of collective organisational intelligence. However, the opportunities apparent in this process may be offset by potential strategic dangers if these subsets of the workforce choose to act as an obstacle to effective communication and organisational change. The human capital of an organisation represents the properties that individuals bring to the group, but attention needs also to be paid to social capital issues. This term refers to the connections between individuals and how these connections can be utilised to benefit the whole.

The concept of community as a learning construct (Kim, 2000; Nichani, 2000; Palloff & Pratt, 1999; Preece, 2000) has a distinct application in education. Because teachers respect the expertise of their professional peers and collaboration offers a powerful vehicle for teacher learning, collaborative working relationships are as

critical to teacher learning as they are to organisational learning. By enabling teachers to collaborate with other professionals, networking provides an opportunity for them to critically reflect on their practice and to develop a deeper understanding of both the teaching and learning processes. Collaborative learning by teachers has been described as transformative, requiring changes in teachers' deeply held beliefs, knowledge and practice (Lyons, 2001). The Queensland Consortium of Professional Development in Education research (2002) confirms findings in other studies that participation in professional networks contributes to teachers' feelings of increased motivation, confidence and effectiveness in their work at different phases of their professional lives. Consequently, effective communities of teacher-learners have the potential to impact on pedagogical practice, to boost morale, recruitment and retention, to encourage individual teacher learning and leadership and to facilitate organisational learning practices across a whole school (Stoll & Bolam, 2004).

3.6.9 Personal dimensions of professional learning.

Teachers' professional worlds are shaped by many factors that include the characteristics of their pupils, professional leadership and collegiality, specific roles and responsibilities, and personal factors (Day et al., 2007). Day (2007) discusses teacher effectiveness in terms of the '4 Ps': "pupils, policy, practice (school and classroom settings) and personal (biography, career)" (p. 175).

Twenty-first century concepts of teacher-learners acknowledge that personal dimensions contribute significant insights to their professional effectiveness:

Teachers don't just have jobs. They have professional and personal lives as well. Although it seems trite to say this, many failed efforts in in-service training, teacher development and educational change more widely are precisely attributable to this neglect of the teacher as a person - to abstracting the teacher's skills from the teacher's self, the technical aspects of the teacher's work from the commitments embedded in the teacher's life. Understanding the teacher means understanding the person the teacher is (Hargreaves & Earl, 1993, p. viii).

Passing through and between professional life phases, teachers acquire personal professional knowledge which is understood as "knowledge that is constructed and reconstructed as we live out our stories and retell and believe them through processes of reflection" (Clandinin, 1992, p. 126). Such knowledge is "individually

continuous, socially interactive, and narrative in form. Teacher knowledge, in this view, is not a list of attributes; rather, it is knowledge embodied through processes of reflection in educators and embedded in situations” (Craig, 2007, p. 65). Therefore, teacher-learners have a need to participate in learning with a sense of ownership, to reflect on their learning and to enhance their professional identities through personalised, relevant and timely support (Taber, 2007). A “one size fits all model of in-service does not facilitate the sorts of shifts required to engage teachers in critically rethinking and replanning their practice ... [They need to] explore the unknown, to transform what is already known, and to construct new knowledge” (O'Sullivan, Carroll, & Cavanagh, 2008, p. 179). Consequently, examining the “lived experience of learning as a professional rather than an aggregate of factors in developing the professional leads to a different understanding of continuing learning” (Webster-Wright, 2009, p. 728) and the teacher-learner.

The addition of the personal dimension to discussions of teachers and their learning is a recent inclusion as we have come to understand that abstracting the technical skills of teaching from the personal values, belief and attributes of the individual fails to honour the totality of ‘the teacher’. There is a “strong connection between a person’s desire, his will as what he thinks is best for himself to do, and what he cares about ... Only a person who cares about something has, as it were, invested in it” (Hoveid & Honerød Hoveid, 2008, p. 132) so it is important that the contributions a teacher’s life experiences make to professional learning are acknowledged in discussions of professional practice.

What teachers bring to their learning affects what they learn and “teachers’ own personal and professional histories are thought to play an important role in determining what they learn from professional development opportunities” (Ball, 1996, p. 501). Teachers’ sense of professional and personal identity along with their personal and school contexts are key factors in how they accomplish their roles. Their “motivation, job fulfilment, commitment and self-efficacy ... are affected by the extent to which teachers’ own needs for agency within structural constraints are met (Day et al., 2006, p. 187). Personal attributes and enthusiasms are important motivators of learning in addition to professional aptitude.

Drawing on the constructionist perspective that learners build their own understandings of knowledge and practice, professional learning for teachers is grounded firmly in the contexts of teachers' life experiences. Teacher identity is closely bound with professional and personal values, aspirations and changes in teachers' sense of effectiveness (Sammons et al., 2007, p. 687). Teachers make a difference to their students through "who they are (their identity), what they know (knowledge, strategies, skills) and how they teach (their beliefs, attitudes, personal and professional values embedded in and expressed through their behaviour in practice settings)" (Sammons et al., 2007, p. 696). Hence, the investigation of the contribution of personal life experiences to professional attitudes and the learning behaviours of teacher-learners is a significant element of this study.

The voice of the teacher-learner is rarely heard (Dahl, 1995). Therefore, a fundamental practical challenge of this research has been to discover how teacher-learners successfully integrate learning throughout their professional lives. In doing so, this strand of the literature review has exposed a number of significant gaps in our current knowledge of teacher-learners and ways professional learning is played out across a teaching career. It is not clearly understood how professional knowledge becomes meaningful within the context of professional practice and, in fact, we even lack evidence of direct links between teachers' engagement in professional learning and their classroom practice. Little is known about the formal and informal ways in which teachers share their learning within their own schools and across school systems and the role of professional networks and communities in Australian schools remains largely unexplored.

While ideas about ways to encourage and support teacher learning are numerous and diverse, scholarly literature is inconclusive about how professional learning actually happens and about how teachers go about that learning. Consequently, the second question underpinning this research became:

How and why do teachers engage with professional learning throughout their careers?

Data to address this question were gathered from the principals' focus group and from the experiences of teacher-learners in the five case schools.

3.6.10 Systems, schools and professional learning.

This section of the literature review presents a synthesis of our understanding about the links between teacher-learners and the schools in which they practise their craft. It is important to this discussion because it is teachers who enact the work of school systems and it is they who can have the greatest impact on the students they teach (Darling-Hammond et al., 2009).

Given the recent emphasis on the need to share 'best practice' in education, schools are being viewed in a new light that casts them primarily as learning or knowledge communities. In fact, societal demands on schools have grown similarly to those experienced by business organisations (Senge, 2000). Schools do, in many ways, lend themselves to the analogy of a business and, in recent times, a sharpened focus has been turned on the issues of scores and results, outcomes and bottom lines. Corporate accountability for outcomes achieved, financial management, strategic planning, human resource development and the like, now take up much time in the modern school community:

The language of business has been absorbed in to the educational context ... This has resulted in changes to the social and political milieu of schools and learning has now become the single most important resource for organisational renewal in the post-modern age (Hargreaves & Evans, 1997, p. 97).

So, if schools are to be significantly more effective in their mission of educating for the knowledge society, it is argued that they must break away from the industrial models on which they were created and embrace a new model that enables them to function as professional learning organisations (Biddle, 2002) in the knowledge society:

Teachers will only successfully prepare tomorrow's 'knowledge workers' if in their professional practice they too are 'knowledge workers' (Ramsay, 2000, p. 24).

Research has identified a range of factors necessary if a school is to become a professional learning organisation (Biddle, 2002; DuFour & Eaker, 1998; Hord, 1997). They include a shared mission - why the learning organisation exists; vision - where it is going and a set of core values; engagement in collective inquiry; collaborative teams that are willing to take risks and experiment with the teaching

and learning process; a focus on continuous improvement; being data and results driven; and an interdependent work culture. If these factors exist, the outcome is empowerment coupled with responsibility. Members of a professional learning community may give up some measure of their individual autonomy in exchange for collective empowerment (Hord, 1997). However, surprisingly little research currently exists that indicate how Australia's educational systems support organisational learning or engage teachers in the building of the social capital of their organisations to benefit students. In fact, "even where empirical work has been done, difficulties in demonstrating direct links between school organisation and student outcomes continue to be commonplace" (Rowe, 2003, p. 18).

Research conducted with more than 2500 teachers in 96 Australian schools (Silins & Mulford, 2002) concluded that five variables were direct predictors of schools' organisational learning: teacher learning and leadership; staff being valued; leadership satisfaction; leader quality; and resourcing. The study concluded that teachers' capacities for learning and leadership were characterised most strongly by staff functioning as a collective, however "organisational learning was the only direct predictor of teachers' work" (Silins & Mulford, 2002, p. 437). As is true in the corporate world, teachers' capacities to engage in continuous learning within their school may benefit the system even more than the individual. An implication of this research is that moves to reform, restructure and deregulate schools will be better served if policy makers recognise and utilize the power of collaborative school networks and encourage and support the work of learning communities.

'Community' is a marker of the effective learning organisation and an essential enabler for the transmission of organisational knowledge. Communities exist within organisations to create a pool of collective organisational intelligence that encourages innovation and supports individuals through periods of rapid or extensive change (Senge, 2000). Using a corporate lens through which to view success, achievement is based on the resources of a business. Of these resources, the most valuable is the ability to acquire and integrate knowledge. Tacit knowledge held by employees is potentially a more strategic business asset than the explicit knowledge shared within the company (Beeby & Booth, 2000) and this former type of knowledge is shared through networks. Learning networks are characterised as sets of

connected relations among the actors involved in the learning (van Greenhauzein & Nijcamp, 1999). Networking, in the business paradigm, is about establishing linkages in order to acquire strategic resources for learning. While it has been demonstrated that building schools' capacity to deliver effective and appropriate education to Australia's students could benefit from using the concept of community as a learning construct (Vescio, Ross, & Adams, 2008), in educational terms, little attention has been paid to the formation or support of such communities within Australia's schools (Queensland Board of Teacher Registration, 2004). However, while professional networks and learning communities are teachers' preferred learning tools for lifelong learning, they remain a largely untapped resource for organisational change in Australia (Queensland Board of Teacher Registration, 2002).

King and Newmann (2001) confirmed that there is little gain in student achievement when professional learning focuses only on teachers' individual learning while neglecting to help whole schools integrate their learning. Teachers must view their own learning as part of an integrated, communal process in order to influence organisational learning (Johnston & Caldwell, 2001). For professional learning to have the best possible chance of affecting pedagogy and student learning, there is a need for positive interventions, empathetic skills, appraisal processes and opportunities to raise teachers' self esteem and achievement (Blandford, 2000; Putnam & Borko, 2000; West-Burnham, 2000). Fostering interrelationships and synergy between all component parts of the organisation will help to grow schools' capacities to meet the changing needs of their learners (Stoll & Bolam, 2004).

Learning communities may have a powerful role to play in school reform (Strahan, 2003) but despite the possibilities that learning communities in their various forms may offer to teachers in their ongoing professional learning, a warning is sounded by some researchers who find no significant change in teacher efficacy despite practitioners' involvement in professional development through traditional means or through learning communities (Dallas, 2003; Lingard et al., 2002).

If education systems, schools and individual teachers persist with devoting their precious financial and human resources to professional learning, it must be known which methods best support pedagogical development that affects the outcomes of

students. Surprisingly little is known about how the organisation of schools and school systems in Australia supports the professional learning of teachers to build the social capital of the nation. Therefore, the third question in this research became:

How do schools and school systems support teacher learning?

Data to address this question will be gathered from the principals' focus group and from the experiences of teacher-learners in the five case schools.

3.7 Conclusion

This chapter has generated a synthesis of scholarly literature about the learning teachers do throughout their careers. The review has highlighted the rapidly changing milieu of today's knowledge society and the place of schools within it. Knowledge has become a commodity to be traded and exchanged and what the Australian community demands of its education system is being voiced in increasingly strident tones. Education is viewed as a subset of contemporary economic policy and society's demands centre on schools' capacity to prepare the nation's future workers in an age where knowledge is the most significant personal and national commodity.

Community expectations of schools have grown closer in many ways to those experienced in the corporate world, therefore literature on how organisations foster learning contributed significantly to this discussion. The language and measures of the corporate world were identified as a major component of today's knowledge society and literature on schools as learning organisations (Senge, 2000) demonstrated that the professional worlds of teachers are shaped by their school contexts, systemic cultures and global expectations. The personal dimensions that teacher-learners bring to their professional roles were also explored for their contributions to building the capacity of schools and systems to meet the needs of students. However, little research currently exists that illustrates how Australia's education systems facilitate organisational learning or engage teachers in the building of social capital within their schools.

The review identified the general concepts by which continuing professional learning are understood and reported on and why the characteristics of lifelong learning are seen as vital to assuring quality teaching. It examined the links between what teachers learn and how they learn it and our current understandings about enhancing the educational outcomes of students. Research on how teacher learning is spoken about (Doecke et al., 2008) illustrates how nomenclature positions both the learner and the learning. The difficulties of quantifying individual teachers' learning highlighted our incomplete understanding of how professional learning is translated into effective professional practice. Empirical evidence of a connection between teachers' learning and the learning of their students is not as obvious as one might think. At best, the research presents a hazy link and, at worst, it has been shown that teachers' engagement in professional learning has little or no measurable effect on student achievement. An investigation of current research underscored the intricacies involved in disentangling teacher learning from the many threads that go to make up effective learning environments for students (Meiers & Ingvarson, 2005).

Literature on building the organisational capacity of schools (Senge, 2000) demonstrated that the creation of communities of practice facilitates the professional learning of individuals and schools. Concepts of collegial learning were relevant to this study because they demonstrated the organisational traits needed to respond meaningfully in an era of rapid social and economic change. The concept of community as a learning construct that creates a pool of collective organisational intelligence, illuminated issues of capacity building within individual schools and educational systems. Collaboration was shown to encourage innovation and to provide support for individuals through periods of rapid and extensive change.

By inquiring into the professional behaviours of teacher-learners, a number of accepted wisdoms that underpin the framing of current professional learning policy have been confronted. Examining systemic perspectives on the learning teachers do throughout their careers revealed the backdrop against which teacher learning takes place. It exposed the expectations policy makers have for investing in the learning that teachers do and the ways in which workplaces are structured according to these expectations. The professional attribute of lifelong learning was identified as contributing to quality practice and school capacity and was cited as a significant

factor in both personal and organisational effectiveness. However, few education systems currently recognise or reward teacher-learners for the quality of their practice or the upgrading of their qualifications and expertise. That is a noteworthy conclusion of this literature review given the integral relationship of teacher learning to school renewal.

Literature that elaborated the tensions between teachers' personal and professional lives (Day et al., 2006) was reviewed because it furthered the understanding of the forces at work on the behaviours of teacher-learners. Investigation of literature about what teachers' personal experiences can add to professional lives acknowledged some of the many influences that contribute to an understanding of the successful teacher.

Finally, literature about authentic modes of professional learning (Webster-Wright, 2009) was reviewed to set the scene for investigating the ways in which professional learning contributes to the capacity of schools to meet the needs of teacher-learners and their students. A pivotal argument of this review has been that research does not yet clearly articulate strong causal links between the in-career learning of teachers and measured changes in their professional practices. The assumptions upon which our current practices are based do not inspire great confidence when examined in depth and some empirical evidence casts doubt on the veracity of some long-held and much lauded cause and effect claims.

In summary, teacher learning is conceptualised as ultimately aimed at facilitating student achievement; economically important to a 21st century knowledge society; essential to educational reform and renewal; influenced by personal dimensions and organisational culture; and constructed in communities of practice. It is "layered, continuous, complex, and intricately interwoven into the fabric of the school, that is, its school culture" (Stringer, 2009, p. 167). Therefore, for the purposes of this study, professional learning is understood to be the range of processes by which teachers actively acquire and generate new knowledges that lead to the enrichment of their professional understandings and may lead to a shift in their professional behaviours. It is recognized that changes in understandings may not necessarily result in

changes in professional practice (Meirink, Meijer, & Verloop, 2007) and likewise that changes in classroom behaviours do not need to result in changes in cognition but are still identified as professional learning. It recognises the journey in understanding career-oriented learning as *professional development* to *professional learning* that is the objective of all learning that teachers undertake.

The review emphasises the need for a deeper understanding of how teachers navigate and negotiate professional learning throughout their careers and the research questions explored in this study seek to understand its nature and power:

- 1. *How do teachers and those who support teacher-learners understand 'professional learning'?***
- 2. *How and why do teachers engage with professional learning throughout their careers?***
- 3. *How do schools and school systems support teacher learning?***

These questions are nested within the complex network of relationships that describe teacher-learners and their learning. They emerged from the three strands of literature explored in this review and illustrate the intense complexity of interwoven relationships between teacher-learners and the learning they do throughout their careers.

CHAPTER 4

RESEARCH METHODOLOGY AND METHODS

4.1 Introduction

This study had the primary aim of listening to the voices of practitioners in order to better understand the situated worlds of teacher-learners and how to support them and their learning in this time of constant and inescapable change. The purpose of this chapter is to explain the design of the research and the specific methodology employed in the study. The qualitative research methods selected, the sites from which data were collected and the participants who took part in the study are described. The chapter also describes how the data generated by the study were analysed and how the major themes from the research were derived from the data.

4.2 Research Design

In this study, teacher learning is explored through the experiences and perceptions of school administrators and practising teachers. The research is context-sensitive and concerns the views of principals and teachers in specific locations and at particular points in time.

4.2.1 Theoretical framework.

The purpose of this study was to explore the situated worlds of teacher-learners therefore the research was concerned with the nature of the socially constructed realities. It examined the learning behaviours participants chose based on their realities therefore, the research required a theoretical framework that facilitated the exploration of “how human beings create systems for meaningfully understanding their worlds and experiences” (Raskin, 2002, p.112). Table 4.1 illustrates the research plan of this study.

Table 4.1

Elements of the research plan

PARADIGM	ELEMENT
Epistemology	Constructionism
Theoretical Perspective	Interpretivism – Symbolic Interactionism
Research Methodology	Interpretive Educational Case Study
Methods	Focus Group interview Open-ended Questionnaire Semi-structured Interviews and Story-line Researcher Field Log

4.2.1.1 Epistemology.

Epistemology addresses the nature and scope of knowledge and attempts to explain “how we know what we know and to determine the status to be ascribed to the understandings we reach” (Crotty, 1998, p.18). A constructionist epistemology was employed in this study to examine the social processes of constructing knowledge and to understand and interpret how professional learning was conceptualised and given meaning. It was recognised that multiple knowledges can coexist (Denzin & Lincoln, 1994) as individuals construct their own realities in the negotiation of their worlds. Constructionism provided a scaffold for examining teachers’ context-specific realities and accommodated the notion that “different people may construct meaning in different ways, even in relation to the same phenomenon” (Crotty, 1998, p.9). Constructionist theories posit that culturally constructed realities “distinctively shape personal lives” (Kloos, 2008, p. 475) and this study, conducted in schools that were the real-life cultural settings of teacher-learners, explored their constructed realities of professional learning. Participants’ realities were given voice and the tacit knowledge they possessed as learners in-situ was documented.

4.2.1.2 Theoretical perspectives.

Theoretical perspectives are ways of perceiving the world and making meaning of it. They are “points of view – eyeglasses, sensitizers – that guide our perceptions of reality” (Charon, 1998, p.10). An exploration of teacher learning that was socially constructed in community was undertaken in this study. The research purpose invited a perspective that aided understanding and interpretation of the ways in which teachers constructed meaning as they negotiated their ongoing professional learning. Consequently, the theoretical perspective of interpretivism was selected. It was employed to “get inside the ways others see the world” (Neuman, 2000, p.75) and to reconstruct the self-understandings of the participants (Schwandt, 2000).

Interpretivists believe that:

reality is subjective in people’s minds, is created, not found and interpreted differently by people; human beings are creators of their world, making sense of their world, not restricted by external laws, creating systems of meanings; science is based on common sense, inductive, relying on interpretations, not value free; and the purpose of research is to interpret social life, to understand social life, to discover people’s meanings (Sarantakos, 1998, p.40).

Within the theoretical perspective of interpretivism, symbolic interactionism provided the specific interpretive lens for this study. Using a symbolic interactionist approach, learning was understood to be “an unfolding process in which individuals interpret their environment and act upon it on the basis of that interpretation” (Morrison, 2002, p. 18). There was a focus on the ways in which people interacted “using symbols to carry their meanings, interpret others’ and try to control the patterns of the interaction” (Wiseman, 1993, p.134).

Three principles distinguish symbolic interactionism from other approaches. The first is the understanding that meaning is assigned to phenomena and action is based on the meanings created. Second, meaning is assigned to the acts of others and third, meanings are modified by one’s interpretations of those acts (Dimmock & O'Donoghue, 1997) and communicated by the symbolic use of language and gestures (Blumer, 1969). Symbolic interactionists acknowledge that while reality is unique to each individual, people in common situations develop shared perspectives because of their common definitions (Bogdan & Biklen, 1998).

Symbolic interactionists acknowledge language as the agreed symbolic system of interaction (Bassey, 1999) and recognize the critical role of context in understanding individuals' constructions of meaning. "Individuals and the context that individuals exist in are inseparable. Truth is tentative and never absolute because meaning changes depending on the context of the individual" (Benzies & Allen, 2001, p.544).

The symbolic interactionist perspective closely fitted the aims of this study. People are "social, interactional and symbolic by their very nature" (Charon, 2001, p.35) and this study explored the interactions of teachers as learners in professional communities. It examined the symbols of language by which teachers chose to explain their professional learning experiences and it recognised the significance of the contexts in which professional learning took place.

4.2.2 Research methodology.

A research methodology is "a way to systematically solve a research problem" (Kothari, 2008, p. 7). The selection of a specific research methodology and of the complementary data-gathering strategies chosen for this study was guided by the belief that individuals construct reality as they interact with others and the environment. As the purpose of this study centred on exploring the worlds of teacher-learners and how to support their learning, the methodology selected to serve this purpose was that of an interpretive educational case study (Yin, 2003). Case study is "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident" (Yin, 1994, p. 65). As a research method, interpretive educational case study provided a systematic way of looking at what is happening; collecting data; analysing information; and reporting results. Case study is "both a process of inquiry about the case and the product of that inquiry" (Stake, 2005, p.444) and this study used interpretive educational case study methodology to examine the real-life worlds of teacher-learners.

As a research tool, interpretive educational case study allows the researcher to enjoy both an insider's view and an outsider's view of the phenomena being investigated (Carson, Gilmore, Gronhaug, & Perry, 2000). Interpretive educational case studies:

facilitate the conveying of experiences of actors and stakeholders as well as the experiences of studying the case. It can enhance the reader's experience of the case. It does this largely with narratives and situational descriptions of the case activity, personal relationships, and group interaction (Stake, 2005, p. 454).

In most instances, a case study is “the preferred strategy when ‘how’ or ‘why’ questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon in some real-life context” (Yin, 2003, p.1). The reason case-based methodology was the most appropriate for this research lay in the nature of the questions being posed in the study. The research explored how and why teachers engaged in continuing professional learning throughout their careers. The research cases used were schools, the contemporary settings of practising teachers, and aimed to uncover the contextual conditions that drove teachers’ decision-making about their own professional learning.

Interpretive educational case study methodology was used in this research to identify what was common and what was particular about each case as well as to seek out the uncommon. The research studied five individual school-based cases of teachers’ and school administrators’ experiences that together formed a multiple-case design.

4.2.3 Overview of data collection strategies.

This research was both exploratory and explanatory in nature and was conducted in three phases. In the initial phase of the research, the definition and design phase, the problem that initiated this study was articulated. This problem concerned the ways in which teachers and those who support them as learners negotiated professional learning throughout their professional careers. Literature was reviewed to identify contemporary knowledge and understandings about teachers’ patterns of engagement in professional learning and their ongoing commitment to learning.

In the second phase of the research, the collection and analysis phase, a focus group (Krueger, 2000) of school administrators was convened to provide contextual information for the research and to guide the identification of specific issues to be addressed in subsequent stages of the study. It was important that school administrators’ concerns and issues were seen to be addressed in this phase of the

study so as to enlist their support of the research and their staffs' participation in it.

Teacher collaboration has been demonstrated to be an important component of continuing professional learning (Carmichael, Fox, McCormick, Procter, & Honour, 2006) consequently, the inclusion of teacher teams provided the potential for enhancing participants' collaborative learning through the study. Hence, teams of teachers were invited to participate at the interview stage of the study where that was possible. Because the group interview is a tool allowing the collection of qualitative data in natural settings (Frey & Fontana, 1993), it was appropriate because it allowed the "participants' experiences, opinions and concerns relating to the particular topics" (Ahlme et al., 2005, p.106) to be explored in an interactive way. Additionally, incorporating participants with divergent views and experiences in a single interview was recognition of the multiple realities that form a critical plank of the constructionist epistemology that underpinned this research.

The structure of the focus group of administrators and the semi-structured team interviews with teachers shared many of the same features but their purposeful uses in this study were distinguishing factors. The focus group interview was used to engender principals' support for research, to provide whole-school understandings about professional learning and contextual data about how it was enacted in the five case schools. In contrast, the teacher team interviews served a far more intimate purpose as forums for exploring participants' feelings and concerns and reviewing responses given in the questionnaires.

Researcher field notes in the form of a field log were an additional component of the data collection. The log included contextual information about the circumstances of each encounter between researcher and participants, as well as researcher thoughts about participants' responses and reactions and questions to be posed in later phases of the research. For example, field notes made after meeting with the school administrators in their focus group alerted the researcher to the issue of teachers being unwilling to engage in learning of a more general or 'big picture' nature. This awareness informed the analysis of data from the teacher interviews and was indeed borne out in their comments.

In the final phase of the project, case-based and cross-case data were organised and analysed to produce the major themes of the study. The data generated by each phase of the research are summarised in Table 4.2.

Table 4.2
Data sources by research phase

Phase 1	Phase 2	Phase 3
Expression of Interest responses from schools	Transcript of focus group	Cross-case data
Administrator focus group interview	Raw data from open-ended questionnaires	Interpretations drawn from data in the form of major themes
Teacher open-ended questionnaires	Transcript from semi-structured interview	Member checks to verify interpretations
Teacher interviews including story-lines	Writing of individual cases	Field log annotations and reflections
Field log annotations and reflections	Issues extracted from individual case data	
	Significant differences in individual case data documented	
	Field log annotations and reflections	

Table 4.3 details the timeframe of the research. In each of the three phases of the study, the participants, the data gathering strategies, the development of the research instruments, the analysis techniques and the timeline is described.

Table 4.3

Timeline of the conduct of the research

Research Phase	Participants	Data Gathering Strategies	Research Questions	Data Analysis	Timeline
1 Define & Design	Researcher	Problem definition Research design Case identification	Develop research questions Trial questionnaire and interview questions	Revise and trial research questions	January, 2005 - February, 2006
2 Collect & Analyse	Administrators	Focus Group Interview	Appendix 3 Questions	Transcripts coded	March, 2006
	Whole Staffs	Open-ended Questionnaire	Appendix 3 Questions	Questionnaires coded	April, 2006
	Teacher Teams	Semi-structured Interviews Story-line	Appendix 3 Questions	Transcripts coded	May-June, 2006
3 Verify & Recommend	Researcher	Participant Feedback		Constant Comparative Method	July-December, 2006
				Preparation of thesis	January, 2007 – December, 2010

Finally, a summary of the conduct of the research is presented in Figure 4.1. It describes the contribution each element of the study made to the research.

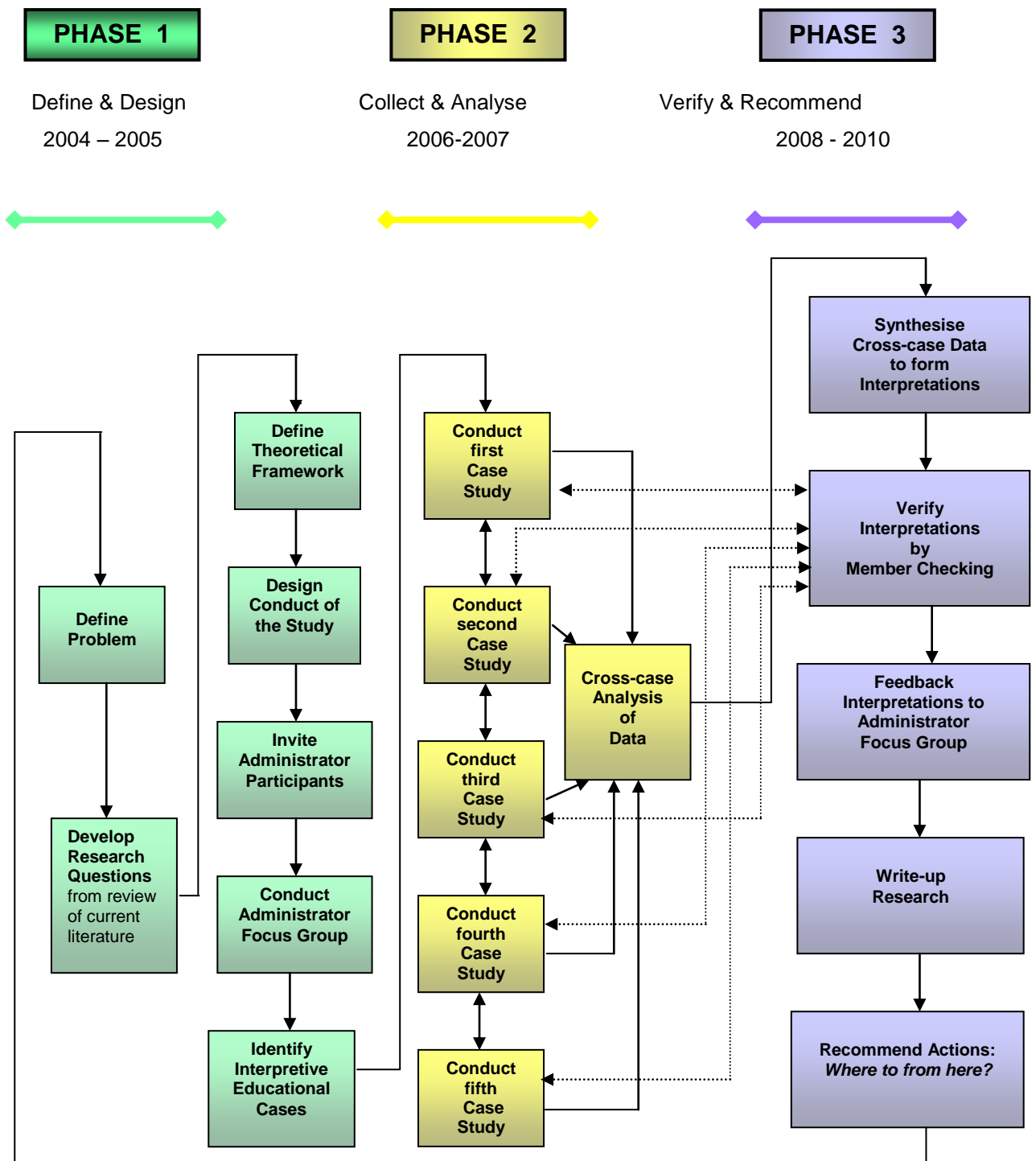


Figure 4.1 Summary of the research

Each of the three questions that guided this research was addressed in each forum of the study: administrator focus group, teacher open-ended questionnaires and teacher semi-structured group and individual interviews.

The three research questions were:

- 1. *How do teachers and those who support teacher-learners understand ‘professional learning’?***
- 2. *How and why do teachers engage with professional learning throughout their careers?***
- 3. *How do schools and school systems support teacher learning?***

Specific sub-questions were addressed by participants in each forum of the study and these may be found as Appendix 3. Table 4.4 provides a summary of the relationship between the research questions of the study and the sub-questions used in interviews and the questionnaire to probe participants’ experiences of professional learning.

Table 4.4

Relationship of sub-questions to research questions

Research Questions	Administrators’ Interview Questions	Teachers’ Questionnaire Questions	Teachers’ Interview Questions
1. How do teachers and those who support teacher-learners understand ‘professional learning’?	2, 2a, 2b, 4a	1, 2, 4, 7, 17-19	2, 2a, 2b, 2c
2. How and why do teachers engage with professional learning throughout their careers?	1, 1a	3, 5-6, 10-14	1, 1a, 1b, 3, 3a, 3b, 3c
3. How do schools and school systems support teacher learning?	3, 3a, 3b, 4, 4b, 5, 5a, 5b	8- 9, 15-16, 20-24	4, 4a, 4b, 5, 5a, 5b

In the following section, the data collection strategies employed in this study are described and the reasons for their inclusion in the research are explained. The strategies are described in the order in which they were employed during the study, commencing with the focus group interview for principals.

4.2.3.1 Focus group interview.

A focus group is “a small, temporary community, formed for the purpose of the collective enterprise of discovery” (Templeton, 1994, p. 2). Focus group interviews are used to gather information on how groups of people think or feel about a particular topic but are “little more than quasi-formal or formal instances of many kinds of everyday speech acts that are part and parcel of unmarked social life – conversations, group discussions and negotiations” (Kamberelis & Dimitriadis, 2005, p.887). Use of the focus group strategy was appropriate to this study because it aided the gathering of important contextual information for the research:

Because of their synergistic potential, focus groups often produce data that are seldom produced through individual interviewing and observations and that result in especially powerful interpretive insights. In particular, the synergy and dynamism generated within homogeneous collectives often reveal unarticulated norms and normative assumptions (Kamberelis & Dimitriadis, 2005, p. 903).

The administrators who participated in the focus group provided access to teaching staff at their schools. Appendix 3 details the questions used in the focus group interview.

4.2.3.2 Open-ended questionnaire.

A form of the traditional questionnaire, an open-ended questionnaire offers participants opportunities to share their personal narratives. An open-ended questionnaire strategy was used in this study because “these kinds of data may open up avenues to explore and questions to answer” (Bogdan & Biklen, 1998, p.147) and the study aimed to collect data that were relevant to the lived experiences of the participants. Appendix 3 details the questions used in the open-ended questionnaire.

4.2.3.3 Semi-structured interview.

Semi-structured interviews provided an opportunity for more in-depth exploration what the participants were thinking and feeling. “We interview people to find out from them those things we cannot directly observe” (Patton, 1990) and use of this technique was “not to put things in someone’s mind ... but to access the perspective of the person being interviewed” (Hannabuss, 1996, p.24). The interview process

sought the “establishment of a human-to-human relationship with the respondent and the desire to understand rather than explain” (Fontana & Frey, 2005, p.654) what the participants were willing to share.

However, interviewing is not a neutral process as:

two or more people are involved in this process, and their exchanges lead to the creation of a collaborative effort called the interview. The key here is the “active” nature of this process (Holstein & Gubrium, 1995) that leads to a contextually bound and mutually created story – the interview (Fontana & Frey, 2005, p.696).

Teacher teams with a minimum of two teacher volunteers wherever possible were invited to elaborate on their questionnaire responses in a series of semi-structured interviews (Patton, 1990). These interviews were used to tease out teachers’ personal understandings, beliefs and motivations for participating in continuing professional learning. To conclude the interviews, participants summarized and evaluated their personal journeys as teacher-learners using the story-line technique.

The semi-structured interviews conducted with teachers and the focus group interview with administrators were similar in that they were conversational in tone and allowed for open responses to questions rather than ‘yes’ or ‘no’ answers. However, their main point of difference lay with the role of the researcher in the ways in which each was conducted. In the focus group, the “facilitator keeps the group on the track but is otherwise non-directive allowing the group to explore the subject from as many angles as they please” (Longhurst, 2010, p. 103). In the semi-structured interview however, the role of the researcher was to “elicit information from another person by asking predetermined questions” (Longhurst, 2010, p. 103) and this necessitated a more active role for the researcher.

Semi-structured interviews were used in this study because of their close fit with the underlying constructionist epistemology and interpretivist theoretical perspective of the research. The questions used to guide the semi-structured interviews are detailed in Appendix 3 and are closely related to the questionnaire questions.

4.2.3.4 Story-line method.

The story-line method (Gergen, 1988) is part of the narrative research tradition that gives voice to the stories of research participants. Being

situated in the present, the story-line method asks of teachers that they relive and retell current and prior experiences and events. The stories about these experiences and events are qualitative data that has to be categorized and interpreted by the researcher (Beijaard, Van Driel, & Verloop, 1999, p.59).

In this study, teachers were invited to evaluate relevant experiences and events in their professional lives by constructing a graph that represented significant episodes and events in their own professional learning journeys. This strategy offered teachers' a real-time opportunity to clarify their learning experiences, thus providing an authentic evaluation of their own data from their unique personal perspectives.

By drawing a story-line, each participant evaluated specific influences on a scale from positive to negative and then clarified these in writing. Using a graph with five-point scale on which one indicated a negative impact, three showed a neutral effect and five indicated a positive impact, each teacher sketched a line to show their perception of the effectiveness of their professional learning throughout their teaching career. This method of research provided insights into what participants valued about continuing professional learning and their subsequent actions based on those values as well as the institutional and personal factors that influenced their progress as learners. Use of this strategy had the advantage of allowing teachers to evaluate their own experiences rather than relying on researcher interpretation and story-lines were completed with remarkable frankness and candour providing revealing insights into the personal narratives of participants as learners. An example of a completed story-line is provided in Appendix 9 (Excerpt from Analysis of Annotated Story-line).

4.2.3.5 Researcher field log.

A field log was used to record the study's operational information such as the names, date, time and location of interactions with participants. It also contained a summary of the key issues arising during the encounters as well as the researcher's personal recount of the research process. It included notes on interactive experiences and

researcher perceptions and reactions as well as charting the evolution of the study. It provided a word-picture of people, places, actions and reactions. Importantly in this study, "post-interview notes allow the investigator to monitor the process of data collection as well as begin to analyse the information itself" (Merriam, 1998, p.82).

Use of the field log strategy was appropriate to this study because the researcher's role was a significant element of the research given the constructionist paradigm that underpinned the study. An interpretivist epistemology posits that participants and researcher jointly construct knowledge as they interact during the life of the study and representation of researcher reactions was a legitimate element of this research.

The field log provided a reflective tool for the researcher in which ideas were mulled over to crystallise meaning. For example, early in the study such reflection was used to examine the participant-researcher relationship. Initially, it had been a concern that participants' involvement in the study might be compromised in some way because they were known to the researcher. This disquiet was identified and analysed in the log. The analysis of personal reflections provided a measure of reflexivity (Smith, 2002) in the study that acknowledged the presence of the researcher as a participant in the study.

4.2.3.6 Summary of data collection strategies.

The methodological structure underlying this research was that of interpretive educational case study. The "snapshot" (Rose, 1991, p.194) of the five case schools provided in this research was based on:

- a) a scan of each school's website to discover the public images the schools presented to their communities
- b) a focus group interview with school administrators
- c) an open-ended questionnaire to all participating teaching staff
- d) semi-structured interviews with self-selected staff including individual story-lines
- e) researcher field log.

4.3 Data Collection Sites: The Cases

This study was situated within the broad context of 47 government schools located in a region of Queensland encompassing a cohort of approximately 800 teaching staff. A self-selected group of school administrators and their teaching staff participated in the initial data-gathering phase of the research and a smaller group of these teacher participants provided more in-depth perspectives on professional learning. Together these participants comprised the five interpretive educational cases described in this research. The cases chosen were as representative as possible of the sectors of schooling available from across the geographic region and the inclusion of participants from a wide range of geographic locations was deliberately sought for this study.

As one of the purposes of this study was to explore how teachers and those who support teacher-learners negotiate continuing professional learning throughout careers, it was important to enlist the support of school administrators for the study as the scholarly literature notes that teacher learning takes place within school-specific contexts and cultures. Principals' insights were a significant contributor to the study.

An initial invitation to participate in the study was forwarded to the administrators of all 47 schools within the region. Thirteen responses were received from schools wishing to participate and from these five schools were chosen as interpretive educational cases for comprehensive examination. An initial consideration for inclusion in the research was that the collective of schools represented the significant, naturally occurring groups within State education offered in the geographic region. It was desirable to include large facilities and small schools, schools located in urban settings and small rural communities, as well as those classified as isolated or remote. A cross-section of primary schools, secondary schools and campuses catering for Preparatory learners through to Year 12 students and small schools with teaching principals was desirable. Collectively they offered the potential to provide cross-case comparison of issues identified as significant to the study and to provide support for the importance of issues common across various school settings.

A further consideration in the selection of participating schools was the logistics of gathering together the schools' administrators for a focus group interview and the travel required to meet with teaching staff for face-to-face interviews. In order for these goals to be met, it was necessary to limit the range of participants to a 100-kilometre radius from the research base. Three secondary schools, a small primary school and a P-10 campus together satisfied all the criteria.

The three secondary schools selected represented differing school sizes and different communities of interest. Their strategic responses to the challenges facing their local communities varied, but each was seen as contributing significantly to their geographic areas. The primary school selected served a small rural hamlet and the P-10 campus included in the study was located in an isolated rural town but was unique in that its two administrators shared a single principal's position.

Together these five case schools constituted a small but representative sample of State-run educational facilities in this regional area. The case selection process is diagrammatically illustrated in Figure 4.2.

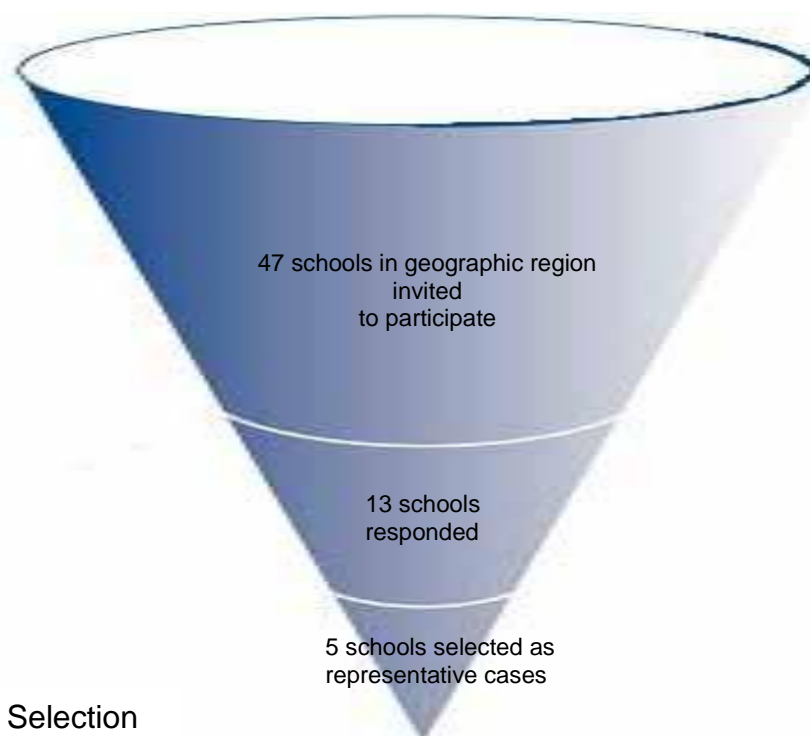


Figure 4.2 Case Selection

Following is a brief overview of each of the five interpretive cases selected for the study.

4.3.1 Case 1: State High School A.

State High School A was chosen for the study because it represented a large urban secondary campus with a close working relationship with municipal authorities. Its community was described as “largely homogenous” (Administrator A’s description).

Location: Provincial town with a population of 11 500 people

Students: 960

Administrators: Principal - male, Deputy Principals - 1 male, 1 female

Teaching staff: Female 39

Male 27

Study participants: Principal 1

Teacher Questionnaire Respondents 8

Teacher Interviewees 3

4.3.2 Case 2: State High School B.

State High School B was a small secondary campus located within 20 kilometres of State High School A but its students were drawn from a number of surrounding rural communities. These communities have seen declining socio-economic circumstances in recent times due to government decisions about local industries.

Location: Provincial town with a population of 1 500 people

Students: 390

Administrators: Principal - male, Deputy Principals - 2 female

Teaching staff: Female 20

Male 13

Study participants: Principal 1

Teacher Questionnaire Respondents 16

Teacher Interviewees 4

4.3.3 Case 3: State High School C.

State High School C was selected for the study because it was a moderately sized facility and, while it was located in a coastal town, it also drew its students from a number of surrounding rural areas. These communities have seen fluctuating fortunes in response to international commodity prices for agricultural production and the effects of natural disasters. This school had developed a curriculum based on agribusiness in response to local conditions and had been recognized for its significant contributions to its communities. This school underwent a review by State authorities that centred on exploring its higher than expected student achievement. The review focused on identifying those aspects of the school's operation that contributed to such high levels of academic performance.

Location: Provincial town with a population of 2 800 people

Students: 650

Administrators: Principal - male, Deputy Principals - 1 male, 1 female

Teaching staff: Female 25

Male 34

Study participants: Principal 1

Teacher Questionnaire Respondents 17

Teacher Interviewees 11

4.3.4 Case 4: State Primary School D.

State Primary School D was a two-teacher primary school located equi-distantly from two provincial centres. In these towns, a choice of State and Independent education options was offered. Children attending State School D did so largely as a result of parental choice based on the perceived benefits of a small school atmosphere.

Location: Hamlet with a population of 170 people

Students: 40

Administrators: Principal - male (teaching)

Teaching staff: Female 1

Study participants: Principal 1

Teacher Questionnaire Respondents 1

Teacher Interviewees 1

4.3.5 Case 5: State P-10 School E.

State P-10 School E offered a Preparatory Year to Year 10 curriculum in a rural area largely populated by first and second-generation migrant families. The school, with its two part-time female administrators sharing one administration position, competed for enrolments with a Catholic school located in the town. One administrator was a female of migrant ethnicity while the other was a very experienced local teacher, new to the administrator's role.

Location: Village with a population of 520 people

Students: 220

Administrators: Principals - 2 females (non-teaching)

Teaching staff: Female 12

Male 5

Study participants: Principal 2

Teacher Questionnaire Respondents 8

Teacher Interviewees 3

4.4 The Participants

From the 47 schools invited to participate, 13 school administrators expressed their interest in being involved in this study. From these responses, five case study schools were selected from which 50 teachers completed the study's questionnaire. Of these, 22 teachers responded positively to an invitation to be interviewed.

While a higher response rate to completion of the open-ended questionnaire would have been desirable, the qualitative nature of the study did not make this essential. Volunteers were invited to participate and it was up to teachers to decide whether or not to respond. It is acknowledged that principal support and encouragement of participation played a significant role in teacher response rates. Follow-up communication with principals did increase the rate of questionnaire completion in some locations but not in others.

Declining response rates to surveys is a phenomenon recognised worldwide. "Survey response rates are declining throughout the developed world. A public

weary of having their dinner interrupted by an increasing number of polling agencies and media-conducted surveys (not to mention other types of commercial calls) has increased refusal rates” (Hansen, 2007, p.112). This declining willingness of people to respond to surveys “is troubling given the central role that survey research plays in collecting data for institutional research purposes” (Dey, 1997, p.215).

Research concerning response rates (Edwards et al., 2004, p.94) suggests that the use of monetary incentives increases response rates to mail surveys. This was not an option available in this instance. Other suggested measures such as making pre-survey contact, the timing of invitations to participate and follow-up faxes, and telephone calls were employed in this study. These actions did have the effect of increasing the participation rate of school administrators but were not as effective with teacher participants because direct contact with teachers was not possible before their participation. Schools’ administrators mediated communication with their teachers and there was anecdotal evidence that some questionnaires may not have reached their target audience.

Figure 4.3 illustrates the process of selecting teacher participants.

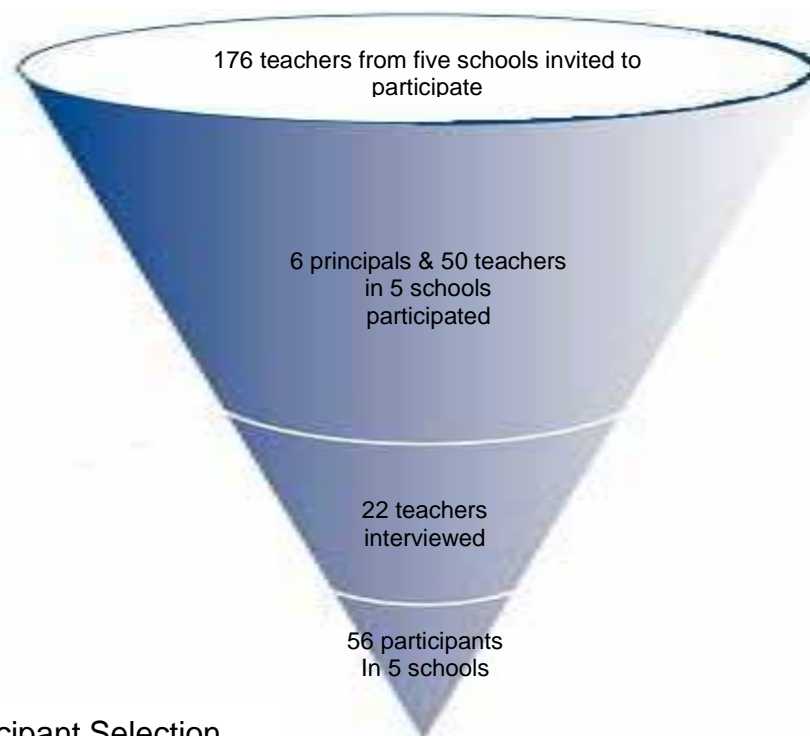


Figure 4.3 Participant Selection

In all, a total of 56 educators comprising six school administrators and 50 practising teachers contributed their collective wisdom to this research. Response rates for administrators and teacher participants are presented in Table 4.5.

Table 4.5

Participant response rates

Participant Group	Number	Response Rate %
Schools invited	47	
School responses	13	27.6
Schools selected	5	
Principals responses	6	100
Teachers invited	176	
Teacher responses	50	28.4
Teachers interviewed	22	44

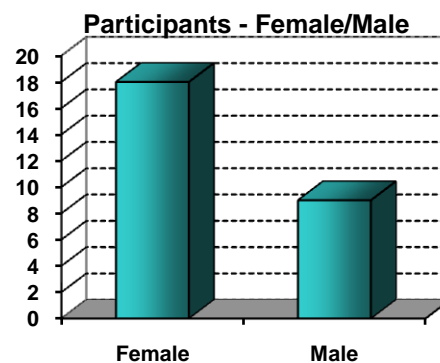
While participant response rates to some elements of this research were not high, they were sufficient for the conduct of the study because of its qualitative nature. Questionnaires rarely generate comprehensive information because it is up to individuals “to decide whether or not to respond” (Baruch, 1999, p.422). In this study the aim was to increase the understanding of teachers as they adopt the roles of learners rather than to provide results for generalisation so, while small sample sizes and the non-statistical nature of the research provide some limitations, recommendations based on the data will claim no significance beyond the boundaries of the cases reported.

From the five schools chosen as interpretive educational cases for this research, each school’s administrator and a self-selected group of participant teachers joined the study. Participant identities have been protected by use of an alphanumeric code. A letter is used to denote each participant’s school site and, for teacher participants, a number distinguishes their responses from those of other teachers in their school.

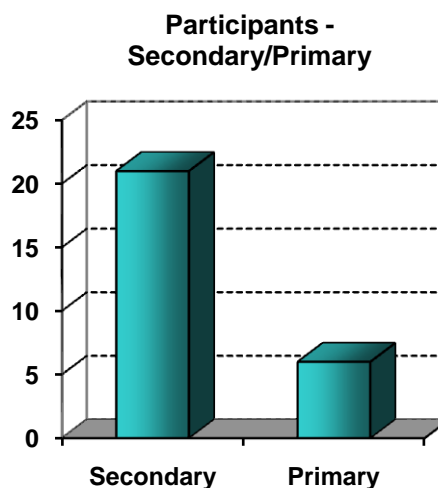
An overview of the 22 teacher participants who participated in the second phase of the study is provided below in graphic form. Information is provided on the ratio of

female participants to males, their school sector, their geographic situation and their level of teaching experience. The latter category has been used in this study in preference to the age range of participants because of an increasing trend for beginning teachers (novices) to include a significant number of mature-aged graduates.

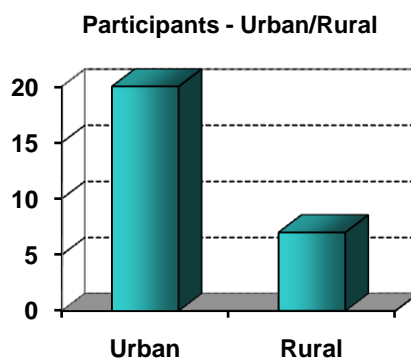
Each graph that follows represents the actual number of participant responses.



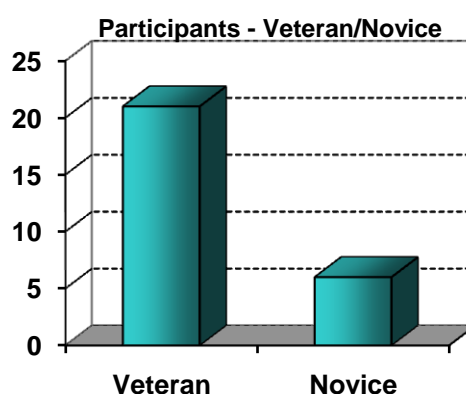
Female participants outnumbered their male counterparts by a factor of two to one.



From the total participant cohort, secondary teachers were more willing than their primary school colleagues to participate in the semi-structured interview phase of the study. Of the total number of secondary questionnaire respondents, 46.3% were willing to be interviewed. Of the total number of primary questionnaire respondents, 22.2 % indicated their willingness to be involved in the interview phase of the study.



Because of the nature of the geographic region in which the study was located, it might have been anticipated that most participants would be drawn from rural or remote sites. However, the size of two of the participating secondary schools located in urban areas skewed the urban/rural ratio significantly.



For the purposes of this study, novices were defined as those teachers with less than five years of experience in their current role, be it teaching or administration. Veterans therefore were those with five or more years experience in their current educational role.

4.4.1 Administrator profiles.

Six school administrators participated in an initial focus group interview and acted as an ongoing reference group for this study. These administrators brought a wealth of knowledge to the research and their years of experience in the role ranged from four to 23 years. Their schools were equally distributed between primary and secondary

campuses but their enrolments varied from 40 to 960 students. Table 4.6 provides a profile of the administrator participants.

Table 4.6

Administrator profiles

School	Gender	Age Range	School Sector	Administrator Experience (Years)	Current School (Years)
A	Male	31-40	Secondary	9	9
B	Male	41-50	Secondary	5	2
C	Male	51-60	Secondary	23	11
D	Male	31-40	Primary	4	4
E	Female	31-40	P-10	8	8
	Female	51-60	P-10	4	14

4.4.2 Teacher profiles.

Fifty teachers provided information for this research. Initially all responded to an open-ended questionnaire that was comprised of 25 questions based on the five major research questions guiding the study. Of these, 22 were willing to share their insights about professional learning in semi-structured interviews. Where possible, teachers participated in the semi-structured interviews in teams. Because the concept of learning communities has demonstrated potential to influence school reform and to develop the capacity of education systems to improve student learning outcomes (Department of Education, 2000), the participation of teams of teachers from each site was encouraged. A total of six team interviews and seven individual interviews were conducted. Team membership ranged from three to five members. In some cases this was not possible and these teachers were individually interviewed using the same interview structure. A profile of the teacher interviewees is presented in Table 4.7.

Table 4.7

Teacher interviewee profiles

Teacher Code	Gender	Age Range	School Sector	Teaching Experience (Years)	Current School (Years)	Interview Type Team/Individual
A1	Female	60+	Secondary	35	3	Team
A2	Male	41-50	Secondary	25	2	Team
A3	Female	51-60	Secondary	30	3	Team
B1	Female	31-40	Secondary	18	3	Team
B2	Female	31-40	Secondary	20	3	Team
B3	Male	31-40	Secondary	15	3	Team
B4	Female	41-50	Secondary	13	2	Team
C1	Male	51-60	Secondary	25	4	Team
C2	Female	51-60	Secondary	32	12	Team
C3	Female	51-60	Secondary	20	5	Individual
C4	Female	41-50	Secondary	20	3	Individual
C5	Female	31-40	Secondary	17	15	Team
C6	Female	41-50	Secondary	19	10	Team
C7	Male	41-50	Secondary	19	18	Team
C8	Male	21-30	Secondary	2	2	Individual
C9	Male	41-50	Secondary	25	20	Individual
C10	Female	41-50	Secondary	21	7	Individual
C11	Male	51-60	Secondary	30	24	Team
D1	Female	31-40	Primary	4	3	Individual
E1	Female	31-40	Secondary	5	1	Individual
E2	Male	41-50	Primary	12	7	Team
E3	Female	51-60	Primary	22	4	Team

The following graph illustrates the number of interviewees by case school.

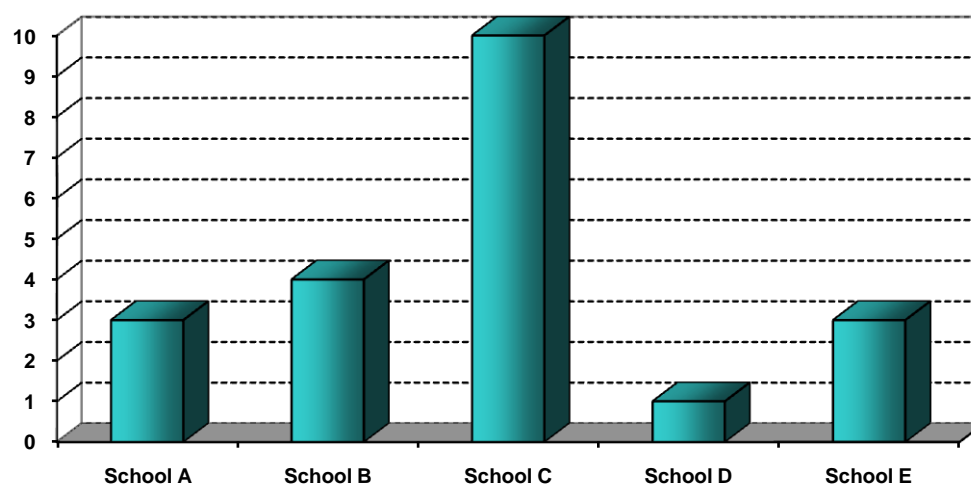
Participants - Base Schools

Table 4.8 provides a summary of the contributions of each participant group to the research.

Table 4.8

Summary of participant involvement

<i>PARTICIPANT GROUPS</i>	<i>PARTICIPANT NUMBERS</i>	<i>RESEARCH METHODS</i>
School Administrators	6	Focus Group Interview
Teachers	50	Open-ended Questionnaire
	22	Semi-structured Interview

4.5 Data Analysis Techniques

The ways in which data generated by this study were analysed are described in detail in this section. While major themes were gleaned from literature, a number of new themes not identified in the literature review did emerge from analysis of the data.

The purpose of analysis “is to bring meaning, structure and order to data” (Anfara, Brown, & Mangoine, 2002, p.31) and is the exacting job of “working with data, organising it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others” (Bogdan & Biklen, 1992, p.145). It was the nuances in the data that provided insights into the personal realities described by the participants. These, in turn, lead to the refinement of the emerging patterns in the data.

The Constant Comparative Method of analysis (Strauss & Corbin, 1998) was employed in this study because it allowed for the simultaneous collection of data, its analysis and the generation of categories that represented emerging patterns. Constant Comparative Method [CCM] unfolds in four stages: “(1) comparing incidents applicable to each theme that emerges from the data; (2) integrating

themes and their properties; (3) delimiting the theory; and (4) writing the theory” (Bowen, 2008, p. 139).

Because CCM allowed for the collection of data and its analysis and interpretation to occur simultaneously and interactively (Creswell & Miller, 2000), the technique offered a way to systematise the process of analysis and compare data. Comparative thinking necessitated the development of categories of data, criteria that distinguished these categories from each other, identification of patterns in the data and the conceptualisation of the major issues that emerged. By comparing data from various sources, the researcher was able “to do what is necessary to develop a theory more or less inductively, namely categorizing, coding, delineating categories and connecting them” (Boeije, 2002, p.393).

Large quantities of descriptive data were reduced to manageable chunks by broad brush coding (Richards, 2005). Coding identified areas of the texts and transcripts that represented major themes identified in the literature. For example, relevant comments identified from the administrators’ focus group transcript were compared with responses in the teachers’ open-ended questionnaire responses and transcripts of the semi-structured interviews conducted with teachers. Through the voices of the participants, tentative categories were developed then refined as previously coded text was compared with newly created codes to ensure their relevance (Charmaz, 2003).

Figure 4.4 summarises the use of Constant Comparative Method in this study. As data were collected, they were reflected upon to produce broad categories that were constantly refined with the addition of new data.

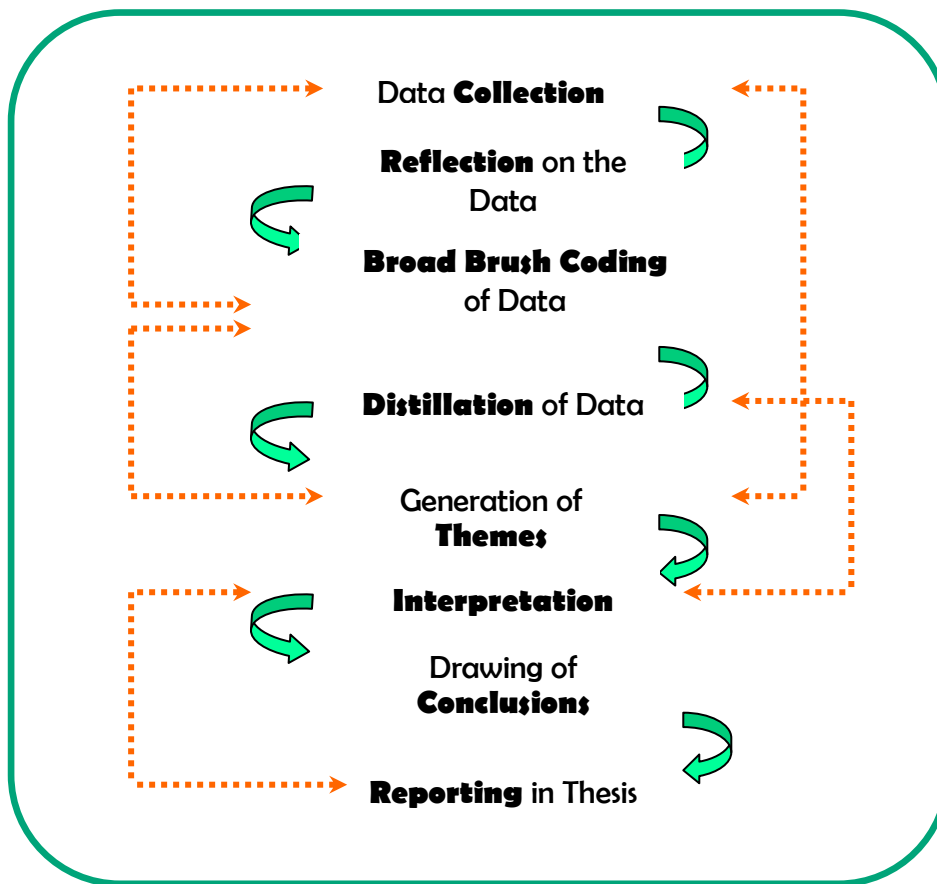


Figure 4.4 Constant Comparative Method

Table 4.9, based on Boeije's coding framework (2002, p.396), elaborates how the Constant Comparative Method was employed at each step of the analytic process of this study.

Table 4.9

Method of data analysis

Steps	Analysis	Purpose	Questions	Results Generated
1. Identify themes within Administrator Focus Group	Open coding: summarize interview; interpret summary	Develop participant codes and categories	What is the core message of each encounter?	Summaries of questionnaires and interviews; provisional categories; description of the analytic process
2. Identify themes within single teacher questionnaires and interviews			What do the summaries have in common? Are there contradictions?	
3. Identify themes across multiple teacher questionnaires and interviews	Axial coding: formulate criteria for categories; identify patterns and common themes	Conceptualize contexts and common themes; compare fragments dealing with the same theme	What are the similarities and differences? What categories do interviews reveal? What combinations of concepts occur? What are possible interpretations for this? What criteria underlie this comparison?	Description of each category; inventory of characteristics of each category; criteria for comparing cases; provisional themes from patterns of responses
4. Identify themes across Administrator Focus Group, Teacher Questionnaires and Teacher Interviews	Triangulate data sources: summarize themes; identify criteria to compare groups; compare specific phenomena; detail research results	Conceptualize contexts and interactions between participants; identify common criteria for comparison	What are the central issues for both groups? What themes are particular to the Administrators? What themes are particular to the teachers? What patterns exist in the responses? Why do they see things similarly or differently? What new information does the administrator group supply about the teacher group and vice versa? Are there contradictions between groups?	Verification of provisional themes; criteria for comparing cases; additional information relating to contexts; inventory of central issues

4.5.1 Analysis of interview data.

Because of the similar nature of data generated by the focus group interview with school administrators and the semi-structured interviews with teachers, these data were analysed using the same methods. Audiotapes of the interviews were converted to an MP3 file and written transcripts were generated. The transcripts were summarised and participants' comments were analysed and coded to create provisional categories of responses. Categorization of participants' comments underwent many revisions as codes were refined and amended to incorporate the views of an increasing number of participants.

An excerpt of the analysis process of interview data is presented as Appendix 4 (Excerpt from Focus Group Transcript) that demonstrates how open codes emerged from analyses of the interview data. First, significant responses in the interview transcripts were highlighted to produce the open codes. Then these codes were combined and refined to produce axial codes that represented the conceptualisation of issues central to the interviewees using Constant Comparative Method.

4.5.2 Analysis of teacher open-ended questionnaire data.

An initial reading of the 50 teachers' responses to the open-ended questionnaire produced open codes that were entered into a database. Each entry contained information about the respondent's questionnaire code, years of teaching experience, age, gender and sector of schooling. Open codes were assigned to each response and the criteria for each category were documented and compared with those derived from the administrators' interview. Appendix 5 (Excerpt from Analysis of Open-ended Questionnaire Data) provides an excerpt from the analysis of questionnaire data.

Codes were allocated to each teacher's response to the 25 questions comprising the questionnaire instrument. When coding was complete, individual responses to each question were tabulated and the percentage of respondents providing each coded response was calculated. This provided a broad statistical picture of responses to each of the specific research questions.

During the process of analysis, codes were reviewed and revised frequently. The open-ended nature of the questionnaire allowed for an unlimited range of responses to some questions and each new response was incorporated into an existing code or assigned an additional category. Some categories were amalgamated while others were redistributed into two or more new codes as the criteria for inclusion in each became more refined. Category criteria and coding information were recorded in an additional database.

For example, responses to Question 7 of the questionnaire (What counts as professional learning for you?) included “Reading professional journals and books on teaching” and “New ideas and developments from Queensland Studies Authority”. In the first analysis, these responses were coded separately because the second was mandated information for teachers. However, further analysis demonstrated that these responses were part of the larger issue: Access to new ideas. Alterations to codes and the dates on which changes were made were noted along with notes for consideration later in the process of analysis. An excerpt of the analysis process can be found in Appendix 5.

4.5.3 Analysis of story-line data.

By drawing a story-line, teachers evaluated specific influences at particular points in time on their professional learning on a scale from positive to negative and clarified these effects in writing. Analysis of these data enabled teachers’ to evaluate and interpret their own data about themselves as learners. An example of the analysis of a story-line appears as Appendix 10 (Excerpt from Story-line Analysis Record) where it can be seen that the technique offered participants the opportunity to analyse their own data. Each participant produced a graphic representation of their perception of their own level of professional learning at self-selected junctures throughout their career and then explained in writing the highs, lows and plateaus they experienced as they recalled significant events that had impacted positively or negatively on their roles as teacher-learners.

The story-line method enabled teachers to reflect upon what had happened in their teaching lives and to evaluate and interpret the institutional conditions, systemic

initiatives and personal circumstances that had impacted on their professional learning. These data added to interpretations made by the researcher (van Driel, Beijaard, & Verloop, 2002) and teachers' evaluations from their own perspectives meant that the level of reliance on researcher interpretation was minimised. For example, an initial reading of the storyline of Teacher B3 (page 120) could indicate a steady level of engagement with professional learning since her early days as a teacher. In fact, Teacher B3's analysis of her own story-line provided intimate details of a career marked by momentous personal decisions taken to enhance her learning and further her professional career.

4.5.4 Analysis of field log data.

Throughout the study, a field log was used that documented encounters with participants, ideas that emerged from further reading of the literature and discussions with colleagues and supervisors. Initially this record was merely a diary of events and contexts but gradually it took on greater significance as ideas began to emerge and the analytic process intensified. From entries about time, place and context field log entries took on greater significance as ideas were reconceptualized. Appendices 11 and 12 illustrate this transition.

Analysis of the content of the field log occurred at the end of each phase of the research and at the conclusion of the writing of each chapter of this thesis to ensure that ideas and concepts developed along the way were incorporated.

4.5.5 Construction of school-based cases.

This study utilised multiple cases that necessitated "within-case analysis" and "cross-case analysis" (Merriam, 1998, p.194). Within each case, the initial step was to amalgamate data generated by each administrator in the focus group interview with data produced in the open-ended questionnaires and the teacher semi-structured interviews to "build a comprehensive case in and of itself" (Strauss & Corbin, 1998, p. 194). Therefore, cases were built from the analysis of interviews and surveys and the assembling of contextual data about the five schools.

Comparison was then able to be made across the cases to identify common issues and patterns in the responses of all five interpretive cases. A consideration for case study researchers in comparing data across cases is the communication of understanding when and if the data collected “present disparate, incompatible or even contradictory information” (Merriam, 1998, p.193). The four-step strategy using Constant Comparative Method detailed in Table 4.9 addressed this issue. It was by understanding the details of participants’ professional learning experiences and the constant comparison of issues across the data that larger cross-case themes were established.

Cross-case analysis demonstrated that issues that had assumed significance in some of the cases were of little consequence in others. The issue of teacher learning contributing directly to the success of the school was identified in only Case 3. It could be argued that this was due in part to the particular culture of State High School C but it was not mentioned in any other of the five cases. However, while not mentioned specifically elsewhere, the role of school success as a motivator of teacher learning was detected as an underlying issue in other schools.

4.6 Ethical Considerations

In accordance with the rules for the ethical conduct of research (Touitou, Portaluppi, Smolensky, & Rensing, 2004), this study has been conducted in a manner sensitive to issues of privacy and confidentiality, always respecting the rights of participants. The necessary written consent of education authorities and the Australian Catholic University were gained as required. All participants were informed in writing of the nature of the research, its purposes and protocols, and that their involvement was sought on a voluntary basis. Written informed consent was gained from each participant and the nature of the researcher/participant relationship became an ongoing dialogue throughout the study. The research purpose was restated at the beginning of each participant encounter and clarification of the processes and protocols was provided when sought to secure confirmation of participants’ ongoing involvement in the project.

Another ethical consideration arose with the sharing of data among participants. Personal stories were told and shared during the research and potential existed for ethical dilemmas in the ways in which participants accessed interview records. “Ethics is an everyday activity and most of the dilemmas which researchers have to face are everyday ones” (Small, 2001, p.404). Consequently, while member checks provided participants with an opportunity to confirm the accuracy of the final accounts drawn from their raw data (Anfara et al., 2002), participants were reminded of the confidential nature of their discussions with each other and with the researcher.

To de-identify all participants, alphanumeric codes were used for participating individuals and their schools. An amendment to the study’s strict anonymity of all participants was necessary when it became obvious that some personal data would need to be collected from a number of the participants to enable contact to be made for interviewing purposes. As questionnaire respondents agreed to be interviewed in the second phase of the research, it was necessary to include an identifier on each questionnaire form that allowed the researcher to identify the responses of interviewees. A code number was included on each questionnaire and a corresponding code was added to the consent form for those teachers who were willing to talk with the researcher in the interview phase. An amended ethics approval (Appendix 3) allowing this identifier to be included on the questionnaire was sought and gained.

Raw data and the subsequent analysed material were safely archived in accordance with the ethics approval granted at the outset of the study. Written and audio-taped material was stored in a locked cabinet and, five years after the completion of the project all original material will be destroyed.

As the participants in this study had heavy workloads, consideration was given to how the researcher could compensate informants for their efforts in involving themselves in the research. The encounters for this research were held in comfortable surroundings and scheduled at times convenient for the participants. Reciprocity was a real aim of this research and was in keeping with the epistemological framework that underpinned the study. In addition, participants

benefited from being listened to and from gaining insight into the professional practice of others (Miles & Huberman, 1994). For example, Teacher A3's imminent move to a new role at the time of the interview involved consultation with colleagues at a nearby primary school. Teacher A2 was keen to be part of these consultations in his role as Head of Department and plans were made for a joint visit to the primary campus. It is not known whether this level of cooperation continued but the teachers' involvement in the research was the catalyst for these initial steps.

4.7 Legitimation

In an interpretivist paradigm, trustworthiness is a cornerstone of the legitimation of a piece of research (Lincoln & Guba, 2000). Trustworthiness encompasses the credibility, dependability and confirmability (Lincoln & Guba, 1985) of research findings and the concept of trustworthiness was an appropriate consideration in this study since the research employed an interpretive case study methodology. Hence, the ability to ensure the legitimacy of the research was an important element of the study's design because "being able to trust research results is especially important to professionals in applied fields, such as education, in which practitioners intervene in people's lives" (Merriam, 1998, p. 198). The concept of trustworthiness highlights the ethic of respect for integrity in case study research (Bassegy, 1999) and hinges on providing sufficient data and description for the reader to appreciate the conclusions reached.

Trustworthiness has been incorporated in the design of this research in the ways in which data were collected, analysed, interpreted and presented. The procedures employed in this study to make public the research process and to ensure the integrity of the research include:

- triangulation of data sources - use of a number of data sources to form themes or categories (Creswell & Miller, 2000)
- reflexivity - keeping a field log of personal reflections (Smith, 2002) and noting the presence of the researcher's voice in the completed text;
- clarifying researcher bias – identifying the influence of the researcher (Creswell, 1998)
- member checks - participants providing confirmation that the final account of the raw data is accurate (Anfara et al., 2002) and sharing in the interpretive process
- researcher knowledge – extensive experience in the field

- sharing of the research process.

Triangulation of data sources was achieved in this study by the inclusion of multiple cases specifically employed to increase the legitimacy of the findings. Multiple cases provide more compelling support for the interpretations drawn from the data than do single-case studies (Yin, 1989). Use of Constant Comparative Method of analysis was another mechanism designed to ensure the legitimacy of results.

Reflexivity was achieved by the use of a field log that annotated researcher encounters with participants and acted as a tool for reflection as the study proceeded. As explained in section 4.2.3.5, the role of the log evolved as the research progressed and its use is illustrated in Chapter 6.

Member checks of the interpretations produced by analysis of the data added to the trustworthiness of this study. While attempts were made to contact all participants, some had relocated from the area in the intervening time between their direct participation in the study and the request to review the analysis of their data consequently it was not possible to contact all participants. For those participants who were contactable, a common response to the request for them to review their data was that they had 'moved on' professionally and found it difficult to understand why the researcher was still interested in their views. Nevertheless, none chose to change their original data or to modify the interpretation or the generalisations drawn from them.

4.8 Role of the Researcher

The role of the researcher is an honoured one in jointly constructing knowledge and practice. In this study, the researcher assumed the role of interested listener and allowed participants to drive the encounters, however, it is noted that a professional relationship did exist between the researcher and some participants. Having been involved in education in the area over many years in a number of consultative roles, the researcher was known to all principal participants and to a significant number of teacher participants. Initially, a cause for concern was that the pre-existing relationships between researcher and participants might colour the ways in which participants told their stories.

In a conscious effort to avoid researcher bias, participants were encouraged where possible to control the pace and content of interviews, particularly in the administrators' focus group when the researcher's main role was guide the conversation when it strayed from the research purpose. However, in the semi-structured interviews, the researcher's role was slightly more formal with the posing of predetermined questions that served to structure the discussion and to encourage the contributions of all interviewees. In this data gathering strategy, the story-line technique where participants undertook the interpretation and evaluation of some of their own data was an explicit attempt to minimise researcher bias.

Determining whether researcher presence influenced the responses of participants was a difficult task. The level of candour and passion with which responses were offered may point to the researcher being accorded the role of trusted insider (L. Smith, 1999). For example, the provision of learning experiences by 'outside experts' was treated with distain by participants and yet the researcher was not treated in this way. In fact, confidences were shared with remarkable forthrightness and honesty. Accordingly, although the researcher was a member of the education community in the area, all data were used only for the purposes for which permission was give by the participants. However, it is expected that the knowledge gained by the researcher will subsequently inform practice.

4.9 Limitations of the Study

The limitations of this study were those issues beyond the control of the researcher. One limitation concerned the logistical challenge of gathering data across an extensive geographic area of Queensland. Since the study area covered approximately 95 000 square kilometres, one of the criteria for the choice of case schools was the logistics of bringing together as many participants as possible. In an effort to reduce some of the considerable travel and time challenges that distance presented, and to include participants from a wide variety of locations, written and telephonic options were employed to provide participants with opportunities to contribute to the research despite their distributed locations.

The use of interview techniques as data-gathering strategies may have resulted in some limitations to the study due to the small sample size and the non-statistical nature of most data. However, the intent of this research was to increase understanding of the life narratives of teacher-learners rather than to provide results for generalisation hence, no significance beyond the boundaries of the cases presented in this study has been claimed.

4.10 Conclusion

This chapter has detailed the questions to be answered by the research and the specific theoretical framework that has guided its conduct. Interpretive educational case study has been demonstrated to be the most appropriate methodology suited to the purposes of the research and the specific strategies to be employed to gather and analyse data have been outlined. The decision-making processes used in establishing the research methodology for the study have been described and the ways in which the interests of those who chose to be involved in the study have been safeguarded have been documented.

The nature of this study provided a snapshot of a particular element of participants' professional lives at a specific point in time and relied on the willingness of participants to answer the questions put to them in an open and honest manner. Because researcher and participants brought different frames of reference to the analysis of personal data, a story-line method was employed to encourage participants to analyse some data from their own perspectives instead of relying solely on the researcher's interpretations. This technique added validity to the overall data analysis.

Data generated during the course of the study and the interpretations of those data are presented and discussed in Chapters 5 and 6.

CHAPTER 5

INTERPRETIVE EDUCATIONAL CASES

5.1 Introduction

In this chapter, the narratives of teacher-learners at the five case schools selected as interpretative educational cases for this research project are told. The schools were among 47 State schools in Queensland invited to participate in this study into teacher learning. Thirteen schools expressed interest in the research and the five schools described here were selected from that cohort. Their inclusion in the study was based on their ability to represent specific sectors of State schooling available in a geographic region. The schools selected comprised a large urban secondary school, a medium sized rural secondary facility, a small rural secondary school, a school that catered for learners from Prep to Year 10 and a very small primary school located in a rural hamlet. Together they were administered by six principals and were the workplaces of 177 teaching staff. These schools provided educational opportunities for more than 2300 students in the area.

The professional learning practices of administrator and teacher participants were inextricably linked to the contextual richness of their schools and this chapter describes the features that made each school representative and yet unique. Within-case analysis of the data yielded categories of responses that identified the main issues and concerns raised by the participant groups at each site. The issues specific to each educational case are described through the voices of participants to explain their discrete points of view. A summary of the issues from each case is provided at the conclusion of each case description. Table 5.1 provides an overview of staff at the five case schools.

Table 5.1

Overview of case schools' staff

Case	Principals	Teaching Staff	Questionnaire Respondents	Teacher Interviews
1	1	66	8	3
2	1	33	16	4
3	1	59	17	11
4	1	2	1	1
5	2	17	8	3

5.2 Case 1 - State High School A

5.2.1 The school's context.

State High School A was chosen for inclusion in this study because it represented a large secondary school. It was located in a regional centre. The school prided itself on being “big enough to offer a large range of opportunities, subjects and choices ... but still small enough to offer that much needed personal touch” (State High School A website). It operated joint community facilities in conjunction with the local municipal council and housed an on-campus TAFE facility. The school boasted “a good record of Queensland Core Skills [QCS] results and top end Overall Position [OP]” (State High School A website). Vocational education was a particular emphasis.

A staff of 66 teachers was employed at State High School A and provided educational opportunities for 970 students. The school's administrative team consisted of a Principal and two Deputy Principals. One Deputy Principal was operating in the capacity of Acting Principal for the duration of the data collection phase of this study and publicly voiced his support for the research and its aims. He contributed his thoughts on teacher learning through the administrators' focus group.

The characteristics of the town served by State High School A impacted on the school's service delivery, so understanding the composition of the community will

assist in understanding the school's unique context. The prosperous service town in which State High School A was located was home to 7000 people with a median age of 40 years compared with the Australian median age of 37 years (ABS, 2006). The community included a significant number of indigenous people, 7.1% compared with 2.3% nationally. Having such a high number of indigenous students was a significant consideration for State High School A's curriculum offerings however, the percentage of homes in which English was the only language spoken (91.8%) was significantly higher than the national average of 78.5%.

There was a total of 1906 families in the town at the time of the study with only 36.4% of these households including children. Nationally the rate of families with children was 45% so a significant number of households (44.4%) were childless presenting potential enrolment issues for State High School A in the future. The main sources of employment in the area were retail services and labour hire accounting for 43.9% of all jobs. Professionals accounted for 15.9% of the area's workforce compared with 19.8% nationally (ABS, 2006). Administrator A and eight of the 66 teachers at State High School A participated in the research. Administrator A was a member of the focus group of school principals and all eight teachers completed an open-ended survey. Of the eight, three teachers participated in the semi-structured interviews conducted for this project.

5.2.2 The school's administrator.

Identified as Administrator A in the study, this participant was undertaking his second extended period as Acting Principal at State High School A. His substantive position was as one of the school's two Deputy Principals. Administrator A had been teaching for 19 years and had been at State High School A for six of his nine years as an associate administrator. During the study, one male and one female Deputy Principal assisted Administrator A in his role. The male Deputy was acting in Administrator A's substantive position.

Administrator A's contributions to teacher learning were marked by a distinct welfare-orientation. He spoke at length about how caring for the welfare of his students had flow-on benefits for the well being of his teaching staff. The language of student

welfare and its link to the outcomes of his students pervaded Administrator A's discourse and was an issue about which he spoke passionately. The following excerpt from Administrator A's focus group contribution illustrates his professional learning philosophy:

We've been concentrating on links between student welfare and outcomes. Our interest in welfare isn't only welfare-based. It's linked to making a difference in the classroom. Many [teachers] despise the welfare role but will come onboard with welfare initiatives if they see the advantages in the operational stuff. Like our student welfare program. It goes back to that common theme; people embrace it because it means coming to work not so stressed about certain kids. It's been running for eight years and people are still coming back for refreshers [PD] because it makes a tangible difference on a day-to-day basis. It [professional learning] is not just a pedagogy, pedagogy, pedagogy focus. It's also about what happens at lunch times and before school. It's about the 'how' rather than the 'what'. The nitty gritty things will fall in to place when people are calmer. When people come to work and they're worried about things, they won't be concerned with content. They'll be worried, "If this thing happens with the kids today, how am I going to react?" The relationships stuff.

The major preoccupation for Administrator A was with the link between the welfare of his students and the learning of his teachers. In his eyes, there was a strong linkage between the wellbeing and learning outcomes of the students at State High School A and the subsequent learning his staff were prompted to undertake.

Administrator A was doubtful about the efficacy of large-scale mandated professional activities. He believed that teachers needed to see immediate benefits to their personal teaching practice in order to engage in learning:

We've got to move away from large-scale PD with masses of people. It's got to be short, sharp PD with small cohorts with the same concerns. Success in everyday practice is what they want ... If teachers see tangible advantages in their classrooms, it will fast track their willingness to participate. Some PD is great stuff but it struggles because people are going, "Yeah, but I can't use that tomorrow."

Another issue for this school's administrator was the political climate and the apparent divergence between the directions of State and Federal education authorities and the effect that constant change had on teachers:

There has to be a recognition that we're in a state of universal change. That's a really important stumbling block to our profession. We keep forgetting who our clients are ... People will roll with the punches and disappointments of their own development if there's surety in the direction the Department's

heading. People just want to know, “Is what I’m doing in the ballpark?” and if it will help their movement forward in the job. There is cynicism. People always say, “The next person on the promotional trail will turn this initiative on its ear.” We’ve seen it all before ... People are going to be very gun shy to buy into new things when the Federal government is moving in a different direction that is so opposite to our State.

The pace of change and uncertainty about the direction of educational change was seen to detract from teachers’ motivation to be involved in professional learning at State High School A.

Additionally, Administrator A was concerned that in his area there were talented classroom practitioners with a wealth of knowledge and understanding who were quarantined within their own schools. He noted that some administrators were reluctant to release teachers to work with their peers in other locations because of the costs associated with having the most talented practitioners out of their classrooms. A local expectation that professional learning entailed long distance travel was evident in responses and compounded the issue:

PD doesn’t have to mean getting on a plane. There are lots of talented people [in the area] but they’re in silos within their schools.

He acknowledged the pressure teachers felt in leaving their classrooms to attend to their own learning and highlighted this as a significant professional issue:

While PD is seen as an imposition on core business, that’s a real problem for us as a profession. We’re trained to see that leaving the classroom to do something is a copout. Teachers end up having to work double time to make up for what they’ll miss while they’re away.

5.2.3 The school’s teacher participants.

Of State High School A’s 66 teachers, eight completed the study’s open-ended questionnaire. From these, three teachers chose to participate as a team in the semi-structured interview phase of the study. State High School A teachers suggested that the school’s low response rate to the Teacher Questionnaire resulted from materials being left in their delivery box and not distributed to staff until shortly before the return date.

The teacher participants from this school ranged in age from their early 20s to one teacher who was over the age of 60. The cohort included practitioners with more than 35 years of teaching experience as well as teachers with less than five years of experience in the classroom. State High School A teacher participants had spent between two and nine years of their careers at this school.

Table 5.2 presents an overview of the characteristics of the teacher participants from State High School A. For the purposes of protecting their anonymity, they have been referred to as participants A1 to A8 in this study.

Table 5.2

State High School A teacher participants

Teacher Participants	Gender	Age Range	Teaching Experience	Years at State High School A	Interview Type (if applicable)
A1	Female	60+	37	3	Team
A2	Male	31-40	25	2	Team
A3	Female	51-60	30	3	Team
A4	Male	41-50	9	9	n/a
A5	Female	51-60	17	3	n/a
A6	Male	20-30	5	5	n/a
A7	Female	31-40	13	2	n/a
A8	Male	31-40	6	3	n/a

5.2.4 The school's questionnaire results.

The open-ended questionnaire elicited responses to the study's research questions and canvassed the issues of teachers' understandings of what professional learning was and how the education system and their school enabled and encouraged teachers' commitment to ongoing professional learning. Analysis of State High School A's teacher responses produced a number of recurring themes as well as some intriguing comments and statements.

The motivations for professional learning perceived by Administrator A were not those commonly voiced by the teachers in his school. While the school's administrator supposed that teacher concerns for the wellbeing of students was a

critical motivator for their engagement in professional learning, teachers themselves voiced different priorities for participation. While the professional learning offered to staff at State High School A centred on student learning needs and catering for family backgrounds, teacher participants were keen to be involved in pedagogical learning that they felt to be of more immediate use in their classrooms.

Four major issues were evidenced in responses to the open-ended questionnaire from State High School A. Only two of these issues were similar to those identified by the administrator.

5.2.4.1 Isolation: Professional and geographic.

Many teachers at State High School A were “protective of their own empires” (TQ 144) and were reluctant to share their resources and expertise. A sense of professional isolation was expressed by study participants. This theme echoed Administrator A’s observation that talented teachers were in ‘silos’ within their schools, but from a different perspective:

I learn new practices by observing other teachers and adapting ideas to suit my teaching style. In general, teachers here are pretty reluctant to share ideas with colleagues. Teachers need to evaluate what they are doing in the classroom in order to see how effectively their strategies are working and to be honest enough to admit when things are not going well but people are very protective of their own empires and resistant to change (TQ 144).

Interestingly, collaboration with colleagues was noted as the most valuable learning that teachers could undertake. However, the level of funding for PD in schools in rural and remote areas was also an issue at State High School A where time and distance constraints involved in meeting with colleagues and learning from others were problematic:

More funding should go to schools in non-metropolitan areas. Innovative practices that can be shared around help break down entrenched mindsets but that’s so hard to do where distances are so large (TQ 139).

More [learning] could be achieved by doing work with individual teachers. Teachers could try things in their own classrooms with the help of a colleague and expand their own learning. In most cases the PD I’ve attended has been presented by people with appalling teaching skills – yet they tell us how to teach! (TQ 144)

5.2.4.2 Relevance and practicality.

The practical nature of learning opportunities was seen as a determinant of many teachers' willingness to engage. To be effective, teachers needed to see that the learning was relevant to their immediate needs:

It's got to have useful elements that can be used in the classroom. It's got to show me ways to save time in planning and teaching. I need to see the relevance of the PD to my job and if I don't see a direct correlation and it's not mandatory, I'm not interested. Most PD presents too many motherhood statements and adjectives! We all want to do a better job so we don't need to know the 'what' but it's the 'how' we want to see (TQ 127).

I'm always interested in learning something new but it's just that so much presented has little practical relevance (TQ 144).

Learning has to be useful for my classroom (TQ 149).

This was also a concern of Administrator A.

5.2.4.3 Costs of professional learning.

Time and financial constraints were important issues at this site. Time to attend learning events or to dialogue with colleagues was perceived as scarce. Additional costs were deemed to be incurred by the school and by the teachers themselves as a factor of their geographic location. This perception was similar to issues identified by Administrator A:

I need time to attend PD and then the opportunity to share my ideas with other teachers. We just need more money and more time off school to be good learners. (TQ 132).

Because of where we are, our school needs more funding than metropolitan schools. If my costs were subsidized, I'd consider going to more things in my holidays (TQ 139).

5.2.4.4 Systemic support.

While two respondents at State High School A acknowledged that their employer provided pupil-free days and subsidised some PD activities, another two also felt that the employing authority had historically provided little support for and acknowledgement of teachers' learning. Additionally, three of the school's eight respondents left this question blank; another responded with a large question mark.

This may have indicated a belief on the part of respondents that little support was offered:

In my experience EQ hasn't supported me as a learner. I've had to fund all my most valuable learning and do it in my own time. And I didn't even get a pay rise for completing further study (TQ 132).

5.2.5 The school's interviews results.

Two females and one male teacher from State High School A agreed to take part in the interview phase of the study. The interview was scheduled during school time when these three practitioners did not have class responsibilities. It occurred in a space designated as a conference area within a large staff common room. It offered little privacy. Two of the three participants did not appear concerned by the semi-public nature of our meeting place however the third initially looked uncomfortable in this space. The level of anxiety of the participant decreased as the interview unfolded.

Following a welcome to the interview and a brief overview of the project, these three very experienced practitioners took the opportunity to express their views of their own professional learning experiences openly and directly. The semi-structured interview concluded with the completion of a story-line that charted each participant's perceptions of significant events in their personal professional learning journeys across their careers.

Teacher A1 was of interest because her responses to the initial open-ended questionnaire about professional development activities revealed she had not participated in any such activities in the two years previous to the study. She also indicated that she did not expect to undertake any professional learning in the coming year.

A1 had 37 years of teaching experience and had completed a PhD in the late 1980s. As her two interview colleagues were unaware of this accomplishment, she explained her motivation for embarking on her study:

I happened upon a problem in the classroom that I wasn't aware of but it had probably been hatching for a long time. I said, "Hey, what am I doing? I'm not as effective as I thought I was." I had a big paradigm shift largely fuelled by literature and going to conferences and listening to people who had different

perspectives on teaching. I had spent a lot of time trying to put other people's theoretical ideas in to practice. It was my realizing that what I was doing wasn't working that made me seek out PD.

Subsequently, in her position as Head of Curriculum at a private school, A1 attempted to use her emerging knowledge to influence the classroom practice of her colleagues but she acknowledged she had "some success but not with most". This was a significant learning episode in her career:

However, through the process I found professional development is what keeps me going. I've been teaching nearly 40 years now and I still enjoy it but I have to have this stimulus from outside to look at new ideas and to try new things.

She expressed profound concern for the professional learning of her novice colleagues:

They [graduates] hear about teaching paradigms at uni as theoretical constructs but they're not given much idea of how to put things in to practice. Or a lot of what they hear about never gets used. So when they get into a classroom they teach as they were taught or teach from the main paradigm in the staffroom. "Here's a good way or a good set of tools to teach" but the actual educational philosophy underneath it isn't tapped into ... It's the immediate. "I've got to teach this, what can I do?" rather than adopting a complete philosophy. They're always reliant on picking up bits and pieces. If you own the philosophy underneath it, then you can develop your own pedagogy and you're not so dependent on picking up a good practical tip here and there.

The story-line A1 completed at the conclusion of the semi-structured interview (Figure 5.1) charted her perceptions that her personal professional learning had plateaued some 20 years prior to participating in this interview. That would have roughly coincided with the completion of her PhD. The story-line also revealed that A1's professional learning had indeed begun to decline four years previous to the interview date. The data went some way to explaining the apparent discord between A1's interview responses and the views she had initially presented in her questionnaire responses. There she stated that she had not undertaken any activities that had increased her professional knowledge or skills in the year prior to completing the questionnaire and did not expect to undertake any such activities in the subsequent year. With a lingering sense of her inability to effect change and retirement looming, A1 had withdrawn from many of the activities that had formerly sustained her throughout her career.

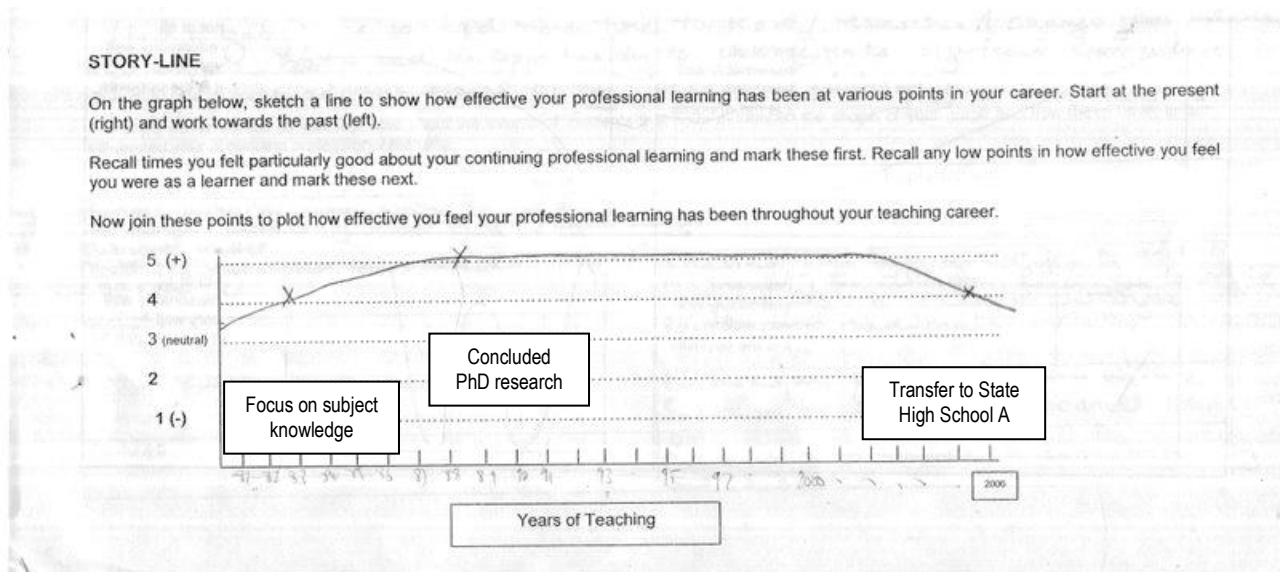


Figure 5.1 Teacher A1's Story-line

Teacher A2 described himself as “an amalgam of four different teachers” that were very influential in his early teaching days:

The things [professional learning] that have been effective for me in the last couple of years have been the same things that were effective from Day 1 about seven million years ago! That's watching colleagues, listening, asking questions and tapping in to the richest resource we have as a profession and that's each other. I have learned more from my colleagues than from any formal PD. I cherry-picked what I thought were the things that worked for them. Not everything worked for me but the things I thought I could use I used quite unashamedly.

A2 emphasized the theme of the collective wisdom of his colleagues and again identified talking with colleagues as one of the most significant sources of his own learning:

The talking happens every day in the staff room and sometimes some of the richest learning you get comes out of casual conversations. On top of that there are times when you combine a class with someone else or you observe someone else teaching or someone comes and watches you. That's what learning's all about.

He also identified himself as a risk-taker with comments such, as, “When I get in to a rut and find myself doing the same things every day, I'll resign. If I'm not changing and learning and getting better at things, I shouldn't be here”.

A2's story-line (Figure 5.2) alluded to personal factors that had impacted on his professional learning and had contributed to the wave-like nature of the line described in his graph. In contrast to the story-line of Teacher A1, A2's graph showed an upward trend upon his arrival at State High School A. Combined with his responses to the open-ended questionnaire, A2 painted a picture of himself as a self-motivate learner who possessed an intrinsic desire to continue his professional learning journey.

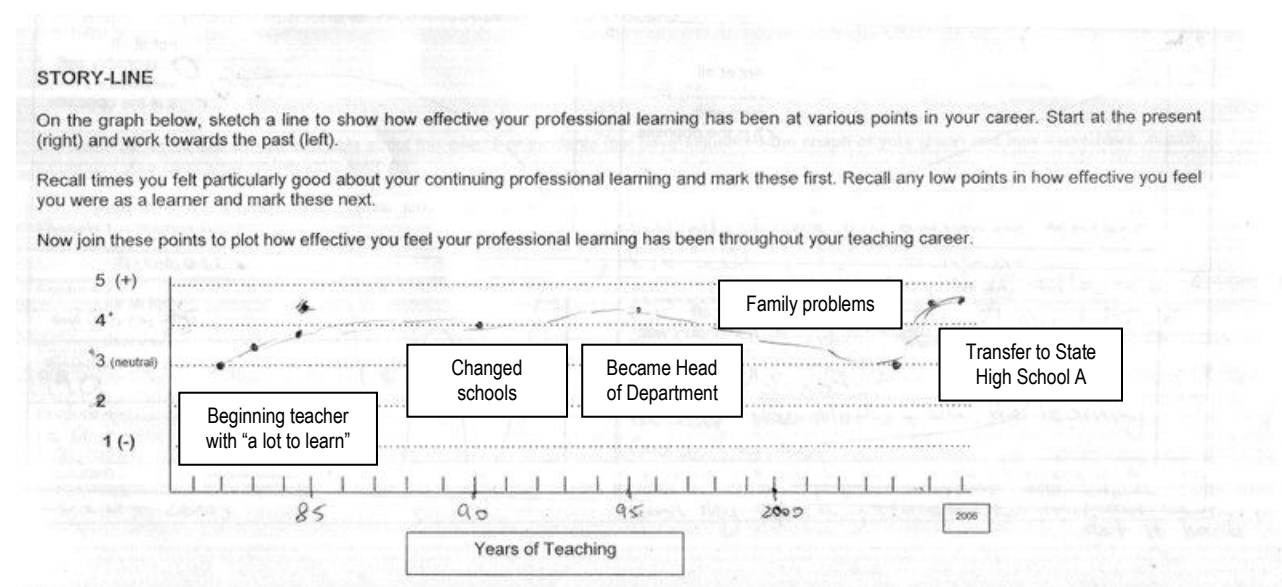


Figure 5.2 Teacher A2's Story-line

Teacher A3 was another very experienced practitioner. Her breadth of classroom experience spanned primary and secondary settings and included overseas educational systems:

The most valuable [PD] I've done was visiting classrooms. Next is workshops where we're given websites and practical stuff. Wow, practical stuff! But I guess it actually confirms that you're doing okay; you're on the right track.

While A3 acknowledged the benefits in her level of experience and that of her interview colleagues, she was concerned about the potential for complacency:

I think because we *are* experienced teachers, we have to keep changing ... Because I've been around for a long time and tried lots of different things, I'm often on a steep learning curve professionally.

She identified differences in emphasis between primary and secondary schools from her experience of both educational settings and alluded to how these emphases affected teachers' views of themselves as learners:

I don't mean to be disrespectful but I do think high schools are more content-oriented and primary schools are more on about skills. That really has an effect on how teachers see *themselves* as learners. My background has been quite a challenge for some of my secondary colleagues. I'm passionate about what I do but I don't want to be precious about guarding the content I teach.

A3's story-line (Figure 5.3) charted 30 years of relatively constant learning with a peak in the early 1990s that she attributed to her move from the primary to the secondary education sector. She saw her learning operating at a constantly high level. A3 did note that she "tried not to let the personal mix with the professional" but that personal illness and increasing family responsibilities did play a part in her attitude towards and her ability to participate in professional learning at this stage of her career.

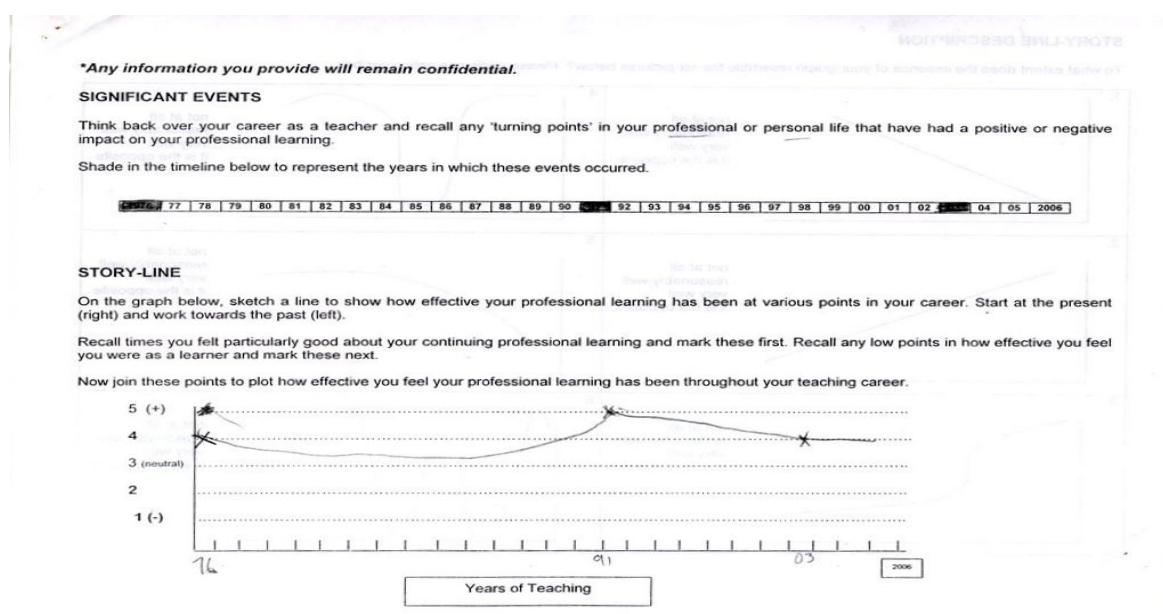


Figure 5.3 Teacher A3's Story-line

5.2.5.1 Summary of interview issues.

Interviewees from State High School A identified three main influences on their own professional learning. Most highly valued of these influences was working with colleagues. Visits to other teachers' classrooms, watching colleagues at work and

time to share their ideas outranked all other professional learning opportunities for these teachers:

The things that have been effective for me have been the same things that were effective from Day 1. That's watching your colleagues, listening and asking questions. Tapping in to the richest resource we have as a profession – and that's each other. I've learned more from my colleagues than I have from any formal PD (A3).

Sadly though, it was noted that teachers at the school did not routinely collaborate with their colleagues and many classrooms were described as “closed”. This theme was reminiscent of the comments made by both Administrator A and the questionnaire respondents who mentioned the reluctance of colleagues to share their resources and expertise:

I've found a lot of people aren't confident [to share]. For a lot of people, their classroom is closed. “I don't want to hear what other people do because maybe mine's not good enough”. I think there's a reluctance to talk about education. If someone comes bouncing into the staffroom and says, “That was a great lesson”, there's a tall poppy syndrome to some extent. You don't big-time how things went in your lesson even if you want to share the experience with somebody and say, “How about you try this?” It's unusual that you would have a staff that would sit down and have those sorts of conversations (A1).

The issue of communication among colleagues was described as “always a problem in secondary schools” (A3). The problem was of even greater concern when teachers new to the profession sought guidance from their more experienced colleagues. Limited opportunities were available for in-depth professional dialogue and concerns were expressed about the ways in which beginning teachers acquired pedagogical knowledge.

Finally, the effectiveness of mandated professional development activities was brought in to question and this theme brought our discussion full circle. It reflected the school administrator's remarks about teachers' learning needing to be timely and appropriate for cohorts of teachers grappling with similar issues:

We don't need the College of Teachers to impose artificial conditions on our learning just for the sake of imposing them. I could do five hours of PD in a formal setting and not grow at all. I could spend an hour in my classroom and grow enormously from the informal PD that's happening right there before my eyes (A2).

5.2.6 Case 1 in summary.

State High School A was a large secondary school located in a provincial town nearly 2000 kilometres from the State's capital. It was staffed by 66 teachers and provided educational opportunities for just less than 1000 students. The school's student population was composed of approximately equal numbers of female and male students drawn from the town and surrounding rural areas. Indigenous students made up 17% of the student population.

The school's administrative team consisted of a Principal and two Deputy Principals. Administrator A was new to the role of Principal but had been in the role of Deputy Principal for quite some years. The driving force behind teacher learning that he identified was the welfare of students. He noted that while some of his staff despised "the welfare role", long-term commitment to teacher learning was possible when his staff saw the benefits of dealing with student needs and handling behaviour management issues from a student welfare perspective. In the experience of Administrator A, student welfare was a major motivator of teachers' participation in and commitment to ongoing professional learning because of the link between welfare and student outcomes. Subsequently, professional learning about welfare issues was important to this principal. His central premise was that attention to students' personal well being and "the relationships stuff" would ensure optimum conditions for effective teaching and learning to occur. The relevance of professional learning to each teacher's classroom was also a concern for Administrator A.

However, a dissonance was observed between the perspectives of Administrator A and that of his staff in attributing motivation for continuing professional learning. Teachers from State High School A did not identify the issue of student welfare as a motivator for their own learning. While they did not say that such professional learning was unhelpful, the issue was not raised in questionnaire responses or in the interview setting.

Teacher interviewees from State High School A were relatively new to their school however each had many years of teaching experience. In fact, between them they could lay claim to 72 years in classrooms. Each identified significant influences on how their professional learning had unfolded during their careers and together they

acknowledged the profound effect of teacher colleagues on their own classroom practices. Family circumstances were noted to have significant impacts on some teachers' professional performance. Time spent away from their classrooms was a vexed issue for State High School A teachers. It highlighted a dichotomy of competing needs. Teachers valued release from classes to attend to their own learning but experienced some degree of stress in dealing with the issues of preparation and behaviour management. State High School A teachers noted that professional learning opportunities provided the stimulus to keep them enthused and motivated in their teaching roles.

Table 5.3 provides an overview of the issues evidenced in Case 1. It is of note that the responses of discrete participant groups at State High School A shared little commonality. The only issue shared across all participant groups from State High School A was that of teachers' isolation.

Table 5.3

Case 1 - Summary of issues

Issues	Administrator A	Teacher Questionnaire Responses	Teacher Interview Responses
1. Large-scale mandated PD is not effective	✓		✓
2. Perceived levels of change in education were viewed cautiously	✓		
3. Talented teachers were quarantined in 'silos'	✓	✓	✓
4. Local expectation that PD meant travel to the State capital	✓		
5. Release from classroom duties influenced participation	✓	✓	
6. Attention to student welfare enabled classrooms to run more smoothly	✓		
7. Working with colleagues was highly valued		✓	✓
8. Employing authority provided little support for teacher learning		✓	
9. Sharing professional learning was logistically difficult			✓
10. Novices' acquisition of professional knowledge was not underpinned by educational philosophy			✓
11. Personal issues impacted on professional learning			✓
12. Employing authority provides little		✓	

support for teacher learning
13. Political influence on education
initiatives are viewed cynically

✓

5.3 Case 2 - State High School B

5.3.1 The school's context.

State High School B was a small secondary campus situated 25 kilometres from High School A. The regional nature of the school's location was seen by participants to play a major role in their engagement with professional learning. The school's staff consisted of a Principal and two Deputy Principals plus 33 teachers.

This school also offered "all the benefits of a large school (broad range of subject choice and co-curricular activities) while enjoying the advantages of a small school (close personal relationships between teachers and students)". It identified as a major feature its willingness to embrace innovation and change "and, above all, highly educated and dedicated staff are what provides the critical difference" at State High School B (State High School B website).

Educational opportunities for 430 students were provided at State High School B and the school was considered a small facility by secondary school standards. It was located in a once-thriving rural town that had suffered economically as a result of Government legislation to deregulate rural industries. The town was home to 2000 people with a median age of 44 years compared with the Australian median age of 37 years. The rate of full-time and part-time employment of 88.9% was comparable with the national average and the percentage of people engaged in primary industries was 7.1% (ABS, 2006). This was down from 12.6% in 2001 and meant that many rural families no longer derived their main source of income from farming but relied on the limited number of retail and labouring jobs 'in town'.

There was a total of 543 families in the area with only 34.4% of these households including children. Nationally the rate of families with children was 45% so a significant number of households (45.9%) were childless. This compared with 37.3% across the nation (ABS, 2006). These figures painted a picture of an aging

population in the area, which did not bode well for future enrolments at State High School B. The school's administrator and sixteen of the 33 teachers at State High School B participated in this research.

5.3.2 The school's administrator.

Identified as Administrator B in this study, this school's Principal was very proud of his school's public face. Though small, the school had won a number of state-wide awards for excellence. Administrator B confidently talked about the level of his teachers' experience, the strength of their skills and the quality of education they provided for their students. In his 40s, Administrator B had graduated to the position of Principal at State High School B three years prior from a teaching position in another of the study's schools. Two female Deputy Principals assisted him in his administrative duties. Both deputies were well respected in their community and were seen as strong leaders in their own rights. Together these three professionals presented a strong and stable public image of their school.

Administrator B displayed a reserved public persona and maintained a controlled and thoughtful demeanour. During the administrators' focus group session, Administrator B remained somewhat aloof from the rest of the group. His contributions were measured and he often used the language of the third person to describe his issues. On the infrequent occasions when he spoke in this forum, other members of the group noticeably took some time to digest his contributions before the spontaneous flow of the discussion resumed within the group. While not numerous, Administrator B's contributions were influential in determining the direction taken by the ensuing group discussion.

Having recently undertaken a course of study that he described as "the best PD ever", Administrator B was acutely aware that professional learning should be well organized and relevant to the learner:

PD needs to be relevant, evidenced-based and you need to see examples of when it's worked. I've just been to the best PD I've ever had. It was relevant. It was paid for. It was well run ... We visited schools where the things were happening. We could ask people questions. You didn't have to tackle the problem by yourself. Sure it was very well funded. That helped. But we saw the things for ourselves. It was really good stuff.

However, Administrator B did lament the ‘cost’ of time spent away from his school while undertaking this learning activity. He acknowledged that such learning carried with it inherent costs that were not merely fiscal in nature:

Being in another State and not being distracted by the day-to-day school stuff really helped. But in some respects it was hard to be there because there were all these problems to deal with when you came back.

Administrator B used temporary acting positions within his school to foster staff learning and encourage them “to step up a level”. This strategy was also seen to involve costs such as “sacrificing quality” while staff acting in positions established effective operations in their new roles:

Using acting positions gives people opportunities to step outside the box and see what else they need ... Sometimes I use people who are handling things well but sometimes I pick people who need to lift their game. That means I run the risk of sacrificing some quality in the job to get people to step up a level. However, the ones who have the most to lose in those situations are the teachers who are doing okay and don’t want to go back to the bottom of the J-curve to get up to a new level. They do need support to take those risks.

Administrator B’s approach to teacher learning emphasized the need for both personal and professional relevance. When discussing the professional learning of his teaching staff, Administrator B singled out the timeliness of the learning for individuals as a significant determinant of effectiveness:

It makes a difference where they’re [teachers] at physically and mentally. When they’re at rock bottom, everything they can latch on to can make a difference in the classroom. There’s an element of “This is a personal thing that’s going to help me as a person as well as professionally.”

Finally, Administrator B pondered teachers’ own perceptions about themselves as learners and concluded with an insightful observation about leaders and learning:

I’d say it’s taken a long time for the penny to drop and more teachers see themselves as learners now than even five years ago. And Principals do need to model being learners too for their staff and communities.

5.3.3 The school’s teacher participants.

Half of State High School B’s 33 teachers agreed to participate in this study. Sixteen teachers completed the open-ended questionnaire and, of these, a team of four contributed their thoughts about professional learning in a semi-structured group interview.

An equal number of female and male teachers from State High School B participated in the study. They ranged in age from 21 years old to more than 60 years of age and included practitioners with more than 30 years of teaching experience as well as novices in their first year of teaching. These teachers had spent up to 30 years of their careers teaching at State High School B.

Table 5.4 provides an overview of the characteristics of the teacher participants from State High School B. For the purposes of protecting their anonymity, they have been given the pseudonyms B1 to B16.

Table 5.4

State High School B teacher participants

Teacher Participants	Gender	Age Range	Teaching Experience	Years at State High School B	Interview Type (if applicable)
B1	Female	31-40	18	5	Team
B2	Female	41-50	20	10	Team
B3	Male	31-40	15	4	Team
B4	Female	31-40	13	5	Team
B5	Female	51-60	26	8	n/a
B6	Female	20-30	1	1	n/a
B7	Female	60+	30	10	n/a
B8	Male	42-50	10	5	n/a
B9	Male	20-30	4	2	n/a
B10	Male	31-40	10	6	n/a
B11	Male	41-50	21	5	n/a
B12	Male	31-40	10	4	n/a
B13	Male	51-60	34	30	n/a
B14	Male	41-50	18	9	n/a
B15	Female	21-30	4	1	n/a
B16	Female	31-40	9	9	n/a

5.3.4 The school's questionnaire results.

State High School B's teacher responses to the three research questions of the study highlighted a significant proportion of teachers that was unsure as to whether their learning contributed to the ways in which their school did business. While most agreed that their continuing learning affected their interactions within the classroom, they remained unconvinced about the affect their actions had outside their own classrooms.

Three major themes were evidenced in teachers' responses to the open-ended questionnaire from State High School B. Of these, two points were echoed by their administrator.

5.3.4.1 Personal relevance of professional learning.

This theme encompassed two distinct but inter-related elements. The first concerned access to quality learning that focused on aspects of teachers' personal development and the second focused on the motivational value of the personal elements of professional learning. The latter was one theme on which these practitioners and their administrator concurred.

Where PD provided teachers with skills and insights that they could use in their personal relationships as well as in their professional lives, they reported significantly higher levels of commitment and the expenditure of greater energy engaging in the learning. For example:

My personal development has a big impact on my professional development. What's happening in my personal life has a bearing on what I do in the classroom and how I do it. EQ could support my learning with more personal development stuff (TQ 420).

The perceived relevance of the learning opportunities on offer to the current as well as potential future teaching needs of the learners was another motivator for State High School B teachers' involvement in professional learning:

When PD relates specifically to me and my teaching, I'll do it (TQ 433).

However some discontent with current practice of PD within the school system was evident:

I think that given the chance, encouragement, time and support necessary, teachers would welcome the chance to do PD. The current EQ mentality seems to be to try and bully staff to do PD rather than assist. Take the new English syllabus for example. Teachers are 'required' to do five hours PD. However not enough funding is given to make this happen. Teachers must do it in their own time at their own expense. First aid too. Again in our own time at our own expense (TQ 410).

This concern was linked to the second major theme of the costs, both financial and personal, that professional learning incurred.

5.3.4.2 Costs of professional learning.

State High School B teachers spoke of the costs related to their learning. These costs included the financial considerations of attending PD events as well as the emotional costs associated with not being in their classrooms with their students. Respondents mentioned this as a significant issue that impacted on their learning and Administrator B concurred with this assessment.

Participants expressed a sense of remoteness from professional events that were often staged in metropolitan areas and felt that they were disadvantaged by the financial and time constraints imposed by distance:

I think that given encouragement, time and support teachers would welcome the chance to do PD. Current EQ mentality seems to try and bully staff to do PD rather than assist ... Not enough funding is given and teachers have to do most in their own time and at their own expense. Make more funds available to schools and you've got to allow time to learn new things. By having one key focus with "real" \$\$\$\$ backing, teachers will jump onboard because they will know it's [PD] taken seriously (TQ 410).

Financial support for teachers in remote regions is essential. A lot of PD is in the southeast corner [of the State] and we just can't get there. We can't go to many of the big presentations because of the cost of travel (TQ 421).

5.3.4.3 Colleagues as teachers.

Learning from and with their peers in community was a significant issue for this cohort of teachers. Questionnaire respondents at State High School B valued this form of professional learning highly:

The opportunity to see how other teachers work and swap information is really important. Networking with colleagues, sharing ideas and discussing

problems and solutions motivate me. It's important to talk with other teachers about strategies they've tried and how they manage their classroom and student engagement (TQ 424).

Such a strong emphasis on the value of colleagues as teachers might have been linked to participants' perception of geographic isolation.

5.3.5 The school's interview results.

Three females and one male teacher from this school agreed to take part in the semi-structured interview phase of the study. The interviewees from State High School B were aged in their 30s and 40s and each had between 13 and 20 years of classroom experience. They had spent between four and 10 years of their careers at State High School B. We met in the office of one of the school's Deputy Principals and it took some time for her to locate the other participants who hurriedly arrived. Each came with other tasks in their hands that they planned to complete during the interview. "Don't mind if I just get this done while we talk?" asked one teacher.

After initial nervous introductions by the Deputy Principal and a brief overview of the purpose of the interview, the tone of the encounter changed dramatically. The 'other jobs' were one-by-one placed on the floor and the mood of the interview became friendly and enthusiastic. Initially viewed as an imposition on an already hectic schedule, each participant began to realize that this interview was a chance to have his or her views heard. They started to express their views candidly when it was realized that there was no need to guard against any real or imagined repercussions of doing so. Initially the idea of a team interview had appeared daunting to the group but feelings of awkwardness soon gave way to an easy rapport that produced spontaneous and insightful responses.

Teacher B1 was a thoughtful respondent. During the interview, many of her contributions concerned the difficulties that distance from the State's capital city presented to her access to quality professional learning:

Most often the good PD we read about is in the southeast corner or even farther a field ... Because our school is small we just don't attract the funding that other schools get to go away. If you can't afford to pay for it yourself, you just miss out on PD.

She expressed some feelings of guilt about the amount of school funds she used for her own professional learning and recounted a number of instances in which she had incurred significant personal expense in order to attend professional events:

I look at what teachers I know in other schools have done in the last 12 months and I just know if I was going to do that it would have to be self-funded. I do accept that if I'm going to do these things I have to pay for them myself. I use minimal school money because we need that PD money to be shared amongst a lot of us.

B1's issue of guilt arose once more in the story-line she completed at the conclusion of the interview. However, this time these feelings focused on the conflict between her professional learning and her family responsibilities and concluded, "My family will always influence the time and money available for my work-related education". Her story-line (Figure 5.4) illustrated B1's learning journey and highlighted a time in her career when family responsibilities impacted significantly on her work as a teacher.

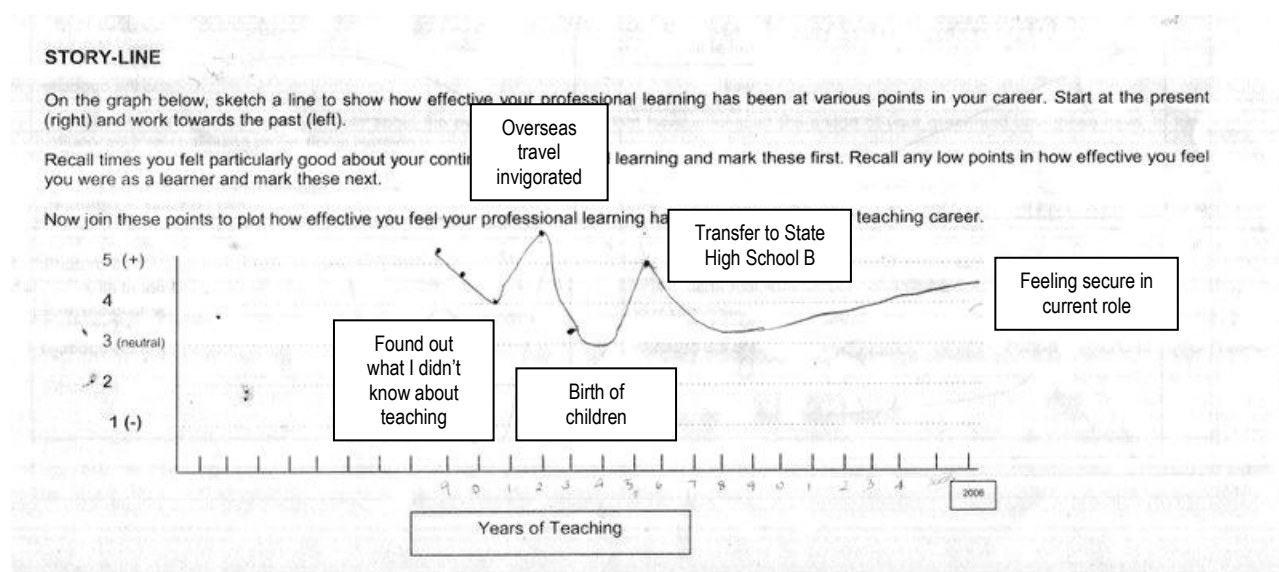


Figure 5.4 Teacher B1's Story-line

When discussing some of the PD events she had attended, B1 perceptively noted that, "a single in-service doesn't change behaviour. People go away feeling inspired and invigorated but in terms of actually changing, it just doesn't transfer to the classroom."

Teacher B2 was acting in the role of Deputy Principal at the time of the interview. She spoke of the valuable learning she had undertaken in this role and what she had learned from colleagues with whom she normally shared little:

I find that meeting with other people is one of the best PDs you can get. Talking things over with others and seeing what they're doing and just chatting. There's always the passing on of items and ideas so you can improve your work ... The massive eye opener I've got acting in this position has meant I've learned more in the last eight weeks that I've learned in the last eight years!

B2 saw taking on acting positions as her main mode of professional learning and her concerns about her own learning echoed those of B1 regarding the professional isolation she felt in this geographic area:

If you want to go for promotion we're very limited here because there aren't the positions ... Learning has to come to a bit of a halt if you decide to live here for a period of time. You have to say, "That's it. That's the position I'm going to occupy." ... If you were in a bigger centre you would have a lot more opportunities to try other things and learn whether you liked them or not.

The issue of professional isolation continued to arise in our discussion. In-school isolation as a factor of the size of the school also occupied B2's thoughts:

In my faculty, I do have other people I can share what I've learned with. We can try it together. But with other teachers, they haven't got anyone to bounce off. They are the only Japanese teacher or drama teacher or home economics teacher in the place.

When charting her professional learning on a story-line (Figure 5.5), B2 cited the personal factors of marriage, the birth of a child and her divorce as having played significant roles in her career learning. She noted that major periods of learning during her career occurred when she took on acting roles.

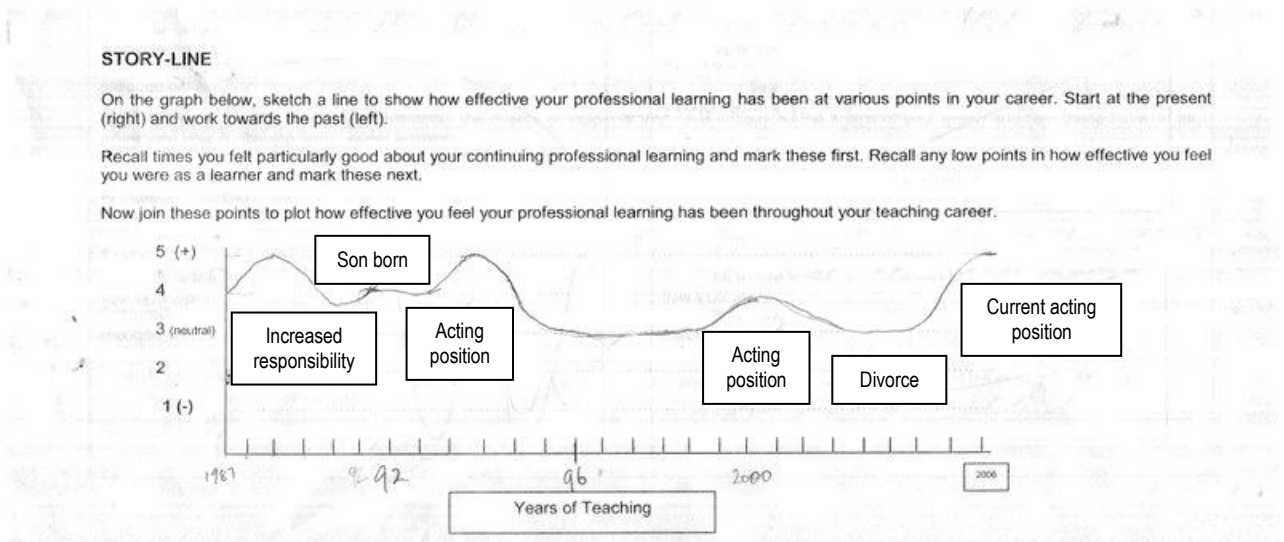


Figure 5.5 Teacher B2's Story-line

Being sole specialist teachers in State High School B was the situation for two of the four participants in this interview. Teacher B3 was one such specialist. A common theme for this participant was how his professional learning was intrinsically linked with his personal learning needs:

One PD has forever changed *me* as a person. I had a bit of an insight into it because it was recommended to me by a friend. It really had some personal payoff. I don't think it's made any real impact in the school yet but it's changed me. It will have an impact in time though.

The learning experience B3 spoke of was one that he felt he could apply to his family life as well as to his classroom practice. Indeed, following this episode, B3 did make some dramatic changes to his personal circumstances. It could be speculated that some of the motivation for these changes may have been attributable to the life-changing nature of B3's professional learning experiences. Similarly, it could be argued that B3 found his interaction with the professional learning he had undertaken life-changing due to the state of his personal life. In either case, the interplay between the professional and the personal in this participant's life shaped significant and long-lasting changes to both his professional and personal roles.

B3 also acknowledged feeling professionally isolated in his current teaching position and lamented what he saw as the lack of a learning culture within the education

system. However B3's membership of a state-wide panel of reviewers for his subject area did provide some of the professional networking he desired:

I find panel work invaluable because I'm it here for my subject. It's the only time I get to network really ... We expect our students to value learning but the Department doesn't.

In summarising his professional learning journey in a story-line (Figure 5.6), B3 reiterated the theme of professional isolation with, "I get tired of being the driving force for my subject." He also noted that, at this point in his career, he was very careful about the learning he chose to "take on". He stated that his young family was his first priority and that this coloured the choice of activities and events in which he would participate. If the activity provided him with skills and understandings he could put in to practise in his family life with his own children, he was more likely to participate in it.

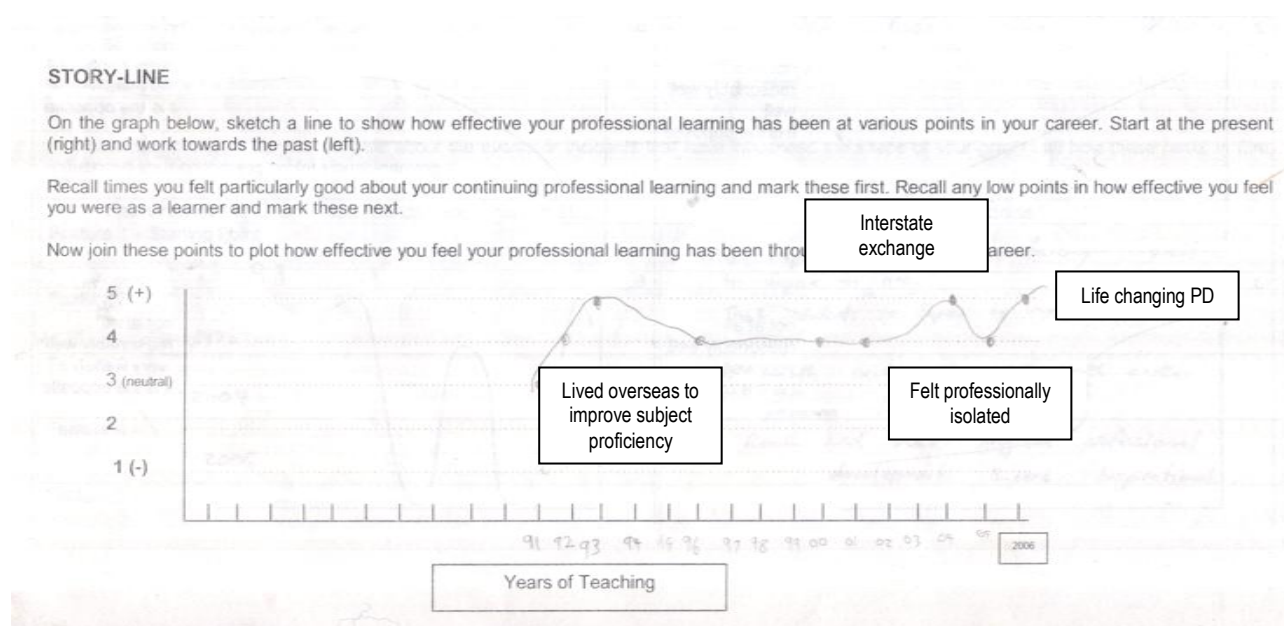


Figure 5.6 Teacher B3's Story-line

Teacher B4, another solo specialist at State High School B, continued the guilt theme that had arisen earlier in the conversation. Her focus did not centre on the dollar cost of professional learning but on the amount of time it took her away from her students:

Time out of the classroom is a big problem for me. I can't really leave the kids. They go with someone who has no idea of what goes on in that room and then I come back and there's chaos ... You don't really want to leave the kids. You have to really go like, "God, if I'm going to have a day off it's got to be a

Wednesday because I don't have this class that day." You have to plan around that. So I think that's a big thing. There are ordinary calls on your time out of the classroom then to actually add more time is just too much.

B4 echoed B1's sentiments in considering changes she had made to her teaching repertoire in response to professional learning:

It's rare for a person to completely change their whole way of working after a PD thing ... It's important they [Education Queensland] don't throw us in over the top of our heads. We don't need too much PD at once.

Perceived isolation was a recurring theme for this teacher too. When the discussion turned to incentives each participant found effective in enticing them to undertake professional learning, B4 looked somewhat despondent:

I don't apply. If someone comes around and says, "There's a vacancy," I'll do it because there's real isolation here ... Big schools hinder my learning too but at least you have colleagues there.

B4's story-line (Figure 5.7) also highlighted her need for "connectivity" with her colleagues and she lamented her lack of connection when she left teaching early in her career due to the stress of the job:

Ultimately learning is about connecting with colleagues. It's about exploring areas of common interest that should help students learn in our classrooms and beyond.

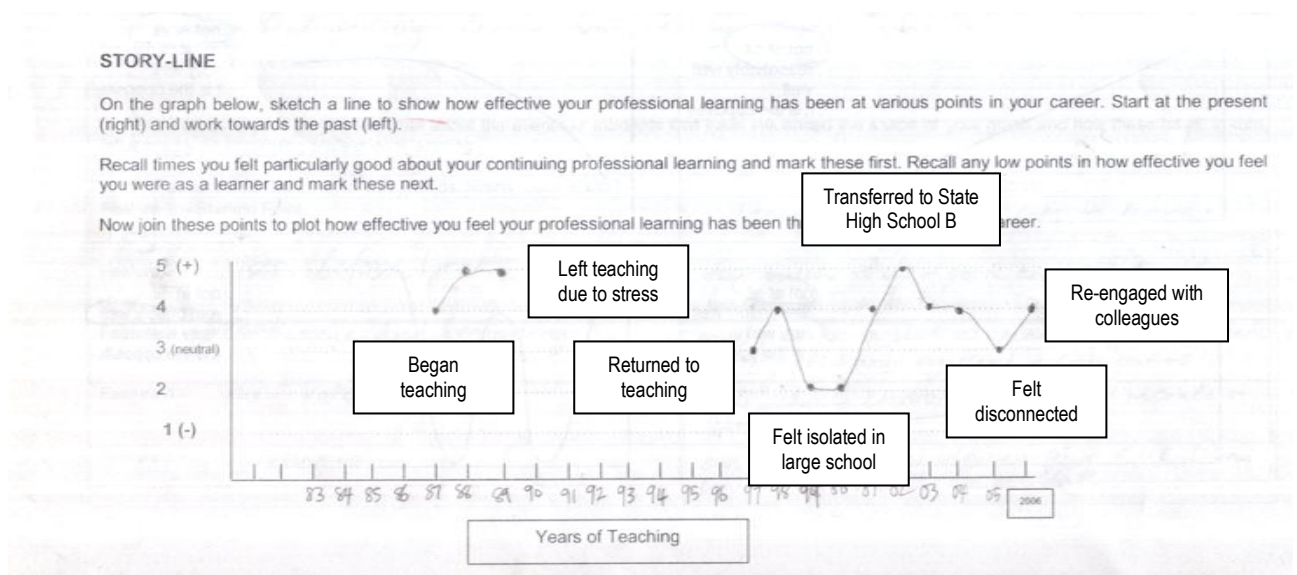


Figure 5.7 Teacher B4's Story-line

5.3.5.1 Summary of Interview issues.

Interview participants from State High School B identified five major influences on their continuing professional learning. Attending to their own learning was seen to come at a cost to their students as well as to themselves. Teachers reported raised levels of stress due to the additional preparation necessary when they left their classes to supply teachers and needing to deal with increased student behaviour incidents on their return. These comments echoed responses by the school's administrator and State High School B's questionnaire respondents:

You don't want to leave the kids. You have go like, "God if I'm ever going to have a day off it's got to be a Wednesday because I don't have this class on a Wednesday. You have to plan your life around that. So I think that's a big thing. There are ordinary calls on your time out of the classroom then to actually add more time out is just too much (B2).

Geographic isolation played a key role in determining the learning opportunities to which these interviewees had access. One participant went so far as to conclude that her professional learning had to be put on hold while she spent time in the region:

If you want to stay in the area because of family commitments, you are very limited in an area like this to continue your learning. Learning has to come to a bit of halt if you decide to live here for a period of time (B2).

Most often the good PD we read about is in the southeast corner [of the State] or even further afield than that ... If you can't afford to pay for it yourself, you just miss out on PD (B1).

Coupled with feelings of being geographically remote from significant learning events, professional isolation was another significant factor identified by these teachers. Similarly to the questionnaire responses, State High School B interviewees acknowledged that professional isolation was a factor of the size of their school. It was so important that each interviewee commented on this issue:

If you want to go for promotion we're very limited here because there aren't that many positions here. It's harder working here because of the limitations on learning. There's real isolation here. Big schools hinder my learning but 800 would be a good size. You'd have colleagues (B4).

In my faculty I do have people I can share what I've learned with but for others, they haven't got anyone to bounce ideas off. When you're the only Home Ec. teacher or the only Art teacher or the only Japanese teacher you're on your own and there's no one to talk about things with and share each

other's ideas. Because our school is small, we just don't attract the funding other schools get to go away. So I do accept that if I'm going to keep up with my colleagues in other schools, I have to pay for PD myself (B1).

This position is not necessarily the position I wanted to head for but there's nowhere for me to go ... You have to say, "That's it. That's the position I'm going to occupy if I stay here." If you are in a bigger centre you have a lot more opportunities to try other positions and learn whether you like them or not (B2).

Lack of opportunities to network with colleagues was another facet of the isolation issue for State High School B participants:

I find that meeting with other teachers is one of the best PDs you can get. Talking things over with people from other schools and seeing what they're doing and just chatting about school. There's always the passing on of resources and ideas so you can improve your work (B2).

Two final issues emerged from this interview at State High School B. The first concerned the value of 'one-off' PD events and second questioned whether the authority employing these teachers valued the professional learning they did. Although mentioned separately, together these issues challenged the effectiveness and perceived value of many recent mandated professional learning initiatives:

A single in-service doesn't change behaviour. People may go away feeling inspired and invigorated but in terms of actually changing anything, it doesn't transfer to the classroom (B2).

We expect our students to value learning but the Department doesn't (B3).

5.3.6 Case 2 in summary.

State High School B was a small but successful school in a rural area struggling with the natural and legislative problems common to many rural communities in Australia. The school's staff was very experienced and proud of the educational opportunities they provided for their students. Their major challenge for the future lay in maintaining student enrolments in an area with an aging population and diminishing employment opportunities.

Administrator B was a pragmatist who took pride in running a well-organized school that was respected in its community. He valued what he saw as well-run professional development that was personally as well as professionally relevant.

The teacher participants from State High School B discussed the personal and professional challenges they faced in their career journeys. Many identified some sense of professional isolation but did not appear to have strategies to overcome this perceived barrier to their learning. For some, it was their geographic location that produced isolation while for others it was manifest in their lack of subject-specific colleagues with whom to network. The financial, time and family costs of participating in ongoing learning were also important issues for this group of teachers.

Table 5.5 provides an overview of the fourteen issues evidenced in Case 2. Issues are described in the words of the participants and it is of note that the response of the discrete participant groups at State High School A shared little commonality. Only two issues were shared across all participant groups from State High School B.

Table 5.5

Case 2 - Summary of issues

Issues	Administrator B	Teacher Questionnaire Responses	Teacher Interview Responses
1. Professional learning must be highly organized and evidence-based	✓		
2. 'Cost' of time away from classroom/school	✓	✓	✓
3. Staff need support to be professional risks takers	✓		
4. Personal and professional benefits of learning	✓	✓	✓
5. Principals need to model being learners	✓		
6. Value of learning from colleagues	✓	✓	✓
7. Local culture of PD			✓
8. Relevance of learning		✓	
9. Isolation due to perceived remoteness			✓
10. Professional isolation due to school size			✓
11. Single PD event doesn't change behaviour			✓
12. Teacher learning not valued by employer			✓
13. Conflict between family responsibilities and professional learning			✓
14. Personal events impact on career learning			✓

5.4 Case 3 - State High School C

5.4.1 The school's context.

The third case school in this study was a moderately sized secondary facility in a coastal town. State High School C drew its 667 students from a number of surrounding rural communities and had a teaching staff of 59. The schools' administrative team consisted of a Principal and two Deputy Principals.

State High School C was acknowledged as being one of the most successful schools in Australia when it was identified in the Federal Government's *Schools of Excellence Project*. It operated "commercially productive sugar cane, banana, cattle fattening and aquaculture facilities" and highlighted that its geographic location "enforces a marked cultural isolation" (State High School C website).

The administrators of State High School C supported a whole-school program called "Classroom Profiling" that focused on the teaching of classroom micro-skills. Trained teacher mentors from within the school offered professional feedback to colleagues who chose to participate. This form of peer coaching promoted candid discussion of pedagogy and teacher behaviour and frequently elicited favourable comments in the open-ended questionnaire and the teacher interviews conducted at State High School C. A culture of continuous learning was evident in the language of the school's Principal and one teacher summed up the ethos of the place with the rhetorical question, "Why would you teach if you aren't interested in learning?"

The town serviced by State High School C was home to approximately 2500 people with a median age of 36 years compared with the national median age of 37 years. A feature of this community was its high level of indigeneity, 15.6% compared with 2.3% nationally but English was the language spoken at home for 84.3% of children compared with 78.5% across Australia. Five other languages are recorded in the 2006 Census as being spoken in homes in the area (ABS, 2006). This combination of characteristics had significant ramifications for the schooling of children who attended State High School C.

A total of 628 families were resident in the area with 39.6% of these households including children. Nationally the rate of families with children was 45%. An almost equal number of households (39.4%) were childless. The main occupation in the area was labouring (30.5%). Work in the trades, managerial positions and machinery operation was equally popular in this community (11.2%). Professional occupations accounted for only 7.5% of employment compared with 19.8% nationally (ABS, 2006). Administrator C and seventeen of the school's 59 teachers completed the study's open-ended questionnaire and, of these, 11 participated in the semi-structured interview phase of the research.

5.4.2 The school's administrator.

Administrator C had been at State High School C for 17 years, the first nine of these as a teacher. In conversation, he did not speak of himself as an administrator or principal but saw himself very much the teacher. His profile in the wider education community was as an innovator and he spoke passionately in educational forums about the collective responsibility of schools to engage students with real-world learning.

Administrator C was overtly protective of the work of his school. He strongly and publicly repelled what he saw as intrusions from outside authorities and prided himself on blocking influences he deemed unsuitable or unnecessary from impacting on State High School C. A reflection of this protective attitude was that Administrator C sat in on most of the teacher interviews conducted for this study. His contributions were minimal but his presence was considerable. While this might have appeared to be a controlling manoeuvre in some circumstances, the teachers showed no signs that this was an unusual situation or that they were uncomfortable with Administrator C's presence. Rather it seemed that he was again taking on the role of protector.

When reflecting on the implementation of a recently announced State initiative, his protective attitude was starkly in evidence:

We're just going to say, "Well bugger you. We're part of EQ [Education Queensland] but we don't believe that's educationally sound so we're going to do it our way."

The mechanism that Administrator C used to guide his decision making and that of his staff was their agreed strategic plan. Using this yardstick, teaching and non-teaching staff alike were encouraged to evaluate for themselves whether their proposed learning would contribute to the school's agreed goals. Administrator C labelled his actions "proactive positioning" and emphasized his strong belief in the need for "filters" through which to screen incoming information and on which to base decision-making:

We're in touch. We try to get our people out there and involved as much as we can so that we can collect information first-hand and make decisions based on that. It's proactive positioning.

... If you don't have a strong strategic direction with filters, and filters are the critical part, then you jump at every bloody thing that comes along. You just can't see if it would be good or not. If you don't have a strong strategic direction, you are flitting everywhere and getting nowhere. That's a real danger with PD. We have very strong directions and people know what they are. It's important to stop the scattergun approach. Especially with PD. There are thousands of things to choose from and you go flitting from one thing to the next and you never seem to move forward. But with a strategic plan you can justify those things that keep you moving forward. That's where we put our energies and our dollars.

This principal's long experience had taught him that certain ways of learning were more likely to yield results in the classrooms of State High School C than would others.

One-off PD events just do not work. People may come back all excited but it just never translates in to real changes in how teachers teach and how kids learn. Learning for teachers is just like for kids. It's got to be sustained, repeated, played with, refined some more and then trailed again. It might take months even years for real change to occur! You can't expect any so-called expert to produce change in a day or two. I just don't know how we fell in to that trap but we surely did!

Administrator C believed that working jointly with primary peers would benefit both sectors of schooling, build strong bonds for students and enhance local curriculum knowledge. He also recognized that when teachers could identify personal benefits in their professional learning they were keener to be engaged. This motivator had been successfully employed to integrate the specialised skills of his secondary staff in to local primary classrooms.

Most of our teachers have kids of their own in primary school so there's a personal payoff for learning how primary classes operate and sharing the expertise we have here. We're breaking down the culture. If we get kids in

Year 8 with the academic rigour we can provide and the wonderful skills primary schools instil, the sky's the limit!

Participation in state-wide review panels produced high value learning at this school and Administrator C was a vocal proponent of this form of teacher learning.

Moderation in senior schooling is great PD. We've been fairly clever I think in being involved at every level of the moderation panels throughout the years. We try to make management decisions based on our close involvement at State level. We're in touch. It's positive positioning. We try to get people out there as much as we can so that we can collect the information first hand and influence the decisions being made. We want a model we can live with not what EQ or whoever our masters are want to shove down our necks.

He also advocated vigorously for the recognition of teachers' professional judgement in making the best decisions for their students and their communities. However this was a battle in which he felt he had not been successful.

They [policy makers] just don't listen to schools! They don't understand what's happening and what's good education. Knee-jerk stuff entirely. That can crucify kids and it's terrible to watch particularly when you feel you've had as much input as you can. They know the issues. We've told them!

Administrator C was a passionate educator who commanded the respect of his staff, students and community as well as that of his principal colleagues.

5.4.3 The school's teacher participants.

Of State High School C's 59 teachers, 17 completed the open-ended questionnaire. Of these, 11 practitioners contributed their insights about professional learning in a mix of individual, team and telephone interviews. They ranged in age from 22 to 60 years and included practitioners with up to 30 years of teaching experience as well as novices in their second year of teaching. These teachers had spent from two to 24 years of their careers at State High School C.

Table 5.6 provides an overview of the characteristics of State High School C's participants. For the purposes of protecting their anonymity, they have been given the pseudonyms C1 to C17.

Table 5.6

State High School C teacher participants

Teacher Participants	Gender	Age Range	Teaching Experience	Years at State High School C	Interview Type (if applicable)
C1	Male	51-60	25	3	Team
C2	Female	41-50	22	12	Team
C3	Female	51-60	20	5	Individual
C4	Female	41-50	20	3	Team
C5	Female	31-40	17	15	Team
C6	Female	41-50	19	10	Team
C7	Male	41-50	19	18	Team
C8	Male	20-30	2	2	Individual
C9	Male	41-50	25	20	Team
C10	Female	41-50	14	7	Individual
C11	Male	51-60	30	24	Team
C12	Female	41-50	12	8	n/a
C13	Male	41-50	23	16	n/a
C14	Male	31-40	4	3	n/a
C15	Male	31-40	10	2	n/a
C16	Female	31-40	20	17	n/a
C17	Female	31-40	25	19	n/a

5.4.4 The school's questionnaire results.

The questionnaire responses from State High School C echoed many of the concerns and issues foreshadowed in discussions with the school's administrator. Three major themes were evidenced in teachers' responses to the open-ended questionnaire from State High School C. Of these, all were echoed by their school's administrator.

5.4.4.1 Personal motivation for professional learning.

The notion of 'personal payoff' being a significant motivator of teacher learning was a recurring theme.

For me, professional learning covers both personal development and specific educational training. Personal development gives you the skills to be confident in your role as a teacher (TQ 4005).

5.4.4.2 Costs of professional learning.

Cost and time factors associated with professional learning occupied the thoughts of a majority of questionnaire respondents from this school.

In schools the budget is very tight. It's hard to find money to do PD ... As a learner, I'm expected to learn on my own time. With the demands of being an effective teacher and the time constraints of the job, my learning must be done in my home time. The amount of prep time that is given to do the job, teach and learn about technology, etc. Staff need more time to enable them to undertake learning (TQ 4013).

5.4.4.3 Learning in community.

Learning that was jointly constructed with colleagues was highly valued. The learnings their colleagues had to offer were seen as far more valuable than the offerings of 'external experts'.

I've never been to an EQ PD that was of the same standard that my school, with all its internal experts, could offer me (TQ 4006).

One teacher made the astute observation that "high-performing teachers are often leading the PD, not getting it" (TQ 4002) and the perceived relevance of the professional learning opportunities on offer was important to this group.

Relevance to the classroom situation is the key. Some PD is useless but the good PD can enhance your teaching (TQ 4015).

PD is too far removed from our localized uses and needs (TQ 4000).

5.4.5 The school's interview results.

Six females and five male teachers from State High School C agreed to take part in the interview phase of the study. We met in the Principal's spacious office in a series of team and individual interviews. Two participants were unavailable for face-to-face interviews and agreed to be interviewed by telephone.

Teacher C1 was a very experienced associate administrator with the majority of his teaching experience gained overseas. He was an earnest participant whose educational philosophy was very much in tune with that espoused by the Principal of

State High School C. C1 identified personal factors as being most influential in his professional learning journey:

Family issues have played a big part in my learning. When family upheavals happened, it was very hard to concentrate on work let alone coping with new things ... Relocating after my divorce was a turning point for me because I found I had great support from the Principal and I was excited about doing something new. I learned so much then.

He emphasized the need for leaders to recognise the personal needs of individual teacher-learners in order to foster professional growth suited to each teacher's requirements:

People have to be allowed to take risks. We took risks and it cost us money. It's organic growth. You don't need to change all at once so people don't feel threatened. It's all about relationships.

"Organic growth" was described by this participant as professional change that was incremental in nature and that built on preceding learning.

Having some perceived control over his own professional learning was also important to this participant:

I still remember the first self-chosen PD I did. I was excited. I felt appreciated and it was excellent because I had a need and it was being met.

C1's story-line (Figure 5.8) told a tale of career moves that had not worked out as planned and narrated the impacts of personal factors. This had resulted in an erratic learning journey. His position at State High School C was "the most rewarding" of his career and his current professional contentment was reflected in his story-line graph by a gradually rising gradient.

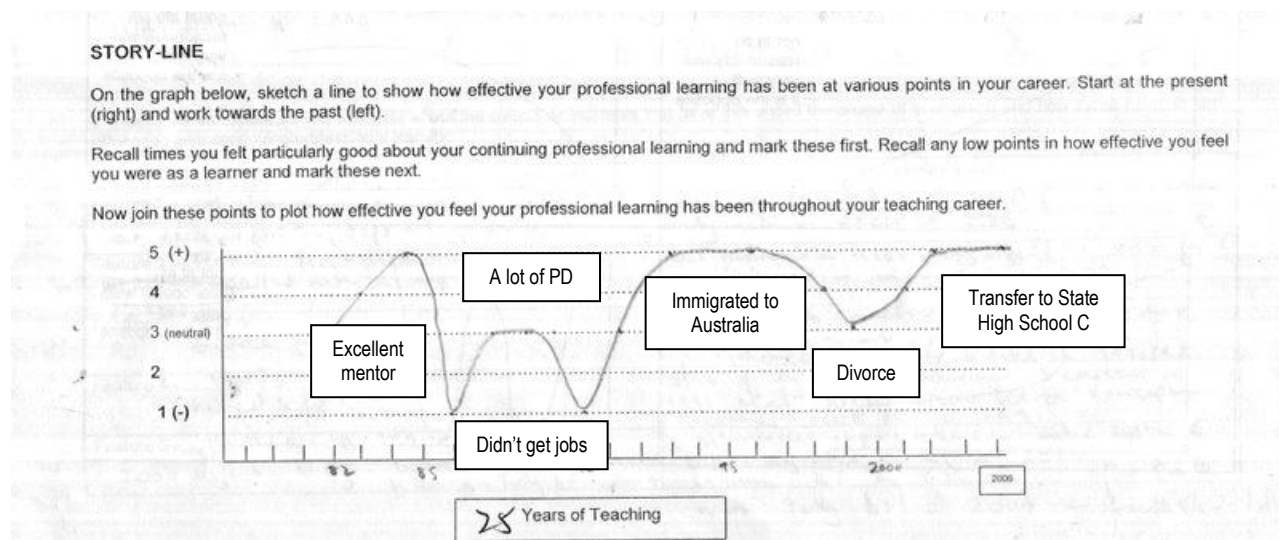


Figure 5.8 Teacher C1's Story-line

Teacher C2 was responsible for managing the professional development budget at State High School C. She had been instrumental in developing the current professional learning regime that involved teaching staff in a program of classroom profiling. C2's learning philosophy was firmly grounded in determining the needs of individual teachers and providing targeted learning experiences to meet the identified needs:

There are personal elements of PD as well as professional development. It's about your self-esteem in the classroom and the staff room; how you react to other people ... It's also about your life outside the school. Most of our teachers have kids themselves so they'll do PD if there's a personal payoff for them as well.

In her role as a Deputy Principal, C2 was responsible for implementing a whole-of-staff approach to professional learning. She involved all ancillary and office staff in whole-school professional development sessions on a regular basis:

We do targeted PD every year and the whole school is involved. That's cleaning ladies, everybody. How else are they going to be passionate about a school unless they understand the core business? We spend a lot of time with our ancillary staff to make sure they get the excitement as well.

C2 had been at State High School C for a considerable period of time. She demonstrated that she was comfortable in her associate administrator role and spoke with conviction about "moving the [PD] agenda along". Her story-line

evidenced a continuously high level of learning throughout her career with few peaks or troughs and, as such, is not included here.

Teacher C3 spoke forthrightly and passionately. She was contemptuous of professional learning activities mandated by the employing authority:

I'm a great believer in people helping themselves. I think too much PD is, "We're in EQ and we know what's best for you". That's the worst kind of PD!

She was similarly disillusioned with commercial PD packages delivered by 'outside experts':

If the powers-that-be knew anything about effective learning, they'd know that's absolutely the worst way for people to take onboard anything. Sending in so-called experts or dictating externally and taking up our valuable time is really, really stupid and cost ineffective.

For C3, teaching was "an adventure" and her most effective learning occurred when she worked with her colleagues:

The most effective PD is teacher-to-teacher PD. Bringing experts in from outside is sometimes necessary if they have something really, really worthwhile to say but PD from other teachers, particularly people you respect and work well with, you'll listen to them.

When reflecting on the hindrances she had encountered in her own learning, C3 paused for a moment then thoughtfully pondered:

Probably the biggest is not liking to go and leave my classes. Good teachers don't want to leave their kids. That's where they belong.

The graph of C3's story-line indicated she had enjoyed uninterrupted high levels of learning throughout her career and hence, her story-line is not included here.

Teacher C4 was quietly spoken and chose her words carefully. She had recently assumed a classified position at State High School C:

I'm a relatively new Head of Department so I've had a lot to learn. I had a need professionally so I've searched out suitable PD.

One source C4 had found particularly rewarding was becoming the chair of a state-wide moderation panel:

With the role of panel chair, we have some very deep conversations. Unreal PD. I've got opportunities that I've never had before. I've found that really rewarding.

Then she added hastily:

But I've got just as much out of the people here at school.

C4 acknowledged the personal benefits she had gained from continuing her professional learning through her involvement in state-wide panels that moderated student outcomes:

The panel stuff has made me better at school mediating, dealing with others. Personal stuff as well as professional stuff.

As with C3, time spent away from her classes concerned C4. She described her decision-making process as a “balancing act”:

Wanting to be here for my students is my priority but I really like PD to gain some further information. It's a balancing act because being out of the school is an issue. I really feel guilty not having contact with my Year 12 classes. It's an investment in the future but that doesn't stop me feeling guilty all the time. Also I always feel that if I go that means maybe there's no money for somebody else to do the things they need. Schools need healthier budgets for professional learning.

C4 chose not to complete a story-line as she felt she had explained her learning journey sufficiently during the interview.

For Teacher C5, the strength of her learning lay in her interactions with her faculty colleagues:

I've got a really strong team and it's been a real growth area for me. We feed off each other with ideas. With curriculum development, we're constantly talking to each other. That's been really wonderful for me.

C5's story-line (Figure 5.9) graph showed an extreme climb through her first years of teaching from her days as a beginning teacher. She explained that while she “now had a desire to be an effective teacher”, her first years of teaching were difficult because she was not “established as a person” and received little professional support. With the help of family and colleagues, she now felt she had developed her skills and was being “rewarded” within the school for her hard work.

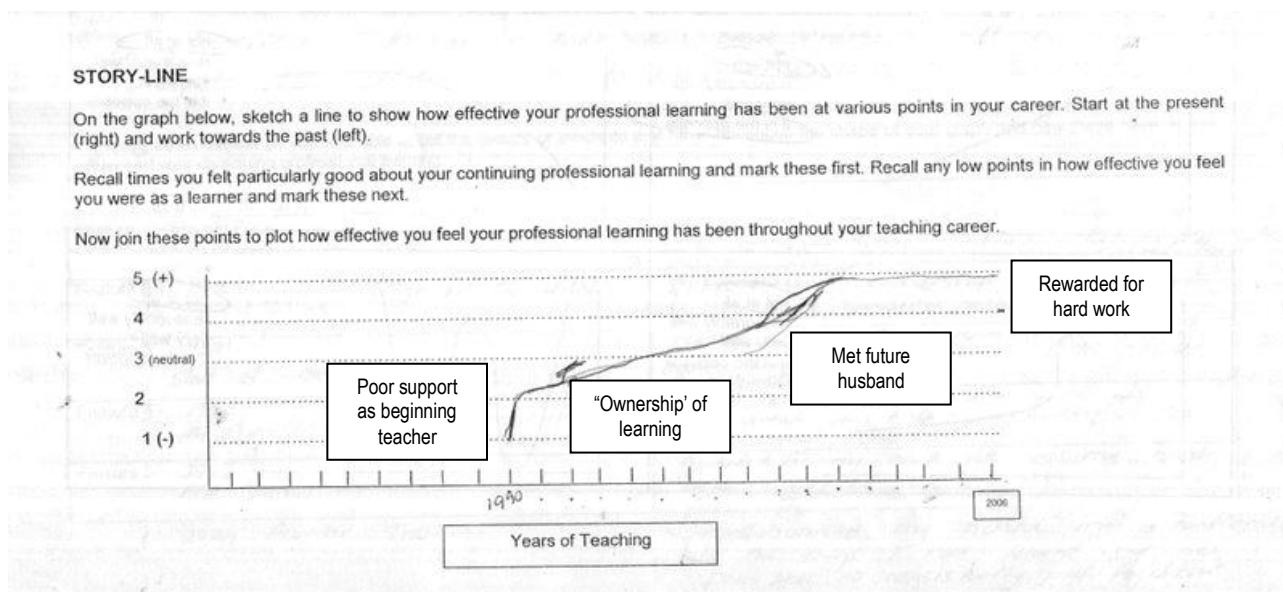


Figure 5.9 Teacher C5's Story-line

C5 felt that the quality of work produced in State High School C and other high-performing schools should entitle them to a greater share of resources:

EQ should provide more for schools that have a proven track record. We're not only taking, we're giving back to our cluster, the district and the whole State. Just get out of our way! The passion's there but it's a matter of having time. If we were given more time we could do wonders.

Teacher C6 said she needed professional learning to provide something that she could "take away and implement directly" in her classroom. She had high praise for the school-wide classroom profiling program conducted at State High School C:

It actually changed the way I teach. I was able to see dynamic changes in the classroom; a far better feel to the class with better relationships between us and there was less stress. That was something I could take straight away and implement immediately.

C6 was a very experienced practitioner had confidence in her skills and felt passionately about controlling her own learning. But like C3, she had "real trouble" with large-scale events mandated by State authorities, labelling them "one-size-fits-all PD". Her cry was, "I know what I want. Give me a free reign! I'll do a good job". She chose not to complete a story-line.

Teacher C7 was another practitioner who sought out professional learning on the basis that it offered him something he could use immediately in his classroom:

I won't go unless I can implement something of it. It's got to be advertised that I can take something away.

C7 viewed continuing learning as an integral part of his professional responsibility and relished opportunities to discuss issues with his colleagues. His story-line graphed a continuous high level of professional learning throughout his career and therefore it is not included here. He also proposed an innovative method of allowing teachers increased control over their learning by restructuring the method of funding professional learning:

Not being able to network with others is a real problem for me. My department is under lots of pressure because we're seen as the 'cluster experts' for our school and the primary schools around here too. But ... money. The Department needs to make more money available to schools. But it should be paid directly to teachers instead of through school budgets.

Teacher C8 was a novice and was keen to mention that he came from a family of teachers and school administrators. He was in his second year of teaching at State High School C and had been part of the school's compulsory professional learning program for beginning teachers:

The most valuable stuff is probably the day-to-day stuff. We're lucky because we have three graduates here who all came out together and we can just bounce stuff off each other all the time. I think that's some of the best PD that I get ... I feel I've benefited from it [PD] but I still haven't worked out how to implement some of it properly here. A lot of times you go away on PD and you go, "Oh, I know all about this stuff from uni or it's common sense or I know it's not going to work in my school". The last one I went to was different. Within half an hour I just went, "Oh, this is getting better and better". I could apply it to my *life*!

While C8 was enthusiastic about "learning to be a good teacher" and felt "you can never have enough [PD]", he held some reservations about the learning behaviours of a number of his colleagues:

Some teachers, well I hope I never get to the age or the level of experience where I think, "There's nothing more I can learn". You see that in some teachers. That's a shame. It would be good if the government said, "You've got to go on something every year". We would be constantly evolving, constantly moulding with the times. This school's very supportive of sending people away but some people need to be *told* to go away!

C8's story-line graph spanned only two years and therefore is not included here.

In contrast to C8, Teacher C9 had been at State High School C for 20 years of his 25-year career. He was highly respected by his colleagues and had held a number of State positions during his career. C8 demonstrated a deep understanding of the processes of moderating student work through his long involvement in secondary subject moderation panels. The panels draw teachers from throughout the State to moderate at a local and State level. Participation is voluntary and recognises levels of expertise:

I'm a State panel chair and I find the whole peer moderation thing has been awesome. Sharing curriculum ideas and professional conversations. I find the most satisfying PD is talking to colleagues here in the school and also in state-wide networks ...

The most satisfying thing professionally has been to work with people who will try things differently. I hear staff say they enjoy that they have a measure of control and they have a pride in what they are doing because it's generated by themselves. The best PD is that small group ... I call them 'cells of expertise'.

C9 had faith in the skills of his colleagues and proposed a model of minimal intervention when it came to directing the learning of others:

By and large, if you leave people alone and let them do their job and encourage them, they'll meet and exceed your expectations. Leave teachers alone and they'll rise to meet the challenge. They will do that because it's so satisfying for them if they are able to work creatively. Just encourage the hell out of them!

He questioned the value of "one-off PD events" and was sceptical that mandating participation in professional development activities as a condition of teacher registration in the State would achieve better quality teaching. He highlighted a valid issue about measuring teacher learning:

You can measure one off PD events because you were either there or you weren't. But often they are not useful whereas the collegial stuff is. Exactly how do you measure that learning?

While C9's story-line (Figure 5.10) showed a history of continuous high level learning, his appointment to the position of chair of a State moderation panel heightened his engagement in professional issues.

STORY-LINE

On the graph below, sketch a line to show how effective your professional learning has been at various points in your career. Start at the present (right) and work towards the past (left).

Recall times you felt particularly good about your continuing professional learning and mark these first. Recall any low points in how effective you feel you were as a learner and mark these next.

Now join these points to plot how effective you feel your professional learning has been throughout your teaching career.

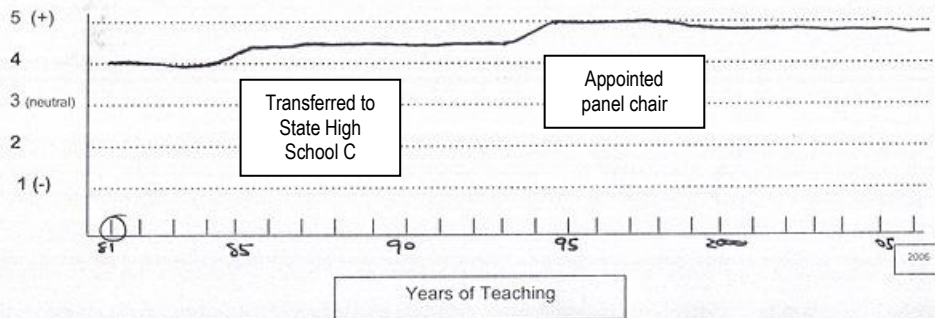


Figure 5.10 Teacher C9's Story-line

Because of her itinerant role, Teacher C10 chose to be interviewed by telephone. In the early stages of the interview, she took issue with the use of the term 'professional development' to describe her career learning journey. She saw its use in a negative light:

All the time we talk about professional 'development'. You don't need development! You are whole and complete just the way you are. Professional learning is a better way of looking at it. 'Learning' is a more powerful word ... Another problem is the line between self-development and professional development. If you're falling apart because you have no confidence or something, you have no teaching skills (C10).

C10 constantly brought the interview discussion back to her need for personal development in order to operate effectively professionally. Her story-line (Figure 5.11) illustrated that her professional learning was closely tied to her disillusionment with not having succeeded in a number of job applications across her career. One such recent incident had prompted her to explore learning more about her interpersonal skills:

I'm not feeling supported right now. I wanted to do a course but they [school administration] saw it as self-education and self-education is not seen as professional development. The problem is the line between self-development and professional development. If you're falling apart because you have no confidence, you have no teaching skills! There are a lot of things happening in schools and if teachers themselves could deal with them a lot better, they would never get in to such bad states.

This distinction between the development of the personal self and the development of the professional self was a preoccupation for C10.

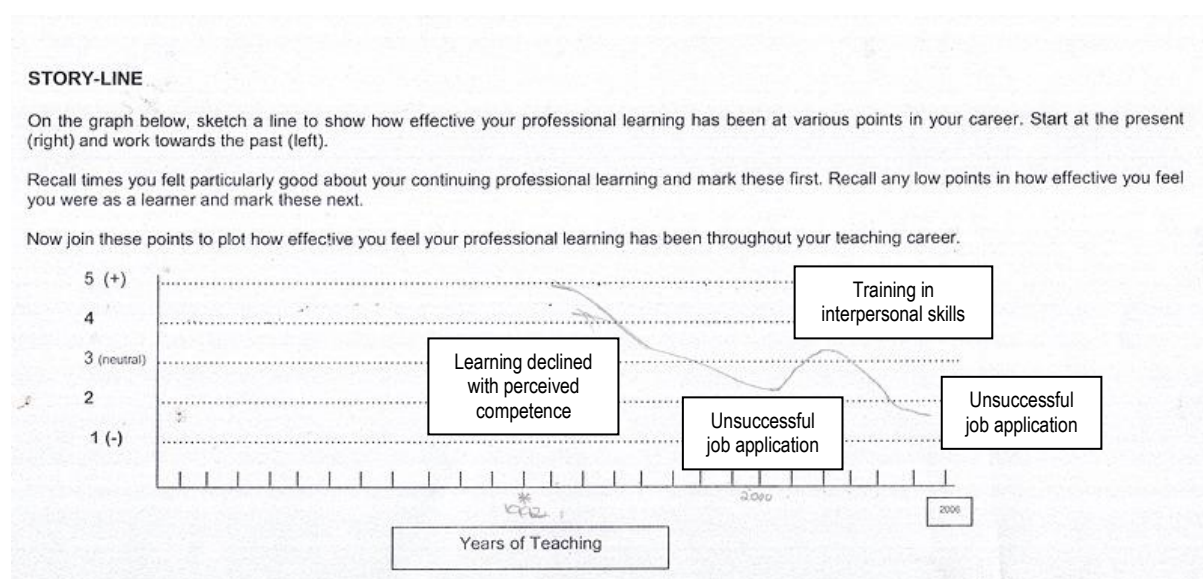


Figure 5.11 Teacher C10's Story-line

The final teacher interviewed at State High School C was Teacher C11. He was a very experienced practitioner who had seen many changes during his long tenure at the school. He spoke only briefly about his own professional learning and tugged on his beard as if to emphasize the importance of what he was saying:

One thing I've found is the one-day whiz bang things just don't work. We're far better off using our own experts, the ones right here in the school. But when we apply for State grants to do that we just get knocked back. The culture is, "Go to the whiz banger. Give them all the pill and they're going to change." But it doesn't work. Our strength is in our people.

C11's story-line (Figure 5.12) graph illustrated a high rate of learning throughout his long career. He was the only participant to include his days of teacher training as part of his professional learning. He noted that the one dip in his story-line graph was when he became complacent in his teaching role and chose to change schools in order to continue his learning journey.

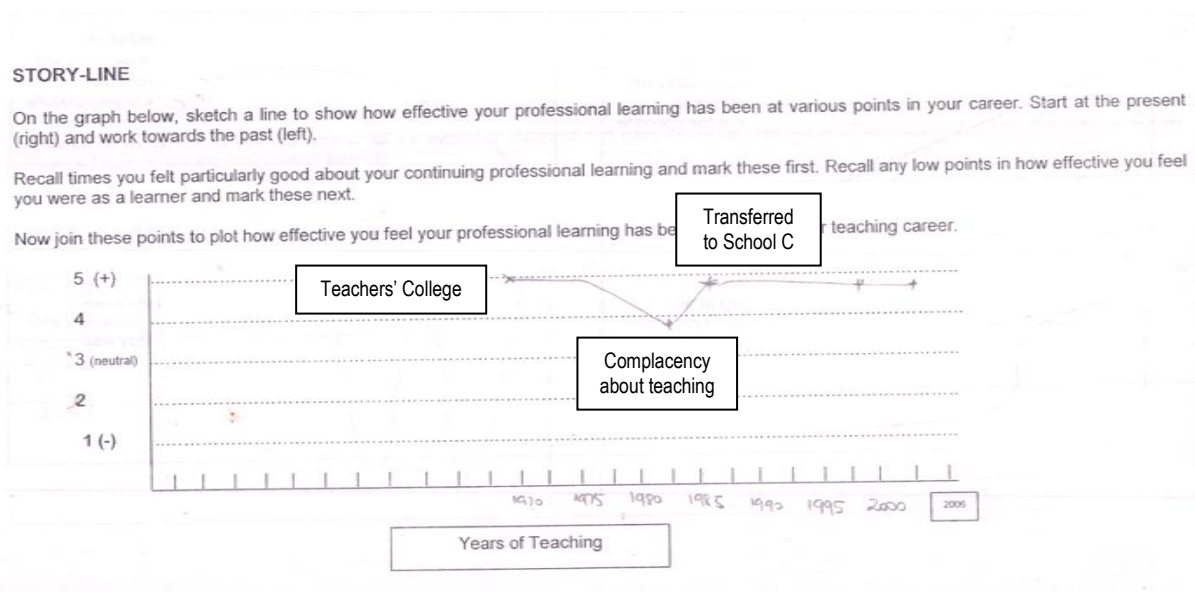


Figure 5.12 Teacher C11's Story-line

5.4.5.1 Summary of Interview issues.

In the interviews conducted at State High School C, teachers spoke passionately about their roles in the school and about how their learning underpinned the school's successes.

Teaching is such a dynamic profession but it is easy to fall into a rut. PD is the tool that keeps us open, excited about teaching and willing to try new ideas and approaches. Excited, committed teachers flow on to excited, motivated students and are the key to making life long learners (C6).

They underlined the need for practicality in their continuing learning as being integral to their participation and need to be able to "take something away" (C7).

Administrator C was keen to involve his teachers in work that put them at the forefront of state-wide decision-making but some teachers saw the time away from their classrooms necessitated by this involvement as problematic. While experiences gained by working on state-wide review panels were praised as a worthwhile learning tool, teachers commented that there were negative impacts on their teaching programs and on their students' learning.

Good teachers don't want to leave their classes. That's where they feel they belong (C3).

The passion's there but it's just a matter of time. And balancing. Wanting to be there for the students is my priority. I'd really like to go to some PD where I might gain some further information but it's a balancing act because being out

of the school is an issue. It's always the time. That's the issue for the school because someone has to take my class. I really feel guilty about not having contact with my class. It might be an investment for the future but it doesn't stop me feeling guilty about that time away (C5).

The personal elements of professional learning were important determinants of participation for State High School C teachers.

There are personal elements of PD as well as professional development. It's about your self-esteem in the classroom and the staff room; how you react to other people. It's also about your life outside the school. Most of our teachers have kids themselves so they'll do PD if there's a personal payoff for them as well (C2).

Opportunities to work with colleagues were highly valued by the interviewees at State High School C. On site and off site opportunities were prized as chances to share ideas and collectively solve common problems.

I think the most valuable stuff is the day-to-day stuff. We're lucky because we have three graduates here who all came out together and we just ounce stuff off each other all the time. I think that's some of the best PD that I get. It's just, "I did this. What did you do?" We're constantly like that. I've been to courses to get the base knowledge but that day-to-day stuff is my greatest PD (C8).

My main satisfaction is working with a group of people who enjoy talking about teaching. I find the most satisfying PD is talking with colleagues here in the school but also in state-wide networks ... It's the best PD in that small group, little cells. I call them 'cells of expertise'. You can find them in this school as well as on the State panels (C10).

Allied to these comments was the observation by a very experienced practitioner about the value of what he described as the "whiz banger" PD model.

We're far better off using our own experts, the ones right here in the school. But the culture is, "Go to the whiz banger. Give them all the pill and they're going to change." But it doesn't work. Our strength is in our people (C11).

Employing 'outside experts' to deliver professional development was a vexed issue at the school. While it was recognized that the recent use of such expertise had been very successful indeed, most teachers were scathing of the quality and relevance of previous expert interventions.

You're going to listen to your colleagues much more than some outside guy. You sit there thinking, "What does he know and when was he last in the classroom?" I'm a great believer in people helping themselves. I think too much PD is, "We're from EQ and we know what's best for you". That's the worst kind of PD! (C3)

I've got real trouble with attending PD that has a one-size-fits-all approach to it. You need follow-up when you implement something new because it doesn't necessarily work the first time. You need backup. Someone to go to. You can't do that very often with the expert who's disappeared by then (C6).

The use of commercial learning packages delivered by 'outside experts' came in for scathing criticism.

If the powers that be knew anything about effective learning, they'd know that's absolutely the worst way for people to take onboard anything. Sending in so-called experts or dictating externally and taking up our valuable time is really, really stupid and cost ineffective. Look at what it costs to get a whole lot of teachers to sit around for two hours while somebody reads something at them. That's just appalling and an insult to our professionalism. It's totally unnecessary. They could send this stuff via the internet. "Read this and sign here when you've read it." 99.9% of teachers are going to do the right thing. It's embarrassing and it just shouldn't happen (C3).

While collegiality was prized and encouraged at State High School C, notions of professional isolation did creep in to interview discussions.

We're really only a small school and I'm the only teacher of my subject. In the cluster everyone sees me as the expert but I need others to reference off too (C6).

Measuring the value of working with networks of colleagues presented some concerns in light of muted changes to teacher registration procedures in the State. One interviewee was concerned that what he valued most in his professional life would not be recognized as a valid form of learning because of the difficulties in quantifying his participation.

If PD is mandated for teacher rego, how do you measure it? You can measure the one-off PD. You were either there or you weren't. You sign a bit of paper. But often PD like that's not useful whereas the collegial stuff is exactly what you need. How do you measure that (C9)?

There was a widespread feeling at State High School C that to be effective learners teachers needed greater autonomy to decide the content and timing of their own learning. Lack of independence was viewed as not valuing the professionalism of the teaching workforce.

EQ as a system encourages mediocrity but we've had lots of good admins here who have just let us bubble away. They haven't said, "Oh you can't do that or the sky will fall" (C9).

I know what I want and what I need. Give me free reign! (C6)

We've taken failure out of the equation here for kids and teachers but sometimes EQ does stupid things that undo all our good work. We'd just like to say, "Get out of our way" (C11).

5.4.6 Case 3 in summary.

The staff of State High School C was an eclectic mix of experience and youth. Analysis of State High School C's teacher responses indicated that staff at this school were enthusiastic about participating in ongoing professional learning. They viewed themselves as risk-takers and felt supported in trying new strategies and approaches in their classrooms. The school demonstrated a commitment to focused professional learning that was 'filtered' through a lens of identified school and personal need. For a number of staff, the element of personal development was a necessary perquisite to engage them effectively in professional learning. When the outcomes could be applied to their personal lives, professional learning took on a far greater significance for these teachers.

Involvement in the work of review panels was highly valued by these teachers but there was some dissonance in their views of the value of bringing in 'outside experts' to conduct PD. One startling example was the overwhelming support expressed for the program Classroom Profiling. Without exception, the program and its presenter were widely praised. Also widely acclaimed by this group was participation in collegial marking of student work through local and state-wide moderation panels.

While a significant proportion of participants from State High School C spoke of an intrinsic desire to continue their learning, time spent away from their classes to attend to their own learning was seen to have a negative impact on these teachers' classroom effectiveness. They valued the expertise of colleagues within the school and roundly criticized the quality of presentations by 'outside experts'. One-off professional development events were seen as ineffective ways of learning.

A pervasive feeling of 'can do' littered almost every interview at State High School C and there was a common notion that, if 'left alone', they could achieve great things. With the exception of one, the staff interviewed for this study exhibited an excitement in what their school had achieved and in their part in those achievements. They saw

their own professional learning as integral to State High School C's continuing success.

Table 5.7 provides an overview of the fifteen issues evidenced in Case 3. Only a single issue was common to all three participant groups at State High School C.

Table 5.7

Case 3 - Summary of issues

Issues	Administrator C	Teacher Questionnaire Responses	Teacher Interview Responses
1. Strategic direction	✓		
2. One-off PD events not effective	✓		✓
3. Personal development motivated professional learning	✓	✓	✓
4. State-wide review panels provided valuable learning opportunities	✓		✓
5. Teacher professionalism not valued by EQ	✓		
6. 'Costs' of PD		✓	✓
7. Relevance of PD was questioned		✓	✓
8. Expertise of colleagues was most valued		✓	✓
9. 'Outside experts' lacked local credibility		✓	✓
10. Professional isolation due to school size			✓
11. Need for teacher-directed learning			✓
12. Teacher learning contributes to school success			✓
13. High-performing teachers provide PD but don't receive PD			✓
14. Personal events impact on career learning			✓
15. Development of the professional self is dependent on development of the personal self			✓

5.5 Case 4 - State Primary School D

5.5.1 The school's context.

State School D, the fourth case in this study, was a very small primary school. The school provided educational opportunities for 32 students in a rural hamlet. The school aimed "to progress all aspects of students within a supportive school

environment that recognises difference, emphasises the basics, intellectual quality, and making connections” to “develop a resilient lifelong learner that is a responsible, productive and active citizen” (State School D website).

The community was home to 630 people with a median age of 38 years. The rate of full-time and part-time employment was comparable with the national average and, of the 175 families in the area, 42.3% of households included children. In 86.8% of households, English was the only language spoken. The main source of employment in the area was farming, mainly fruit growing, and professionals accounted for 10.4% of the area’s workforce (ABS, 2006). Limited employment opportunities in the immediate vicinity meant that many families worked away from the hamlet but chose a small school environment for their children in keeping with their rural lifestyle choices. Administrator D and his single teaching colleague both participated in the research.

5.5.2 The school’s administrator.

Administrator D was in his early 30s and had decided early in his career to become a principal. He had been at State School D for four years. He was a quiet and serious participant who took his contribution to the study earnestly. He was keen to hear the contributions of other principals in the administrators’ focus group and enjoyed the opportunity to involve himself in professional dialogue.

While not remote in location, the very size of State School D presented unique challenges for both this administrator and his teaching colleague:

Networking is very difficult in small schools because you just don’t have a group of teachers to talk things over with. It’s hard on teachers. Opportunities for networking happen at in-services and you spend your time talking to the people next to you rather than attending to what the PD’s about. But sometimes you just need that sense of community.

As a Teaching Principal, Administrator D contributed to the study in his capacity as the school’s sole administrator while the school’s only other teacher participated in the questionnaire and interview phases of the research. From his dual perspectives of principal and classroom teacher, Administrator D shared unique insights into the world of teachers as learners. Six main issues occupied his thinking as he interacted

with his principal peers in the focus group setting. The first was that teacher learning came at a price that exceeded dollar terms.

It costs teachers valuable teaching and planning time to do PD. Often it's tacked on to the end of a day's teaching, particularly if it's mandated, and that's hard.

Opportunities that offered what teachers saw as directly relevant to their own classrooms was more likely to engender teacher engagement.

Relevance at the time is probably the key. Teachers go, "Yep, that's something I need to know right now". Not just things that are topical, 'flavour of the month' stuff. Something that's useful, that you can use straight away. It's relevant. You say, "I need to do this because it will have a direct effect on my kids." If it's not of immediate use, why touch it right now?

Teachers see PD comes at the price of teaching. PD is good but often you think, "What else should I be doing with this time?" ... The bigger the picture of the PD initiative, the harder it is to sell. Teachers find it very hard to see outside the classroom.

Administrator D also noted the difficulties associated with being in a small school. State School D was located between two regional towns and, while not geographically isolated, both of the school's two teaching staff did report a sense of professional isolation.

My other teacher has only taught in bigger schools up until she arrived here ... She really misses other early years teachers to bounce ideas off and share resources. It is hard when you don't have a 'community' [of colleagues]. When you're on your own and you try something that doesn't work you go, "Oh, I'll toss it!" If you could talk to others who've tried it, maybe you'd persevere.

The management of change and innovation was an issue for this teaching principal.

At the level of management, it's important to careful of new ideas. There's a push about, "What's special about your school?" You have one person pushing for one special program and someone else pushing for something else. Sometimes there's genuine passion for an idea but this goes all the way up and we end up having so many "passions" to deal with in schools! There's something new every five minutes and you feel you've got to do it. It's real pressure. We just can't deal with all the issues every time.

He questioned perceptions within the region surrounding teachers' professional learning.

There's a culture that PD means going to something. And it's usually a long way away! Whereas we have to understand what PD might be. Like sitting down with a colleague. That's more valuable than a day in Brisbane.

Finally, Administrator D spoke philosophically about his view of what motivates learning throughout a teacher's career.

The broader picture of where PD fits in is knowing what's quality and what's not. Being able to say to yourself, "I am doing a quality job" is so important. Not having that survival mentality. It's tapping in to the bigger picture. Even just the idea of what your job is. If you think the world's going to change every five minutes then you're not going to do PD. You'll wait for this fad to pass over. It's getting the big concept that's needed. The fact that our job is pretty hazy probably says something about our profession at the moment. It keeps changing in line with society and we just have to get over that.

5.5.3 The school's teacher participant.

State School D's only other teacher agreed to take part in the semi-structured interview phase of the study. She was aged in her 40s and had been at the school for three years. Prior to her arrival at State School D, she had taught for many years at a very large provincial primary school some hundreds of kilometres away. This was Teacher D1's first experience of life in a small school and she admitted to finding the demands of her first small school appointment challenging. Although she had been teaching for 21 years, she found the school's size and the subsequent range of duties she was expected to undertake quite daunting:

At my last school I was just a Year 2 teacher. You didn't share anything except with other Year 2 teachers. I had no effect on the school. I miss having other early childhood teachers to talk about things with and to share resources. I do lots more here than I've ever done before. Making decisions feels good; having some influence. But it's a lot more responsibility. In a small school, if you don't do it, it just doesn't get done! In a small school there's no backup. You can get overwhelmed with everything.

She lamented what she saw as the lack of opportunities to continue her learning in her current situation and was critical of the available opportunities for her to continue her learning in her geographic area:

What's available around here? There's a lot in southeast Queensland. We need opportunities here so we have to travel all the time. That costs buckets and a small school comes with a small budget. EQ should evaluate PD and say, "This is so important that we're going to provide everyone with quality PD in school time. There would be some public valuing. People would say, "Oh, this must be really important".

Her highest priority when choosing between PD options was their level of practical support for her work in her classroom. She expressed this need on a number of occasions in her questionnaire responses and in her interview discussions. The quality of professional learning offered, the style of presentations and the practicality of sessions were also concerns for D1:

PD must have practical, hands-on demonstrations of the use of different methods, lessons, etc. It must be practical and show how something is used to fit an identified need in the classroom. EQ provides PD but it's very general and broad. That's okay but do they inspire us or share the best ideas from around the State? No! Some presentations I've been to are so boring. I'm no different from the little fellow in the front row! They have to practise what they preach regarding sessions for teachers. We need to take from PD practical things we could use tomorrow. Then we WILL.

She concluded that her preferred way of learning was with other teachers who shared similar concerns and challenges in their working days.

Can't we get 'like' teachers together for PD? I need to do PD with other multi-age people. Please, no more grids and placing pieces of paper in to correct boxes! That's a waste of time and I can't remember half of it an hour later. Just allow teachers to talk at PD. This is where we get the inspirations.

The story-line D1 completed (Figure 5.13) evidenced her perception that, while she was asked to undertake an extensive range of activities at this small school, she did not class these activities as professional learning. The kind of learning she yearned for she found difficult to sustain in her small school environment.

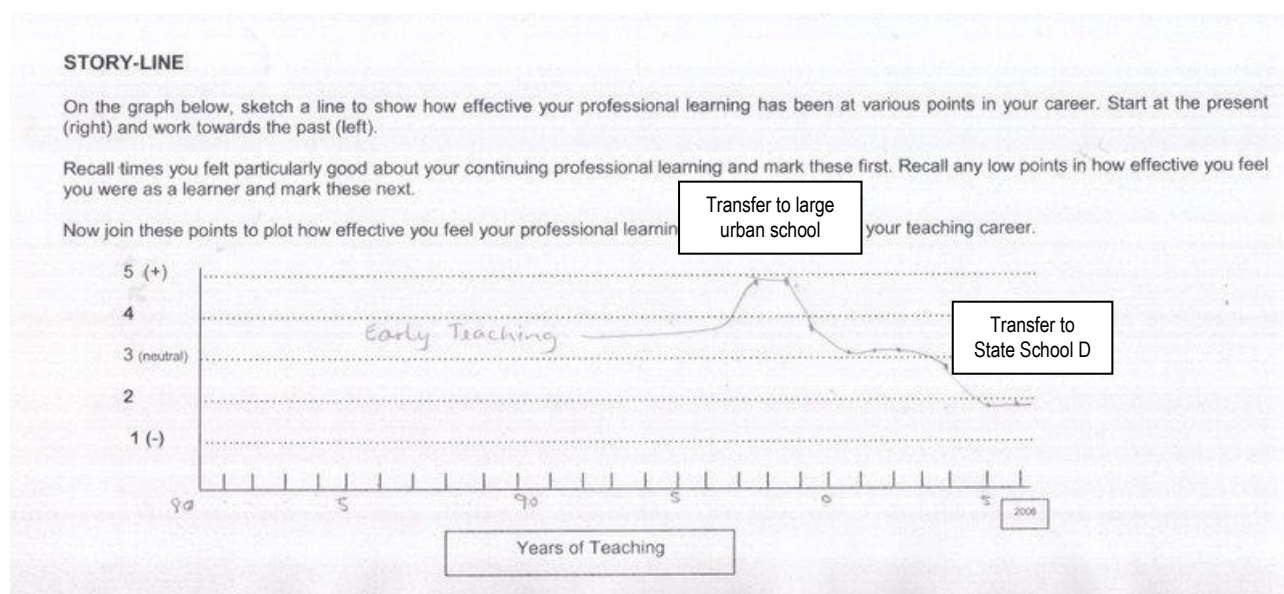


Figure 5.13 Teacher D1's Story-line

5.5.4 Case 4 in summary.

State School D was small and its size presented peculiar challenges for both its administrator and his teaching colleague. Professional isolation was a common theme for both participants. By virtue of the school's size and location, Administrator D struggled to provide a professional learning community in his school and his colleague hungered for the collegial benefits her previous school had offered. Whilst Administrator D was acutely aware of the situation, he and his colleague had not developed effective strategies to overcome the issue of perceived professional isolation.

For these two practitioners to achieve optimum learning in their careers, finding a community of learners who shared their needs and concerns had become an important mission. Table 5.8 provides an overview of the ten issues evidenced in Case 4. No single issue was common to the administrator at State School D and his teaching colleague.

Table 5.8

Case 4 - Summary of issues

Issues	Administrator D	Teacher Questionnaire Responses	Teacher Interview Responses
1. PD 'costs' more than dollars	✓		✓
2. Relevance of PD is a critical motivator	✓		
3. Change management brings pressure	✓		
4. Local PD culture	✓		
5. 'Quality teaching' is the big picture	✓		
6. PD must be practical and demonstrate best practice		✓	
7. Professional isolation as a factor of school size		✓	✓
8. Little public valuing of teacher PD		✓	
9. Inspiration comes from talking with colleagues			✓
10. Not all school activities constitute professional learning			✓

5.6 Case 5 - State P-10 School E

5.6.1 The school's context.

State P-10 School E provided a teaching program for 220 Prep-aged children through to Year 10 secondary students. The school's administrative team consisted of two part-time administrators sharing the role of Principal. This P-10 school identified itself as "a small, friendly, rural school catering for students from four to 15 years of age" (State P-10 School E website). It offered multi-age or composite primary classes and a full range of junior secondary subjects to its students.

A staff of 17 teachers was employed at State P-10 School E and eight of these completed the open-ended questionnaire used in this study. Three teachers agreed to participate in the interview phase of the study and contributed their thoughts and ideas as a team of two and as an individual. This regime was adopted to meet the specific needs of the participants.

The town serviced by State P-10 School E was home to 1460 people with a median age of 39 years. The community included a significant number of indigenous people, 6.2% compared with 2.3% nationally and English was spoken exclusively in three quarters of the area's households. Five other languages were commonly spoken in the community.

There were 398 families in the town at the time of the study with 46.7% of these households including children. The rate of full-time and part-time employment was 88% and the main source of employment was farming which accounted for 37.4% of jobs. Professionals numbered 4.7% of the area's workforce compared with 19.8% nationally (ABS, 2006). Administrators E and F and eight of the school's 17 teachers completed the study's open-ended questionnaire and, of these, three participated in the semi-structured interview phase of the research.

5.6.2 The school's administrators.

Two female Principals shared the administration of State P-10 School E. Each worked part-time. One administrator was in her 30s while the other was a very experienced teacher in her 50s who was new to the administrator's role. These

participants have been given the pseudonyms Administrator E and Administrator F in this study.

Eight issues emerged in discussions with State P-10 School E's administrators. The first two themes arose separately but as discussions unfolded they were found to be interrelated. Administrator E was concerned that the teachers at her school felt a significant sense of professional isolation:

Our teachers feel isolated in their classrooms. We're not that far out in the bush but they think they're out of touch with the latest and greatest ideas. We've tried to show them that what they do is just like other teachers do everywhere else but they just don't see that.

Administrator F concurred with this observation and went on to add that they publicly praised their staff and encouraged them to support each other in a bid to overcome their perceptions of being remote from centres of innovation. She highlighted a significant barrier to professional learning:

Collegial support is so important. It doesn't always work but if teachers can work together it's more likely that they'll continue to try new things. It's about growing together and learning from each other no matter where you are. We're always applying for subsidies and grants to get people to quality PD but we rarely get them ... And there's a bigger issue. PD is often seen as something on top of their classroom responsibilities. They don't see it as part of their core business! That's a huge problem for us.

While both administrators acknowledged that "networking is very difficult in smaller schools because you don't have many teachers dealing with the same content" (Administrator F), their strategy for overcoming teachers' negative attitudes had begun by encouraging professional dialogue within the school:

Mentoring, coaching and just watching other teachers at work is so valuable. It starts the professional dialogue. Making that initial non-contact time available is really hard but, if we can manage it, the relationships between teachers take on a life of their own (Administrator E).

Their strategy for encouraging risk-taking and new learning had included public affirmation of good practice and they had found this incentive to be quite successful for some of their staff:

At staff meetings we highlight the good things going on and we've found there's a flow-on effect. Some teachers have tried new things to get the pat on the back, some public praise (Administrator E).

These administrators dealt with a broad range of teaching demands from early childhood to middle schooling. They had decided to use discrete groups within their staff to motivate the learning of other groups:

We've had our early childhood teachers doing lots of learning associated with the Prep Year and we've tried to use their enthusiasm to 'rub off' on others. It hasn't worked completely but there have been pockets of progress (Administrator F).

This principal voiced some concerns about the language used to talk about teachers and their learning:

When we talk about PD we're talking about an activity or an event that someone goes to. Professional learning doesn't have to be something you leave the school to do. It's not always a thing you 'go to'. Some of the best learning can happen when you sit down with another teacher and just solve your problems together. But do we, as a profession, acknowledge that type of learning? No. When you go to a PD activity you always promise yourself to implement that good idea or try that new strategy. But it never eventuates!

The administrators noted that the issue of professional learning needing a practical focus was important for the teachers at State P-10 School E:

Our primary teachers wrapped it up in a nutshell. They want practical, hands-on stuff that's project-based. Very focused. They want to walk away with something they can use next day. People need to know they are not wasting their time. A lot of time what they see is top-down PD that they have to do rather than something that might help them (Administrator F).

Administrator E agreed that their teachers preferred learning that was of direct significance to their personal circumstances:

The best PD is self-initiated. It might not even be curriculum related. It's a concern that what we see is the curriculum stuff almost exclusively when it's often not that that's causing teachers problems. It could be their relationships with the kids or the kids' relationships with each other! It might be how to cater for the kids who have disabilities and special needs. You don't see much on that.

The final issue these administrators raised concerned encouraging their staff to be risk takers in their professional lives:

I think that providing for or giving staff permission to let some areas slide when they focus on a new area is something to consider. Saying, "It's okay while you're concentrating on implementing the new X, Y or Z to ease off on what you do for school sport or the musical or something else in the classroom". But it's not easy for teachers to let go. They have a lot to lose

particularly if things are going okay as they are and you're asking them to change the way they operate (Administrator E).

For these principals, their teachers' attitudes were indicative of a greater issue within the education community:

We have an issue here about PD and professional learning. Teachers can attend PD but not transfer anything in to their classrooms. Their pedagogical practice doesn't change a jot (Administrator F)!

Until teachers start regarding themselves as professionals, we have a major problem. Professional learning is great but the effectiveness of our schools won't change until staff are prepared to engage in it. When we see ourselves as professionals, the influence will be profound (Administrator E).

5.6.3 The school's teacher participants.

Of State P-10 School E's 17 teachers, half agreed to participate in this study. Eight teachers completed the questionnaire and, of these, three teachers contributed their thoughts about professional learning in a semi-structured interview.

Table 5.9 provides an overview of the characteristics of the teacher participants from State P-10 School E. For the purposes of protecting their anonymity, they have been given the pseudonyms E1 to E8.

Table 5.9

State P-10 School E teacher participants

Teacher Participants	Gender	Age Range	Teaching Experience	Years at State High School E	Interview type (if applicable)
E1	Female	21-30	6	2	Telephone
E2	Female	41-50	24	1	Team
E3	Male	41-50	5	4	Team
E4	Male	31-40	2	2	n/a
E5	Female	20-30	1	1	n/a
E6	Female	31-40	10	3	n/a
E7	Female	31-40	4	1	n/a
E8	Male	41-50	10	1	n/a

5.6.4 The school's questionnaire results.

The five issues articulated by teachers from State P-10 School E reflected similar issues identified by their school's administrators.

5.6.4.1 Isolation.

The notion of geographic isolation was a common concern for questionnaire respondents. More than half of their responses mentioned the issue:

We need access to PD out here. We're 100kn from the nearest city and we don't have access to very much. Even if it's on offer in the region, it's difficult to get there to learn (TQ 209).

We just need time and locations a bit closer ... In-service is harder for country teachers (TQ 201).

5.6.4.2 Relevance of learning.

State P-10 School E's administrators flagged the relevance and practical nature of PD as being important to their staff and more than half of questionnaire respondents did mention the issue:

PD's got to be practical stuff, relevant to my classes (TQ 227).

In-service has to be practical activities (TQ 213).

5.6.4.3 Costs of professional learning.

The critical part played by colleagues emerged as another issue of importance to teachers at State P-10 School E. Teachers noted that as their most effective tool for learning new skills and implementing new ideas was sharing with their colleagues:

When other teachers show me proven strategies they have used, I'm motivated to try them too (TQ 207).

State P-10 School E administrators saw teachers' learning as "an investment" but the logistical realities of managing this community of learners seemed far from ideal from their own and their teachers' perspectives. Time for teachers' learning and the timing of that learning was another issue mentioned in the questionnaires from this school:

When I hear about some ideas from others and they 'sell' the idea enthusiastically I often give it a go (TQ 210).

When I get back to school and do all the catching up all the great ideas get filed in my "Gunna Do" folder and rarely gets used due to the lack of preparation time. A lot of PD is compulsory but there's little or no resourcing or time to follow through and build on that PD (TQ 227).

Some participants recognized that personal life experiences contributed to their professional learning and their classroom pedagogy:

Life experiences and general classroom experiences add up to my pedagogy (TQ 214).

How I relate to others and my own self-confidence are factors in the classroom (TQ 200).

5.6.5 The school's interview results.

Two females and one male teacher from State P-10 School E agreed to take part in the interview phase of this study. One teacher chose to be interviewed individually by telephone while the other two participated in a team interview.

Teacher E1 was an enthusiastic participant. She was forthright in her responses and explained that her desire to be interviewed individually stemmed from "some negative perceptions" of her held by other members of the staff. She was in her second year at the school and had undertaken study in a number of other fields before deciding on a career in teaching:

I came to education in my 20s with degrees in literature, French and TV production. I don't know that I've proven to anybody that I'm of a certain intellect but having a few extra degrees on the wall makes people assume. I think spending my 20s as a student I saw myself as fairly intellectual. I think some teachers have gone straight from school to uni and have come out at 21 and don't see themselves so highly as professionals. The "I'm only a teacher" mentality. I don't see myself that way.

E1 placed a lot of emphasis on the benefits of continued learning during the interview responses and some days later the following addendum to her interview comments arrived by email:

I had an interesting dream last night and it made me think further on my PD as a teacher. In my dream I returned to the elementary school where I was educated from kindergarten to Grade 7. Upon awakening I thought back to my eight years at that school and it occurred to me that, according to my mother who is prone to mild exaggeration, most of the teaching staff at my school

were qualified to at least Masters level. I recall my favourite high school teacher also having her Masters. Perhaps my fond memories of my schooling (and this was public not private) had something to do with the high level of tertiary education of my teachers.

Perhaps, in order to encourage teachers to continue studying, the pay structure could include not only three and four year trained teachers, but also five, six and seven year trained teachers. More teachers might return to uni to boost their income!

However, E1 had a sense that her level of tertiary education was not looked upon favourably by her colleagues at State P-10 School E:

I think sometimes other teachers might resent me ... because I have high professional standards and I want to keep pushing myself to learn professionally. And maybe I'm a little too blunt about it.

When discussing these colleagues, E1 was disdainful of the attitude of some to continuing their own professional learning:

I'd like to go to a doctor or dentist who's been practising for many, many years. However, if that doctor or dentist was still practising with the methods he or she was taught with back in the 70s or 80s, I'd be freaking out!

I worry that the teachers around here who were trained in the 70s and 80s, or even the 60s, are still using the strategies and philosophies that they learned way too long ago. That's how it seems to me from the outside at least.

Her story-line illustrated her belief in herself as a lifelong learner with her graph describing a continuous high level of learning.

Teacher E2 was an experienced partitioner whose career had taken her to a number of different schools in the area. She spoke passionately about her role in the classroom but emphasized the dilemmas she faced in continuing her own learning:

I often look in professional journals and things and there are so many seminars and things available in Brisbane and I just think, "Give us more time and give us the people who can help us right here".

I could go if I wanted to but now I'm starting to get the guilts because it costs the school a lot of money to send me anywhere. I think that affects a lot of teachers.

We look at the courses and go, "Holy dooley! It's going to cost \$300 and then I have to get there and be replaced in the classroom." You start to weigh up, "Is it worth that much?"

The cost of inservice is something teachers do consider. Even if it's not our own money. You have think, "Will it make that much difference to the way I teach?" Sometimes I've thought I would really like to go to some events because of the networking. I find that really valuable and I say to the boss, "Can we afford that much?" Teachers shouldn't have to feel like that!

E2 also highlighted time issues as being significant to her own learning:

Time – that's the hard one ... I'm prepared to put in my own time to learn. I want to learn and I'm prepared to ask for help but everyone's so busy and getting time out of the classroom is such a big issue for all teachers.

E2's story-line (Figure 5.14) described a roller coaster pattern of learning that ebbed and flowed with her movement to new schools. She mentioned that the arrival of her children had placed additional strains on her professional learning, as her family circumstances required her to work outside the home while her children were young.

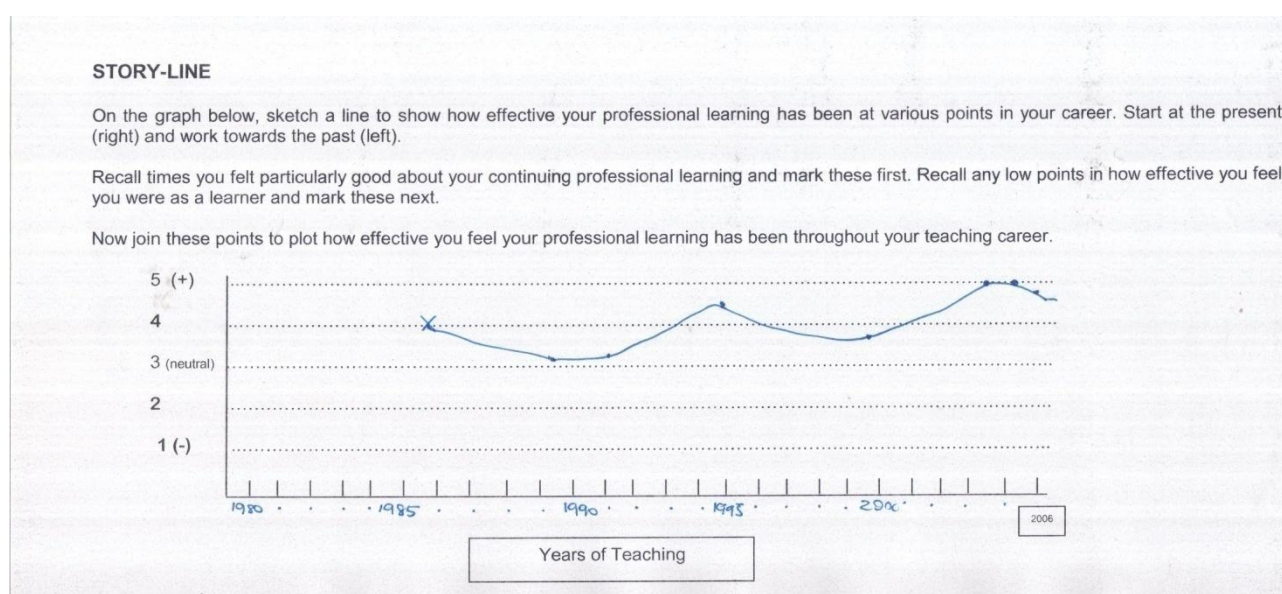


Figure 5.14 Teacher E2's Story-line

Teacher E3 came to teaching as a mature-aged graduate and felt that this coloured his view of himself as a learner:

I'm strange because I'm a mature-age graduate who's only been teaching five years. So I do a lot of things just for my own interest ... I'm motivated just by the experience of being there and learning how things are done. It's so I've got a better, more complete knowledge.

E3 was explicit about the criteria he used when deciding between professional learning options:

It is primarily for my own kids, my family, and secondarily for my own benefit and also for the kids I teach. If what I learn can benefit my own children then of course I'll do it.

E3 enjoyed the opportunity to “talk shop” with his colleagues. He was disappointed by the level of collegial support he perceived at State P-10 School E and in the education community more generally:

Teaching as a profession doesn’t have enough collegiality. I learned about this in my studies but everyone works on their own ... The whole profession could benefit so much more.

E3 recognized time for collegial discussions and learning from his colleagues as a major constraint on his own learning:

Schools are very much hamstrung by time and finances. Most definitely there are time constraints. Definitely. That’s the main problem. We just don’t have enough time to sit down and nut stuff out together. It’s always something that gets left for ‘another time’.

Personally, I think the holiday time should be reconstructed. I don’t see any reason why we can’t come back a couple of days earlier before each holiday and spend the time working collegially. Now I know that would go across a hell of a lot of union taboos. We do sit down and say, “How can we actually do this?” but we just don’t get enough time to start actioning them. That’s the problem from what I’ve seen. You generate a lot of good ideas but they don’t get followed up. You hear lots of really, really good ideas here but they just never hit the ground which is unfortunate ... It’s time. In the process of developing your research and where you want to go and what you need to learn, you don’t have enough time to take it through the whole process. We really don’t. We *never* do.

Teacher E3 had been teaching for a relatively short time and his story-line graph consisted of a short, straight line indicating continuous learning at a very high level.

5.6.5.1 Summary of interview issues.

The interviewees from State P-10 School E were keen to make the point that isolation was a critical issue in negotiating their own learning. Geographic isolation and professional isolation intertwined to produce feelings of remoteness and, in some instances, alienation. A level of tension was evidenced between young teachers who planned to spend the minimum time in this school before transferring to what they saw as more desirable locations and those teachers whose tenure at the school was long-standing. Younger staff members were critical of their older counterparts and saw them as ‘isolated’ and ‘out of touch’. This attitude presented problems for the collegiality onsite and was particularly noteworthy given one administrator’s comment that “without collegial support, teachers were not likely to continue their professional learning journeys”:

I would like to go to a doctor or dentist who's been practicing for many, many years. However, if that doctor or dentist was still practicing the same methods he or she was taught with back in the 70s or 80s, I'd be freaking out! I worry that the teachers who were trained in the 70s and 80s, or the 60s, are still using those strategies and philosophies that were learned way too long ago. That's how it seems to me from the outside at least (E1).

I learned about collegiality in my studies but everyone works on their own here. And I've heard that from people in other places too ... Learning is not just PD. Learning is a feedback process. You come up with an idea, you develop it; you try it. You know that learning loop? In the near future I'm hoping to sit down with another member of our staff here and learn how to do some things better. That will come through in my classroom. I put a lot of credence on learning from each other (E3).

Time to spend learning from and with colleagues was a recurring constraint felt by the interview participants from State P-10 School E.

You send people off to courses and when they come back we just talk about what they did but what we need to understand is how can we actually put this stuff in to action. But we just don't get enough time to start actioning the good ideas. That's the problem from what I've seen. You generate a lot of good ideas but they don't get followed up. You hear lots of really, really good ideas but they just never hit the ground, which is unfortunate (E3).

In the process of developing where you want to go and what you need to learn, you don't have enough time to take it through the whole process. We really don't. We never do! (E1)

Lack of recognition for their specific levels of competence was an issue the interviewees from this school each found difficult to deal with.

I'm having a dispute here at the moment where I'm being expected - not even asked - to put together a course. When I was being employed no one wanted to even acknowledge my Honours Degree and 17 years of experience! I wasn't remunerated for that. And now they're expecting me to use a qualification they haven't even paid for. I've got two degrees and I've got a Masters Qualifying waiting to go one day. But at this school I'm just a Maths/Science teacher (E3).

I don't want to seem useless at anything. I'm prepared to put in the time to learn. I want to learn and I'm prepared to ask for help (E2).

I didn't come to education till my late 20s and I showed up with two degrees before education. I don't know that I've proven to anybody else that I have a certain level of intellect but having a few degrees on the wall makes people think. God forbid that I should be paid for all that work though! (E1)

The three interview participants from State P-10 School E each had one other issue that they felt impacted significantly on their own learning journeys. For E1 it was the intensity of her feelings of being an outsider. Along with her colleagues she alluded to the issues of geographic and professional isolation but this teacher felt that her image of herself as a learner set her apart from others at her school. E2 was wracked by guilt at the financial burden her learning placed on the school's budget. Such feelings meant that she continually weighed up what else would be forgone to pay for her PD and questioned whether her learning was worthy of this expenditure. At the same time, she resented having "the guilts" about making choices between her learning and other school spending. For E3, the issue of autonomy was significant. He recognized that his needs were different from those of his colleagues and that this required an individual approach to teacher learning. He did not see the recognition of individual need being acknowledged or catered for at State P-10 School E. E3's issue was an amplification of the lack of recognition of individual competence raised by his colleagues.

5.6.6 Case 5 in summary.

The issues to emerge at State P-10 School E revolved around the cost, time and distance involved of accessing professional learning. These teachers felt remote from the centres in which quality teacher learning was offered and felt this presented a high level of disadvantage. Their access to colleagues with similar interests and values for professional networking presented a perceived barrier to the teachers from State P-10 School E who yearned to participate in a community of learners. The school did not appear to adequately meet these needs.

Another issue raised by the teacher participants from this school was how their participation in ongoing learning was influenced by spin-offs for their own families. When the learning provided benefits for teachers' own children or personal relationships, they were more likely to engage meaningfully with the experience.

Table 5.10 provides an overview of the nineteen issues evidenced in Case 5. Only one issue was common to all three participant groups at State P-10 School E although there was a level of commonality between groups between on a number of issues.

Table 5.10

Case 5 - Summary of issues

Issues	Administrator E	Administrator F	Teacher Questionnaire Responses	Teacher Interview Responses
1. Professional isolation	✓	✓		✓
2. Geographic isolation	✓		✓	✓
3. Collegial networking	✓	✓	✓	✓
4. PD event versus learning	✓	✓		
5. Practical nature of learning	✓	✓	✓	
6. Personal aspects of professional learning	✓			
7. Relevance of learning	✓			
8. Costs of professional risk taking	✓			
9. Time away from class			✓	
10. Personal experience as teacher			✓	
11. Recognition of teacher competence				✓
12. Guilt about financial cost of PD				✓
13. Need for teacher-directed learning				✓
14. "I'm only a teacher" mentality				✓
15. Older teachers reluctant to change pedagogy				✓
16. Birth of own children added strain to learning commitments				✓
17. Benefits to family motivates learning				✓
18. Use school breaks to enhance collegiality				✓



5.7 Conclusion

In this chapter, the narratives of teacher-learners at the five case schools have been presented. The administrators and teacher participants from whom data were gathered have been introduced and their prime issues have been described. Table 5.11 presents a summary of the five interpretive educational cases, their participants and their issues.

Table 5.11

Summary of interpretive educational cases

Case	Number of Participants	Questionnaire Issues	Interview Issues
State High School A	9	Isolation: Geographic and professional Relevance and practicality Costs of professional learning Systemic support	Working collaboratively was highly valued but logistically difficult Communication/sharing among colleagues limited Ineffectiveness of mandated PD
State High School B	17	Personal relevance of professional learning Costs of professional learning Colleagues as teachers	Costs of professional learning: students, self, school Personal 'pay-off' motivated engagement Isolation: Geographic and professional 'One-off' PD ineffective Employer commitment to teacher learning questioned
State High School C	18	Personal motivation for professional learning Costs of professional learning Learning in community	Teacher learning underpinned school success Professional learning must be practical Time away from classrooms was problematic Personal elements determine participation in learning

			Collegial learning highly valued Use of 'outside experts' vexed issue Professional isolation due to school size Effective teacher-learners require greater autonomy
State Primary School D	2		
		Professional isolation Professional learning incurs costs - financial and time Range of duties in small school daunting Lack of suitable learning opportunities Professional learning must be relevant/practical Change management is critical Local professional learning culture must be challenged Identifying and quantifying 'quality' is difficult	
State P-10 School E	10	Isolation: Geographic and professional Relevance of learning Cost of professional learning	Isolation: Geographic and professional Limited time to share learning Current competencies not acknowledged; professional learning not meeting individual needs Guilt about financial and time costs of professional learning

The following chapter presents the data derived from analysis across the cases as well as interrogation of issues that were particular to discrete participant groups. Overarching themes drawn from the analyses are discussed with reference to current literature and answers to the research questions that underpinned this study are elaborated.

CHAPTER 6

Comparison of Cases

6.1 Introduction

The purpose of this chapter is to compare findings derived from the data from the five case study schools. Participants from each of the five schools proffered their own particular views and opinions on teacher-learning to create a collective description of how professional learning happened in the five case schools. The contextual richness of each school provided a backdrop for the emergence of issues that were common to respondents across all five sites and some which were specific to individual cases. The responses of like-groups of respondents across the cases were also analysed to discover issues particular to school administrators, to teacher participants who completed the open-ended questionnaire and to participants who participated in semi-structured interviews.

As the purpose of the research was to listen to the voices of practitioners in order to better understand the situated worlds of teacher-learners and how to support them and their learning, three research questions were used to explore the concept of teachers as learners. They afforded insights into teachers' and principals' understandings of professional learning, what features of an education system influenced teachers' engagement as learners and which school and systemic structures enabled and encouraged teachers' commitment to ongoing professional learning throughout their careers.

In order to compare the findings across the five interpretative cases, a brief overview of the cases provides a snapshot of the contextual richness they bring to the study. This is followed by a summary of issues derived from the discrete participant groups of administrators, questionnaire respondents and interviewees across all five cases. From this extensive inventory of issues that appear in the summary tables in rank order according to the number of times they occurred in data, categorisation distilled four major themes that emerged from the voices of the participants. These themes are presented at the conclusion of the chapter in preparation for analysis in the following chapter. Because of the consultative nature of interactions with school

administrators and teacher interviewees, data from these encounters are presented as a narrative. Teacher questionnaire data however, were obtained in a non-interactive way and these responses have been grouped around the study's three research questions and have been presented numerically.

6.2 Case Contexts Compared

While the schools that constituted the five interpretive educational cases for this study had much in common, each was unique in the role it played within its community and the learning opportunities it offered its students. Within these cases, six school administrators, 50 questionnaire respondents and 22 teacher interviewees contributed their insights into teacher-learning.

The first case school was a large secondary school located in a provincial town. The teachers at State High School A were experienced but the school had undergone a number of leadership changes in recent times. For the administrator of the school, motivations for professional learning were closely bound up with issues of student welfare; however, as discussed in the previous chapter, there appeared to be a dissonance between this view and that of the teachers at the school. Student welfare as the major motivator for teacher learning was not mentioned by the school's teacher and not evidenced in any others of the case schools.

The impact of personal lives on professional learning was first mentioned at State High School A. This issue was also of significance in Case 2 when teachers spoke of the conflict they experienced in choosing between their professional and family responsibilities.

The second case school was known in local educational circles for its stable and experienced staff and this sense of stability was an important factor for the small rural town struggling with rapid change as the result of government deregulation of the area's main industry. For teachers at State High School B, professional learning was often seen to occur a great distance from their location. Both the school's administrator and the teachers concurred on this and lamented the financial burdens travel and time out of classrooms brought for the school and individual teachers. The

monetary and emotional costs of the practice of professional learning were also high value issues in Cases 3 and 4 as discussed in Chapter 5.

The third of the five case schools, State High School C, was located in a small coastal town struggling with fluctuating international commodity prices and the departure from the town of its young people. As illustrated in the previous chapter, the Administrator of State High School C espoused strong views about strategic leadership for his school and guided the school's staff, a mix of long-term and inexperienced teachers, in an overtly protective manner.

For the participants at this school, there was a strong culture of professional risk-taking that was not evidenced at any other of the case schools. There was a proud acknowledgment of high levels of expertise within the staff and disdain for learning facilitated by 'outside experts'. This was in stark contrast to teachers' desires to participate in quality of professional learning that they perceived to be available only in State's capital. This level of incongruence was not evident in the other cases.

Another significant issue that arose from this case was that of professional growth and development being a factor of personal development. One teacher at State High School C felt strongly that her learning needs as a person were being overlooked in the school's emphasis on curriculum learning and that this had led to conflict with other staff. While the notion that personal growth contributed to professional growth was also evident in Case 5, nowhere was it such a strong motivator as in Case 3.

The study's fourth case, State School D, was a small school in a small rural hamlet. Its location meant that maintaining student numbers was a battle particularly in times of rising fuel prices and falling commodity prices. The school's young administrator and single other teacher both keenly felt the professional isolation of their small school. Both practitioners expressed a profound need to be part of a community of learners and this issue, while evident in varying degrees each of the other cases, was most ardently expressed by participants in Cases 4 and 5. Both schools were in rural locations but, while not considered remote, their geographic location was a significant factor.

For participants in the study's fifth school, State P-10 School E, a divide appeared to exist between staff who had been at the school for much of their professional lives and younger teachers just beginning their careers. This divide was echoed in the community. The level of discontent expressed by teachers at State P-10 School E was acknowledged by the school's two administrators. They were aware of the issue and had put in place measures to heal the rifts although they acknowledged that much of the journey still lay ahead. This level of discord was not evidenced at any of the other case schools.

Together these schools and their educators played vital roles the five communities they served and the lives of the learners they served. The issues raised by each of the groups who participated in the study are presented in the following sections. Section 6.2.1 summarises all the issues raised by school administrators, 6.2.2 summarises all the issues raised by questionnaire respondents and 6.2.3 summarises all the issues raised in the teacher interviews. Table 6.4 amalgamates similar issues and assembles these findings under the study's three research questions.

6.2.1 Administrators' issues across the cases.

Six school administrators acted as a reference group for this study and contributed their views in a focus group interview. It was important that the concerns of these school leaders were addressed early in the study in order to engender their enthusiasm for and support of the research and their staffs' participation in it.

The focus group interview was used to gather information about how these administrators thought and felt about their own learning and that of their teachers. The strategy enabled lively dialogue as these professionals contributed their responses to the research passionately and in a spirit of openness and forthrightness. Table 6.1 summarises the issues raised in the focus group interview and illustrates the spread of issues amongst the administrators. Issues are in rank order according to how often they appeared in the interview data.

Table 6.1

Summary of administrators' issues

Administrator Issues	Admin. A	Admin. B	Admin. C	Admin. D	Admin. E	Admin. F
1. Local PD culture	✓		✓	✓	✓	✓
2. Professional development is an imposition on core business	✓	✓		✓	✓	
3. PD on the 'big picture' is hard to sell	✓ ✓		✓	✓ ✓	✓ ✓	
4. Professional isolation as a factor of school size				✓	✓	✓
5. 'Costs' of time away from classroom/school	✓	✓		✓		
6. Geographic isolation				✓	✓	✓
7. Principals have to model being learners	✓					
8. Professional learning must be highly organized and evidence-based	✓					
9. Strategic direction vital	✓					
10. Large-scale mandated PD is not effective	✓					
10. Change management brings pressure	✓					
11. Talented teachers quarantined in 'silos'	✓					
12. Release from classroom duties influenced participation						
13. Staff need support to be professional risk-takers		✓				
15. Personal and professional benefits of learning			✓			
16. Value of learning from colleagues		✓				
17. Strategic direction is vital			✓			
18. 'One off' PD events not effective			✓			
19. State-wide review panels provided valuable learning opportunities			✓			
20. Teacher professionalism not valued by EQ			✓	✓		
21. Relevance of PD is critical motivator			✓	✓		
22. 'Quality teaching' is the big picture						
23. PD event versus learning					✓	
25. Practical nature of learning					✓	
24. Teacher learning is driven by student welfare concerns	✓					

The issue of professional learning being seen as an imposition on core business in some schools was raised very early in the administrators' discussions. It was prefaced with comments extolling the essential nature of teachers' continuing learning as professionals however, these administrators acknowledged that having their teachers undertake PD had significant consequences for their schools. In fact, the administrator group experienced many of the same difficulties when they left their schools to continue their own learning, as did their teachers. Hence, the issue represented a significant blocker to the continuing professional learning of teachers and administrators alike. This view was reflective of the way in which the group understood professional learning to be. When learning was seen as an event that occurred away from the classroom and school, the financial and other costs incurred were high.

In their deliberations, almost all administrator participants mentioned that PD on 'big picture issues' was hard to sell. Big picture issues included initiatives such as those dealing with government policy and frameworks for policy implementation as well as legislative issues. Their understanding was that teachers in classrooms possessed a narrow view of life outside their classroom walls and were unable or unwilling to engage in professional learning unless they could see a direct and immediate need for them or their students. That need might be perceived in either positive or punitive terms. Positive outcomes of teacher learning included the introduction of practical pedagogical strategies and techniques that had obvious and measurable benefits for students while punitive outcomes could arise from loss of advancement.

The notion that principals needed to model being learners themselves emerged as an issue for two participants. It was acknowledged that this concept was relatively new to many administrators but that teachers needed to see that their leaders continued to update their educational skills and knowledge in the often-quoted quest for continuous school improvement.

Mention of the issue of quality in teaching and learning by one administrator brought immediate concurrence from his colleagues. Indeed, there was a short hiatus in the conversation after this statement was discussed and the group appeared to be taking time to digest the implications of the issue and their reactions to it. Further discussions took on a far more introspective tone. Quality teachers and quality

teaching are the specific aims of continuing professional learning yet these experienced administrators found great difficulty in identifying criteria for judging whether they and their staff were indeed 'doing a quality job'. They identified perceptions of frequent change mandated by the employing authority as a limiting factor of their own and their teachers' learning practices and struggled with the question of 'What *is* the quality?'

The question about defining quality may have been a vexing issue due to the pace of change within education. As departmental directions were perceived to be subject to constant change, articulating a clear view of what constituted quality in changing times was a difficult task. What it means to be 'a good teacher' is clearly undergoing redefinition in modern times and this has led to some insecurity and indecision about how best to prepare quality teachers in the twenty-first century.

While acknowledging the value of teachers working together to solve problems and share expertise, school leaders were acutely aware of the costs in both financial and classroom terms of what they called 'networking'. Administrators and teachers alike mentioned networking with colleagues as a very valuable aspect of their own professional learning but learning together placed a high demand on teacher time. The demands of networking on the teaching role were seen to be greater than a dollar cost and school leaders detailed the difficulties they experienced with managing the competing demands of teacher time spent away from their classes and the logistics of providing the time and funds for teachers to undertake collegial learning.

A very parochial attitude to PD emerged in administrators' discussions about how professional learning was accomplished in this geographic region. For example, Administrators A, D, F and E specifically mentioned the local expectation that quality professional learning entailed long-distance travel out of the region.

Successive regional executives had openly fostered an attitude that distinguished the operationalising of departmental initiatives in this area from other areas of the State. By understanding their circumstances to be quite different from those in other areas of the State, notions of doing things differently had become ingrained in the conversations and urban myths of educational professionals in the region. Often this

led to heightened levels of frustration with mandated departmental processes. But, despite the feeling of being ‘mavericks’, a certain envy of those in metropolitan areas still appeared to exist. It was common to hear both school leaders and teachers talk about the best opportunities for learning being offered in ‘the south-east corner’ [of Queensland]. Conversely, this group of administrators also tried to dispel the concept that worthwhile professional learning was only available outside the region. Concern was also expressed that administrators, reluctant to release their staff to work with their peers in other locations, quarantined talented teachers with a wealth of knowledge and understanding within their schools.

6.2.2 Questionnaire respondents’ issues across the cases.

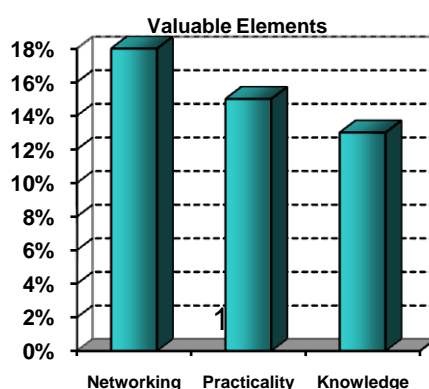
Because of the non-interactive nature of the open-ended questionnaire, analysis of the fifty teacher responses from across five case schools is presented in graphic form, grouped around the study’s three research questions. The research questions have been used to provide the structure presentation of the analyzed questionnaire data in order to aid the coherent discussion of issues that follow. In each instance, the relevant questions from the open-ended teacher questionnaire (TQ) that assist in understanding the major research questions are included where they aid understanding of the research question.

6.2.2.1 Research Question 1.

How do teachers and those who support teacher-learners understand ‘professional learning’?

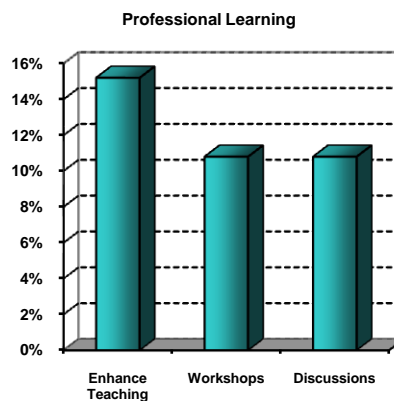
TQ 4: Valuable elements of professional learning

Most valued in professional learning situations were opportunities to network and to share ideas with colleagues (18%). The acquisition of practical classroom strategies that could be implemented immediately (15%) and acquiring new knowledge, ideas and skills (13%) were similarly rated as being benefits of participating in professional learning.



TQ 7: What counts as professional learning?

Questionnaire respondents attributed a range of answers to this question however the most common response was “Things that enhance my teaching” (15.2%). Equal second in popularity on this list were “Workshops and seminars” (10.8%) and “Discussions with colleagues”(10.8%). A distinction can be made between the most common response that was the aim of professional learning whereas the other popular responses are actually ways of achieving this aim.

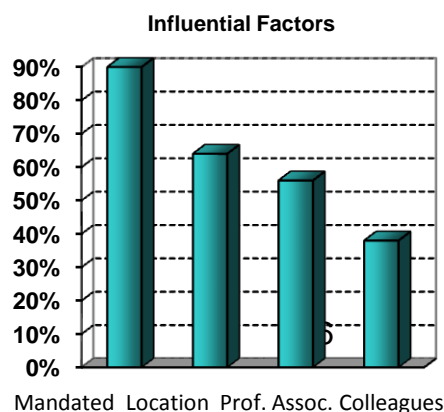


6.2.2.2 Research Question 2.

How and why do teachers engage with professional learning throughout their careers?

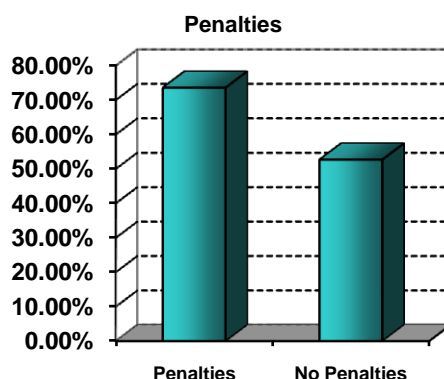
TQ3: Factors that influence involvement in PD

When asked to identify the most influential factors in prompting their involvement in professional learning, the majority (90%) nominated learning that was mandated by the employer as the most compelling factor. The next most influential factors were the location of the learning (64%) and learning that was advertised by a professional association (56%). Thirty-eight percent of respondents said that the recommendations of colleagues influenced them to become involved in professional learning.



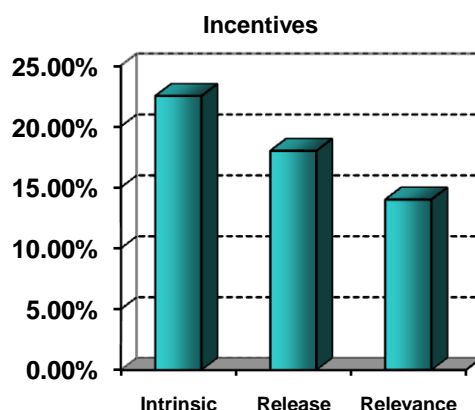
TQ5: Penalties for not continuing professional learning

A significant majority of respondents (73.6%) believed that penalties are imposed on teachers who fail to continue their professional learning. Of those, more than half believed the biggest penalty was applied by the teacher limiting their own knowledge and professionalism (52.7%).



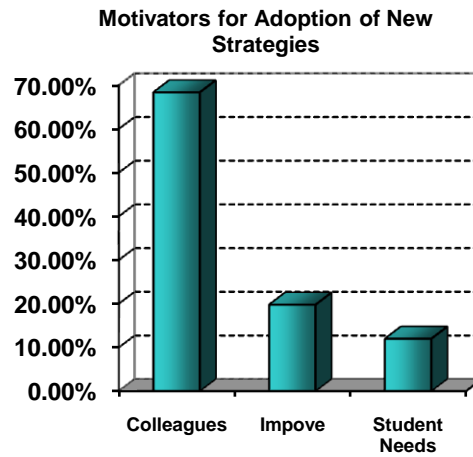
TQ6: Incentives to continue professional learning

Teachers rated three incentives as most influential in their decisions about participating in professional learning activities. These were their personal intrinsic motivation to become involved, the opportunity to be released from their classroom teaching to attend and, rating only third position, was the perceived relevance of the learning to their current or future classroom duties.



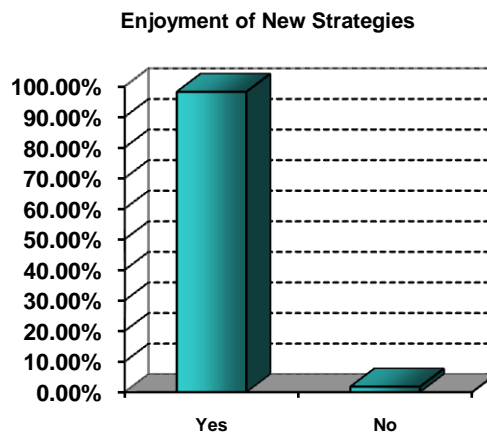
TQ10: What motivates you to try something new?

Most common as the motivation for adopting new pedagogy was the recommendations of colleagues (68.4%). Intrinsic motivations for self-improvement were nominated by 19.8% of respondents as their main reason for engaging in learning and only 12% of teachers nominated the needs of their students as a prime motivator.



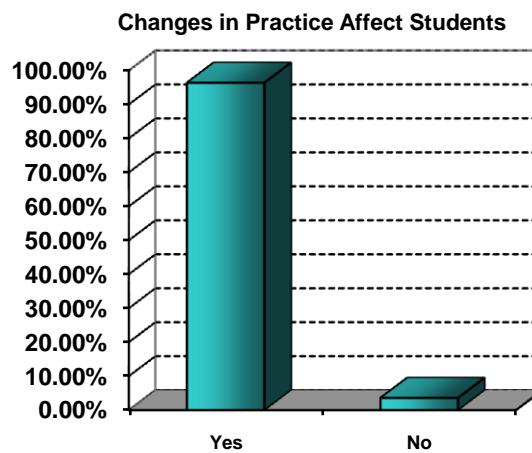
TQ11: Do you enjoy using new ideas in your classroom?

The overwhelming majority of respondents (98.2%) enjoyed trialling new strategies and ideas in their classrooms.



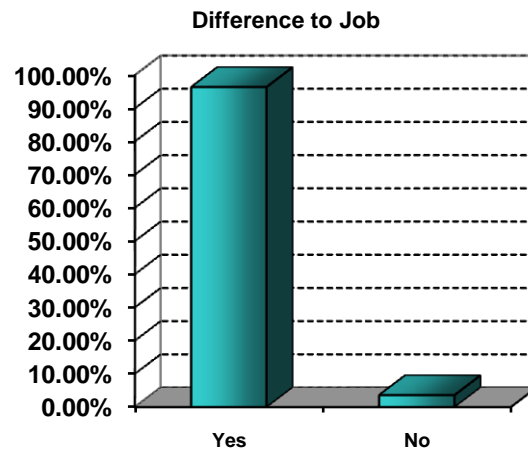
TQ12: Changing pedagogical practice affects student outcomes

Similarly, 96.4% believed that changes to their teaching repertoires affected the outcomes of their students.



TQ13: Does PD make a difference to how you do your job?

Almost all participants (96.4%) recognised that the professional learning they had undertaken did make a difference to their management of their classrooms and how they carried out their teaching roles.



TQ14: What experiences affect your classroom practice?

When reflecting on the specific experiences that had prompted them to change their classroom practice, 22.4% of participants nominated their attendance at workshops and seminars as significantly impacting on their conduct and 15.7% said the needs of their students, in particular student behaviour, had prompted them to alter their pedagogy.

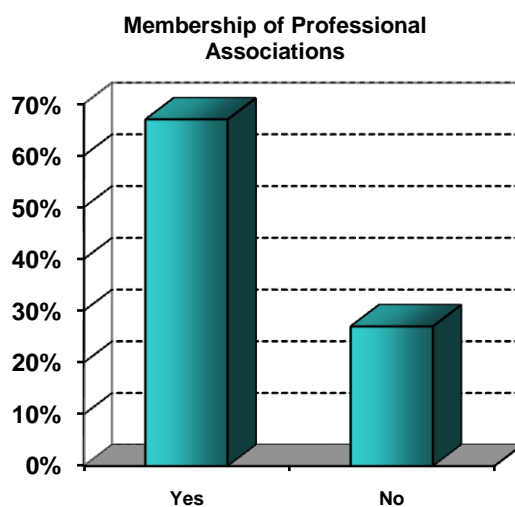


6.2.2.3 Research Question 3.

How do schools and school systems support teacher learning?

TQ8: Membership of professional associations

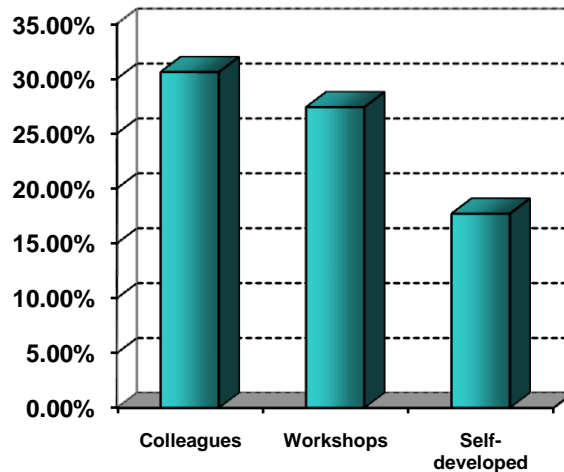
Of all respondents, 63.7% recognized that they belonged to a professional association, network or group. It is speculated that many teachers did not recognize their membership of the Queensland College of Teachers as such a professional body. Membership of this organization is mandatory in order to maintain registration as a teacher in Queensland. Similarly, the Queensland Teachers Union (QTU) was also not recognized as being part of a professional body. Despite the fact that 96% of teachers in Queensland's state schools are QTU members, only 27% of respondents mentioned their membership of this organization. If these assumptions are correct, then membership of a professional organization is indeed much higher than respondents reported.



TQ9: Sources of information about curriculum and pedagogical changes

Similar numbers of participants attributed interactions with their colleagues (30.6%) and their attendances at workshops and seminars (27.4%) with adding to their professional repertoires of teaching practices. A significant number of respondents said they had developed new teaching strategies themselves in response to the needs of their students (17.7%). Interestingly, no participant mentioned departmental syllabus or resource documents as a source of new information.

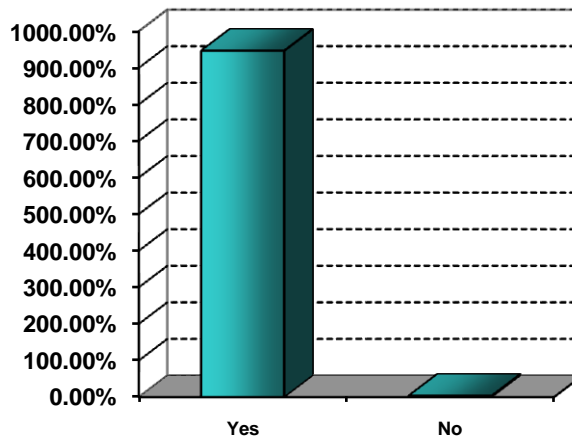
Sources of New Practices



TQ15: Is your learning shared with colleagues?

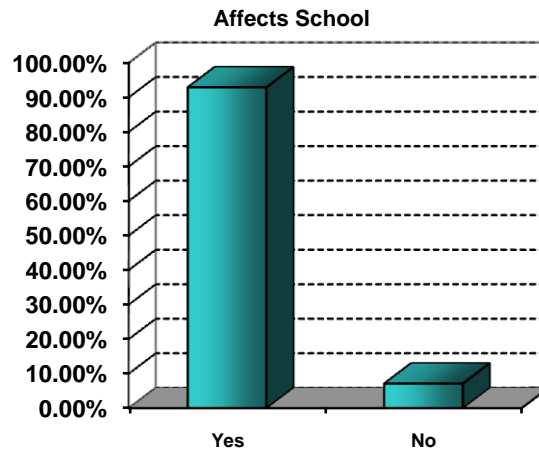
Most teachers involved in this study (96.4%) did have opportunities to share their professional learning with others. They noted that opportunities for sharing their learning were rarely formally scheduled but occurred in informal settings on an ad hoc basis.

Learning Shared



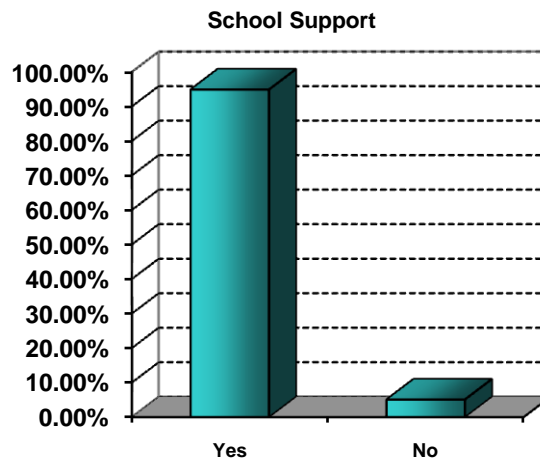
TQ16: Teacher learning affects school operation

Of all participants, 92.9% felt that their professional learning had influenced the way in which their school operated. Teachers commented that this was particularly common in small schools.



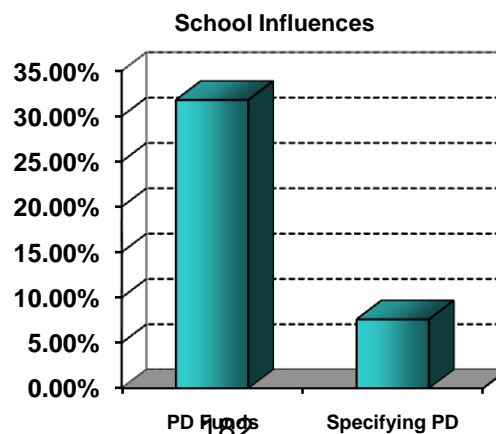
TQ20: School support

The majority of teachers (94.9%) felt that their schools supported their continuing learning. Support took the form of providing access to PD events such as workshops and conferences, limited funding for attendance of events and the provision of relief teachers to take their classes.



TQ21: School influence

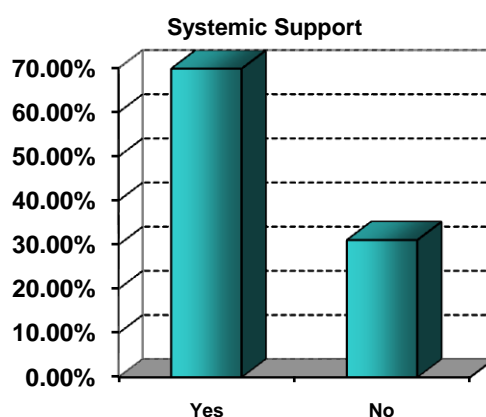
The most common way that schools influenced the learning of teachers was through the provision of professional development funds (31.8%), while 7.6% of teachers said that their school directly influenced their engagement in learning by selecting specific learning activities for them.



TQ23: Systemic

support

One third of teachers (31.1%) were critical of the level of support provided by their employer.



From the questionnaire responses, sixteen issues emerged. They dealt with notions of the 'costs' of teachers' continuing learning, geographic and professional isolation and the imperative for learning opportunities to be relevant and timely. Table 6.2 provides a summary of the issues raised by the questionnaire respondents in the five case schools.

Table 6.2

Summary of teachers' questionnaire issues

Questionnaire Issues	Case 1	Case 2	Case 3	Case 4	Case 5
1. 'Costs' of time away from school/classroom	✓	✓	✓		✓
2. Personal and professional benefits of learning	✓	✓	✓		
3. Relevance of learning	✓	✓	✓		
4. Expertise of colleagues was most valued	✓	✓	✓		
5. 'Outside experts' lacked local credibility		✓	✓		
6. Professional isolation as a factor of school size	✓			✓	
7. Practical nature of learning				✓	✓
8. Collegial networking					✓
9. Geographic isolation					✓
10. Personal experience as teacher					✓
11. Employing authority provides little support for	✓				

teacher learning	
12. Political influences on education initiatives are viewed cynically	✓
13. Little public valuing of teacher PD	✓

6.2.3 Interview participants' issues.

Semi-structured interviews provided more intimate opportunities to explore what participants were thinking and feeling about themselves as learners. "The purpose of open-ended interviewing is not to put things in someone's mind ... but to access the perspective of the person being interviewed (Hannabuss, 1996, p.24) and 27 teachers provided perspectives about their own professional learning to inform this study. Table 6.3 summarizes the issues raised by the interviewees across the five case schools.

Table 6.3

Summary of teachers' interview issues

Interview Issues	Case 1	Case 2	Case 3	Case 4	Case 5
1. Professional isolation as a factor of school size		✓	✓	✓	✓
2. Personal and professional aspects of learning	✓	✓	✓		✓
3. Cost' of time away from classroom/school		✓	✓	✓	✓
4. Staff need support to be professional risks takers	✓		✓		✓
5. Teacher professionalism not valued by employer	✓	✓	✓		✓
5. Working with colleagues is highly valued		✓	✓	✓	✓
6. Expertise of colleagues was most valued		✓	✓		✓
7. Isolation due to geographic location			✓		✓
10. One-off PD event doesn't change behavior					✓
11. Significant barriers to communication	✓				
12. Significant barriers exist to effective communication	✓				

13. 'Novices' acquisition of professional knowledge is not underpinned by educational philosophy	✓			
14. Teacher learning not valued by employer		✓		
15. Local PD culture		✓		
16. State-wide review panels provided valuable learning opportunities			✓	
17. Relevance of PD was questioned			✓	
18. 'Outside experts' lacked local credibility			✓	
19. Teacher learning integral to school's success			✓	
20. Need for teacher-directed learning			✓	
21. High-performing teachers provide PD but don't receive PD			✓	
22. Large-scale mandated PD is not effective	✓			
23. Sharing learning was logistically difficult	✓			
24. Conflict between family responsibilities and professional learning		✓		
25. Not all school activities constitute professional learning			✓	
26. Recognition of teacher competence				✓
27. Teacher-directed learning				✓
28. Older teachers reluctant to change pedagogy				✓

No single issue was common to interviewees across all case schools. This indicated that professional learning is personal in nature and situated in time and geographic location. Six issues showed some level of commonality for these participants.

The most common issue arose in four of the five case schools. Professional isolation due to school size was an issue for teachers in both primary and secondary locations. Primary teachers spoke of problems associated with multi-grade classes while their secondary counterparts bemoaned the lack of faculty colleagues with whom to network. Regardless of the sector of schooling, the outcome was the same, a feeling of lack of collegial support.

Teachers in three case schools reported a sense of isolation due to perceived remoteness. These teachers worked in geographic locations not usually thought of as far-flung and spanned both secondary and primary schools. Even participants located in moderately large regional towns experienced this isolation and yearned for what they saw as the professional opportunities offered to teachers in metropolitan areas. While teachers openly coveted the seminars, workshops and conferences advertised in the State's capital, the group of administrators in this region had much work to do to convince their colleagues that what practitioners in this region have to offer to each other was worthwhile. Additionally, the mention of teachers in 'silos' hinted at the remarks made by the group about professional learning being conceptualized as an imposition on the core business of schools.

Interviewees in three of the case schools identified the expertise of their colleagues as their most valued source of professional learning. Opportunities to observe other teachers at work, time to engage in professional dialogue with their colleagues, and chances to solve classroom-based problems collaboratively were teachers' preferred modes of updating their skills and knowledge.

The costs of time spent away from their classrooms while they undertook their own learning was a vexed issue for interview participants. While they craved what they described as 'quality time' during work hours to devote to their own learning, the logistics of this also caused some consternation. Interviewees detailed the additional demands placed on them in preparing for a relief teacher to take their classes and dealing with behaviour management issues on their return to their classroom or school.

Monetary considerations were the source of resentment and even guilt for some interviewees. The limited quantum of school funds allocated to attendance at learning events in addition to the cost of replacing classroom teachers was another aspect of the cost issue for these teachers.

When professional learning offered the promise of some form of personal learning, teachers were eager to engage. The personal benefits discussed ranged from a better understanding of self to skills that were transferable to teachers' home and

family lives. Learning that offered direct benefits to participants’ own families drew most praise.

Some participants questioned the effectiveness of learning events. It was recognized that ‘one-off events’, often mandated by the employing authority and delivered didactically, did not change teacher behaviour. Participants reported that such learning usually occurred after a day’s work, was frequently not seen as relevant to teachers’ classroom lives, and offered few opportunities for collegial support or follow-up.

6.3 Summary of Issues across the Cases.

Issues that arose within each of the five interpretative educational cases have been compared and contrasted to provide an overview of common trends as well as issues about teachers’ own learning that were specific to individual schools. In all, 30 issues arose across the five interpretative cases and Table 6.4 summaries these cross-case issues. The issues are presented in rank order according to the number of times they appeared in the data and they are colour coded to signify to which of the three research questions they pertain.

Yellow codes correspond to *Research Question 1: How do teachers and those who support teacher-learners understand ‘professional learning’?*

Blue codes correspond to *Research Question 2: How and why do teachers engage with professional learning throughout their careers?*

Green codes correspond to *Research Question 3: How do schools and school systems support teacher learning?*

Table 6.4
Summary of issues across the cases

Cross-case Issues	Case 1	Case 2	Case 3	Case 4	Case 5
1. Working with colleagues was highly valued	✓	✓	✓	✓	✓
2. Financial cost of PD	✓	✓	✓	✓	✓
3. Local PD culture	✓	✓	✓	✓	✓
4. 'Costs' of time away from classroom/school		✓	✓	✓	✓
5. Expertise of colleagues highly valued	✓	✓	✓	✓	
6. Release from classroom duties influences participation	✓	✓	✓	✓	
7. Relevance of learning		✓	✓	✓	✓
8. Professional isolation due to school size		✓	✓	✓	✓
9. Personal and professional benefits of learning	✓	✓	✓	✓	
10. Geographic isolation		✓	✓	✓	✓
11. PD must be practical		✓	✓	✓	✓
12. Large-scale mandated PD is not effective	✓		✓	✓	
13. 'One off' PD event doesn't change behaviour			✓ ✓	✓	✓
14. Employing authority provides little support for teacher learning		✓	✓		
15. Significant barriers exist to effective communication of learning	✓				✓
16. PD event versus learning		✓			✓
18. Teacher professionalism not valued by employer	✓		✓		
19. Need for teacher-directed learning	✓				
18. Political influences on education initiatives are viewed cynically	✓				
20. Talented teachers are quarantined in 'silos'	✓				
21. Teacher learning is driven by student welfare concerns	✓				
22. Novices' acquisition of professional knowledge is not underpinned by educational philosophy	✓				
23. Professional learning must be highly organised and evidence-based		✓			
24. Principals need to model being learners		✓			
25. Strategic direction vital			✓		
26. State-wide review panels provided valuable learning opportunities			✓		
27. 'Outside experts' lacked local credibility			✓		

28. Teacher learning integral to school's success	✓	
29. High-performing teachers provide PD but don't receive PD	✓	
30. Change management brings pressure		✓
31. 'Quality teaching' is the big picture		✓
32. Little public valuing of teacher PD		✓
33. Staff need support to be professional risks takers	✓	
34. Personal experience as teacher	✓	
35. Teacher learning not valued by employer	✓	

Cross-case analysis revealed a high level of concurrence between cases on four issues. The expertise of colleagues was highly valued as a tool for learning about, learning from and learning to incorporate new strategies into teachers' repertoires (Cross-case Issues 1, 5, 8, 19, 23). Additionally, time spent engaged in professional learning that took teachers way from their classrooms incurred 'costs' other than financial costs (Cross-case Issues 2, 4, 6, 14, 26), while the perceived relevance and practicality of learning was a significant determinant of teacher engagement (Cross-case issues 7, 11, 17, 22) and feelings of professional isolation due to school size (Cross-case Issues 8, 10, 19) were common. Each of these issues was mentioned in at least four out of the five cases.

Four issues were evidenced in three of the five cases. Firstly, participants acknowledged that professional learning that offered personal benefits to the learners was an incentive to participate. Teachers also felt their professionalism was not valued by their employer and that the local culture concerning teacher learning meant having to leave the school or the region in order to gain expertise or knowledge. Fourthly, participants emphasised that that professional learning must offer practical, 'use now' strategies that could be implemented immediately in their classrooms.

Less frequently mentioned but evidenced in two of the five cases, were a further seven issues. They were that large-scale mandated professional events were not successful in affecting teacher learning; that release from classroom duties was essential for quality learning experiences to occur but incurred psychological 'costs';

that the employing authority was not seen to provide support for teachers to continue their ongoing learning; that significant barriers existed to effective communication about learning within school settings; that geographic isolation was commonly raised as an issue in rural schools, even those not formally classified as remote; that one-off learning events were unsuccessful in enhancing pedagogical practice; and that teachers felt the need for greater levels of autonomy in self-directing their learning.

Cross-case analysis illustrated that many issues, both positive and negative, that impacted on teachers' professional learning were common across a variety of rural and urban settings, in primary and secondary schools and impacted on teachers with decades of experience in a similar fashion to those teachers just beginning their careers.

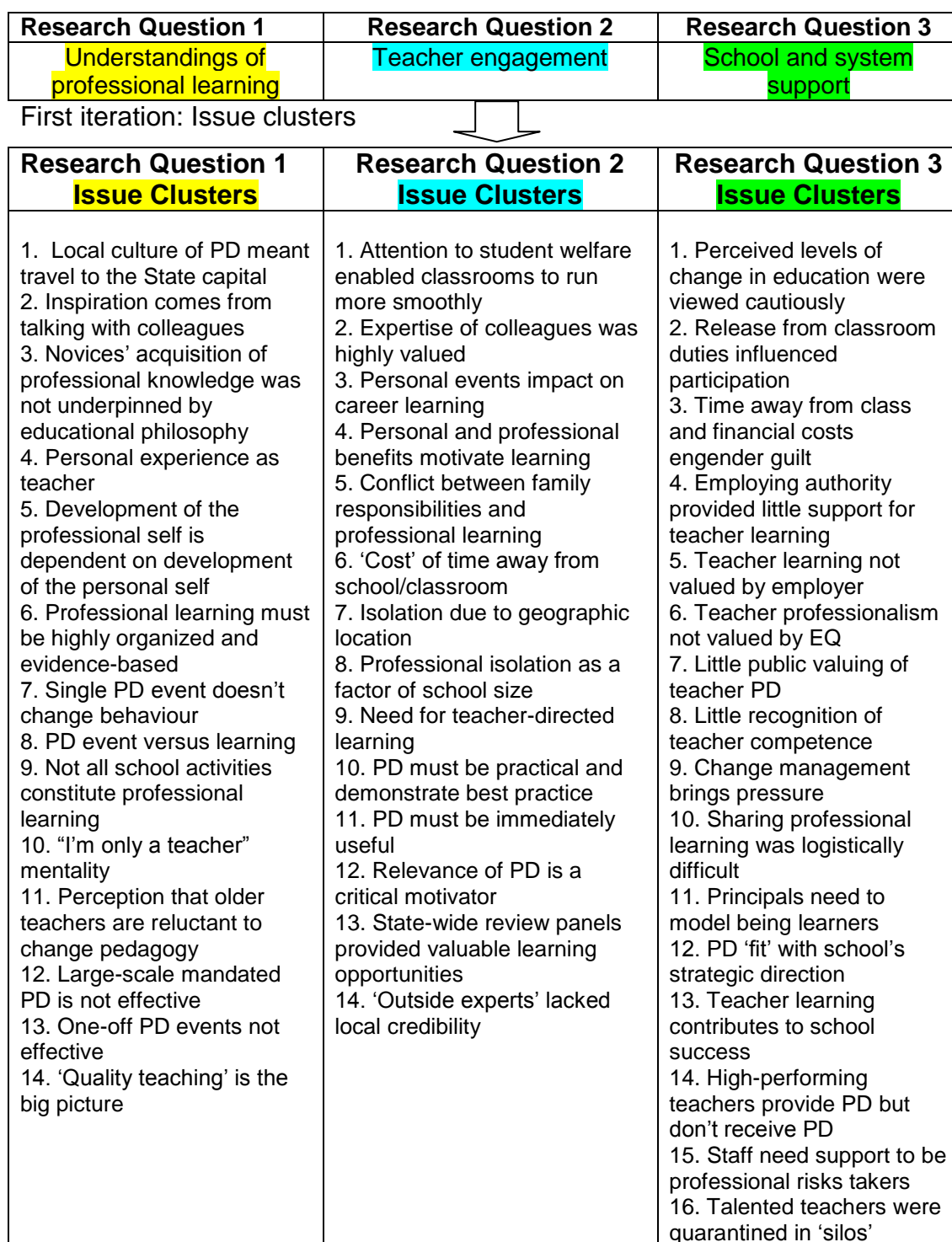
6.4 Major Themes Derived from the Data

From the extensive inventory of issues produced from the case data, four overarching themes emerged from the voices of the participants. Many of the same issues were raised in answer to the study's three research questions; consequently data have been presented here in the form of themes. The four themes to emerge from the data are:

- | | |
|---------|---------------------------------------------------|
| Theme 1 | Learning in community: Colleagues as teachers |
| Theme 2 | Costs: Financial and psychological |
| Theme 3 | Isolation: Geographic and professional |
| Theme 4 | Contributions of the personal to the professional |

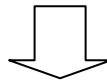
Theme 1 explains what teacher-learners valued in their professional learning journeys; Themes 2 and 3 detail barriers teachers encountered in continuing their learning and reflected on how their schools and education systems might support their quests; Theme 4 that centred on the how the personal qualities, experiences, and understandings of the teacher contribute to professional practice has no exact fit within the three research questions that guided the study. However, it was of major significance to participants and forms part of the unique contribution this research makes to the understanding of teachers as learners. It underpins the new learning framework offered in Chapter 8 as a contribution to the growing understanding of the teacher-learner.

Figure 6.1 provides an overview of how the coding process was used to reconceptualise data using Constant Comparative Analysis described in Chapter 4. It charts the iterations used to distil the four major themes derived from this research.



Second iteration: Research questions and themes from the cases

Research Questions	Themes from the Cases
1. <i>How do teachers and those who support teacher-learners understand 'professional learning'?</i>	Professional developments Mandated professional events Professional learning
2. <i>How and why do teachers engage with professional learning throughout their careers?</i>	<i>How teachers engage</i> <ul style="list-style-type: none"> - Isolation - Community and colleagues - Professionalism - Cost - Learning culture <i>Why teachers engage</i> <ul style="list-style-type: none"> - Professional needs - Personal needs
3. <i>How do schools and school systems support teacher learning?</i>	Management and leadership of learning Acknowledgement of professional competence 'Good PD' Professional learning in the lives of teacher



Third iteration: Major themes from the research

THEME 1 Learning in Community	THEME 2 Costs	THEME 3 Isolation	THEME 4 Contributions of the Personal to the Professional
- Colleagues as teachers	- Financial - Psychological	- Geographic - Professional	

Figure 6.1 Mapping of issues to distil major themes from the research

Figure 6.2 illustrates the relationship of the four themes to the three research questions that guided this study.

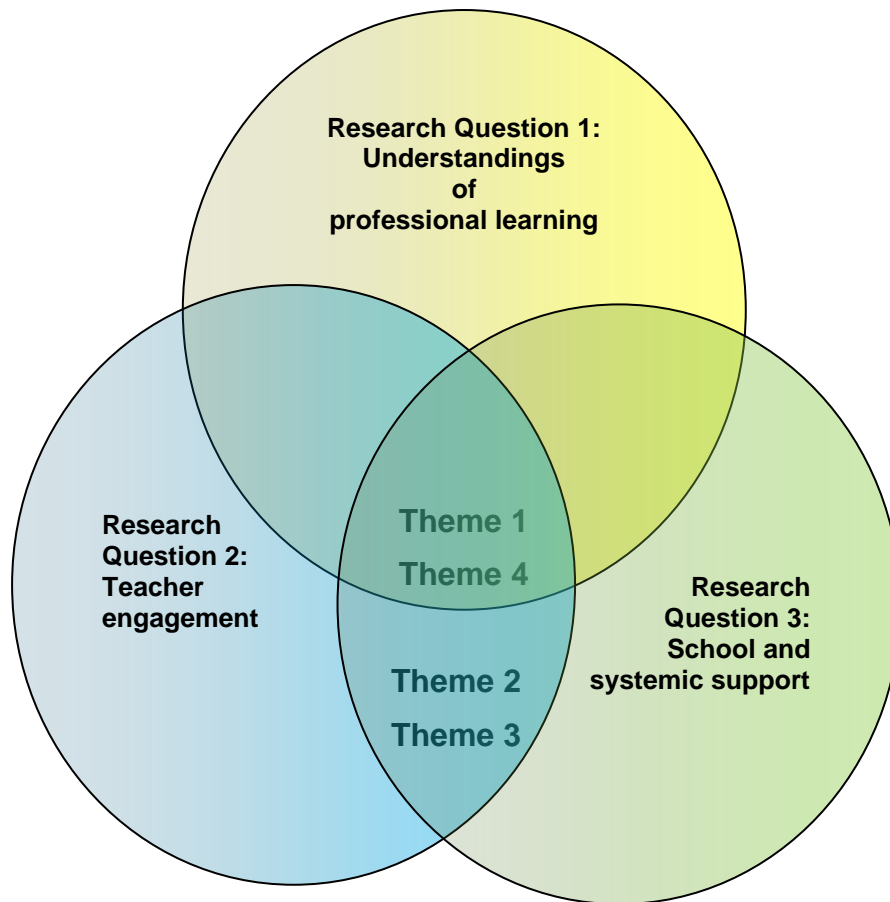


Figure 6.2 Relationship of themes to research questions

6.5 Conclusion

The learning journeys shared by practitioners in this study exemplified that professional learning is complex, non-linear, and influenced by a myriad of professional and personal factors. Teachers' lives within and outside the school fence influenced whether they participated in ongoing learning throughout their careers and the ways in which that learning impacted on their professional thinking and behaviours.

When the importance of professional learning is measured, it is critical that we understand the assumptions learners, providers, and policy makers hold about

career learning as these conceptualizations influence the focus and outcomes of the learning (Webster-Wright, 2009). The following chapter unpacks each of the major themes of this study and provides a commentary referenced to contemporary scholarly literature on how each informs our understanding of teachers as learners.

CHAPTER 7

Discussion of the Findings

7.1 Introduction

In this chapter, discussion of the findings of the research are organised around the three research questions that guided this study. At the conclusion of each section, the ways in which the findings inform professional practice are discussed. The chapter builds on the analysis of data from the five interpretative educational cases by synthesising data gained from six school administrators and 50 teachers. Data were gathered from a focus group of administrators as well as from teachers' responses to an open-ended questionnaire and a series of semi-structured interviews. Analysis of the issues from across the full range of data sets has been organised into the overarching themes described in the previous chapter and presented here in association with the major research questions.

The research focused on teacher-learners and in this chapter professional learning is explored from a number of different viewpoints. The first is conceptual in nature and concentrates on what teachers mean by professional learning and how they regard the meaning of quality teaching and learning in a modern age (Research Question 1: How do teachers and those who support teacher-learners understand 'professional learning'?). The second concentrates on the participants' commitment to engaging with learning opportunities and how the practice of learning is enacted (Research Question 2: How and why do teachers engage with professional learning throughout their careers? Research Question 3: How do schools and school systems support teacher learning?).

Society in the 21st century values knowledge and requires its professionals to continuously acquire new knowledge and skills. Nowhere is this more apparent than in the climate of reform that surrounds education leading to demands for professionals "who can give shape to ideas in practice and are also able to pay constant attention to self-improvement" (Meirink et al., 2007, p. 145). However, participants in this study did not consider their professional learning experiences

pivotal to any such reform and felt that their learning needs were poorly understood at best and sometimes even ignored. Knowledge about teacher-learners is vital to inform the policy and practice of professional learning in the field of education as currently our knowledge about the experiences of how professionals learn is not well developed. As Webster-Wright (2009) confirms, “there is a need to understand more about how professionals continue learning throughout their professional lives” (p. 75) and this study provides some illumination on the processes at work.

7.2 Research Question 1: *How Do Teachers and Those Who Support Teacher-learners Understand ‘Professional Learning’?*

The major themes relating to this question are the meanings attributed by participants to professional development, professional learning and quality teaching in the modern age.

7.2.1 Professional development.

Sharing their narratives about their career learning, participants in this study commonly used the term ‘PD’, a short hand form of professional development, to describe the processes by which they developed new knowledge and skills. The findings of this study indicate that when teachers talk about their own learning they use a multiplicity of meanings for this term. These meanings were echoed, with subtle nuances, in primary and secondary schools, in urban and rural settings, and in the narratives of novice teachers compared with their veteran counterparts. For some, PD was the inspiration that fuelled their day-to-day work, while for others it was an obligation they felt pressured to fulfil:

I’ve found that PD is what keeps me going. I’ve been teaching for nearly 40 years now and I still enjoy it but I have to have this stimulus from outside to look at new ideas and try new things (Teacher A1).

Conversely, one participant just beginning his career was disillusioned with the PD on offer and the resources available to him to further his learning:

I haven’t really got a burning desire [for PD]. I’m only recently qualified and maybe I brought some cynicism with me. Maybe I’m just expecting too much of PD (Teacher E3).

Teacher E3 was a mature-aged graduate who came to teaching after a career in the information technology industry. He felt his recently completed education studies

should have been sufficient for his transition to the classroom and frustrations with the level of resourcing he was able to access within his school had a significant effect on his learning behaviours:

Having no resources is a real dampener. It's limiting my development as a learner ... Why would I want to be a learner with the current system the way it is? I'm a bit hot and cold in the learning area (Teacher E3).

Professional learning events mandated by the employer were also commonly seen as PD.

7.2.2 Mandated professional events.

The term PD was often used to denote mandated professional events where information about educational initiatives was disseminated. These included sessions led by outside experts or colleagues that focused on school-specific priorities, conferences and workshops and courses of learning undertaken to maintain or enhance qualifications. The ways in which professionals conceptualised their own learning had a profound effect on what they did with that learning and how it impacted upon their pedagogy and their students. Consequently, exploration of the broad spectrum of the term is warranted here.

Most participants in this study conceptualised professional learning as “a transferable object” (Webster-Wright, 2009, p. 713), a commodity that could be acquired by undertaking an activity or a series of activities. Such an interpretation meant that teachers and school administrators viewed professional learning as discrete episodes with a beginning and an end (Wenger, 1998) and for many, this was indeed how their learning had unfolded throughout their careers. There was a prevailing assumption that such events did not present opportunities for learning, but were formal information-giving sessions. Teacher A2 felt this way:

I could do five hours of PD in a formal setting and not grow at all. I could do one hour of PD just being a teacher and grow enormously from the informal learning that's happening in my classroom.

There is little wonder that this interpretation of PD was widespread, as it has been fostered through decades of official offerings that concentrated primarily on providing formal content and paid little attention to the processes of understanding or

implementation (Doecke, et al., 2008). Participants made the clear distinction between such events and their own learning.

Nowhere was the nomenclature more critical than when principal participants talked of their teachers' learning as "an imposition on core business in some schools" (Administrator A). Because professional learning was conceptualised as activities that took teachers away from their classes or out of their schools, the inherent costs of that learning were considerable. Participants reported that this perception of teacher learning led directly to some talented teachers being quarantined within their schools in 'silos' and powerless to share their expertise.

Teachers' beliefs about learning have been linked with "more frequent use of practices that aim at creating a stimulating, challenging and individually adapted learning environment supportive of students' construction of knowledge" (OECD, 2009, p. 118). For this reason, it should not be surprising that participants openly questioned the relevance of centrally mandated professional learning initiatives. Such events rarely met their specific professional needs and consequently practitioners were reluctant to engage in such learning when they could not appreciate a direct link with their classroom practice:

I've got real trouble with attending PD that has a 'one size fits all' approach. Another problem with it is follow-up. You know when you implement something new that it doesn't necessarily work the first time. You need some back-up; as well you need someone to go to (Teacher C4).

Research confirms that a centralised model of delivering professional learning in "similar ways across a nation, irrespective of the context and setting of the schools involved" (Doecke et al., 2008, p. 205) is not successful. Participants commonly cited the need for support to embed new practices into their teaching repertoires and they sought opportunities to discuss their initial attempts with colleagues as well as the chance to engage in dialogue about new ideas or concepts.

In contrast to professional development and mandated events, participants in this study saw professional learning quite differently.

7.2.3 Professional learning.

For participants in this study, use of the term professional development purveyed an image of the professional whose knowledge was in need of periodic refilling like “a reservoir of knowledge in a professional’s mind that will run dry if left too long” (Webster-Wright, 2009, p. 710). Such a deficit view held by participants in this study of the learner who required developing, reinforced the use of formal training-type events delivered by a provider external to the situated lives of practitioners. This interpretation implies that learning can be commodified and it also “moves the emphasis from the ‘knowledge-deficient’ professional to the ‘knowledge-possessing’ provider” (Webster-Wright, 2009, p. 713). Teachers abhorred this public view of their learning:

You’re whole and complete just the way you are! Professional learning is a better way of looking at it. ‘Learning’ is a more powerful word. We need to keep ourselves in a powerful context. That word [development] sets up a disempowering context. It doesn’t make you feel powerful in stepping forward and keeping moving in your teaching (Teacher C10).

The term ‘professional learning’ conveys a more appropriate vision of the experiences of teacher-learners. Fused with the term “continuing professional learning” (Webster-Wright, 2009, p. 704), this view signifies learning that informs professional practice throughout a career and presents a view that learning is dependent on a coalition between the learner, the context, and the learning (Jarvis & Parker, 2005). This was a view more readily embraced by the practitioners in this study:

With my role on the [moderation] panel, we have some very deep professional conversations ... Unreal PD. I’ve got opportunities that I’ve never had before because every time we meet or have a teleconference I learn more about English. I’ve found answers to so many of my problems and that’s really rewarding (Teacher C4).

While our knowledge of the experience of professional learning is not well developed, use of the term continuous professional learning more fully describes the learning of practising professionals. Building further on this concept is the notion of “authentic professional learning” (Webster-Wright, 2009, p. 705), this view of learning differentiates the “lived experience of continuing professional learning from the usual discourse of professional development” (p. 705). It distinguishes learning that is actively constructed through professional practice from episodic learning events.

From the perspective of participants in this study, professional learning was understood to be the range of processes by which teachers actively acquire new knowledges that lead to the enrichment of their professional understandings and may lead to a shift in their professional behaviour. It is recognised that changes in understandings may not necessarily result in changes in professional practice (Meirink et al., 2007) and likewise that changes in classroom behaviours do not need to result in changes in cognition but are still identified as professional learning. Authentic professional learning is the objective of all learning that teachers undertake and yet we understand little of its nature or its power.

In Australia, the language used to denote the learning in which teachers engage has subtly altered to reflect our growing, though still incomplete, understanding of the processes at work. The recently released *National Mapping of Teacher Professional Learning Project Final Report* (Doecke et al., 2008) notes that:

the differences between present-day understandings of professional learning and the state of play in 2000 ... are partly captured by changes in language. Although one state (Queensland) has actually reverted to the term, 'professional development', in order to name the professional learning activities in which teachers engage, the preference in other states appears to be to use the term 'professional learning'. The latter connotes individual autonomy and motivation, an image of professionals consciously monitoring their professional practice, learning from their work, and arriving at new understandings or knowledge on that basis. Such learning is typically situated learning, reflecting the professional experiences and insights that become available to teachers within their local school communities. The former term, 'professional development', is usually taken to mean activities done at the behest of employers or systems, involving knowledge that is delivered by outside experts (Doecke et al., 2008, p. 9).

This distinction in nomenclature did not go unnoticed by participants in this study.

7.3 Informing Professional Practice

Learning unfolds throughout a career and participant teachers eschewed the segregation of their learning from the contexts of their classrooms:

Good presentations must be practical; show how something is used to fix an identified need in my classroom (Teacher D1).

For this reason, it is important that professional learning is focused on "collective problem solving around specific issues of practice" (Wyatt-Smith, 2008, p. 6) and the lexicon of learning is used judiciously. Within this context, the language used to

denote professional learning plays an important role in how teacher-learners continue their learning journeys, on how school administrators scaffold professional learning opportunities, and on how policy makers support teacher learning.

For school administrators, an understanding of the conscious use of the language of learning is important. Such awareness presents occasion for distinguishing between environments and opportunities that foster learning and the scaffolding of situations and coalitions that lead teachers to engage in authentic learning, to enhance understandings and practices.

Policy makers' awareness of how the language of learning affects professional practice can aid their provision and support of new educational initiatives. It is important that bureaucrats understand how their choice of language positions the learner and the learning in order to construct effective policy environments that influence how the business of schooling is conducted.

The language of learning is associated with defining and then capitalising on opportunities in which professional learning can be achieved. Because professional learning is the "process by which, alone and with others, teachers review, renew and extend their commitment as change agents to the moral purposes of teaching" (Goodall et al., 2005, p. 26), the implications of how teacher-learners and those who support them speak about learning are significant. Consequently, teachers require skills to recognise the situations where learning can occur. It may suggest itself in formal settings where new information is disseminated, in association with colleagues where subject-specific or context-specific issues can be addressed, in informal collegial discussions focussed on common issues or problems, and in reflective times when they examine their own practice and contemplate questions about their practices and their beliefs about learning and learners. It is vital that teachers use "their own professional judgement by identifying and taking part in development activities which they feel are most beneficial to them" (OECD, 2009, p. 64). Assuming such responsibility for their own learning can only be achieved when there is consensus about the nature of what constitutes professional learning and teachers are alert to the conditions under which it can occur.

7.4 Research Question 2: *How and Why Do Teachers Engage With Professional Learning Throughout Their Careers?*

Analysis of data from the five interpretative educational cases described in Chapter 5 illuminated teachers' motivations for choosing to engage in professional learning and their subsequent choice of learning behaviours based on those decisions.

7.4.1 How teachers engage: Themes from the cases.

Five major themes concerned with how teachers engage with professional learning emerged from the case data. The first, isolation, comprised two interrelated elements. Teachers' reported a sense of geographic isolation due to their perceived remoteness and they experienced professional isolation largely as a factor of school size. Significant barriers to effective communication about learning within their school settings added to participants' feelings of isolation.

The second theme to emerge from the data, closely related to the first, was that of teachers' desire for a professional community of learners with which to interact. Working with colleagues was participants' most highly valued context for professional learning, however, both primary teachers and their secondary counterparts bemoaned the lack of colleagues with whom to network and share their learning.

The third theme to emerge from the data was that of teacher professionalism. While teachers portrayed professionalism in a number of different ways, they believed that there was little valuing of their professionalism by their employer or by society. The term 'professionalism' was used by participants to describe behaviours that displayed levels of autonomy as teachers and as learners and it was an important determinant of how they perceived their learning should be scaffolded.

The fourth theme from the case data addressed the costs of professional learning. For participants in this study, their learning incurred significant costs for themselves, their schools and their families. While some costs were of a financial nature but more importantly, others were the psychological costs of engaging in professional learning. Time spent out of the classroom to attend to their own learning caused teachers angst and produced some levels of resentment and feelings of guilt.

The final theme drawn from the case data concerned the learning culture of schools. How participants accessed professional learning was very much dependent on how the learning was conceptualised and enacted within their schools. Because of the pervasive nature of culture, this theme intersected on a number of levels with the other themes explained here.

7.4.1.1 Isolation.

From the results of this study, it can be demonstrated that determinants of teachers' access to learning revolve around concepts of isolation. This theme possessed two distinct, but complementary foci. The first, geographic isolation, determined whether teachers perceived they were able to participate in learning and the second lay in the notion of professional isolation brought about by the organisational culture of their schools. These joint conceptualisations of isolation were potent influences on participants' engagement in learning and are important to this study because "whilst these professionals identify themselves and are treated as 'victims of isolation', their capacity to take charge of their own professional development is constrained" (Robert, 2000, p. 277).

Teacher learning is integral to the success of students (Lieberman & Pointer Mace, 2008) and yet evidence is scarce about whether all teachers engage in continuous learning throughout their careers. Whether teachers choose to participate in learning that effects pedagogical change is largely left to chance and opportunity. Participants in this study identified issues of access to professional learning that were the physical conditions that determined the availability of learning opportunities and made participation possible. Concerns about geographic isolation were equally apparent in both primary and secondary school settings and in locations not usually regarded as remote. Disquiet about the distances travelled and the time required for travel to professional events was compounded by the lack of suitable relief personnel in these areas. Considerable geographic challenges to professional learning were reported by participants. Teacher B2's concerns were typical of this:

If you have to stay in the area because of family commitments, you are very limited in an area like this to continue your learning ... Learning has to come to a halt if you decide to live here for a period of time.

The second focus of the isolation theme concerned the psychological facets of teachers' access to learning. These were personal in nature and bound in the culture of learning within their schools. When teachers felt alone in their learning endeavours, the psychological aspects of professional isolation presented considerable obstacles to their learning. Professional isolation was particularly evident in smaller primary and secondary schools where participants were the only teachers of their year levels or subject areas but it was also evident in larger schools where professional isolation was a factor of school culture:

This is a bit of a judgment about high school teachers but we do tend to live in our little kingdoms. We do tend not to cross outside our departments. High school teachers are really funny. They're kings and queens in their own rooms and they don't want to share their toys (Teacher E3).

Working with peers is important to teacher-learners because it "encourages collaborative, reflective practice" and "promotes the implementation of learning and reciprocal accountability" (Boyd, 2008, p. 4). When teachers deemed that such support was not available to them, feelings of professional isolation became evident. While working collegially was acknowledged to present difficulties of a logistical nature, participants repeatedly voiced their commitment to learning in this way. Learning from and with their peers was a highly valued experience. Opportunities for professional dialogue, for reflection on understandings and practice and to share ideas with colleagues in familiar contexts boosted teachers' willingness to engage in learning. Teacher collaboration provides a favourable environment in which to learn. Nevertheless, we know little about how teachers learn in such settings (Meirink et al., 2007) and few models of sustained and affordable collaborative learning appear in the literature.

Professional isolation was also an issue when teachers felt that they were not informed about the learning opportunities available to them. Intra-school communication about learning was most often transmitted in line with schools' strategic or systemic priorities, but administrators' attempts to drive the course of learning within their schools were viewed with some measure of suspicion and cynicism. Teachers construed such 'filtering' of information as inhibiting their access to learning opportunities and as an attack on their professionalism. Teacher B3 noted:

Years ago we used to get a folder that told you everything that was on. Now it's hard to know. Things just don't make it to the staffroom. Is that because it impacts too much on the budget? Sometimes only certain people know what's on.

Concern was also expressed that talented teachers with a wealth of professional knowledge and understanding were often quarantined within their schools by administrators reluctant to release them to work with their peers. They were seen to be in 'silos' within their schools. The concept of professional expertise being controlled in this way and therefore accessible to a select few, if at all, was a novel one. A search of current literature did not locate research on this topic.

Some of the acknowledged high-performing teacher participants in this study expressed concerns that while they provided professional learning opportunities for others, their learning needs were neglected. Professional isolation of this nature impacted upon teachers' willingness to take on mentoring or coaching roles and impacted on their commitment to the learning of their peers. In this way, professional isolation can be self-perpetuating as "the costs of isolation are most deeply felt by the most committed and innovative teachers ... Many of these solo artisans burn out" (Talbert & McLaughlin, 2002, p. 331). If this is a potential outcome, then the costs to the system could be extreme. Additionally, the mention of 'silos' reinforced the argument concerning professional learning being an imposition on the core business of schools. To counteract notions of isolation, participants in this study were specific about their preferred modes of learning.

7.4.1.2 Community and colleagues.

Recent theories of adult learning acknowledge that the interactions between the learner and the contexts within which learning takes place are critical to an holistic view of career learning (Webster-Wright, 2009). Therefore, because teachers respect the expertise of professional peers, collaboration offers a powerful vehicle for teacher learning. Collaborative working relationships are critical to teacher learning and contribute to organisational learning, so, by enabling teachers to collaborate with other professionals, networking provides an opportunity for teacher-learners to reflect on their practice and to develop deeper understandings of both the teaching and learning processes.

The concept of community as a learning construct (Kim, 2000; Nichani, 2000; Palloff & Pratt, 1999; Preece, 2000) is one in which respect for the expertise of colleagues and the value of collaboration provides opportunities for critical reflection. For participants in this study, working with colleagues, whether onsite or located elsewhere, whose credibility became established within the relationship gave teachers greater confidence in the learning process and avoided many of the pitfalls encountered by 'outside experts'. Teachers could see how their learning contributed to the success of their school and its 'fit' with school's strategic direction.

Collaborative school culture is especially important for veteran teachers' "continued engagement in the profession" (Sammons et al., 2007, p. 868) but it was this cohort of participants that was most critical of how professional learning was structured and the time allocated to sharing their learning and reflecting on it. Teacher E3 described his return from a learning event that had inspired him by saying:

Sometimes I share with colleagues but we're all busy people ... I've brought back some ideas and I've started talking to people but ... [hesitation and break in voice] ... I get the message, "I'm busy with my curriculum area. You're not part of my curriculum area so I don't need to know". It's almost an efficiency thing on their part. "Yep, yep. Got that. Just put it in my pigeon hole." You feel like an evangelist and you want to stand up and sing in church about what you've learned, but there are not even churchgoers!

As this quote demonstrates, the sharing of professional learning is fundamental to collaboration between professionals and is an integral step in the personal construction of knowledge. As teachers collaborate to explore and establish new meanings, these meanings evolve and change to fit their practice (Wilson & Berne, 1999). When the sharing of learning was stymied, teacher frustration was evident. Teacher C7 posed this dilemma:

The College of Teachers is mandating PD for registration. You can measure [one off PD events] because you were either there or you weren't. But often they are not useful, whereas the collegial stuff is. Exactly how do you measure that?

Many participants in this study prized the prospect of working with colleagues to jointly resolve classroom issues and they identified learning from colleagues as the prompt for their personal construction of knowledge. They valued the expertise of their peers and drew inspiration from the work of others. Hence, Teacher C7 was

correct to question the basis for deciding what worthwhile professional learning is and his query poses real problems for accreditation bodies.

Even when attempts to incorporate new understandings or strategies did not go as planned, learning with peers provided a safety net for the learner and promised that learners would persist with new ideas in the future. Administrator E explained:

Often there's success from failure; a better culture when people try something together and fail together. That can bring them closer. If you try something on your own and it goes horribly wrong, you just say, "I won't do that again" whereas when you're with someone else you can problem solve together and give it another go.

Collegial learning has the power to "shift teachers' habits of mind and create cultures of teaching that engage educators in enhancing teacher and student learning" (Vescio, Ross, & Adams, 2008, p. 89). However, opportunities to visit colleagues' classrooms, to learn from mentors and to work collaboratively with colleagues were absent from the cultural frameworks of most case schools.

The findings of this study demonstrate that the culture of learning in most case schools was not well defined and encompassed diverse perceptions, some of which were contradictory. However, one school was different. State High School C stood apart from the other case study schools in the way in which learning was spoken about and the multiple ways in which it was enacted. This school lived and breathed the culture of scholarship for all its learners.

Borrowing from organisational models, Watkins and Marsick (1996) identified seven dimensions of organisational culture that foster professional learning:

1. Continuous learning opportunities
2. Inquiry and dialogue
3. Collaboration and team learning
4. Systems to capture and share learning
5. A collective vision
6. Connectedness to the environment of the organization
7. Strategic leadership

Many of the features of State High School C resemble the dimensions of an effective learning organisation so it should come as no surprise that the school was successful at its enterprise. It was not an affluent school; in fact, it drew its clientele from a number of the small surrounding communities each struggling with issues of rurality

and the vagaries of agribusiness. The school's principal, Administrator C, had begun his career as a teacher at State High School C 17 years prior to this study and believed passionately in the collective responsibility to educate lifelong learners who could deal with real-world issues. Administrator C judiciously repelled what he considered unnecessary intrusions into his school from outside influences including education authorities. He overtly assumed the role of protector of his staff and students and vigorously advocated for the recognition of teachers' professional judgements in making the best decisions for their students and their communities. When discussing the implementation of a state-wide reporting system, Administrator C's explanation exemplified his perspective:

EQ or whoever our masters are, are trying to shove it down our necks. We've taken the failure out of the equation and now they're going to put it back in. It could really undo years of good work that we've done here. I want to say, "Get out of our way! We're experts at what we do. We know our kids and our community." I'm thinking we should just pull out.

The teachers at State High School C were generally mature and experienced. Together they had been party to the development of the strategic direction for the school that guided their endeavours and underscored their actions. Decisions about all areas of the school's operation were referenced to this strategic plan and were openly discussed and debated. Administrator C explained it this way:

If you don't have a strategic direction, you are flitting everywhere and getting nowhere. That's the danger a real danger with PD. We have very strong directions and people know what they are. It's important to stop the scattergun approach.

This is not to say that the school was without its challenges, but its operation was recognised as a collaborative concern.

State High School C was the major secondary school for primary students in the surrounding district and it played a pivotal role in the cluster of schools within which it worked. Teachers from the school regularly shared their expertise and resources with their primary counterparts to plan and present joint units of work and classes of primary students from neighbouring schools utilised the high school's facilities every week.

However, while agreed to be a high-value activity, collaboratively constructing professional knowledge in a community of practice (Wenger, 2000), did bring with it

some stressors. Teacher C4 was heavily involved in collaboration within the cluster of schools neighbouring State High School C and willingly shared his expertise. However, this came at a cost:

I don't mind helping the primary teachers but it's tough being seen as the big science guru in the area. I don't have all their skills to manage their classes and it makes a huge dint in the time I have to prepare for my own classes.

This comment raises an issue not commonly considered in literature on teacher learning. When professionals learn in collaborative networks or in mentored relationships with expert colleagues, each constructs their own new knowledge (Day & Hadfield, 2004) but who supports the mentor? High-performing teachers who participated in this study questioned a culture where its best operators were continually asked to guide the learning of others, but were not granted consideration to grow their own knowledge and skills:

I enjoy helping out and providing PD for others, but when do I get time to do my own learning? It's hard to find a colleague who pushes my boundaries to help me try new things. High-performing teachers and high-performing schools should get extra money to compensate for some of what we give to others (Teacher C6).

This becomes a very real problem for teacher-learners when learning is viewed as something you 'get'. Reframing professional learning as an organic process of growth and discovery may assist learners to seize opportunities for learning that they currently do not recognise. If teachers are alert to the possibilities for learning, they may be more able to construct occasions to capitalise on them.

Another significant feature that marked State High School C's divergence from the other case schools in this study was the mention of learners other than students and teachers during the interview discussions. Teacher C2 explained that ancillary staff, administrative personnel and parents were also considered in the formulation of the school's professional learning plans:

We do targeted PD every year and the high school and the primary schools work together as a team. That's the cleaning ladies, everybody. How are they going to be passionate about a school unless they understand the core business of the place?

The efforts of the staff of State High School C have been rewarded with a number of local and State accolades. The communities that surround the school appreciated its role in educating their children and preparing them for the world of work and an

supportive learning culture was embedded in the practices of State High School C. Learning was recognised as the bread and butter of this place. Teacher C8 began his career at the school less than two years prior to the study and put it this way:

Why would you teach if you're not a learner?

The features of the professional learning culture at State High School C can be summarised around the concepts of leadership facilitated by a collaboratively developed strategic vision, a philosophical and financial commitment to ongoing professional learning for all and professional dialogue that contributed to the success of the school as well as the neighbouring primary schools, a focus on the real-world learning of students, and an explicit pedagogy that embraced proactive change. All but one of Watkins and Marsick's (1996) dimensions of an effective learning organisation were in evidence at State High School C. It did lack an effective structure "to capture and share learning" (Watkins & Marsick, 1996, p. 4) and that was one of the few criticisms teachers made of the school's support for their learning. In the words of Teacher C13:

Just give me time to think about my learning then opportunities to talk about it with my peers.

Respect for the professionalism of teachers was an underlying theme at State High School C, but this was not the situation in other case study schools.

7.4.1.3 Professionalism.

Issues of professionalism emerged in many participants' dialogue about their access to professional learning opportunities. While the term was shrouded in a number of guises, professionalism was central to participants' discussions about learning and was inextricably linked with their identities as professionals (Sammons et al., 2007), and a broader sense of responsibility to students and community. Professionalism is a socially constructed term for "a process that relates to the ways teachers attempt to influence the quality and character of their work" (Hilferty, 2008, p. 161) and can reflect a theoretical construct or the observable behaviours that identify a profession (van Mook et al., 2009). Professionalism can be viewed as imposing rules on professionals or as bringing with it the power to define how they work (Hargreaves, 2000). The latter was the interpretation used by teachers in this study when they described their work and that of their colleagues:

Being seen to be professional at what I do is very important to me, but I think some teachers don't see themselves as professionals. They've got this 'I'm only a teacher' mentality. I don't think of myself that way. I think spending my 20s as a student, I see myself as fairly intellectual (Teacher E1).

The term professionalism was used by participants in this study to describe their learning behaviours and it underscored their perceptions of how their learning should be scaffolded. It was very much bound up with how they envisioned themselves as learners and to challenge those perceptions was to invite scorn:

Sending outsiders to deliver [learning] packages ... That's just an appalling waste and an insult to our professionalism! It's totally unnecessary. They could send most of that stuff via the internet and say, "Read this and sign here when you've read it" and 99.9% of people will do the right thing ... It's embarrassing (Teacher C3).

While teachers recognised the professional benefits of continuing their own learning, some observed that their employer did not. Participants pointed to the fact that their employing authority provided little support or reward for the professional learning they undertook and they felt that there was little public valuing or respect for their efforts:

We expect our students to value learning but the Department doesn't value ours (Teacher A2).

Consequently, if teachers believed their professionalism was not honoured or valued, at best they were less likely to engage as learners and they may even sabotage the learning of others, either overtly or covertly. Teacher A3 alluded to this when she emphasised the importance of her colleagues' views of the learning opportunities available:

If someone's been and can tell me it's okay then I'll get into that too. But if people tell me it's crap, then who's going to waste their time doing that one?

However, even when teachers were willing to engage in professional learning, the costs of learning were sometimes prohibitive.

7.4.1.4 Costs.

When participants talked about how they managed their learning, they spoke in terms of the 'costs' of their scholarship. There were obvious financial costs borne by their schools and, in many instances, by individual teachers themselves, but there were also psychological costs associated with how their learning played out. These costs were consciously balanced against the potential benefits of the learning in order to

determine teachers' levels of engagement. Whether teachers engaged in professional learning or chose to avoid all except events mandated as terms of their employment, embodied both positive and negative facets.

Dissonant views emerged when some issues that teachers insisted were prerequisite for their participation in learning were the very same issues that added to their reluctance to participate. For example, teachers reported that the provision of time in school hours to engage in their own learning most often necessitated time out of their classrooms or schools. While release from classroom duties exerted significant influence on whether many teachers chose to access learning events or were able to do so, it also brought with it inherent stressors in the form of additional preparation prior to their absence and the need to deal with unresolved issues on their return. Administrators, too, acknowledged that having teachers out of classrooms to undertake professional learning had significant consequences for their schools.

Even though it was recognised that time spent away from classrooms presented considerable difficulties, participants were generally less willing to participate in learning that was scheduled outside of school hours. The provision of professional learning was seen as the responsibility of the employer, consequently there was an expectation that it should be completed during formal work hours:

There's a lack of time for PD. Most opportunities are Brisbane-based and staff are expected to lose family time/personal time to do 'required' PD. Families miss out (Teacher B7).

This situation was problematic and highlighted tensions between designated professional time and personal time. However, two teachers offered novel solutions to the problem in their questionnaire responses. One suggested that teachers be offered vouchers to use at their discretion:

Start a voucher system for teachers to decide personal professional learning. You could get to use or pool vouchers; accumulate them for big events or speakers. It puts the onus of responsibility back on me ... You'd be looking at getting value for money (Teacher B14).

Another suggested restructuring teachers' annual leave in order to provide time for collaborative learning:

Personally, I think the holiday time should be reconstructed. I don't see any reason why we can't come back a couple of days earlier before each holiday

and spend the time working collegially. Now I know that would go across a lot of Union taboos (Teacher E4).

The psychological costs teachers attached to their own learning were considerable and were compounded by the introduction of new educational initiatives. The “intensification of work” (Webster-Wright, 2009, p. 719) associated with innovation brought pressures that impacted significantly on teachers’ willingness and capacity to engage in professional learning. Change management was an issue recognised by administrators and teachers alike:

You’ve been away on one or more days of PD and you come back and you’re thrown in to the maelstrom again. You have a break and you come back with all the grandiose plans about how you’re going to implement all these new things you’ve just been learning about and you come back to the cold hard world and you think, “Oh shit, it’s just too hard. It’s not worth it.” So I just do the things I’ve been doing because that’s my pattern, my routine. It’s a survival thing (Teacher E3).

Many participants were plagued by feelings of guilt about leaving their students to continue their own learning. Research shows that teachers’ daily practice is driven by rational thinking but that their emotional responses also play a part in their decision making (Hoekstra et al., 2007). Therefore, it should not be unexpected that participants’ concerns centred on how their students adapted to changes in classroom routines when they took time to attend to their own learning. The quality of relief teachers available and the time practitioners’ learning would occupy were also influential as to whether teachers accessed available learning options:

I could go if I wanted to but now I’m starting to get the guilts because it’s going to cost the school a lot of money to send me there ... We look at the courses and go, “Holy Dooley! It’s going to cost \$300 and then I have to be replaced.” You start to weigh up: Is it worth that? ... You have think will it make that much difference to the way I teach? I thought a lot about going [to PD] then I thought, “This is going to be really valuable because it’s going to be a lot of networking which I find really valuable so I said to [principal], “I’ve made up my mind that I’d really like to go, but can we afford for me to go?” We shouldn’t have to feel like that! (Teacher E2).

And:

Probably the biggest [hindrance] for me is not liking to go and leave your classes ... Good teachers don’t want to leave their classes. That’s where they feel they belong (Teacher C3).

The phenomenon of educators experiencing feelings of guilt when they leave their classes or their schools to attend to their own learning has generally been associated

with caring professions such as education (O'Sullivan, 2003). In this way, professional learning and the financial and psychological costs it incurred came to be seen by participants as impositions on their core business of teaching and subsequently it engendered some feelings of resentment and guilt.

The juxtaposition of views both demanding and damning teachers' absences from their classrooms is a vexing issue. Feelings of guilt are "a central preoccupation for most teachers" (Hargreaves, 1994, p. 143) as they negotiate their career responsibilities and demands that take them away from their classes engender emotions about neglecting or harming the prospects of their students. When administrators and teachers alike see attendance to their own learning needs as an imposition on their core business, the problems for the future are indeed grave. Both groups testified to experiencing many of the same difficulties, so this theme represents a significant challenge for continuing learning within the profession. However, how the costs associated with teachers' learning were perceived and dealt with was a factor of the culture operating within their schools.

7.4.1.5 Learning culture.

The specific contexts within which teachers operate exert significant influences on their behaviours (Brouwer & Korthagen, 2005) hence, the fifth major theme from the findings of this study focuses on the learning cultures extant within the case schools. The theme encompasses the culture of professional learning espoused at the school, the regional and the systemic levels and, due to the pervasive nature of culture, it is interwoven with a number of the themes explained earlier in the chapter.

The culture of a workplace integrates the knowledge professionals acquire and share within a complex organisation (Hilferty, 2008) and it is the glue that brings together diverse associations. However, "there appears to be relatively little writing that attempts to describe, analyse and understand the explicit nature and characteristics of a successful professional learning culture in schools and the processes by which such a culture is realised" (Ewing, 2006, p. 1).

When the participants in this study articulated their perceptions of how learning was done in their schools, they were in fact identifying the learning cultures of their

organisations and the system in which they operated. Participants described their attitudes and those of their colleagues to career-oriented learning, the value placed on teacher learning by themselves and others, and the preferred modes of continuing their journeys as adult learners. As this study has demonstrated, teachers' commitment is an important element in how they undertake their roles and "motivation can be greatly aided and supported (or destroyed) by the culture of the organisation in which staff work" (Goodall et al., 2005, p. 199). Hence, how professional learning was managed and achieved in this geographic region hinged on the ways in which "PD" was conceptualised.

As Webster-Wright notes, "language is powerful" (2009, p. 718) and the nomenclature used to describe professional learning hints at the conceptualisations of that learning so an understanding of it is an essential component of this discussion. Participants in this study most often recognised professional learning as large-scale professional events provided by external presenters and they were critical of the relevance of such gatherings. Most PD was seen to be isolated from classroom practice, which bred cynicism about the intent of the exercise:

Sending in so-called experts or dictating externally and taking up our valuable PD time is really stupid and cost ineffective. If the powers that be knew anything about effective learning, they'd know that's absolutely the worst way for people to take onboard anything (Teacher B4).

This view of learning, perpetuated systemically, brought with it little accountability on the part of the learners and fostered a "culture of compliance" (Lieberman & Pointer Mace, 2008, p. 226) rather than building a culture of responsible and responsive learners. Teacher E3 explained his motivations:

Now I make my decision based on efficiency. If I can see some PD will make me more efficient, I will follow it up. If not, I'll do the PD but I only tend to implement things that will make me more efficient at the administrative side because I know EQ expects a paper trail.

Such a culture denies teacher-learners a level of self-determination that honours their expertise and encourages responsibility to know what it is that they need to improve the quality of their pedagogy. As demonstrated earlier, it serves to limit their commitment to the learning and sets up barriers to the authentic scholarship that may impact upon practice.

At a regional level, a particular attitude was promoted about how professional learning was 'done' in the area in which this study was conducted. This attitude had become ingrained in the conversations and urban myths of educational professionals in the region and was often manifest in high levels of frustration with centralised departmental processes. Administrator C was especially vocal:

We're just going to say, "Well bugger you. We're part of EQ [Education Queensland] but we don't believe that's educationally sound and so we're going to do it our way".

Such a mind-set had served the region well in many instances with initiatives being tailored to meet the needs of local students. By establishing local ownership of generic programs and massaging them to fit local contexts, educators in the area were often at the forefront of innovative practice. Assuming ownership of and responsibility for initiatives "appears to be the most powerful form of intrinsic motivation. However, perhaps because it is so compelling, so demanding, this type of motivation is also very fragile" (Eales, Hall, & Bannon, 2002, p. 313). Such was the case in this instance because, despite the overt maverick sentiments expressed by some participants, a culture envy of colleagues in metropolitan areas appeared to exist. It was common to hear both school leaders and their teachers talk about the best opportunities for professional learning being available outside the region:

Most often the good PD we read about is in the southeast corner [of Queensland] or even further afield (Teacher B1).

However, a dissonance in views became evident when administrators, who had earlier lamented the lack of availability of learning opportunities locally, attempted to dispel the notion that worthwhile professional learning was only available outside the region. While their teachers openly coveted the seminars, workshops and conferences advertised in the State's capital, principal participants also acknowledged the worth of learning undertaken in the area:

PD doesn't have to mean getting on a plane and going to Brisbane. There's a culture that's what PD is whereas we have to understand what PD might be. There are lots of talented people here (Administrator A).

Perversely, while envying their metropolitan counterparts, teacher participants did recognise the value of what their local contemporaries had to offer and expressed their desire to work with colleagues who understood or could empathise with their

classroom dilemmas. They were scornful of centrally-mandated events and attended such gatherings with reluctance:

One thing we've found is the 'one day whiz bang things' just don't work. We're far better off using our internal experts ... The culture is, "Go to the whiz banger. Give them all the pill and they're going to change." But it doesn't work. Our strength is in our people and we need to keep pushing for that (Teacher C11).

This situation highlighted another cultural dilemma. While participants in this study coveted the professional opportunities offered to their metropolitan colleagues, they were reluctant, even resistant, to participate in programs brought to their area from the State's capital. Valuing local expertise while demanding equality of opportunity with city-based teachers was tempered by a suspicion of the 'one day whiz bang things' brought to the area. This conflicted view acknowledges the tremendous complexities of a professional learning culture and necessitates the deliberate planning of how learning opportunities are framed and marketed to participants.

The collaborative culture so prized by participants contributes to improved teaching and learning and assists in the processes of change (Hargreaves, 2000). Therefore, conceptions of professional learning need revision so that opportunities where teachers interact collegially to understand their professional worlds and trial new pedagogies by doing and reflecting in their workplaces are recognised as legitimate modes of teacher learning.

Workplace culture is an important determinant of what teachers learn and how it is learned. Consequently, understanding the work context is important to understanding the learner and the learning (Webster-Wright, 2009). Reconceptualisation of professional learning from an event to a process that occurs over time and under various conditions, would present an increasingly authentic paradigm of the learning that unfolds throughout a teacher's career.

At a school level, there was remarkable similarity in the ways in which most case schools approached professional learning. Opportunities for learning and the sharing of learning were generally driven by systemic imperatives and were serendipitous and opportunistic in nature. This style of managing learning did not appear to teachers to honour their scholarly efforts or to meet their needs and had the power to be quite destructive. Teacher B4 lamented:

All these bureaucrats come up with these great ideas, and I'm not saying they're not great ideas, but it all comes back to the shoulders of the classroom teachers to implement. The problem is that we are being asked to be super beings! Everyone comes up with these grandiose ideas, but they're asking us to implement them. Sometimes I just get overwhelmed.

Teachers' sense of professional effectiveness and identity is shaped by the organisational culture of their schools (Darling-Hammond et al., 2009) and relies on the strength of the support offered in order to shape skilled professionals. The majority of participants in this study acknowledged some degree of school and system level support for their continuing learning, although most recognised only the provision of pupil-free days and the professional development component of school budgets. The cry for increased funding and time for learning was a common one:

Most definitely, time constrains my learning. Definitely that's the main constraint. Schools are very much hamstrung by time and finances because they've been constantly starved (Teacher A2).

Individual teachers experienced a learning culture that pressured them to be 'super beings' in order to carry out their daily work and were simultaneously critical of the quality, time allowance and funding of their efforts. This sets the stage for professional burn out (Maxfield, 2009) and attrition. Teacher A4, a secondary teacher for nine years, was most critical of professional learning opportunities in his questionnaire responses. In the short time between completing the research questionnaire and indicating his willingness to participate in the interview phase of the study, this teacher left the teaching workforce. Anecdotal reports from his colleagues confirmed the level of frustration evidenced in his responses to the questionnaire:

Inservice presents too much crap. It's too political with too many 'motherhood statements' and adjectives. We all want to do a better job. It's not the *what* we need to know, it's the *how*!

This teacher's needs were not met by the learning culture of his school. Recent research indicated a significant degree of teacher dissatisfaction with learning opportunities and suggested "a misalignment between the support provided and teachers' development needs in terms of content and modes of delivery" (OECD, 2009, p. 78). The findings of this study confirm such research.

7.5 Informing Professional Practice

It can be demonstrated that a deliberately cultivated learning culture can be created to reflect authentic scholarship and catalyse positive outcomes for all partners in the learning (Webster-Wright, 2009). Consequently, the implications for practice of a conscious knowledge of the culture of learning within which teachers operate and to which they contribute, may lead teacher-learners to recognise and promote opportunities for their own learning and the learning of others. It will endow them with the capacity to shape their professional experiences in ways that offer the best prospects of providing for their continuous growth as skilled practitioners and convey on them responsibilities for optimising their discretionary learning.

For administrators, the role of creating and sustaining a culture of learning that provides optimal conditions for each learner to generate learning that is authentic and powerful is a prime task. Leaders who can cultivate a “culture of practice” (Stoll et al., 2006, p. 234) will transform their schools through the capacity of their teachers to sustain learning. Managing the conditions for collaboration and reflection is a challenging exercise, but a crucial one. School administrators also need to promote publicly the value of local expertise and to plan for the learning of high-performing individuals.

From a policy perspective, delivering to teachers the responsibility for and the accountability to manage their own learning is an important step towards fostering professional learners who are responsive and resilient in a changing environment. Events disseminating information about systemic initiatives must be distinguished from the processes of authentic situated learning so as not to pose a tipping point for detachment and disengagement from learning.

Within this framework, the culture in which professional learning takes place can form a challenging and supportive backdrop for teacher scholarship. As little research has described and analysed the successful learning culture of schools, these findings add another perspective to our understandings of the phenomenon. When professionals trust the leadership vision that is open and participatory, when they are accepting of change and willing to be risk-takers, and when they work collaboratively, motivation is high (Simkins, Maxwell, & Aspinwall, 2009), and learning is a priority.

This discussion has centred on how teachers engage with professional learning throughout their careers, while the following section explains what motivated participants' engagement.

7.6 Why teachers engage: Themes from the cases

Two major themes concerned with why teachers engage with professional learning emerged from the case data. The first, professional needs, dealt with teachers' perceptions of what learning was required to fulfil their professional roles. The second theme, concerning the reasons teachers chose to engage with professional learning across their careers, was one of the surprises this research provided. Personal needs and motivations were exceedingly influential determinants in teachers' decision making about their own learning.

7.6.1 Professional needs.

The needs of students figured prominently in the dialogue from study participants as a major prompt for their professional learning behaviours. Concerns for student welfare and student attainment provided springboards for teachers to examine their own practices and to investigate new pedagogies to meet those needs. Professional learning can exercise powerful effects on teacher practice and on student learning (Darling-Hammond et al., 2009) and the findings of this study demonstrate that concerns for the needs of students, mixed with personal gain, were potent motivators of the commitment to learn. Teacher A1's experience was pivotal to her professional growth:

I happened upon a problem in the classroom which I wasn't aware of. I said, "Hey, what am I doing? I'm not as effective as I thought I was." I had a big paradigm shift largely fuelled by literature and going to conferences and listening to people who had different perspectives on teaching.

For Teacher A1, this change in thinking was more than merely tinkering at the edges of her practice; recognizing important student needs were not being met by her pedagogy was a tipping point in her professional journey that was transformative in nature and caused her to re-examine the paradigms that underpinned her practice. This narrative of authentic learning caused Teacher A1 to question her core beliefs about what it meant to teach and what it meant to be a learner and catalysed her commitment to undertake doctoral research in her quest for answers. Consequently,

she fundamentally transformed her teaching practice as her understandings of learners and the act of learning were challenged by her own scholarship. Wisdom evolved from learning that was authentic, situated and futures-oriented.

Another significant motivator of teacher commitment to professional learning was the perceived relevance of the learning to daily teaching. Opportunities that promised to be practical in nature and meet specific professional needs were most often cited as worth attending. Such presentist views (Markosian, 2004) of learning meant that teachers sought relevance only in the immediately applicable and often did not recognise links to what they had learned previously or to what they might learn in the future.

For pragmatic reasons, teachers are guided by a “practicality ethic” (Knight, 2002, p. 294), consequently, while relevance fulfilled a professional need for teachers, it was also closely tied to the school contexts in which they worked. Relevance was also a personal construct and varied with teachers’ levels of expertise as well as with the duration of their teaching experience and their personal circumstances.

7.6.2 Personal needs.

Teachers’ prior experiences contribute to the ways in which they function in the classroom and influence their learning behaviours:

What teachers bring to the process of learning to teach affects what they learn. Increasingly, teachers’ own personal and professional histories are thought to play an important role in determining what they learn from professional development opportunities (Ball, 1996, p. 501).

The promise of personal benefit was identified by participants to be an influential factor in their commitment to professional learning. When teachers could identify potential benefits to their personal lives or those of their families, they were more willing to participate in learning and reported increased levels of learning efficacy.

Commitment to learning was embodied in “a readiness to allocate scarce personal resources” (Lortie, 1975, p. 189) over a myriad of competing tasks and participants testified that benefits flowed to their students from their own engagement in learning:

I do a lot of things just for my own interest ... I’m motivated just by the experience of being there and learning how things are done. It’s so I’ve got a

better, more complete knowledge. It is primarily for my own kids, secondarily for my own benefit and also for the kids I teach (Teacher E3).

Some administrators overtly or covertly utilised this aspect of teacher learning to foster collaborative engagement. Administrator C told of teachers in his school who were willing to share their expertise in local primary classrooms in order to learn more about the environments in which their own children learned. Exchanging ideas and information is the most common way in which teachers interact professionally (OECD, 2009) therefore, providing them with personal motivation to do so is to meet a number of needs concurrently. Participants reported that this significantly enhanced their commitment to the learning.

The term 'commitment' describes how teachers carry out their work responsibilities. Participants in this study agreed that teachers committed to their work are "motivated, willing to learn, and who believe that they can make a difference to the learning and achievement of students" (Sammons et al., 2007, p. 696). While research shows that the attainment of students who have committed teachers exceeds that of other students (Sammons et al., 2007), knowledge of how professional commitment is engendered and sustained remains largely elusive. The findings of this study indicate that teacher commitment exerts significant influence on why practitioners choose to engage in or to avoid learning situations. Study participants identified six considerations that underpinned their commitment to participating in or to providing professional learning for others. They nominated:

1. Potential personal benefits
2. Student welfare concerns
3. Relevance of the learning
4. Prior professional experiences
5. Learner attributes modelled by colleagues
6. Value of professional learning.

Another personal issue that was significant for some teachers was the clash of loyalties they felt when their family responsibilities conflicted with their desire to undertake professional learning. Events such as the birth of a child or the end of a marriage were pivotal stress points that impacted upon professional performance and

teachers' commitment to ongoing learning. Additionally, the personal financial costs involved in travel and attendance at professional events came at the expense of competing family demands. Teacher B1 looked at it this way:

I do accept that if I'm going to do these things [PD], I have to do them myself. I use minimal school money because we need that PD money to be shared amongst a lot of us ... But if you can't afford to pay for PD yourself, you just miss out.

Hence, choosing between out-of-hours learning and the demands on the family's time and budget presented some participants with a moral dilemma that was not easily resolved (Friedman & Greenhaus, 2000).

The personal and professional life stages of participants played an influential role in determining whether teacher-learners chose to participate in discretionary learning. While one beginning participant (Teacher E3) found his opportunities for professional learning wanting, the majority of his novice counterparts interviewed for this study expressed a desire for any learning opportunities that fitted them for their classroom roles. As they largely doubted their levels of professional competence, they willingly grasped at most opportunities on offer:

I'm straight out of uni so obviously everything needs updating! Anything that will make me a better teacher will get my vote (Teacher B6).

However, their experienced colleagues reported being more selective in choosing between opportunities in which to engage. They distinguished between their personal and professional needs to learn and spoke openly about how the personal impacted on the professional. This did not go unnoticed by their novice counterparts:

You can never have enough [PD]. But some teachers ... I hope I never get to the age or the level of experience where I think, "There's nothing more that I can learn". You see that in some teachers. That's a shame. It would be good if the government said, "You've got to go on something every year". We would be constantly evolving, constantly moulding with the times. This school's very supportive in sending people away, but some people need to be told to go away! (Teacher C8)

7.7 Informing Professional Practice

As teachers' beliefs about their roles are largely formed during their initial education (OECD, 2009), it would seem important that an enthusiasm for professional learning is established and nurtured in the early stages of teaching careers. Additionally, if the learning teachers do is "closely bound up with the context of their work and their

personal histories” (Tsui, 2009, p. 422), then personal as well as professional considerations must inform the scaffolding of learning opportunities for teacher-learners.

Accordingly, accommodating the personal needs of teacher-learners may have a significant impact on professional performance. The experiences of Teacher A2 exemplified this:

There are personal elements to PD as well as professional development. It's [PD program] about how you react to bullies, how to be assertive. It's a fabulous program. It's about your own self-esteem, how you react to other people. Getting the relationships right and knowing where I was heading allowed me to do a better job in my classroom role and in my admin role.

This participant had many years of teaching experience but changes in his work life meant that he now needed to deal with a more diverse range of issues in his professional encounters. Despite his wealth of experience, he felt ill-prepared to deal with the changed dynamics of his role. For Teacher A2, attention to his personal learning needs paved the way for growth in his professional life and for positive professional outcomes.

Because “critical engagement with individual teachers’ cognitive and emotional ‘selves’ has been relatively rare” (Sammons et al., 2007, p. 687), the relevance of the learning to the individual learner has often been overlooked. Professional learning was perceived by teachers in this study as fragmented events; hence they saw PD as events rather than potential opportunities for ongoing learning. Consequently, these sessions were seen as less relevant to the real problems of the classroom (Lieberman, 2008). Teacher C6 was typical of his peers when he said:

I won't go [to PD] unless I can implement something out of it. It can just be a hindrance if it's not relevant to me at that point in time.

Learning that is teacher-directed has greater potential to be effective (Ball, 1996) and possesses intrinsic relevance to the learner. Participants reported increased levels of commitment to what was learned and more significant impacts of the learning on their practice when they identified an individual professional need and acted to address it:

I think the most important thing is that it's [PD] self-driven. The person has to want to do whatever it is. They're only going to make the changes because

they want to. Unless they're intrinsically motivated, they won't take it on (Teacher A5).

This constructionist view of learning relies on teacher-learners to assume a certain level of metacognition in directing the course of their learning. Deciding one's learning priorities from the competing demands of professional practice requires "a complex process that can result in a nuanced understanding of oneself as a thinker and a learner" (Desautel, 2009, p. 1997) and teachers in this study championed their ability to decide between competing demands and isolate the specific learning needed to enhance their practice. In fact, some were emphatic:

I know what I want. Give me a free reign! (Teacher C6)

By and large, if you leave people alone and let them do their job and encourage them, they'll meet and exceed your expectations... So, leave teachers alone and they'll rise to meet the challenge. Encourage the hell out of 'em! They will do PD because it's so satisfying for them if they are able to work more creatively (Teacher E3).

For administrators this means paying attention to teachers' personal needs as well as their professional needs within the strategic directions they set for their schools. If attention to personal needs catalysed positive professional outcomes for practitioners such as Teacher A2, overlooking such needs had a profoundly negative effect on the professional life of Teacher C8:

I'm feeling like I'm not supported right now. They [administrators] saw it [PD] as self-education and self-education is not seen as professional development. The problem is the line between self-development and professional development. But if you're falling apart because you have no confidence, you *have* no teaching skills.

Day and his associates (2006) cited "unavoidable interrelationships between professional and personal identities, if only because the overwhelming evidence is that teaching demands significant personal investment" (Day et al., 2006, p. 603) and participants in this study attested to the investments they made and the personal costs they incurred. Teachers' levels of job satisfaction and ratings of self-efficacy "mainly depend on and interact with their personality, personal experiences, competencies and attitudes" (OECD, 2009, p. 111) consequently, timely and targeted access to learning opportunities that accommodate personal needs would seem to be a wise investment in continued professional growth.

For policy makers, evidence from this study highlights the importance of reframing teachers' and administrators' conceptualisations of professional learning and of the conditions in which learning is achievable. Also, practitioners' views of isolation must be challenged in order to limit the victim mentality that disempowers the learner and impacts on the practices of learning. Furthermore, the provision of learning that is teacher-centric and is cognizant of learners' life stages both personally and professionally is vital to successfully engaging teachers in the act of learning. Within this context, teachers' perceptions of their access to professional learning have been demonstrated to be a crucial factor in determining their levels of engagement in career-long scholarship.

7.8 Research Question 3: *How Do Schools and School Systems Support teacher learning?*

In addressing this research question, four major themes emerged from the data to describe the school and system-level support that participants identified as necessary to their roles as teacher-learners. The first was the need for the management and leadership of learning by school administrators while the second theme concerned participants' desire for acknowledgement of their professional competence and their efforts as learners. The third theme voiced participants' assessment of what made 'good PD' for them and the final theme dealt with what professional learning meant to their lives as teachers.

7.8.1 Management and leadership of learning

Participating Principals recognised that encouraging their staff's participation in learning was one important role they played. It was noted that administrators as well as teacher colleagues needed to model the attributes of learners:

A principal does need to model being a learner too. But it's taken a long time for the penny to drop for some people (Administrator B).

This was one strategy used to foster commitment to continuous learning within the schools of these administrators. Research demonstrates that the context of the workplace mediates teachers' levels of commitment to their jobs as teachers and their roles as learners themselves (Sammons et al., 2007) and administrators recognised that even experienced teachers required support to sustain their commitment to learning while they trialled new pedagogies and experimented with

new understandings. Administrator F acknowledged the “intensification of work” noted by Webster-Wright (2009, p. 719) associated with teacher innovation and bravely offered this advice:

I think that providing for or giving staff permission to let some areas ‘slide’ while they focus on a new area of learning is okay. Saying to them, “It’s okay while you’re concentrating on X, Y or Z”. That may not be a popular view, but I think it’s realistic.

Sadly, while supporting teacher-learners by granting them time to embed new learnings into their practice, these administrators were harsher critics of managing their own learning:

I often grab at new things, but every five minutes there’s something new and you go, “I feel pressured but I’ve got to do that.” It’s pressure (Administrator D).

Consequently, for these administrators, leading learning meant being seen to manage their own learning as well that of their staff. Participants in this study assigned their school administrators and their employing authority with another important role, that of acknowledging professional competence.

7.8.2 Acknowledgement of professional competence

A positive learning environment is as important for teachers as it is for their students. If the culture of schools and education systems provide little reward for quality work, then there is limited incentive for teachers to grow and change as professionals. Traditionally, there have been few incentives for accomplished teachers to provide evidence of how they learn throughout their careers (Ingvarson & Rowe, 2008), and there is little public recognition of professional attainment. Additionally, very little is known about how experienced teachers negotiate their career-long learning journeys (Beijaard & Korthagen, 2007), even though our knowledge society demands that they do so effectively and continuously. Consequently, it is left to the intrinsic motivation of practitioners to propel themselves into learning that will boost the quality of the job they do.

The professional experiences teachers amass while carrying out their day-to-day roles form the basis for new learning, however, how this dynamic learning is acquired and enacted has been the subject of very little in-depth research (Hoekstra et al., 2007). Participants in this study voiced their concerns about the lack of public and

employer acknowledgement of the learning they undertook and their pivotal roles in educating citizens of the 21st century:

If we're so important in teaching the leaders and workers of the future, how come our learning isn't important? I can't even get a relief teacher to work with my class even if I drive for three hours each way at night in my own time to go a conference (Teacher E2).

Teachers understood that students and their parents were not supportive of time they spent away from their classrooms or schools attending to their own learning. They did not consider their employer placed a high priority on teacher learning because insufficient funds were available for all teachers to undertake the learning they felt they needed and major initiatives were often introduced with little or no support. This belief that there was little public valuing of teachers and their learning contributed to significant feelings of frustration.

Consequently, if educators' commitment to learning throughout their careers is indeed linked to their personal and professional identities (Day et al., 2006) by the experiences they accrue during their practice, then greater cognisance and acknowledgement of what they learn and how they learn it is vital. In fact, participants in this study identified the attributes they considered underpinned 'good PD' for teacher-learners.

7.8.3 'Good PD'

Participants were quite specific about what they expected of 'good PD'. They noted 10 attributes of learning that met both their professional and personal needs. For them, professional learning must:

1. be highly organised and evidence-based
2. be practical and demonstrate best practice
3. be immediately useful
4. be relevant to their needs
5. provide opportunities to learn with and from colleagues
6. provide time to experiment, refine and embed new practices
7. be ongoing not 'PD events'
8. be teacher-centric because large-scale mandated PD is not effective
9. be facilitated by credible presenters because outside experts lack local credibility
10. provide follow-up because 'one-off' PD is not effective in changing teacher behaviour

In addition, research confirms that quality professional learning opportunities need to provide multiple sources of feedback for teachers and provide customised plans to meet individual teacher development needs (Hawley & Valli, 2001).

Many researchers (e.g. Joyce & Showers, 1995; Kennedy, 1999; Little, 1999) have attempted to produce lists of characteristics of 'good PD'. However, there is "little agreement among professional development researchers or practitioners regarding the criteria for effectiveness in professional development" (Guskey, 2003, p. 14), and lists of characteristics of effective professional learning only provide "a starting point in efforts to improve the quality of professional development programs and activities" (p. 14). The ultimate aim of teacher learning is to effect change that benefits students and their learning.

However, school administrators reported that it was difficult to encourage participation in so-called 'big picture' learning and literature confirms this. Systemic initiatives are indeed harder to sell to practitioners because teachers fail to see the direct relevance of these initiatives to their practice. It is recognised that systemic programs demand "quite a different organization of learning opportunity (and obligation) than one that supplies teachers with measured increments in knowledge, skill and judgement from a known pool of effective classroom practices" (Warren Little, 1993, p. 132). Given the observations of the participants in this study, teachers attending such sessions were often very critical of the delivery methods employed:

Most presentations are so boring. I'm no different from that little fellow in the front row [of my classroom]! They have to practise what they preach regarding sessions for teachers because, as learners, we need consideration too (Teacher D1).

If employing authorities believe attendance at centrally-devised information sessions about educational initiatives or legislative requirements as fulfilling the need to skill and train the staff entrusted with their implementation, then doubt must be raised as to whether this is an effective strategy for engendering the commitment of the personnel pivotal to their implementation. Consequently, to make system-wide enterprises relevant to practitioners necessitates a different form of delivery from traditional curriculum-related initiatives. Indeed, because of the crucial role learning

occupies in the professional world, a greater appreciation of its place in the lives of teachers is fundamental to future endeavours.

7.8.4 Professional learning in the lives of teachers

Teacher learning has the express aim of increasing the quality of learning experiences offered to students. In fact, quality is the aim of all learning in schools, including that of teachers. The issue of quality was not considered in the original review of literature undertaken for this study. It emerged as a significant issue only during analysis of the data generated by participants from the five case schools. The initial comment that sparked the dialogue went thus:

The broader picture that PD fits into is knowing what is quality and what isn't. Being able to say to yourself, "I am doing a quality job" ... Quality's the big concept (Administrator D).

Mention of this issue in the school administrators' focus group deliberations was enough to bring about a significant shift in the tone and dynamics of the discussion that followed. Teacher participants did not explicitly use the term, however scrutiny of their discourse revealed that issues of quality did in fact lie at the heart of their concerns about their roles as professionals. Quality pedagogy, quality relationships, quality learning and quality outcomes for students underscored the business of schooling in each of the five illustrative cases described in this study. Consequently, the concept of quality was sufficiently problematic to warrant further examination.

Indeed, quality may be the magic that transforms teaching and inspires learners but currently we do not fully understand the concept of quality in the educational arena, nor do we have competent tools to evaluate it (Ingvarson & Rowe, 2008). The quality of the schooling experience provided to students "cannot exceed the quality of its teachers and their work" (Schleicher, 2009, p. 53) and, while quality teachers and quality teaching are the specific aims of professional learning, participants in this study experienced great difficulty identifying criteria for judging whether they and their colleagues were "doing a quality job".

This situation has significant ramifications for schools and their effectiveness because teacher quality is an important aspect of preparing future citizens of a knowledge economy (Ashby, 2009) as student learning "is directly dependent on the

quality of the teacher” (Ingvarson, Meiers, & Beavis, 2003, p. 36). Despite such importance, even very experienced practitioners were unable to decide whether they were in fact doing a quality job in their classrooms and in their schools. Administrator D concluded his reflection with:

It’s hard even knowing what you’re whole job *is* these days let alone whether the job you’re doing is quality by everyone else’s standards.

Research shows that “quality teachers possess a variety of characteristics and capabilities - personal as well as professional - that affect their commitment to the profession and their efficacy in working with young people” (Temmerman, 2008, p. 12) and it is these characteristics that need to be understood in order to unravel the issue of quality in schools. We need to examine the mix of “teachers’ cognition, emotion, motivation and behaviour, and ... teachers’ awareness of their implicit beliefs and behavioural tendencies” (Hoekstra et al., 2007, p. 198) with the purpose of exploiting these traits to contribute to the quality of the job that teachers perform.

It can be seen that “doing a quality job” embraces numerous component parts that are complex in nature and difficult to quantify. However, they lay at the heart of the core business of schools and schooling and are fundamental to teachers’ concepts of their professional selves and the jobs they do. Three characteristics identified as vital to instructional quality are “1. clear and well-structured classroom management (which includes key components of direct instruction), 2. student orientation (including a supportive climate and individualized instruction), and 3. cognitive activation (including the use of deep content, higher order thinking tasks and other demanding activities)” (OECD, 2009, p. 89). Together they provide a scaffold for examining one facet of the quality issue.

Professional growth throughout teachers’ careers is acknowledged to be an important ingredient in assuring quality (Masters, 2003), however, practitioners situated in the field experienced great difficulty in describing what quality was and how it was to be achieved. Interest in teacher quality has come to the research forefront in recent times because changing economic conditions demand an increasingly skilled workforce which makes “high-quality educational provision an imperative - especially high-quality teaching” (Ingvarson & Rowe, 2008, p. 5).

Because of the integral role teachers play in educating citizens of the future, attention to teacher quality and quality teaching is both socially and economically significant.

Work is being undertaken to develop a national framework of teacher standards that scrutinises two dimensions of teachers' work. The first examines "practical competence and an array of professional attributes" while the second charts "professional growth points along a career continuum, extending from beginning teachers to accomplished teacher and school leader" (Skilbeck & Connell, 2003, p. 55). Such standards are designed to describe the practices of effective teachers and "should have a reasonable prospect of influencing teacher quality" (Barber & Mourshed, 2007, p. 4). For teacher practice, an agreed understanding of what quality is and how to strive for it may alleviate a "survival mentality" (Administrator D) bred by uncertainty and apprehension about how teachers' work is to be judged. Motivated by the search for quality, practitioners may more readily embrace learning that is calculated to add to the value of their work. Such learning may effect "a deeper change that can only come about when teachers have high expectations, a shared sense of purpose, and, above all, a collective belief in their common ability to make a difference in the education of the students they serve" (Schleicher, 2009, p. 54).

Achieving this requires mindful leadership that establishes effective environments for teacher-learners. Recognising and meeting individual professional needs creates challenges, but it is essential that principals acknowledge the strong links between the quality of their students' schooling experience and their teachers' conceptualisations of quality practices, beliefs and relationships. The provision of targeted learning for teachers rather than the 'one size fits all' provision traditionally provided may be far more effective in engaging adult learners in the business of pursuing quality. Building the individual and collective capacity and professionalism of classroom practitioners is the key to nurturing quality teacher-learners who can construct quality learning experiences for their students.

The search for quality is the transformative spark that fires professional practice and, given the importance of teacher quality and quality teaching to the success of students, it is in fact the 'big picture' of education and the very reason for teachers' engagement in authentic professional learning. Research highlights the importance of teacher quality as "an important school-level factor influencing student learning

and ultimately preparing children for their futures as citizens and workers in a knowledge-based economy” (Ashby, 2009, p. 7). However, a major challenge exists to efforts to improve the quality of teachers and teaching as there is a lack of consensus about what makes a teacher effective. In addition, “research has not categorically identified the specific indicators of teacher quality, such as the characteristics, classroom practices, and qualifications that are most likely to improve student learning” (Ashby, 2009, p. 7). Therefore, it is important that we know more about the ways in which teachers engage in professional learning that might ensure high quality of practice.

As with the notion of professional learning discussed earlier, understanding how teacher quality is conceptualised may lead towards some clarity on how best to grow and nurture quality in the classroom. From professional knowledge, what teachers *know* (Shulman, 1987), to professional expertise, what teachers *do* (Berliner, 1992), concepts of teacher quality focus attention on the learning opportunities created within the teaching process. Teachers’ knowledge and classroom practices are important in defining quality (Brownell et al., 2009), but is quality measured? And, the quality of *what*?

The first challenge faced in the effort to define quality practice is the lack of consensus about what makes teachers effective:

Even though research demonstrates that some teachers affect their students’ academic growth more than other teachers, research has not categorically identified the specific indicators of teacher quality, such as the characteristics, classroom practices, and qualifications that are most likely to improve student learning (Ashby, 2009, p. 3).

Clearly, the quality of the pedagogy employed by teachers contributes to the quality of the job they do for students. Quality in the classroom is composed of many facets that include intellectual quality (Newmann, Marks, & Gamoran, 1996), a quality learning environment, quality assessment practices and quality classroom management (Lipowsky et al., 2009). Nurturing quality relationships was another part of the narrative for participants in this study. Teacher-student relations play an important role in defining the quality of classroom instruction as do the professional competencies and beliefs that teachers bring to the teaching (OECD, 2009). Additionally, an effective relationship between staff members also contributes to the

quality of the work schools do. While engagement in professional learning can change teachers' personal beliefs as well as their teaching practices, it can also foster collaboration that has a "general impact on school quality" (OECD, 2009, p. 117). However, these are only some of the pieces of the quality puzzle.

Recent trends have been to judge teacher quality by measuring the outcomes of students. This gauge has been used because "the typical proxies for teacher quality have proven to be very limited in value" (Hanushek, 2009, p. 303). However, using the outcomes of students alone to evaluate the quality of teachers' work is especially problematic due to the difficulties inherent in identifying the precise contribution one teacher makes to the performance of individual students (Lavy, 2007, p. 91). In addition, such measures fail to acknowledge two essential elements of teacher quality: "what teachers *should know* (subject matter knowledge) and *can do* (pedagogical competence)" (Ingvarson & Rowe, 2008, p. 7). Consequently, to improve teacher quality we first need to define what quality teaching is and how it is expressed in classrooms in order to explore bona fide ways in which to quantify it.

The lack of clarity on the part of researchers was echoed by the participants in this study:

The fact that it's [quality] hazy, probably says something about our profession at the moment (Administrator D).

Administrator D sensed that teacher quality was essential to the success of his students, but he and his colleagues were at a loss to quantify how quality was demonstrated in their classrooms and schools. This level of uncertainty is at least disquieting and may even prove destructive in its effect on teachers' engagement in professional learning. Administrator F noted this with her comment:

If you're not sure that what you're doing is the right thing and if you think the world's judging you on things that are going to change every five minutes, then you're not going to invest your time in 'flavour of the month' PD.

A circular argument begins to evolve. Quality teaching and teacher quality are dependent on teachers' engagement in learning during their careers (Kubler LaBoskey, 2006), however, if professional learning is conceptualised by teachers as of passing importance, a 'flavour of the month', then the very thing research tells us could enhance practice and ensure quality will remain elusive. Practitioners need to

see the relevance of their own learning to their daily practice in order to engage in it. Consequently, the reframing of what constitutes professional learning that leads to quality practices is most important.

For teacher participants, the notion of quality in their practice was fundamental to their perceptions of themselves as professionals as these three quotes demonstrate:

I need to know more and I want to know more. I don't want to be useless and I want to be able to do what I do better than I'm doing right now (Teacher E2).

If I'm not changing and learning and getting better at things, I shouldn't be here. I really believe that every single committed teacher makes a difference (Teacher A2).

I think spending my 20s as a student I saw myself as fairly intellectual. I have high professional standards and I want to keep pushing myself professionally (Teacher E1).

Alarming, recent research involving 70,000 teachers across 23 countries including Australia showed that “three-quarters of teachers report that they would receive no recognition for increasing the quality of their work. A similar proportion report that they would receive no recognition for being more innovative in their teaching” (OECD, 2009, p. 18). Additionally, the same number of teachers reported that the most effective teachers in their schools receive no recognition for their efforts. High-performing teachers, then, are especially vulnerable. While many are called upon to contribute to the professional learning of their peers, they receive little recognition or recompense for doing so and by providing collegial support for others, they may indeed be disadvantaging their own practices. Consider Teacher C4's lament (p. 38) about the impost supporting others placed on her practice and this plea of Teacher A3:

Keep providing PD for teachers and schools with a proven track record. We're not only taking, we're giving to our cluster, the district and the State.

7.9 Informing professional practice

To bring about genuine change in professional practice, participants in this study highlighted the need for the ongoing support of their learning. Incorporating new understandings and techniques into their professional repertoires required significant risk-taking and, as teachers learned how to learn (James, Black, McCormick, Pedder, & William, 2006). It was crucial that they had trusted colleagues in whom they could

confide and with whom they could reflect on their endeavours. It is at this juncture that practitioners are most vulnerable and without collegial support, their commitment to professional learning is diminished. For example, solo year level teachers such as Teacher E2 found the lack of empathic support difficult:

Within the school here, I can't talk to anybody else because I'm the only Preschool-Yr 1 teacher. I haven't got somebody else who's in the same boat to talk to. If you're an interpersonal learner then not having someone to bounce it off makes it tough. Learning just gets really hard.

However, working with colleagues can also arouse a competitive streak in teachers. When they perceived colleagues to be operating more effectively than they were, teachers were stimulated to examine their own practices or engage in new professional behaviours (Zwart, Wubbles, Bergen, & Bolhuis, 2007). For example, one participant said:

The most effective PD is teacher-to-teacher PD. Bringing the experts in from outside is sometimes good and necessary particularly if they've got something really, really worthwhile to say. But PD from other professionals, particularly people you respect and work well with, you'll listen to them. If you see them doing things that work I think, "I can do that" (Teacher C5).

Recent research revealed that individual and collaborative research and engaging in informal dialogue were amongst the most effective forms of teacher learning "with close to 90% of teachers reporting a moderate to large impact on their development as a teacher" (OECD, 2009, p. 78). For school administrators, this message should clearly signal the need for the provision of opportunities for teachers to engage collaboratively in meaningful discussion. Although logistically difficult, time for practitioners to share professional dialogue and engage in collaborative problem solving must be a vital ingredient of school organisation.

Teacher commitment is a critical ingredient in classroom performance and for this reason it is essential that teachers themselves, their school administrators, and the makers of educational policy understand what engenders commitment to professional learning and how that commitment can be supported and sustained throughout a teaching career. Consequently, the implications for practice of our growing comprehension of the worth of committed teachers lie largely in how the experience of professional learning is scaffolded.

Teacher-learners have an obligation to seek out and create learning opportunities that offer the personal benefits they crave whilst aiding them to better cater for the needs of their students. These opportunities should offer conditions for collegial support to solve the real world problems of their classrooms. Teacher-learners should be willing to interrogate the beliefs they bring to the learning and to reflect on the values they bring to professional practice.

For school administrators, the learning environments they fashion for their teacher-learners must recognise the intrinsic worth of colleagues working together to create effective solutions and provide timely and relevant opportunities for such collective endeavours. Operating in this way necessitates a teacher-centric view of professional learning. Such a view would be based on an intimate knowledge of the learner. It would embed the acquisition of new knowledge and skills in teachers' everyday lives and it would publicly recognise and reward learning. It would acknowledge the value of professional experience in creating teacher-learners committed to the success of their students and to a worthy vocation.

Policy makers need to craft strong messages to the profession and to the community about the value of teachers' learning that adds value to students' experiences of schooling and increases their likelihood of lifelong success. Mandated professional events should be marketed differently from curriculum-related initiatives and should be of such quality and relevance to classroom practice that teachers recognise their value. Additionally, by encouraging a deeper level of ownership by schools of system-wide initiatives, practitioners may perceive a more direct relevance to their practice.

For policy makers, the implications of the discussion of teacher quality are less certain because "we have much less knowledge about how to institute policies that will improve the teaching force" (Hanushek, 2009, p. 307). Even though we recognise that quality teachers and quality teaching are essential to the value of students' life chances, there are no policy prescriptions for ensuring such quality. However, if systemic policy is focused on building, valuing and retaining resilient and committed classroom practitioners, we may reach an accommodation that integrates the conditions for quality leadership and quality learning.

7.10 Conclusion

This chapter began with a discussion of how teachers and administrators in the study's five case schools conceptualised the professional learning they embarked upon throughout their careers. The ways in which teachers engage with professional learning were examined along with the reasons why they chose to engage. Finally, how schools and school systems support the learning of teachers was explored through the themes that emerged from the data.

The themes explored here culminated in revealing the bigger picture of teacher quality and quality teaching in which professional learning and the conditions that sustained teachers' engagement with that learning are situated. Despite notions of presentism (Markosian, 2004) apparent in some teachers' motivations for adopting new strategies, learning for novice teachers and their veteran counterparts involved emotional as well as cognitive and behavioural aspects. Much of these are not well understood by teacher-learners (Korthagen, 2005) or by those who support them.

Professional learning has been described as a journey:

This powerful metaphor illustrates very well the road taken by teacher educators, both as beginning teachers who seek to develop an identity as teacher educators and as more experienced teacher educators who learn and develop together by professional activities ... The metaphor of a journey also reflects some of the joys and hardships that travellers experience during their efforts to climb mountains, to cross borders and to explore new territory. Professional development activities are hard work, but they can be deeply satisfying (Swennen & Bates, 2010, p. 1).

A teacher's commitment is crucial to the professional learning journey, but the hard work of professional learning contributes to teacher efficacy and also to the "renewed commitment of teachers as change agents, and in renewed or extended moral purpose" (Goodall et al., 2005, p. 35). Therefore, its importance cannot be overstated.

Learning that promises personal as well as professional benefits, learning that addresses students' needs and issues relevant to practitioners, and learning that provides opportunities for collegial dialogue and support is more likely to lead the learner to new understandings and higher levels of quality practice. Figure 7.1 illustrates participants' conceptualisations of their experiences of professional

learning and endeavours to encapsulate the conditions where teacher learning may occur. Where these concepts interconnect, opportunities are created for individual authentic learning that is capable of transforming professional practice.

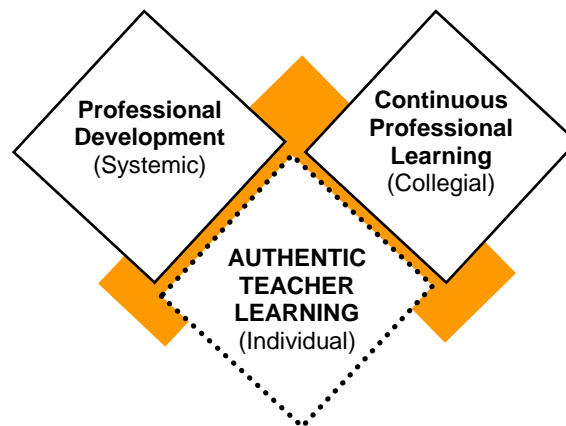


Figure 7.1 Opportunities for authentic teacher learning

The *raison d'être* for this study's focus on teachers' authentic professional learning was its integral role in ensuring the quality of the schooling experience offered to students. In the current reform-driven educational climate, it is the quest for teacher learning that may assure the quality of teaching and boost the quality of student learning.

The rich data drawn from the five interpretative educational cases employed in this study have provided the basis for the development of an innovative lens through which to view teachers and their learning. In Chapter 8, a new framework that allows the charting of a teacher's Learning Line, the roadmap of a learning journey, is considered.

CHAPTER 8

TOWARDS A NEW FRAMEWORK FOR UNDERSTANDING TEACHER LEARNING

8.1 Introduction

The purpose of this chapter is to present a new theoretical framework to aid the understanding of the professional learning that occurs throughout teachers' careers. The quality of the schooling experience provided to students "cannot exceed the quality of its teachers and their work" (Schleicher, 2009, p. 53) and scholarly interest has focused on teacher learning because of its links to social and economic change, workforce planning, and school reform (Commonwealth Department of Education Training & Youth Affairs, 2001). Consequently, a better understanding of the domain of the teacher-learner and the role that professional learning plays in ensuring the quality of classroom practice is of immense importance to the profession.

As discussed in Chapter 3, understandings about the learning adults do date back almost a century. For the teacher-learner, professional learning is recognised to be a "crucial lever for school and system-wide educational reform" (Doecke, et al., 2008, p. 3) and an important contributor to the prosperity of the knowledge-based society. Therefore, the specific challenge for those who support teacher-learners in the 21st century is to capitalise on the growing body of knowledge about learning and learners in order to catalyse shifts in the professional behaviours of teachers.

8.2 Models of Teacher Learning

A selection of models about learning was introduced in Chapter 3 to illustrate the growing understanding of adult learning and its significance. Indeed, in the workplace, knowledge management (Davenport & Prusak, 2000) has taken on increasing importance as the potential of both overt and tacit worker knowledge is recognised. Similarly, in education, there is growing recognition that the knowledge teachers possess is important to how they contribute to their school's capacity to deliver rich and relevant curricula (Metz, 2008).

Historically, transmission models of teacher learning (Rowe, 1974) that conceptualised teaching in terms of the learning outcomes it produced gave way to socio-political models that understood teachers' work to encompass their 'mental lives' (Lortie, 1975), how they interacted with their craft on the basis of prior experiences. This marked a shift in research focus away from "teachers' behaviours towards an examination of their thinking and experience" (Freeman, 2002, p. 3). Clandinin (1985) built on this focus to articulate teacher knowledge as a composite of both professional and personal knowledge while Kennedy (1991) noted that "teachers, like other learners, interpret new content through their existing understandings, and modify and reinterpret new ideas on the basis of what they already know and believe" (p. 2). Inherent in this appreciation of teachers' 'contexts of the mind' (Cazden, 1998) is acknowledgement of the complexity of professional learning and this has, in turn, lead "to power-sharing amongst researchers, teachers, and teacher educators" (Freeman, 2002, p. 11).

The models of learning discussed in Chapter 3 exemplified the growth in understanding of the lives of teacher-learners. The Experimental Learning Cycle (Kolb & Fry, 1975) was evidence of the move towards understanding learning as an interactive process in which the learner formed abstract concepts on the basis of experiences. The Learning Process Model (Jarvis, 1995) was built on the Experimental Learning Cycle but incorporated individual responses to learning as a key factor in how learning was achieved. Interactions between the learner, the environment and the learning were central to the model and the complexity of the learning process was acknowledged. The Action Learning Process (Argyris & Schon, 1978) was a cyclical model of learning but differed from previous models by the inclusion of collaboration as a major feature of the learning cycle. Working in collaborative teams presented opportunities for learning from others as well as with others to construct new knowledge and understandings. The Metacognitive Model for Sustainable Professional Learning (Yeigh, 2008) differed from the models that preceded it by including the element of critical reflection. Learning shaped by critical reflection produced reciprocal and interactive relationships. Self-evaluation, collaborative evaluation and meta-evaluation were used to collaboratively plan, observe and reflect on learning. Sustainability was achieved through a participatory framework in which personal perspectives were acknowledged within a larger vision of learning.

These models espoused constructivist perspectives of teacher learning in which practitioners constructed new knowledge in response to the world around them and in accordance with their prior learning. Use of these models recognised that learning was a set of complex processes situated within “personal and institutional histories and seen as interactive (or dialogical) with others – students, parents and community members, and fellow teachers” (Freeman, 2002, p. 12). However, while these models evidence growth in the understanding of teachers and their learning, they fail to account for a significant aspect of professional learning that has been identified in this research.

8.3 Deficiencies in the Existing Models

Data generated by the participants in this study about teachers and their learning could not fully be explained using the current models of professional learning. Participants repeatedly made reference to an additional dimension that was a significant determinant of their engagement in learning. Current models failed to account for the personal dimensions that influence teachers’ levels of engagement with professional learning. To accommodate this dimension, the Phase Shift Framework of Teacher Learning was developed. It is an amalgam drawn from the data generated by six school administrators and 50 teacher participants in five case study schools. The Framework introduces a schema that draws on the models presented thus far to provide a more accurate lens through which to view the findings of this study.

Teaching requires a “significant personal investment” (Day, Kington, et al., 2006, p. 601) therefore considerable overlap occurs between a teacher’s professional and personal identities. Research (Hoekstra et al., 2007) suggests that the development of “the quality of teaching requires more attention for the relation between teachers’ cognition, emotion, motivation and behaviour, and for promoting teachers’ awareness of their implicit beliefs and behavioural tendencies” (p. 189). Because current models do not accommodate this personal dimension of the professional learner, the development of a new framework that incorporated personal contributions to the ways in which teachers carry out their professional roles was necessary.

8.4 Phase Shift Framework of Teacher Learning.

The Phase Shift Framework of Teacher Learning is built on the existing knowledge about how adults learn. Drawn from Kolb's Experiential Learning Cycle and Jarvis's adaptations, the Action Learning Process went on to incorporate the additional element of collaboration. Additionally, the Metacognitive Model of Sustainable Professional Learning added the component of collaborative reflection to explain how learning could be sustained over a career and finally, the Phase Shift Framework of Teacher Learning builds on these constructs to incorporate personal dimension to the understanding of teachers as learners. This latest addition to the models of teacher learning is the key to understanding "the person the teacher is" (Hargreaves & Earl, 1993, p. viii). Figure 8.1 illustrates the evolution of the Phase Shift Framework from the existing models of teacher learning.

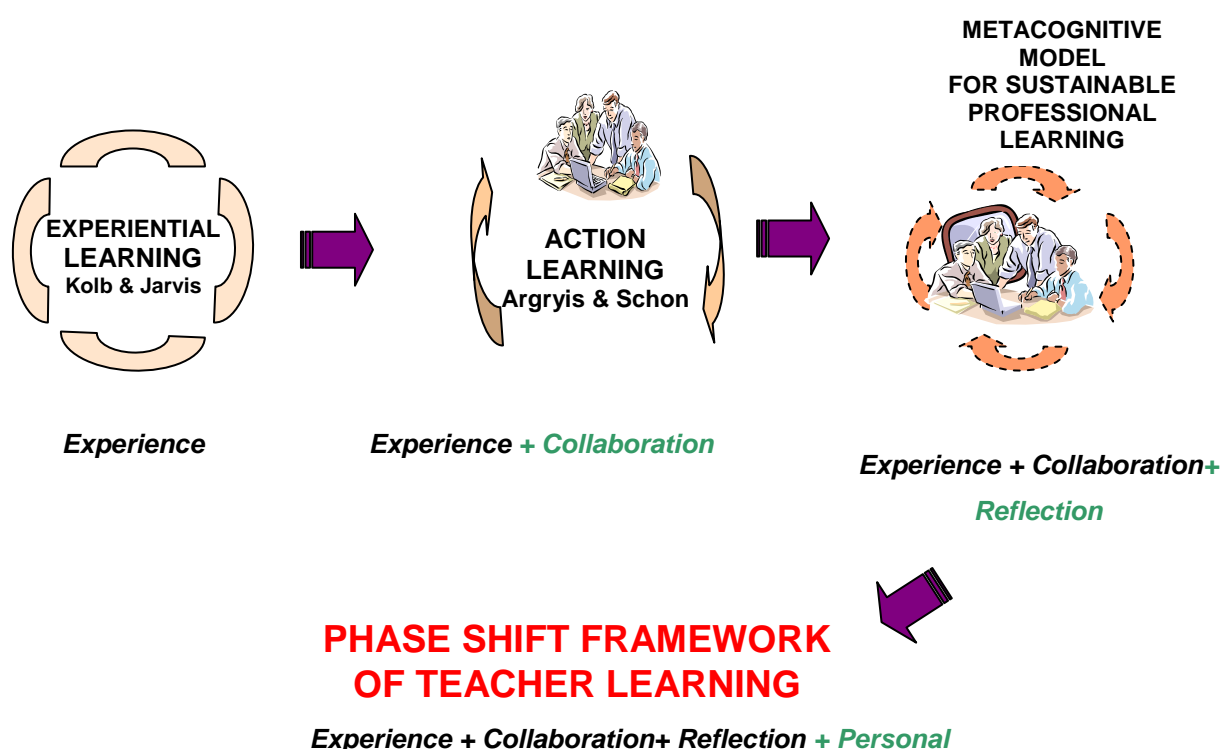


Figure 8.1 Evolution of the Framework of Teacher Learning

The Phase Shift Framework of Teacher Learning provides a conceptual construct to address the complex web of relationships between teacher-learners and their learning. Through the story-lines participants completed in their semi-structured interviews, teachers identified significant shifts throughout their careers in their levels of engagement with professional learning. Moreover, they documented phases of

engagement in professional learning that correlated directly with the changing circumstances of their personal lives.

Teachers confirmed that their progress towards quality practice was not linear nor was the goal of quality practice necessarily to be found at end of a career. For example, Teacher B1's story-line (Figure 8.2) charted a professional learning journey that revealed times in her career when she experienced highs and lows in her level of engagement with professional learning that were not solely attributable to professional factors.

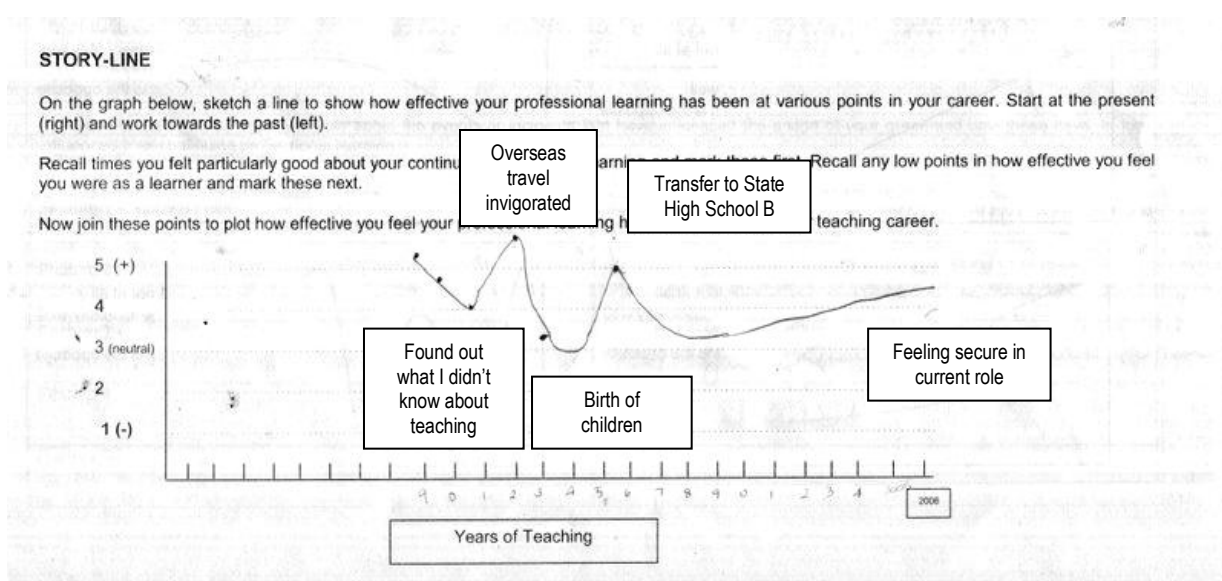


Figure 8.2 Teacher B1's Story-line

The peaks and troughs identified by Teacher B1 were often the result of factors not directly associated with her teaching. She perceived that her professional performance and engagement in learning were significantly impacted upon by both personal and professional factors and this phenomenon is confirmed by empirical literature (Day et al., 2006). Remarkably, this significant element is not featured in current models discussed earlier.

The findings of this study demonstrate that a range of factors that occur throughout teachers' careers influence their professional learning and that:

changes in life circumstances may produce shifts in the levels of involvement in career and family roles over the span of a lifetime (Friedman & Greenhaus, 2000, p. 27).

Consequently, the development of a framework that incorporated the important role of the personal in the construction of the professional aids the understanding of teacher-learners and offers a blue print for future actions that honour the totality of 'the teacher'. To do this, the Phase Shift Framework of Teacher Learning uses scientific concepts to explain how practitioners engage in learning as they navigate their careers, beginning with their initial status as eager novices. Along the way specific experiences, both professional and personal in nature, influence the behaviours of teachers as learners. The Phase Shift Framework of Teacher Learning provides a method for charting the shifts in teachers' levels of engagement in learning as various stressors impact upon their practice of learning.

In its traditional usage, the term 'phase' denotes a discrete period of time or change of matter. In physics, the sinusoidal wave illustrates the phases in the distribution of electrical current. A phase shift explains the movement from one state to another, the "observable repositioning of a wave relative to a reference point" (Truax, 1999, p. 1) . It is this convention that is invoked in the Phase Shift Framework of Teacher Learning.

In contrast to other models, the Phase Shift Framework incorporates the idiosyncratic stressors exerted on teacher-learners throughout their careers. Drawing as it does on situated research, the Framework provides a vantage point from which to view the influences at work, the pushes and pulls that act on teachers and their learning. It enables the potential junctures in a career where learning is likely to occur to be identified and it illustrates the linkages between the conceptualisation of the learning, the conditions that foster teacher learning, and the ways in which schools and education systems might support an learning culture. Figure 8.3 presents the Phase Shift Framework of Teacher Learning developed in response to the findings of this research.

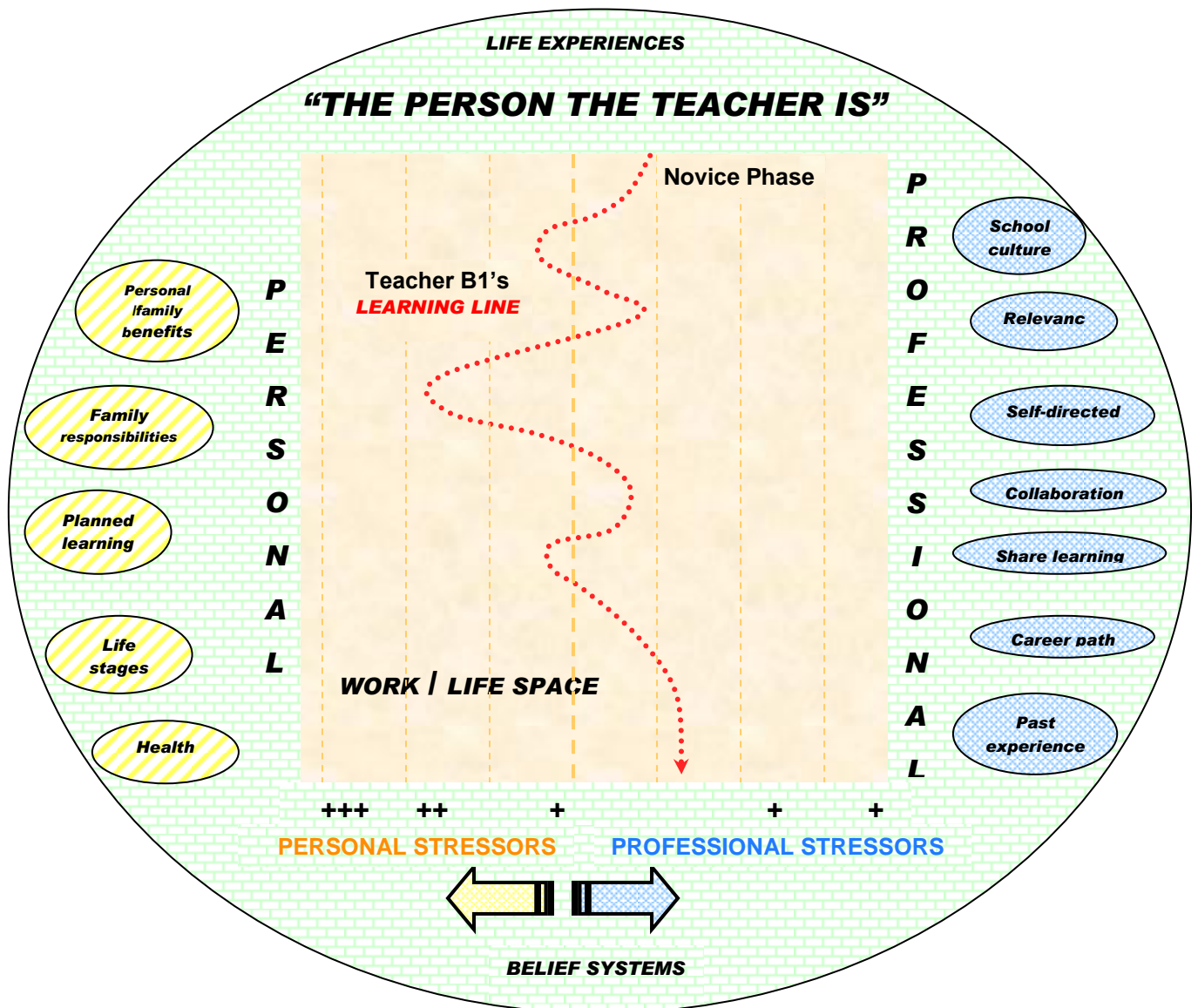


Figure 8.3 Phase Shift Framework of Teacher Learning

Using the Phase Shift Framework of Teacher Learning, the stressors that act on teachers' levels of engagement with and commitment to professional learning at differing career and life phases can be identified. The interplay between *the personal* and *the professional* exerted by competing, and sometimes conflicting demands, embodies the reality of teachers' lives. The magnitude of the stressors varies with teachers' professional experiences and with the events and occurrences in their personal lives.

The outer circle of the Framework is representative of the totality of the individual teacher; their experiences, their belief systems and the personal and professional facets of their lives; "the person the teacher is" (Hargreaves & Earl, 1993, p. viii).

Where the professional intersects with the personal, the Work/Life Space, it is possible to chart the levels of professional and personal stressors exerted at particular career and life phases. It is not necessary to quantify the gradations of the Work/Life Space because it is the journey scribed by the teacher's Learning Line that is of interest. The relative magnitude of each grid line is decided upon by users of the Framework as they review their careers through story-lines and make visible their interpretations of their progress on the professional learning journey. For example, from the data gathered in written form from Teacher B1, it was possible to annotate each peak and trough etched by her Learning Line.

The depth and/or frequency of shifts between the personal and professional phases appear to be influenced by personal traits, life experiences, and events that predispose the learner to greater or lesser commitment to each pole. Meaning making in the phases may be at a surface level that focuses principally on visible signs of change or at a deep level that questions and challenges the paradigms of belief about learners and learning (Salijo, 1976 cited in Le Cornu, 2005). The key to meaning making is directly linked to the learner's reflection on the learning (Jarvis, 2004) consequently, critical reflection on the learning journey is integral to the Phase Shift Framework of Teacher Learning.

Time for engagement in learning and the length of engagement in learning are also important elements of the Framework. This study revealed that teachers are aware of the time required for quality learning. The longer the engagement in learning and the more the learning is owned by the participant, the more likely it is that the level of authenticity needed for paradigm change will be reached (Webster-Wright, 2009).

Use of the Phase Shift Framework featured here shows how, for example, the information from Teacher B1's story-line has been applied to provide a sense of the tensions exerting stressors on her learning behaviours. Teacher B1's Learning Line tracks her professional learning narrative from her novice beginnings through personal crises of confidence in her learning and competence, to the birth of her children and her decision to transfer to a new school. Other models may view the times when personal stressors exerted major forces as times when her professional role was poorly served. However, the Phase Shift Framework of Teacher Learning demonstrates that, in attending to her personal needs, Teacher B1 was in fact

acquiring understandings and skills that were invaluable to her professional practice. The skills learned and the knowledge gained in travel and parenthood added to the person Teacher B1 was and brought personal expertise to her professional role. Conversely, professional expertise acquired over a career has served Teacher B1 well in her role as a parent and as a community member. Each shift in phase of engagement represented an opportunity for transformational learning of either a professional or personal nature. The Framework demonstrates how the Learning Line deepens and levels out with the strength of the stressors of professional and personal experience exerted from within and without.

This feature of the Phase Shift Framework marks a distinct transformation in thinking from previous models of teacher learning. At times, the need for personal learning is as strong as or even stronger than the drive for professional learning. Attention to personal needs can enable teachers to fulfil their classroom responsibilities with greater enthusiasm and commitment hence, investment in personal learning may truly be an investment in the quality of professional practice. Opportunities for personal learning were important for many participants in this research. Provisions for personal learning to support the totality of 'the teacher' contributed to professional confidence and relationship building between teacher and students and between colleagues. When opportunities for personal learning were denied, a dramatic drop in teacher effectiveness and engagement was noted by participants.

The Phase Shift Framework of Teacher Learning incorporates critical reflection as the basis for continued commitment to learning and enables the learner to question day-to-day events that shape their practices as learners. The nature of the Framework suggests a journey that leads the learner on a continuing path marked by shifts in the balance between professional and personal phases. The philosophy inherent in the Framework constructs professional learning with the promise of personal growth, a key motivator for moving teacher-learners from a position of compliance to one of authentic engagement.

8.5 Framework in Use: Findings

The Phase Shift Framework of Teacher Learning characterises the findings of this study. The previously omitted personal dimension of professional learning has been

overlaid on representations of teacher engagement in learning to illustrate the shift between phases throughout teachers' professional lives. The Framework assists the understanding of the principal question that guided this research: *What experiences foster teacher learning that enhances the schooling experience offered to students?* In the following sections of this chapter, the major findings of the study will be reviewed with reference to the Phase Shift Framework of Teacher Learning to demonstrate the need for its use in better understanding teacher-learners.

8.5.1 Meanings of 'professional learning' and How and why teachers engage.

Professional learning may be viewed differently during different phases of a teacher's career as it meets different needs (Freeman, 2002). Most novices in this study clamoured for 'anything that helps classroom practice'. At this phase of their professional lives, the stressors on beginning teachers were extraordinary as they established work routines and set about creating their professional identities. Recent completion of teacher education studies meant that they were practised at the art of 'being learners' but they were only just beginning to understand what it was they needed to know as teachers.

Experienced teachers in this study were keen to know what professional learning could offer to meet their personal needs as well as their professional needs. They were generally very selective about the learning they chose to engage in and were critical consumers of learning opportunities. For the experienced teachers in this study, professional learning was alternately seen as an imposition on their classroom practice and a lifeline in a time of rapid change. For these participants, the old models of professional learning were insufficient to meet their needs because they did not accommodate individuals' career phases. When teacher learning is conceptualised as an integral part of the professional lifecycle and planned for structurally as a fundamental element of a teacher's career path, some of the professional and personal stressors associated with learning might be mitigated. Additionally, building on teachers' previous learning offers the prospect of continuous growth in school capacity.

The Phase Shift Framework provides for the idiosyncratic development of careers in which regular phases of sponsored scholarship might be targeted to meet specific

needs, whether they are professional or personal in nature. Like the Experiential Learning model, the Phase Shift Framework accommodates teachers' experiences of learning as they move through stages of observing a problem then conceptualising it and deciding on the action needing to be taken. Where the models of Kolb and Jarvis assume a continuous cycle of learning, the Phase Shift Framework demonstrates that teacher learning is a career-long journey and that practitioners' efforts at learning may not be completed in cyclic stages.

For example, the participants in this study lamented that isolation, both professional and geographic, impinged upon their learning. Consequently, the Framework incorporates some recognition that teachers' learning journeys can be continued when motivations and enthusiasms are provided from personal sources. While not seen as purely professional motivators, these sources have the ability to contribute to sustaining commitment to professional learning. In addition, part of the growing understanding of professional learning is that teachers develop learning constructs based on their prior knowledge and experiences (Wittrock, 2010), and personal experiences may contribute significant data to the solution of professional problems. The net effect for the teacher-learner is an increased capacity to effectively analyse, plan, act and reflect in both personal and professional hemispheres despite perceived isolation.

8.5.2 Commitment to professional learning *and* School and system support.

The Phase Shift Framework of Teacher Learning is useful to an understanding of teacher-learners' commitment to learning because, in charting the tensions between the professional and personal responsibilities of teachers, learners and those who support their learning are able to understand more comprehensively the specific needs at particular junctures in a teacher's career. Such information, while particular in nature, could afford school-level and system-level planners opportunities to tailor professional learning that target teachers' needs in a timely manner.

The Framework provides opportunities to acknowledge practitioners' career phases as well as their personal life stages by integrating the element of individual relevance. It draws attention to possible learning junctures within a teacher's career and highlights what the personal can offer to the professional. By targeting learning

opportunities and acknowledging personal meaning-making, learners are encouraged to assume increasing responsibility for identifying opportunities to learn that meet their needs and for investing in that learning.

The cost of learning was a significant issue for participants in this research. Teachers bemoaned the financial costs to their schools and to their personal resources but, more significantly, they were concerned about what they perceived to be the costs to their students, to their families and to their personal wellbeing. The Phase Shift Framework illustrates how some of the tensions between the use of professional and personal resources might be resolved when acknowledgement is made how professional learning might accrue benefits to teachers' own personal competencies. Personal needs were major prompts for teachers' commitment to professional learning and the Framework goes some way to recognising and capitalising on this.

Similarly to the Action Learning Process of Argyris and Schon (1978), the role collaboration plays in mediating learning is integral to the Phase Shift Framework of Teacher Learning. Professional dialogue and the collaborative construction of knowledge help learners identify what is salient in their particular contexts. In the Action Learning Process, it was assumed that all players were equally committed to the learning outcome as the basis for repeating the cycle of learning by observing the consequences of implemented actions. However, such commitment may not always be the case. In the Phase Shift Framework, the development of understandings and skills is understood to be idiosyncratic as learners to move through and between phases of learning at differing and discontinuous rates.

Learning that meets specific professional needs and develops a metalanguage for the sharing of learning, fosters a state of collective metathinking. Such a learning culture anticipates that learners will augment their day-to-day learning at times when they possess the readiness to engage and benefit from new learning. Recognising the staged and supported learning steps along a career path embodied in the Phase Shift Framework provides incentives for the learner to seek out experiences that may lead to timely and effective learning.

Participants' perception of relevance was an important factor in their engagement in learning. The Phase Shift Framework enables a deeper understanding of why

engagement in specific personal or professional learning is paramount at particular phases of a teaching career. The Framework is teacher-centric and challenges teacher-learners to assume responsibility for identifying those junctures where learning will be most beneficial for them and moves practitioners towards the construction of authentic learning practices.

8.5.3 Quality: The ‘big picture’ of professional learning.

As teacher-learners navigate their profession learning journeys, an understanding of the profound power of professional learning can transform their worldviews. It provides new vantage points from which to see and interact with the learning in the quest for quality practice, quality relationships, and quality outcomes. The progressive internalisation into a teacher’s professional repertoire of new knowledge and skills built on existing experiences is fundamental to the search for quality teaching.

Similarly to the Metacognitive Model for Sustainable Professional Learning of Yeigh (2008), the notion that experiential learning leads to an understanding of the learning itself is evident in the Phase Shift Framework of Teacher Learning. When personal perspectives are articulated and reflected upon, construction of new knowledge is possible and the enhancement practice is possible. While the Metacognitive Model for Sustainable Professional Learning emphasises self-reflection as a tool for learning, it does not incorporate personal dimensions of the learners. Experiential data are gathered as learners meet and resolve problems, question the causes and outcomes of events, propose courses of action, and then reflect on the outcome, but for learning to result in quality pedagogy, practitioners need to be aware of and to manage both personal and professional stressors on their learning. Such awareness might allow them to better regulate their levels of engagement in professional and personal endeavours and to capitalise on the synergy created.

For administrators and policy makers, the Phase Shift Framework of Teacher Learning offers insight into the worlds of teacher as learners and the junctures at which professional learning might best play a significant role in teachers’ working lives. When a teacher chooses to engage in professional learning, they assume some degree of ownership of the process and the outcomes. When the experiences

of professional learning interconnect with life experiences teachers, to varying degrees, realign or subtly adjust their professional landscapes. The journey to genuine understanding takes time and, as initial interactions with new knowledge are built upon, the strength of the engagement with new knowledge and understandings lead towards the construction of future-oriented learning paths.

8.6 Conclusion

In this chapter, the models of teacher learning have been revisited and examined for what they can offer an understanding of the teacher-learner. A new framework that offers a fresh way to view the behaviours of teacher-learners and their interactions with professional knowledge was introduced. The Phase Shift Framework of Teacher Learning extends the understandings provided by the Experiential Learning Circle, the Learning Process, the Action Learning Model, and the Metacognitive Model for Sustainable Professional Learning and places teacher-learners' engagement in professional learning within the bounds of their professional and personal life phases.

What this study suggests is that effective professional learning is continuous though non-linear, it is teacher-centric with real opportunities for teachers to direct their learning, and it is constructed in community with colleagues who have an understanding of the situated professional worlds of the teacher-learner. While these factors enable deeper meaning-making to occur as learners engage in creating solutions relevant to the real-life worlds of their classrooms, the principal feature of the Phase Shift Framework of Teacher Learning is the inclusion of the personal dimensions of the person the teacher is. The core elements of the Phase Shift Framework facilitate an understanding of when and how the construction of authentic knowledge and transformative understandings might be possible.

It seems clear from data gathered in this research that educational reform and renewal cannot be sustained without ensuring opportunities for professional learning. The Phase Shift Framework of Teacher Learning introduces a worldview of learning that challenges the learner to assume greater responsibility for identifying learning opportunities and for capitalising on them. The Framework has at its core threads that embed the essence of authentic learning into a planned and supported career path for teacher-learners. It countenances no points of exit from the learning journey

and, while the balance of engagement might shift between the professional and the personal, the learning continues.

The unambiguous contributions of personal development to the practices of professional learning demonstrated in this study are characterised by the Phase Shift Framework of Teacher Learning. Personal development motivates the learner, it grounds the learning in real-world problem solving, and it clearly contributes to the person the teacher is. When shifts in phases between the personal and the professional are reframed to encompass learning that occurs in both hemispheres, the tug of one over the other no longer needs to be viewed as a move toward or away from learning that contributes to professional practice. Indeed, the movement between phases charted in the Framework represents a reorientation of the thinking about the learning experiences of teachers. A linear perspective of professional learning is replaced by one that acknowledges and honours the realities of the situated worlds of teacher-learners.

CHAPTER 9

CONCLUSIONS

9.1 Introduction

The professional world of 21st century teachers is a rapidly changing one marked by changes in community expectations, advances in technology and a wave of educational reform. As lifelong learners, teachers are seen as important social and economic assets to a nation, responsible for building human and social capital in schools and as agents of social change (Metz, 2008). However, despite their pivotal role in educating the knowledge workers of the future, today's teachers have largely been left out of political decision making about the shape of contemporary schools and schooling (Geijsel et al., 2003).

Criticism from research literature (Lingard et al., 2000) and the media suggests that the teaching and learning practices in Australian schools have changed little over recent decades. However, despite the focus reform and renewal, only minimal attention has been paid to the roles teacher learning plays preparing tomorrow's knowledge workers.

The purpose of this final chapter is to summarise the findings of the study about teacher-learners and to inform the debate about capacity building in schools and classrooms based on the experiences of the participants in this research. A summary of research findings is presented and the research questions that guided this study are addressed in light of the findings. Finally, areas for further research are suggested.

9.2 Design of the Research

The study builds on the empirical knowledge-base about teachers as learners by examining the experiences of 56 participants who shared their narratives and brought their insights to this exploration of the situated experiences of teacher learning. As the study investigated the experiences and perceptions of teachers and school administrators, a qualitative research design provided opportunities for the

researcher to listen, to question the meaning of participant experience, and to interpret the significance of events and ideas. The epistemology of Constructionism was adopted to accommodate the multiple realities constructed by individuals and groups that are dependent on participants' past experiences. and mental constructions that are socially and experientially created (Raskin, 2002). This properly describes the lived experiences of teacher-learners in Australian schools in the 21st century.

Within the Constructionist tradition, Interpretivism, and more specifically Symbolic Interactionism, was used to generate interpreted accounts of the complex web of relationships between teacher-learners and their professional learning. The highly contextualised and personal nature of teacher learning created rich data and allowed the interactions between the learners and their learning to be revealed. In the research, the ways in which teacher-learners understood professional learning experiences, and the learning behaviours they chose as a result of their understandings were examined.

An interpretive educational case study approach was adopted to aid the investigation of the professional learning within its real-life context. Multiple sources of data were gathered using five case studies and provided opportunities to examine the phenomenon of professional learning within each particular case and across the range of cases. The five school sites used as interpretive educational cases in this research were representative of the sectors of State schooling available in the geographic area and they included a sample of large and small primary and secondary schools in urban and rural settings.

Figure 9.1 provides an overview of the study's participant groups and the research instruments used to gather data for this study.

PARTICIPANT GROUPS	RESEARCH METHODS
Administrators	Focus Group Interview
Teaching staff from individual school sites	Open-ended Questionnaires
Self-selected teacher teams	Semi-structured Interviews including Story-lines

Figure 9.1 Overview of Research Methods

Data generated by these participants were gathered through the analysis and interpretation of questionnaire responses and transcripts of focus group and semi-structured interviews. Data from the school administrators' focus group aided identification of key questions to be addressed in subsequent rounds of data collection, while semi-structured interviews provided insights into what participants valued about professional learning and their learning behaviours based on those values. The interview setting offered a glimpse of the institutional and personal factors that influenced teachers' engagement in professional learning and use of the story-line strategy afforded an opportunity for participants to share, interpret and analyse their own experiences as learners. Thus, the necessity to rely on researcher interpretation of data was reduced.

Data sets were analysed using the Constant Comparative Method of analysis that enabled the collection of data and its analysis and interpretation to occur simultaneously and interactively. Data were analysed and coded to reveal relationships between the learners, their learning and the contexts in which the learning took place. As the process continued, propositions about the motivations and practices of teacher-learners began to emerge. By comparing data from a number of sources, a snapshot of professional learning in the five case study schools was built into themes, the discussion and exploration of which informed the findings of this research.

9.3 Summary of Findings

The findings of this study centred on the conceptual nature of professional learning and the behaviours of teacher-learners based on their understandings of the learning process. Teachers' behaviours were based on the nexus between their access to learning opportunities, their prior experiences, their commitment, both professional

and personal, to the learning, and how the practice of professional learning was enacted within their schools.

Four themes emerged from analysis of the case data:

1. Learning in community – Colleagues as teachers
2. Costs of professional learning – Financial and psychological costs
3. Isolation – Geographic and professional isolation
4. Contributions of the personal to the professional

Theme One elucidated what teacher-learners valued in the professional learning experience and how colleagues contributed to their learning while Themes Two and Three detailed the barriers teachers perceived they needed to overcome in order to continue their learning journeys. Specifically, Theme Two dealt with how teachers weighed up the financial and psychological cost and benefits of their learning and Theme Three characterised the logistical factors of geography and school culture and organisation that impacted on teacher learning. The fourth theme centred on the contributions that personal qualities, needs, experiences and understandings made to teachers' professional learning. The notion that personal experiences add to 'the person the teacher is' underpinned the new framework, the {Phase Shift Framework of Teacher Learning, offered in Chapter 8.

In the light of the themes that emerged from the data, the research questions that guided this study are re-examined here to determine how they have been addressed by the study's findings. A summary of the research questions and the findings associated with each question is presented in Table 9.1.

Table 9.1

Research questions and findings

Research Question 1	Research Question 2	Research Question 3
<i>How do teachers and those who support teacher-learners understand 'professional learning'?</i>	<i>How and why do teachers engage with professional learning throughout their careers?</i>	<i>How do schools and school systems support teacher learning?</i>
Nomenclature used to describe professional learning positions the learner and their learning.	Geographic and professional isolation impact on teachers' abilities to engage in professional learning.	Professional learning needs to be managed and led by school administrators.
Mandated professional events are not sufficient to meet teachers' learning needs.	Professional learning accrues costs that are financial, professional and personal in nature.	Acknowledgement of existing professional competence is essential to successful teacher learning
Authentic professional learning is collegial, context-specific and solutions-focused.	Professional community is integral to authentic teacher learning.	'Good PD' meets both professional and personal needs.
	Schools' learning culture is an important determinant of what and how teachers learn.	Professional learning is about understanding and pursuing quality practice.
	Recognition of teacher professionalism enhances commitment to professional learning.	

9.4 Research Questions Addressed

The research problem that underpinned this study was *What experiences foster teacher learning to enhance the quality of the schooling experience offered to students?* A review of literature illuminated the problem and lead to the formulation of three research questions that evolved in the initial stages of the research:

1. How do teachers and those who support teacher-learners understand 'professional learning'?

2. How and why do teachers engage with professional learning throughout their careers?
3. How do schools and school systems support teacher learning?

These questions provide the scaffold within which the summary of findings of this study is presented.

9.4.1 Research Question 1: *How do teachers and those who support teacher-learners understand 'professional learning'?*

Data from this study demonstrate participants' keen awareness of the ways in which the language of learning positioned their experiences of learning. While all other states in Australia have moved to use of the term 'professional learning' to describe the learning of teachers, Queensland has reverted to using the term 'professional development'. The nomenclature was important to teachers and administrators who took part in this research because they understood a distinction between the two to represent a vast difference in the conceptualisation of their learning. While professional development was understood to mean "activities done at the behest of employers or systems, involving knowledge that is delivered by outside experts" (Doecke et al., 2008, p. 4), professional learning recognised "individual autonomy and motivation, an image of professionals consciously monitoring their professional practice, learning from their work, and arriving at new understandings or knowledge on that basis. Such learning is typically situated learning, reflecting the professional experiences and insights that become available to teachers within their local school communities" (Doecke et al., 2008, p. 9).

For almost all teacher participants in this Queensland-based study, professional development had indeed been their experience. Participants understood that the professional learning recognised by authorities took place in formal settings, structured occasions like workshops, seminars, conferences and the like, although they very much valued the learning that took place in less formal settings. Professional dialogue with colleagues, visiting other teachers' classrooms and times of personal reflection provided opportunities for growth in understanding and expertise.

The former very narrow view of professional learning represents a failure to recognise the learning that occurs in classrooms every day and the scholarship of shared problem solving. While participant' conception of learning as structured and formal might be the product of the official language used to connote professional learning in Queensland, it severely limits the potential for meaningful experiences of learning. Use of such language fails to recognise that pedagogical practices might themselves be the subject of study as teachers refine and redefine their concepts of quality practice. Hence, assistance in acquiring a conceptual understanding of the ways in which adults learn might provide teachers with a more complete appreciation of when and where learning is possible.

This study demonstrated that learning that is solutions-oriented and collaboratively constructed provides teacher-learners with a level of self-directedness they desire and recognises their professionalism. By reframing professional learning in this way, learning can be seen to occur in formal settings where new information is disseminated, in collaboration with colleagues where context-specific issues can be addressed, and in reflective times when teachers contemplate their own beliefs and professional practices. Teachers in this study preferred a move away from the limited notion of professional development towards the concept of professional learning. Consequently, one way to encourage Queensland teachers to continue their professional journeys would be to reframe their learning "moving from a focus on 'development' to 'learning' and from an 'atomistic' perspective to a 'holistic' approach" (Webster-Wright, 2009, p. 713).

9.4.2 Research Question 2: How and why do teachers engage with professional learning throughout their careers?

This question possessed two distinct but interrelated foci. Responses to the first of these, how teachers engage in learning, had their basis in the physical attributes of geography. Teacher-learners perceived that their geographic location played a large part in determining their access to learning due to issues of availability, distance, cost and time.

While participants in this study identified the costs of their learning as major determinants of their engagement in it, financial costs formed only one part of their concern. The costs of attendance, travel and classroom release were compounded

by psychological costs engendered by leaving their classrooms and schools to attend to their own learning. Concerns for the welfare of their students, issues of guilt at leaving their classes and the intensification of work (Burchielli, Pearson, & Thanacoody, 2002) were crucial considerations for teacher-learners.

In addition, participants longed for a professional community of learners with which to interact but managing the conditions for collaborative problem solving and reflection presented significant challenges for many of the study's administrators and teacher-learners. Despite the barriers, participants in this study were adamant that their collaborative endeavours were valuable sources of inspiration and the construction of new knowledge.

When the teachers and administrators articulated their perceptions of how professional learning was enacted in their schools, they were in fact identifying the learning cultures of their organisations. Because of the pervasive nature of culture, teachers' commitment to learning was aided or hindered by their cultural contexts. Consequently, the ways in which learning was conceptualised and discussed was a significant factor in determining how teachers choose to engage with professional learning.

Recognition of teacher professionalism also enhanced commitment to professional learning. Perceptions of professionalism were bound up with teachers' professional identities and underscored participants' views of themselves as learners. Consequently, if teachers believed their professionalism was not honoured or valued, they were less likely to engage as learners.

Professional imperatives such as the learning required to fulfil professional roles formed part of participants' motivations for engagement but, more importantly, they highlighted their desires for the learning to accommodate personal needs as well as professional. Personal needs potentially met by professional learning ranged from learning that would benefit teachers' own families to learning that developed their personal understandings and skills that improved collegial relationships within the school. Participants saw these as very real and reasonable needs that, while increasing their engagement in learning, contributed to the effectiveness with which

they carried out their professional roles. When this set of personal needs went unrecognised or unmet, levels of engagement decreased and discontent rose.

Consequently, teachers' experiences of isolation, both geographic and professional, the financial, professional and personal costs of their participation in learning, their desire for a culture of learning within their schools that provided a community of learners with which to engage, and the need for personal relevance all impacted on levels of engagement in professional learning. Addressing these concerns of teacher-learners by the provision of appropriate structures and funding would enable teachers to assume greater level of control and significantly decrease the stressors on their engagement in learning.

9.4.3 Research Question 3: *How do schools and school systems support teacher learning?*

A school's capacity to provide effective learning opportunities for students is a factor of the quality of its teachers. As a learning organisation, a school has a very real interest in developing its human capital and professional learning is an important vehicle for achieving this. However, participants in this study confirmed the work of others (Ashby, 2009) that found that quality teacher performance goes largely unrecognised and unrewarded in Australian schools. Part of this problem might lie in the confusion that exists in defining quality practice and the dilemma of recognising it in practice. Much of the systemic support necessary for effective teacher learning hinges on the resourcing of schools and while this is a significant issue, it falls outside the scope of this research. Where policy makers can make a difference lays in the construction of guiding principles that promote quality and foster teacher learning.

The findings of this research indicate the need for the management and leadership of professional learning by school administrators and the creation of a culture that values and promotes the learning of teachers. How teacher learning is conceptualised and enacted in schools and classrooms plays an important role in determining levels of engagement and efficacy. By creating a shared vision of the collective enterprise of schooling, schools can encourage teacher research, permit old beliefs to be challenged, and refine and promote the quest for quality practice.

Consequently, the deliberate creation of a culture that supports teachers as learners is critical to school capacity building (Irani, Sharif, & Love, 2009).

Acknowledging and promoting teacher competence is also the clear domain of school administrators and education systems. Whereas teacher-learners have an obligation to seek out and create learning opportunities that offer the personal benefits they desire, administrators and policy makers need to craft strong messages to the profession and to the community about the value of teacher learning and its ability to add value to students' experiences of schooling.

Participants in this study recognised the intrinsic worth of working with colleagues to create effective solutions and develop new knowledge. While teachers learn how to learn (James, Black, McCormick, Pedder, & William, 2006), they engage in significant levels of professional risk-taking and it is important that they have trusted colleagues in whom they can confide and with whom they can reflect on their endeavours. Sharing real-world problems, finding real-world solutions collaboratively and creating forums for professional dialogue encourage the exploration of best practice that is distributed and sustainable. Therefore, a crucial facet of school organisation must be the provision of timely and relevant opportunities for such collective endeavours. Scaffolding situations and coalitions that lead teachers to engage in authentic learning is an important element of school culture and organisation and communities of practice, learning teams (Silins & Mulford, 2002), provide opportunities to build the human and social capital that transforms individual autonomy into collective empowerment (Hord, 1997). Chances to share learning empower teams of learners and puts schools in a position to reward teacher-learners by recognising their needs as well as valuing their scholarship.

Finally, giving classroom practitioners a voice in educational reform might also prompt changes in understandings and pedagogy. Teacher voices have been conspicuously absent in much of the debate and decision making about renewal and reform and this absence has served the system poorly. Teachers' personal commitment to change is enormous and, as the most important resource in enacting school reform and renewal, teachers have much to lose or gain. Consequently, a shift in thinking about the paradigms of teacher learning and in the locus of decision making about schools and schooling to include the voices of teachers, might

enhance their appreciation of the need for change and further secure their commitment to its implementation.

9.5 A New Framework

Based on this research, a new framework was proposed to build on the understandings of teachers as learners. The Phase Shift Framework of Teacher Learning offers a unique lens through which to appreciate teachers and their learning. The Framework offers a way in which to honour “the person the teacher is” (Hargreaves & Earl, 1993, p. viii) and recognises what the learner brings to the learning. The Framework is consistent with the valuing of already established professional expertise as well as the personal dimensions that contribute to the totality of the teacher. The Phase Shift Framework of Teacher Learning situates teacher learning within teachers’ work/life spaces and accounts for the reality of the learning contexts teacher-learners experience.

Professional learning “is integral to the professional lives of teachers, not an add-on” (Doecke et al., 2008, p. xiii) therefore, structures that promote teacher learning should be fundamental to the culture of schools and schooling. The professional contexts in which teachers work and learn provide genuine motivation for professional learning and the Phase Shift Framework of Teacher Learning provides a long term synopsis of the real-world lives of teacher-learners. This study has demonstrated that engagement with “teachers’ cognitive and emotional selves” (Sammons et al., 2007, p. 687) contributes value to professional practice. Teachers’ identities are closely linked to their personal values and circumstances therefore, accommodation of the personal dimensions of the teacher is fundamental to quality teacher practice. The Phase Shift Framework of Teacher Learning developed in response to data generated in the research offers a schema for understanding and valuing the total package of the teacher-learner.

The Framework offers an alternate lens through which to view the life of the teacher-learner. Its unique contribution to empirical knowledge lies in the fact that it allows for a recognition of the totality of person the teacher is and enables both teachers and those who support their learning to appreciate the tensions and stressors that at once motivate and hamper professional learning.

Recognition of what the personal contributes to the professional has been poorly appreciated in the past, but this study and the resultant Phase Shift Framework encompasses and celebrates the interplay of shifts in the focus of the teacher-learner. Conversely, what professional learning offers to the personal lives of teachers, their families and their colleagues is an asset worthy of the investment.

9.6 Conclusions of the Research

Over coming decades, the issue of teacher learning will continue to grow in importance as experienced and highly qualified practitioners retire from the teaching workforce. The provision of effective professional learning opportunities for all teachers is fundamental to ensuring schooling in Australia is able to meet the needs of its young learners and prepare the future workers of our knowledge society. Thus, as this study has demonstrated, there is a compelling case for researchers and policy makers to better understand how teacher learning might be fostered and supported for its contribution to quality classroom practice.

This study set out to explore the question: *What experiences foster teacher learning to enhance the quality of the schooling experience offered to students?* The following conclusions indicate the significance of teachers' experiences as professional learners and point to opportunities for authentic learning. These conclusions are limited to the extent that they reflect participants' experiences in the case study schools described in this study.

9.6.1 Conclusion 1: The importance of learning in community.

The use of community as a construct for teacher learning enables an acknowledgement that classroom practitioners learn as they collaboratively seek solutions to common challenges. Therefore, providing opportunities to develop professional relationships and to engage teachers in professional dialogue must be an essential element of the organisational culture of schools. When teachers have opportunities for collaborative inquiry, they create a shared body of wisdom that adds to the collective efficacy of their schools and the entire educational system. Communities of practice are fundamental to the processes of teacher learning and are key instruments in redefining teaching practice. Thus, opportunities for collaborative working relationships are essential to teacher learning and the creation

of local communities of learners within schools or virtual communities online must be administratively and systemically supported.

This study revealed that expert teachers are sometimes quarantined in 'silos' within their schools because of the perceived financial, professional and psychological costs of sharing their expertise. Providing professional learning communities for such learners is especially important to the profession as they contribute to the learning of others and continue their own journeys as teacher-learners.

9.6.2 Conclusion 2: School and system-level support is fundamental to teacher learning.

Professional learning promotes reflective and innovative practice and is important in sustaining teachers' commitment to the profession. Therefore, school and system level support for and acknowledgement of teacher learning that is collaboratively constructed are important means of fostering quality pedagogy. By reframing current conceptualisations of professional learning and the conditions under which authentic learning is achievable. By embedding professional learning in teachers' career paths, educational policy makers and school administrators pave the way for teacher learning that is integral to quality practice.

For school administrators, an intimate appreciation of their staff and their personal and career phases is integral to scaffolding professional learning opportunities that lead to transformations in pedagogical practice. The creation of professional collaboratives focused on the creation of solutions to common issues and concerns offers teachers the relevance, practicality and collegiality they crave as learners.

At the systems-level, an appreciation of the various pathways to learning necessary for teacher-learners presents unique challenges but promises immense system-wide benefits. When teachers' existing levels of expertise are acknowledged and their enhanced proficiency is rewarded, school capacity is expanded and strengthened. School and systemic recognition and support for professional learning can only serve the professional well.

9.6.3 Conclusion 3: Personal dimensions contribute to professional practice.

Some past difficulties in engaging teachers in professional learning have arisen because of a lack of appreciation of the world of the teacher-learner. In this study it was found that a significant determinant of teachers' engagement in professional learning is its perceived relevance to their professional practice and to their personal lives. Participants in this research demonstrated that when teachers saw learning opportunities that were solutions-oriented and of immediate, practical use to their students or to their personal lives, they willingly consign significant personal commitment to the endeavour.

For school administrators, this points to a need for learning opportunities to be teacher-centric and to possess both professional and personal relevance to the situated worlds of teacher-learners. Understanding the learner is no less important for school administrators than it is for classroom practitioners who are extolled to understand the needs of their students.

At the systems-level, recognition of the personal attributes of teacher candidates in their selection for the profession as well as their academic capacities would be to acknowledge the importance of personal variables such as motivation and commitment. Across a teaching career, it is the personal dimensions that will drive a teacher-learner to commit scarce resources of time and energies to the learning. Systemic acknowledgement of the part teachers' personal lives play in their careers would be to honour what each practitioner brings to their teaching and to their ongoing learning.

9.7 Areas for Future Research

Our understanding of teachers as learners is far from complete and the need exists for a more sophisticated appreciation of what the personal motivations of teacher-learners contribute to their engagement in professional learning. This qualitative study has documented the learning journeys of teachers in five case study schools to aid the understanding of teachers as learners. A compelling case exists for researchers and policy makers to better understand what quality teaching is so that it

may be fostered and supported. Therefore, further exploration of this phenomenon would benefit the profession.

The surprising issue of expert teachers quarantined within their schools because of the perceived costs of sharing their expertise emerged from this study. Reports of this occurrence are disturbing and pose grave dangers for the future of the profession consequently, examination of the phenomenon and for more effective ways of sharing expertise would be worthwhile.

The concept of teacher learning that is individual in nature and transformative of practice as professionals moved between phases of learning throughout their careers remains to be explored further. Teachers adapt and mould their practices in classrooms everyday as they are confronted with the changing needs of their students and new curricula requirements, but what remains largely mysterious are the conditions that prompt some teacher-learners to transform their practice and to question and redefine the fundamental paradigms that underpinned their pedagogy. Continuing exploration of the conditions that foster such transformative learning would be valuable to the profession.

And finally, it behoves researchers to look closely at how schools and education systems can purposefully cater for the personal development needs of the teacher as well as contribute to improved professional practice. While personal attributes are recognised as influential to engagement in learning, little research has been conducted on the contribution personal attributes make to enhancing the quality of teachers' learning and pedagogy. Increasing our empirical knowledge base about the processes and practices of teachers' continuing professional learning would assist the focusing of energies and expenditure on strategies that enable and inspire quality classroom practice. The ability to harness this dimension and make explicit its contribution to expert practice would benefit the profession and indeed the society.

9.8 Summation

As the researcher, my own professional background as teacher, education consultant and school principal contributed to this study. My teaching career has been spent in the geographic area within which the study was situated and previous studies for

Bachelor of Education and Master of Education (Honours) degrees centred on the practices of teaching and curriculum decision-making.

Observations of professional practices and interactions in a number of contexts over some years lead me to question the validity of the knowledge base on which our decisions about the nature of teacher learning are founded. These experiences pricked my curiosity about teachers as learners to a point where it became a professional quest to better understand classroom practitioners and their learning journeys. These interests lead me to the research and the resultant thesis that honours the lives of the teacher-learners described in this research.

The study has explored the real tensions that exist between the discourses of research and policy and the situated practices of teacher-learners. If we accept that teachers' professional learning is fundamental to educational renewal, then adding to the understanding of the complex interrelationships between the teacher-learner and their learning is a most worthwhile endeavour. The work of classroom practitioners is essential to the success of the knowledge society and this study adds to our understandings of teacher-learners, their learning contexts and their scholarship.

APPENDICES

Appendix 1

Information Letter for PRINCIPALS



Research Project: *TEACHERS AS LEARNERS : CONTINUING PROFESSIONAL LEARNING*

Name of Researcher: SANDRA CAMERON

Dear,

You are invited to participate in a research study that aims to explore how teachers' continuing professional learning contributes to increasing school capacity.

Your participation would involve joining a small number of colleagues in a Focus Group Interview to discuss the study and then encouraging teachers at your school to complete a short questionnaire. A small cohort of teachers from a number of sites will be invited to participate in an audio-taped interview to discuss their questionnaire responses.

Agreement to participate in this study is voluntary and you are free to withdraw from the project at any time without giving a reason for doing so. Any information provided during the study will be treated confidentially and pseudonyms will be used in all written documents derived from this project. Pseudonyms will also be used for your school and community. There should be no risks involved in participation in this study.

Should you have any complaint about the way you have been treated during the study or have a query that the research has not been able to satisfy, you may contact

Chair, Human Research Ethics Committee
Australian Catholic University -McAuley Campus
P O Box 456
VIRGINIA QLD
AUSTRALIA 4014
Telephone 07 3632- 7294
Fax 07 3632-7328

Any complaint or concern will be treated confidentially, fully investigated and the participant informed of the outcome.

If you agree to participate in the research project you should sign both copies of the consent form, retain one copy for your records and forward the remaining copy to the address below.

If you have any questions regarding the project, please feel free to contact me by phone or email. Your participating would be most welcomed and thank you in anticipation of your co-operation in this research project.

Yours faithfully,

Sandra Cameron
Butchers Creek State School
MS 1575
Malanda 4885
Phone: 0740 968 135
scame26@eq.edu.au

Appendix 2

Information Letter for TEACHER PARTICIPANTS



Research Project: *TEACHERS AS LEARNERS : CONTINUING PROFESSIONAL LEARNING*

Name of Researcher: SANDRA CAMERON

Dear.....,

You are invited to participate in a research study that aims to explore how the professional learning that teachers do throughout their careers contributes to improving student outcomes.

Your participation would involve an audio-taped interview to discuss your responses to the questionnaire you completed recently. Interviews will be of approximately an hour's duration and will be conducted at a time and place convenient to you. During the interview, you will complete a Storyline to assist you to evaluate critical incidents or recollections about your own professional learning.

Agreement to participate in this study is voluntary. You are free to withdraw from the project at any time without giving a reason for doing so. Any information provided during an interview will be treated confidentially and pseudonyms will be used in all written documents derived from this project. Pseudonyms will also be used for your school. There should be no risks involved in participation in this study.

Should you have any complaint about the way you have been treated during the study, or a query that the researchers have not been able to satisfy, you may contact

Chair, Human Research Ethics Committee
Australian Catholic University -McAuley Campus
P O Box 456
VIRGINIA QLD
AUSTRALIA 4014
Telephone (61 - 7) 3632- 7294
Fax (61 - 7) 3632-7328

Any complaint or concern will be treated confidentially, fully investigated and the participant informed of the outcome.

If you agree to participate in the research project you should sign both copies of the consent form, retain one copy for your records and forward the remaining copy to the address below.

If you have any questions regarding the project, please feel free to contact me by phone or email. Your participation would be most welcome and thank you in anticipation of your co-operation in this research project,

Yours faithfully,

Sandra Cameron
Butchers Creek State School
MS 1575
Malanda 4885
Phone: 0740 968 135
scame26@eq.edu.au

Appendix 3

Ethics Approval

Australian Catholic University
Brisbane Sydney Canberra Ballarat Melbourne



Human Research Ethics Committee

Committee Approval Form

Principal Investigator/Supervisor: Dr Judith Mulholland Brisbane Campus

Co-Investigators:

Student Researcher: Ms Sandra Cameron Brisbane Campus

Ethics approval has been granted for the following project:

Teachers as Learners: Continuing Professional Learning

for the period: 17 March 2006 to 31 December 2007

Human Research Ethics Committee (HREC) Register Number: Q200506 13

The following standard conditions as stipulated in the *National Statement on Ethical Conduct in Research Involving Humans* (1999) apply:

- (i) that Principal Investigators / Supervisors provide, on the form supplied by the Human Research Ethics Committee, annual reports on matters such as:
 - security of records
 - compliance with approved consent procedures and documentation
 - compliance with special conditions, and
- (ii) that researchers report to the HREC immediately any matter that might affect the ethical acceptability of the protocol, such as:
 - proposed changes to the protocol
 - unforeseen circumstances or events
 - adverse effects on participants

The HREC will conduct an audit each year of all projects deemed to be of more than minimum risk. There will also be random audits of a sample of projects considered to be of minimum risk on all campuses each year.

Within one month of the conclusion of the project, researchers are required to complete a *Final Report Form* and submit it to the local Research Services Officer.

If the project continues for more than one year, researchers are required to complete an *Annual Progress Report Form* and submit it to the local Research Services Officer within one month of the anniversary date of the ethics approval.

A handwritten signature in cursive script, reading "K. Paskey".

Signed:

Date: 17 March 2006
(Research Services Officer, McAuley Campus)

Appendix 4

Overview of the relationship of the probe questions to the three research questions

Research Question 1

How do teachers and those who support teacher-learners understand 'professional learning'?

Administrator Focus Group Questions:

4. Is your school's effectiveness influenced by teachers' involvement in professional learning?
5. What evidence do you see of this?
6. Do your teachers show a commitment to continuing professional learning? How do they demonstrate this?

Teacher Open-ended Questionnaire Questions

2. What factors influenced your decision to be involved in the activity?
3. As a learner, what parts of the most recent activity in which you were involved did you find professionally valuable?
4. Do you expect to participate in any professional learning in the coming year?
7. What counts as professional learning for you?
8. Do you belong to a professional network, association or group?
9. How do you find out about new teaching strategies?

Teacher Semi-structured Interview Questions

1. In the Open-ended Questionnaire, you mentioned the kinds of incentives or conditions you need to help you to continue your learning journey as a teacher. Tell me about how you have updated your skills as a classroom professional in the last 12 months.
2. Do you think of yourself as a learner? What attributes of a learner do others see in you?
3. What things hinder your professional learning? What strategies have you used to overcome these?

Research Question 2

How and why do teachers engage with professional learning throughout their careers?

Administrator Focus Groups Questions

1. From your experiences, what incentives or conditions have encouraged teachers in your school to continue their own professional learning journeys?
8. What structures do you think would encourage teachers to continue their professional learning?
9. What Education Queensland structures support teachers to be lifelong learners?

Teacher Open-ended Questionnaire Questions

1. Have you undertaken any activities that have increased your professional knowledge and/or skills in the last 3 years?
5. Do you think there any penalties for not continuing your professional learning? What are they/Why not?
10. What motivates you to try something new in the classroom?
23. Does Education Queensland support you as learner? How/why not?
24. What else could Education Queensland do, as your employer, to support your learning?

Teacher Semi-structured Interview Questions

4. What is a recent professional learning experience had you had?
5. Tell me about whether that experience changed your practice in the classroom in any way?
6. What changes did you make/why do you think your practice didn't change?
8. If you could tell 'the powers that be' one thing about professional learning, what would that be?

Research Question 3

How do schools and school systems support teacher learning?

Administrator Focus Groups Questions

2. Do you think your teachers' involvement in professional learning changes their classroom practice?
3. What evidence do you see of this?
7. What features of your school influence teachers' engagement in professional learning?

Teacher Open-ended Questionnaire Questions

6. What professional incentives do you need to encourage you to learn new things?
11. Do you enjoy trying new classroom practices? Why/why not?
12. Does changing your classroom practice affect your students' learning?
How/why not?
13. Does participating in profession learning opportunities make a difference to how you do your job? How/why not?
14. What experiences have affected your classroom practice in the past?
15. When you learn something new, is this shared with your colleagues?
How/why not?
16. Do things you and your colleagues learn about teaching effect how effectively your school does its job? How/why not?
17. Think about one effective practice in your classroom that helps students to learn.
What factors make it successful?
18. How do you know it is successful?
19. How did you learn about that practice?
20. Does your school encourage you to be a learner? How?
21. How does your school influence the professional learning you and your colleagues undertake?
22. What else could your school do to support your continuing professional learning?

Teacher Semi-structured Interview Questions

7. In the Questionnaire, you were asked if your learning influences how your school works. Talk me through a time when that happened/why do you think your learning hasn't made a difference?

Appendix 5

Excerpt from Analysis of Administrators' Focus Group Transcript

DATA RECORD Number: Administrator Focus Group
Administrator Names: [redacted]
Date & Time: 23 August, 2006 3:30pm
Interview Type: Face-to-face
Site Context: [redacted]
Gender: [redacted] 4 Female 2 Males
School sector: Primary & Secondary

Interview Summary

1. Incentive and conditions encourage teachers to learn new things?

Practical focus
Relevance
 * Price of pol. + check with teachers
 * Teachers see PD comes at the price of teaching. PD is tacked on in many cases, particularly if it's mandatory.
 A: Teachers see tangible advantages in the classroom. It fast tracks their participation or willingness. Success in everyday practice is what they want. We've been concentrating in links between student welfare and outcomes. Our interest in welfare isn't only welfare-based. It's linked to making a difference in the classroom. If people see a tangible use for what's being offered, they'll make long term commitment to initiatives and embrace them.
 D: I think what we're trying to find is relevance. Classroom teachers look at, I need to know this now so I'll go away and do it. Relevance is probably the biggy. Time too. PFDs can sometimes be good but often you're thinking, "What am I going to do?"
 A: Like that teleconference yesterday. It's been ticked off as "Done." Code of Conduct training was done after school and everyone was tired but they sat through it because it became, "I could get pinged on this."
 Whereas "Success for Boys" was great stuff but it struggled in some areas because people were going, "Yeh, but I can't do that tomorrow."
 The bigger the picture the PD initiative is, the harder it is to sell to staff.
 C: My teachers wrapped it up in a nutshell. They want practical, hands-on, project based stuff. Very focused. They want to walk away with something they can use the next day.
 D: Teachers find it very hard to look outside the classroom.
 C: A lot of the time they see top-down PD and 'having to do it' rather than something they might help them. Networking is different though. It's very difficult to organize though. Opportunities for networking happen at inservices and you spend your time talking to the people next to you rather than attending to the inservice.
 D: My other teacher has only taught in bigger schools up until now and she said the thing that she really lacks is having other early childhood teachers to even do planning with, bounce ideas off each other, share resources. We've tried but you need that community thing.
 Interviewer: From a bigger school perspective, do you see networking happening?
 B: Not really. You look around and see that strategically there should be a hub, a professional community. But do I see teachers doing it? No.

Inward focus + check in teacher interviews
 * Community needed - isolation issues + isolation in big schools
 Evidence-based
 Community
 Evidence = credibility
 Self-initiated Need for change

2. Best PD you've been involved in?
 B: It was highly organised, evidence-based, you could see examples of when it worked. We visited schools where these things were happening. You could ask questions. You didn't have to tackle the problems by yourself. Sure it was very well funded. That helped. But we saw these things for ourselves. It was really good stuff. Not being distracted by the day-to-day school stuff really helped. But in some respects, it was hard to be there because there were all these problems to deal with when you came back.
 D: In everyday work it's often us asking the questions of somebody else. When you see things actually happening and you can ask questions, they have credibility.

3. Does PD make a difference in the classroom?
 C: Change is self-initiated. People embraced RPT [welfare program] because it meant coming to work not so stressed about certain kids. It's been running for 8 years now and people still come back for refreshers because it makes a tangible difference on a day-to-day basis.

Appendix 6

Excerpt from analysis of open-ended questionnaire data

Question 7: What counts as professional learning for you?

Open Codes	Questionnaire Responses	Changes	Axial Codes	Date
A	Workshops; seminars		Access to new ideas	
B	Uni study		Access to new ideas	
C	Things that enhance teaching	Things that enhance teaching; learning pertinent to the profession	Understandings of professional learning	3.11.06
D	Learning pertinent to the profession; critical thinking; knowledge	Critical thinking; reflecting on my practice	Understandings of professional learning	
E	Reading professional journals; books on teaching	Combined with D & J	Access to new ideas	4.11.06
F	Sharing colleagues' best practices; sharing ideas; networking	Combined with P	Learning in community	5.11.06
G	Network meetings	Network meetings; professional associations	Learning in community	
H	Internet lists; websites; teleconferences		Access to new ideas	
I	Professional associations	Combined with G	Learning in community	7.10.06
J	New ideas and developments; QSA; changes in syllabuses	New ideas and developments; QSA; changes in syllabuses; knowledge	Access to new ideas	
K	Motivates me; progresses class		Understandings of professional learning	
L	Panel membership		Learning in community	
M	Planning; goals setting		Understandings of professional learning	
N	Practical classroom ideas		Understandings of professional learning	
O	Any activity associated with work or school		Understandings of professional learning	
P	Professional dialogue; discussions with colleagues	Professional dialogue; discussions with colleagues; sharing colleagues' best practices; sharing ideas; networking	Learning in community	
Q	Audio visual presentations; demos of when it works		Access to new ideas	
R	Personal development; reflecting on my practice	Personal development	Understandings of professional learning	
S	Anything outside the classroom setting		Understandings of professional learning	

AXIAL CODES: Legend

Yellow codes correspond to **understandings of professional learning**

Green codes correspond to **learning community issues**

Pink codes correspond to **the ways news ideas are accessed by individuals**

Appendix 7

Excerpt from Analysis of Teacher Semi-Structured Interview

DATA RECORD Number: [redacted] *Overarching theme*

Teacher Names: [redacted]
 Questionnaire IDs: 149, 132, 139
 Date & Time: 14 December, 2006 9:30am
 Interview Type: Face-to-face
 Site Context: Italian, English and HOD at Atherton SHS
 Years of teaching experience: 30, 35, 25
 Years at current school: [redacted]
 Gender: Female, female, male
 Age group: 41-50, 41-50, 60+
 School sector: Secondary

Interview Summary

Classroom visits
Networking
Practical stuff
Confirmation/affirmation
Quote
Colleagues
"Didn't learn as much"
Why?
(Epiphany)
Literature & Conferences
Graduates
Philosophy
Missing (something)
Each as we taught
Paradigm in staffroom
Problem -> change

1. Updated skills in the last 12 months and what incentives worked for you
 O: Probably the most valuable [pd] was I took 2 days to visit other classrooms. Another was a workshop ... where she gave us websites. It's practical stuff WOW! It was great.
 Confirms that you're doing okay. You're on the right track.
 A: The things that have been effective for me have been the same things that were effective from Day 1. That's watching your colleagues, listening and asking questions. Tapping in to the richest resource we have as a profession - and that's each other. I've learned more from my colleagues than I have from many formal pd.
 "I go back to when I was a beginning teacher about 7 million years ago and what I am now is probably a amalgam of 4 different teachers who were very influential on me at that stage. I cheery-picked what I thought was the things that worked for them. Not everything worked for me but the things I thought I could use, I did. Quite unashamedly." If I'm not changing and learning and getting better at things, I shouldn't be here.
 B: "I'll have to go back a few years ... I happened upon a problem in a classroom which I wasn't aware of ... I said, 'Hey, what am I doing? I'm not as effective as I thought I was.'" "I had a big paradigm shift largely fuelled by literature and going to conferences and listening to people who had different perspectives on teaching." I've found that professional development is what keeps me going. I've been teaching for nearly 40 years now and I still enjoy it but I have to have this stimulus from outside to look at new ideas and try new things.
 Re: Graduates "They hear about these things at college as theoretical constructs but they're not given much idea of how to put things in to practice. Or a lot of what they hear about never gets used. So they teach as they were taught or teach from the main paradigm in the staffroom ... Here's a good way or a good set of tools to teach but the actual educational philosophy underneath it isn't tapped in to ... It's the immediate 'I've got to teach this, what can I do?' Rather than adopting a complete philosophy." ... There has to be a stimulus first and that's a problem.

2. Learner O: Yes A: Yes B: ? at the moment, Yes going "back a few years"

3. Learner-type things others see in you
 Re: professional confidence "I've found a lot of people aren't confident [to share]. For a lot of people, their classroom is closed and ... I don't want to share with other people because maybe I don't think it's good enough."

4. Hindrances to professional learning? Strategies to overcome

5. Recent professional learning changed your practice?

7. Your learning influences your school?
 A: I really believe that every single committed teacher makes a difference.
 B: I think there's a reluctance to talk about education. If someone comes bouncing in [to the staffroom] and says, "That was a great lesson." There's a tall poppy syndrome to some extent. You don't big-time how things went in your lesson even if you want to share the experience with somebody and say, "How about you try this?" It's unusual that you would have a staff that would sit down and have those sorts of conversations.

Confidence - lacking in some colleagues
Prof. isolation
Prof. jealousy

Appendix 8

Excerpt from a completed Teacher Data Record

DATA RECORD Number: [redacted] *— Discovering the new*

Teacher Names: [redacted]
 Questionnaire IDs: 149, 132, 139
 Date & Time: 14 December, 2006 9:30am
 Interview Type: Face-to-face
 Site Context: Italian, English and HOD at Atherton SHS
 Years of teaching experience: 30, 35, 25
 Years at current school: [redacted]
 Gender: Female, female, male
 Age group: 41-50, 41-50, 60+
 School sector: Secondary

Interview Summary

Classroom visits
Networking
Practical stuff
Confirmation/affirmation
Quote
Colleagues
"Didn't learn it" + "Why?"
(Epiphany)
Literature + Conferences
Graduates
Philosophy
Missing (handwritten)
Teach as you're taught
Paradigm in staffroom
Problem → change
Confidence-lacking in some colleagues
Prof. isolation
Prof. jealousy

1. Updated skills in the last 12 months and what incentives worked for you
 Q: Probably the most valuable [pd] was I took 2 days to visit other classrooms. Another was a workshop ... where she gave us websites. It's practical stuff WOW! It was great.
 Confirms that you're doing okay. You're on the right track.
 A: The things that have been effective for me have been the same things that were effective from Day 1, that's watching your colleagues, listening and asking questions. Tapping in to the richest resource we have as a profession – and that's each other. I've learned more from my colleagues than I have from many formal pd.
 "I go back to when I was a beginning teacher about 7 million years ago and what I am now is probably a amalgam of 4 different teachers who were very influential on me at that stage. I cheery-picked what I thought was the things that worked for them. Not everything worked for me but the things I thought I could use, I did. Quite unashamedly." If I'm not changing and learning and getting better at things, I shouldn't be here.
 B: "I'll have to go back a few years ... I happened upon a problem in a classroom which I wasn't aware of ... I said, 'Hey, what am I doing? I'm not as effective as I thought I was.'"
 "I had a big paradigm shift largely fuelled by literature and going to conferences and listening to people who had different perspectives on teaching."
 I've found that professional development is what keeps me going. I've been teaching for nearly 40 years now and I still enjoy it but I have to have this stimulus form outside to look at new ideas and try new things."
 Re: Graduates "They hear about these things at college as theoretical constructs but they're not given much idea of how to put things in to practice. Or a lot of what they hear about never gets used. So they teach as they were taught or teach from the main paradigm in the staffroom ... Here's a good way or a good set of tools to teach but the actual educational philosophy underneath it isn't tapped in to ... It's the immediate 'I've got to teach this, what can I do? Rather than adopting a complete philosophy.'
 ... There has to be a stimulus first and that's a problem."

2. Learner O: Yes A: Yes B: ? at the moment; Yes going "back a few years"

3. Learner-type things others see in you
 Re: professional confidence "I've found a lot of people aren't confident [to share]. For a lot of people, their classroom is closed and ... I don't want to share with other people because maybe I don't think it's good enough."

4. Hindrances to professional learning? Strategies to overcome

5. Recent professional learning changed your practice?

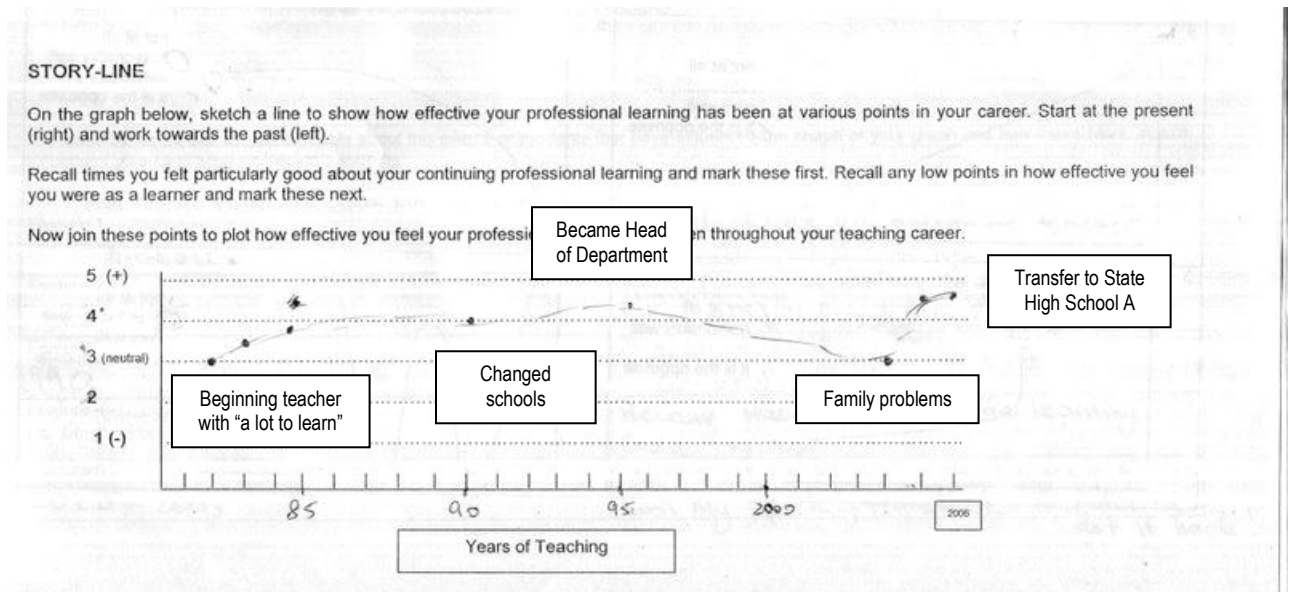
7. Your learning influences your school?
 A: I really believe that every single committed teacher makes a difference.
 B: I think there's a reluctance to talk about education. If someone comes bouncing in [to the staffroom] and says, "That was a great lesson." There's a tall poppy syndrome to some extent. You don't big-time how things went in your lesson even if you want to share the experience with somebody and say, "How about you try this?" It's unusual that you would have a staff that would sit down and have those sorts of conversations.

Excerpt from Completed Story-line

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Appendix 10

Excerpt from annotated story-line data



Appendix 11

Story-line Analysis Record

STORY-LINE ANALYSIS RECORD: 18

Teacher Name: [redacted]
 Questionnaire ID: 4005
 Date: December, 2006
 Site Context:
 Years of teaching experience: 25
 Years at current school: 3
 Gender: Male
 Age group: 41-50
 School sector: Secondary

Professional Factors Identified:
 Excellent department with great HOD
 First self chosen PD
 Moved to new school(s) (1) Excited initially → "unappreciated by headmaster"
 (2) Great principal support

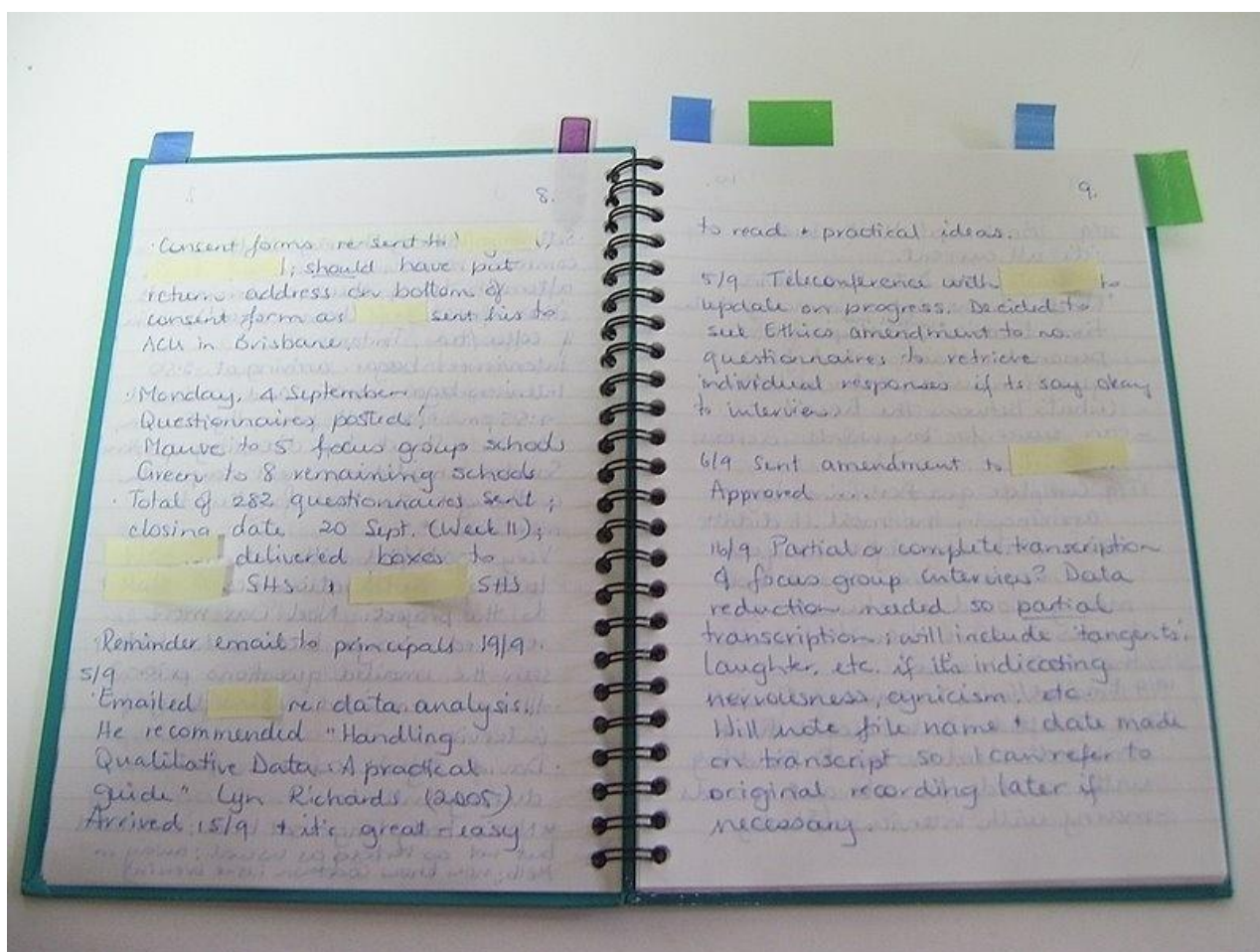
Personal Factors Identified:
 Divorce → led to relocation to new area in UK.
 Immigration to Oz
 Excited → promotion

Additional comments on PD:
 Recent relevant PD particularly good
 Personal PD was excellent because I had a need
 Need to recognise 'organic growth' in individuals and foster
 EQ needs to provide PD for new administrators in finance and HR

Handwritten notes:
 Neutral - graduation & first school placement
 Very + impact (+5)
 + (+4) to - (-2)
 Very + impact (+5)
 Very - impact (-1)
 + (+4)
 Relevance
 Personal need
 'Organic growth'

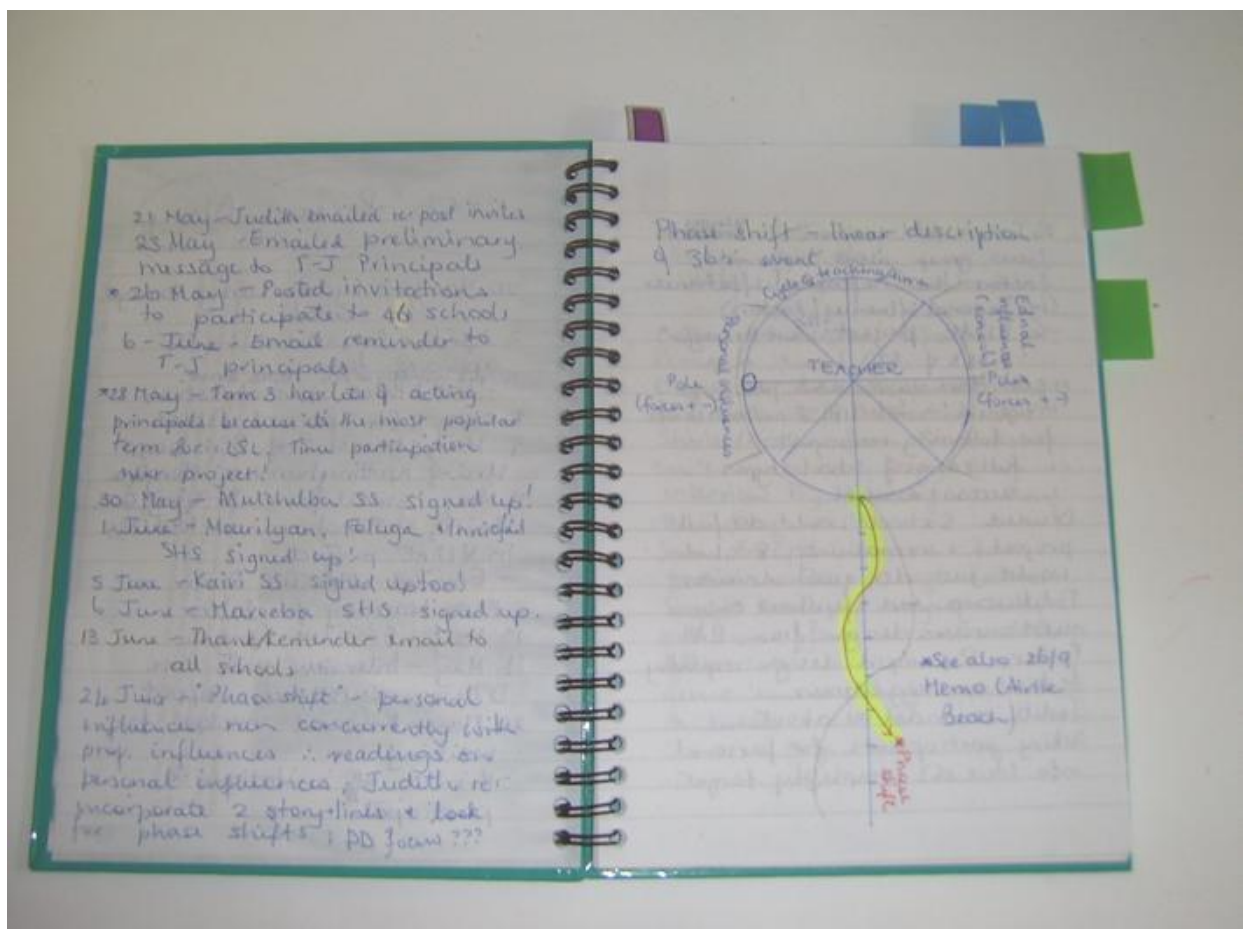
Appendix 12

Excerpts of early field log data entries



Appendix 13

Excerpt from field log as analysis tool



REFERENCES

- ABS. (2006). Census 2006. from <http://www.abs.gov.au/>
- AAEYSOC National Standards Expert Working Group. (2010). *Draft National professional standards for teachers*. Retrieved. from http://www.mceecdya.edu.au/mceecdya/npst2010-consultation-call_for_submissions,30532.html.
- Ahedo, M. (2009). Comparing the principles of adult learning with traditional pedagogical teaching in relation to the use of technology: : The tacit dimension in ICT-based University Teaching *International Journal of Web-Based Learning and Teaching Technologies* 4(1), 66-82.
- Ahlme, M., Nordenskiöld, U., Archenholtz, B., Thyberg, I., Ronnqvist, R., Linde, L., et al. (2005). Rheumatology outcomes: The patient's perspective. A multicentre focus group interview study of Swedish rheumatoid arthritis patients. *Rheumatology* 2005, 44, 105-110.
- Andriekienė, R. (2009). Problems of coherence of pedagogy and andragogy in contemporary education studies. *Teacher Education*, 12(1), 12-26.
- Anfara, V., Brown, K., & Mangoine, T. (2002). Qualitative analysis on stage: Making the research process more public. *Educational Researcher*, 31(7), 28-38.
- Ardichvili, A., Page, V., & Wentling, T. (2003). Motivation and barriers to participation in virtual knowledge-sharing communities of practice. *Journal of Knowledge Management*, 7(1), 64-77.
- Argyris, C., & Schon, D. (1978). *Organisational learning: A theory of action perspective*. San Francisco, CA: Jossey-Bass Inc.
- Ashby, C. (2009). *Teacher quality: Sustained coordination among key federal education programs could enhance State efforts. A report to the improve teacher quality*.
- Australian National Training Authority. (2000). *Turning on learning communities*. Adelaide: Dept. of Education, Training and Employment.
- Ball, D. (1996). Teacher learning and the mathematics reforms: What do we think we know and what do we need to learn? *Phi Delta Kappan*, 77(7), 500-508.
- Ball, D., & Cohen, D. (1999). Developing practice, developing practitioners. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the learning profession: handbook of policy and practice*. San Francisco: Jossey-Bass.
- Bartlett, C., & Goshal, S. (1993). Beyond the m-form: Towards a managerial theory of the firm. *Strategic Management Journal*, 14(2), 23-46.
- Baruch, Y. (1999). Response rate in academic studies — A comparative analysis. *Human Relations*, 52(4), 421-438.
- Bassey, M. (1999). *Case study research in educational settings*. Buckingham: Open University Press.
- Bath, B. (2000). The teachers' construction of knowledge. In B. Moon, J. Butcher & E. Bird (Eds.), *Leading professional development in education* (pp. 189-199). London: Routledge-Falmer.
- Beeby, M., & Booth, C. (2000). Networks and inter-organisational learning : A critical review. *The Learning Organisation*, 7(2), 75-88.
- Beijaard, D., Korthagen, F., & Verloop, N. (2007). Understanding how teachers learn as a prerequisite for promoting teacher learning. *Teachers and Teaching Theory and Practice*, 13(2), 105-108.
- Beijaard, D., Van Driel, J., & Verloop, N. (1999). Evaluation of story-line methodology in research on teachers' practical knowledge. *Studies in Educational Evaluation*, 25, 47-62.

- Benzies, K. M., & Allen, M. N. (2001). Symbolic interactionism as a theoretical perspective for multiple method studies. *Journal of Advanced Nursing*, 33(4), 541-547.
- Berliner, D. (1992). *The nature of expertise in teaching*. San Francisco, CA: Jossey-Bass.
- Berniz, K. (2004). A tension for Spanish teachers' professional development: "skills to carry out your job" or continuing "...personal cultural knowledge and attributes"? *International Education Journal*, 8(2), 27-36.
- Beynon, C., Geddis, A., & Onslow, B. (2001). *Learning-to-teach: Cases and concepts for novice teachers and teacher educators*. Toronto, On.: Pearson.
- Biddle, J. (2002). *Accelerated schools as professional learning communities*. New Orleans, LA: American educational research association.
- Biesta, G. (2007). Why "what works" won't work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory*, 57(1), 1-22.
- Billett, S. (2007). Exercising self through working life: Learning, work and identity. *Technical and Vocational Education and Training: Issues, Concerns and Prospects*, 5(2), 183-201.
- Blandford, S. (2000). *Managing professional development in schools*. London: Routledge.
- Blumer, H. (1969). *Symbolic interactionism: Perspective and method*. Englewood Cliffs, NJ: Prentice-Hall.
- Boeije, H. (2002). A purposeful approach to the constant comparative method in the analysis of qualitative interviews. *Quality and quantity*, 36, from <http://www.uu.nl/content/QQ.pdf>
- Bogdan, R., & Biklen, S. (1992). *Qualitative research in education: An introduction to theory and method* (2nd ed.). Boston: Allyn & Bacon.
- Bogdan, R., & Biklen, S. (1998). *Qualitative research in education: An introduction to theory and methods*. Needham Heights, MA: Allyn and Bacon.
- Bolman, R., McMahon, A., Stoll, L., Thomas, S., & Wallace, M. (2004). *Creating and sustaining effective professional learning communities project 2001-2004*.
- Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher*, 33(8).
- Borzak, L. (1981). *Field Study. A source book for experiential learning*. Beverley Hills: Sage Publications.
- Bowen, G. A. (2008). Naturalistic inquiry and the saturation concept: a research note *Qualitative research: Instructional empirical studies*, 8, 137-152.
- Boyd, J. (2008). *Coaching in Context*. Paper presented at the Teaching & learning and ultranet coaches initiative. from www.education.vic.gov.au/studentlearning/programs/teachlearncoaches.htm.
- Bransford, J., Brown, A., & Cocking, R. (Eds.). (1999). *How people learn: brain, mind, experience, and school*. Washington: National Academy Press.
- Brookfield, S. (1986). *Understanding and facilitating adult learning*. San Francisco: Jossey-Bass.
- Brouwer, N., & Korthagen, F. (2005). Can Teacher Education Make a Difference? *American Educational Research Journal* 42(1), 153-224.
- Brownell, M., Bishop, A., Gersten, R., Klingner, J., Penfield, R., Dimino, J., et al. (2009). *The role of domain expertise in beginning special education teacher quality (Report)*
- Buczynski, S., & Hansen, C. B. (2010). Impact of professional development on teacher practice: Uncovering connections *Teaching and Teacher Education* 26, 599-596-597.

- Burchielli, R., Pearson, P., & Thanacoody, P. R. (2002). Managing the intensity of teaching: A research agenda. Retrieved 26 April, 2009, from airaanz.econ.usyd.edu.au/papers/Burchielli_Pearson_Thanacoody.pdf
- Caldwell, B. (1998). *Self-managing schools and improved learning outcomes*. Canberra, Australia: DEETYA.
- Candy, P. (1997). *Self-directed professional development*. Toowong, Brisbane, Australia: Queensland Board of Teacher Registration.
- Carmichael, P., Fox, A., McCormick, R., Procter, R., & Honour, L. (2006). Teachers' networks in and out of school. *Research Papers in Education*, 21(2), 217-234.
- Carson, D. J., Gilmore, A., Gronhaug, K., & Perry, C. (2000). *Qualitative marketing research*. California, USA: Sage.
- Cazden, C. (1998). *Classroom discourse: The language of teaching and learning*. Portsmouth, NH: Heinemann.
- Charmaz, K. (2003). Grounded theory: Objectivist and constructivist methods. In N. Denzin & Y. Lincoln (Eds.), *Strategies for Qualitative Inquiry* (Vol. 2nd edition). Thousand Oaks, CA: Sage Publications.
- Charon, J. M. (1998). The nature of perspective. In J. M. Charon (Ed.), *Symbolic interactionism: An introduction, an interpretation, an integration* (pp. 1-12). New Jersey: Prentice Hall.
- Charon, J. M. (2001). *Symbolic interactionism: An introduction, an interpretation, an integration*. New Jersey: Prentice Hall.
- Clandinin, D. J. (1985). Personal practical knowledge: A study of teachers' classroom images. *Curriculum Inquiry*, 15(4), 361-385.
- Cochran-Smith, M., & Lytle, S. (1990). Research on teaching and teacher research: The issues that divide. *Educational Researcher*, 19(2), 2-11.
- Cochran-Smith, M., & Lytle, S. (2001). Beyond certainty: Taking an inquiry stance on practice. In A. Lieberman & L. Miller (Eds.), *Teachers caught in the action: Professional development that matters* (pp. 45-58). New York: Teachers' College Press.
- Cochran-Smith, M., & Lytle, S. (Eds.). (1993). *Inside / outside: Teacher research and knowledge*. New York: Teachers' College Press.
- Collinson, V. (2004). Learning to share, sharing to learn. *Journal of Educational Administration*, 42(3), 312-332.
- Commonwealth Department of Education Training & Youth Affairs DETYA. (2001). *PD 2000 Australia: A national mapping of school teacher professional development*. Canberra, ACT: Commonwealth of Australia.
- Commonwealth of Australia. (2003). *Australia's Teachers: Australia's Future*. Department of Education, Science and Training.
- Confessore, S. (1993). What direct observation discloses about who is best served in the multi-age classroom. *Continuing Higher Education Review*, 57(1-2), 58.
- Connelly, F., & Clandinin, D. (2000). Narrative understandings of teacher knowledge. *Journal of Curriculum and Supervision*, 15(4), 315-331.
- Coolahan, J. (2002). *Teacher education and the teaching career in an era of lifelong learning* (No. No. 2, doi: 10.1787/226408628504): OECD Publishing.
- Craig, C. (2007). Illuminating qualities of knowledge communities in a portfolio-making context. *Teachers and Teaching: theory and practice*, 13(6), 617-636.
- Cranton, P. (1994). *Understanding and promoting transformative learning: A guide for educators of adults*. San Francisco: Jossey-Bass.
- Creswell, J. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.
- Creswell, J., & Miller, D. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-130.

- Crotty, M. (1998). *The foundations of social research*. Sydney: Allen & Unwin.
- Cuttance, P., & Stokes, S. (2001). *Innovation and best practice in school innovation: pathway to the knowledge society*. Canberra: Commonwealth of Australia.
- Dahl, K. (1995). Challenges in understanding the learner's perspective. *Theory into Practice*, 43(2), 124-130.
- Dale, R. (1988). Implications for progressivism of recent changes in the control and direction of education policy. In A. Green (Ed.), *Progress and Inequality in Comprehensive Education* (pp. 39-62). London: Routledge.
- Daley, B. (2001). Learning and professional practice: A study of four professions. *Adult Education Quarterly*, 52(1), 39-54.
- Dalin, P. (1998). Developing the 21st century school: A challenge to reformers. In A. Hargreaves, A. Lieberman, M. Fullan & D. Hopkins (Eds.), *International handbook of educational change* (pp. 1059-1073). Dordrecht: Kluwer Academic Publishers.
- Dallas, F. (2003). *Enhancing teacher efficacy and resiliency through professional learning communities: A case study in middle school teacher professional development*. Unpublished Ph D, University of North Carolina Greensboro, Greensboro, North Carolina.
- Darling-Hammond, L. (2000). How teacher education matters. *Journal of Teacher Education*, 51(3), 166-173.
- Darling-Hammond, L., Chung Wei, R., Andree, A., Richardson, N., & Orphanos, S. (2009). *A Status Report on Teacher Development in the United States and Abroad* Stanford University.
- Davenport, T. H., & Prusak, L. (2000). *Working knowledge: How organizations manage what they know* (2nd ed.). Harvard, USA: Harvard Business School Press.
- Day, C., & Hadfield, M. (2004). Learning through networks: Trust, partnerships and the power of action research. *Educational Action Research*, 12(4), 557.
- Day, C., Kington, A., Stotart, G., & Sammons, P. (2006). The personal and professional selves of teachers: stable and unstable identities *British Educational Research Journal*, 32(4), 601-616.
- Day, C., Sammons, P., Stobart, G., Kington, A., & Gu, Q. (2007). Teachers Matter : Connecting Work, Lives and Effectiveness. Retrieved 17.5.09, from <http://site.ebrary.com.ezproxy1.acu.edu.au/lib/australiancathu/edf.action?p00=&docID=10197042>
- Denzin, N. K., & Lincoln, Y. S. (1994). *Competing paradigm in qualitative research. Handbook of qualitative research*. London: Sage Publications.
- Department of Education. (2000). *Queensland schools reform longitudinal study*. Brisbane: Queensland Department of Education.
- Desautel, D. (2009). Becoming a thinking thinker: Metacognition, self-reflection, and classroom practice. *Teachers College Record [0161-4681]*, 111(8), 1997-2034.
- Dewey, J. (1938). *Experience and education*. New York: Collier Books.
- Dey, E. (1997). Working with low survey response rates: The efficacy of weighting adjustments. *Research in Higher Education*, 38(2), 215-227.
- Dimmock, C., & O'Donoghue, T. (1997). *Methodology in innovative school principals and restructuring*. London: Routledge.
- Doecke, B., Parr, G., & North, S. (2008). *National Mapping of Teacher Professional Learning Project Final Report*. Canberra.
- DuFour, R., & Eaker, R. (1998). *Professional learning communities at work*. Bloomington, IN: National Education Service.

- Eales, R., Hall, T., & Bannon, L. (2002). *The motivation is the message: Comparing CSCL in different settings*. Paper presented at the CSCL '02, Colorado: Boulder.
- Education Queensland. (1990). *Focus on schools*. Retrieved from.
- Education Queensland. (1997). *Leading schools: Partnerships for excellence*.
- Education Queensland. (1998). *Future directions for school-based management*.
- Edwards, P., Roberts, I., Clarke, M., DiGuseppi, C., Pratap, S., Wentz, R., et al. (2004). Increasing response rates to postal questionnaires: Systematic review. *Public Opinion Quarterly*, 68(1), 94-101.
- Elmore, R., & Burney, D. (1997). *Investing in teacher learning: Staff development and instructional improvement in community school district #2*. New York: National Commission on Teaching and America's Future.
- Elmore, R., Peterson, P., & McCarthy, S. (1996). *Restructuring in the classroom: Teaching, learning and school organisation*. San Francisco: Jossey-Bass.
- Eraut, M. (2004). Informal learning in the workplace. *Studies in Continuing Education*, 26, 247-273.
- Ewing, R. (2006). *Framing a Professional Learning Culture: An Australian Case Study*. Sydney: School of Policy and Practice, Education Faculty, University of Sydney.
- Fishman, B., Marx, R., Best, S., & Tal, R. T. (2003). Linking teacher and student learning to improve professional development in systemic reform. Retrieved 7 January, 2005, 2005
- Fontana, A., & Frey, J. (2005). The interview. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 675-727). Thousand Oaks, CA: Sage Publications.
- Freebody, P. (2005). *Background, rationale and specifications: Queensland curriculum, assessment and reporting framework*. Brisbane: Queensland Government.
- Freeman, D. (2002). The hidden side of the work: Teacher knowledge and learning to teach. A perspective from north American educational research on teacher education in English language teaching. *Cambridge Journal of Education*, 31(1), 1-13.
- Fretchling, J., Sharp, L., Carey, N., & Baden-Kierman, N. (1995). *Teacher enhancement programs: A perspective on the last four decades*. Washington, DC: National Science Foundation Directorate for Education and Human Resources.
- Frey, J., & Fontana, A. (1993). The group interview. In D. Morgan (Ed.), *Successful focus groups: Advancing the state of the art* (pp. 20-34): Sage.
- Friedman, S., & Greenhaus, J. (2000). *Work and family - allies or enemies*. New York: Oxford University Press.
- Garavan, T., Morely, P., Gunningle, P., & Collins, E. (2001). Human capital accumulation: the role of human resource development. *Journal of European Industrial Training*, 25(2/3/4), 48-68.
- Garet, M., Porter, A., Desimone, L., Birman, B., & Yoon, K. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915-945.
- Geijsel, F., Slegers, P., Leithwood, K., & Jantzi, D. (2003). Transformational leadership effects on teachers' commitment and effort towards school reform. *Journal of Educational Administration*, 41(3), 228-256.
- Gergen, M. M. (1988). Narrative structures in social explanation. In C. Antaki (Ed.), *Analysing Social Explanation* (pp. 94-112). London: Sage.

- Gilead, T. (2009). Human capital, education and the promotion of social cooperation: A philosophical critique. *Studies in Philosophy Education* 28, 555-567.
- Goddard, R., Hoy, W., & Hoy A. (2000). Collective teacher efficacy: Its meaning, measure and impact on student achievement. *American Educational Research Journal*, 37(2), 479-508.
- Goodall, J., Day, C., Lindsay, G., Muijs, D., & Harris, A. (2005). *Evaluating the Impact of Continuing Professional Development (CPD)*: Department for Education and Skills, The University of Warwick, UK.
- Gordon, S. (2004). *Professional development for school improvement: Empowering learning communities*. Boston: Pearson Education.
- Guber, E., & Lincoln, Y. (1994). Competing paradigms in qualitative research. In E. Guber & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.
- Guskey, T., & Huberman, M. (1995). *Professional development in education: New paradigms and practices*. New York: Teachers College Press.
- Hannabuss, S. (1996). Research interviews. *New World Library*, 97(5).
- Hansen, K. (2007). The effects of incentives, interview length, and interviewer characteristics on response rates in a CATI-study. *International Journal of Public Opinion Research*, 19(1), 112-121.
- Hanushek, E. (2004). *Some simple analytics of school quality*. Cambridge, Massachusetts: National Bureau of Economic Research.
- Hanushek, E. (2009). School policy: implications of recent research for human capital investments in South Asia and other developing countries. *Education Economics*, 17(3), 291-313.
- Hargreaves, A. (1994). *Changing teachers, changing times: Teachers work and culture in the post-modern age*. New York: Teachers College Press.
- Hargreaves, A. (2000). Four ages of professionalism and professional learning. *Teachers and Teaching*, 6(2), 151-182.
- Hawley, W., & Valli, L. (1999). The essentials of effective professional development. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the Learning Profession: Handbook of Policy and Practice*. San Francisco: Jossey-Bass.
- Hayes, D., Christie, P., Mills, M., & Lingard, B. (2004). Productive leaders and productive leadership. *Journal of Educational Administration*, 42(5), 520-538.
- Hiebert, J., Gallimore, R., & Stigler, J. (2002). A knowledge base for the teaching profession: What would it look like and how can we get one? *Educational Researcher*, 31(5), 5-15.
- Hilferty, F. (2008). Theorising teacher professionalism as an enacted discourse of power. *British Journal of Sociology of Education*, 29(2), 161-173.
- Hirsh, S. (2009). *Creating effective professional learning systems to bolster teaching quality and student achievement*. Stanford: National Staff Development Council and The School Redesign Network at Stanford University
- Hoekstra, A., Beijaard, D., Brekelmans, M., & Korthagen, F. (2007). Experienced teachers' informal learning from classroom teaching. *Teachers and Teaching Theory and Practice*, 13(2), 199-208.
- Holstein, D., & Gubrium, J. (1995). *The active interview*. Sage Publications Inc.
- Hord, S. M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement*. Austin, Texas: Southwest Educational Development Laboratory.
- Hoveid, H., & Honerød Hoveid, M. (2008). Teachers' identity, self and the process of learning. *Stud Philos Educ* (2008) 27:125–136.
- Huberman, M. (1993). *The lives of teachers*. London: Cassell.

- Ingvarson, L., Meiers, M., & Beavis, A. (2003). *Evaluating the quality and impact of professional development programs*. Paper presented at the Teacher Quality: What does the research tell us?
- Ingvarson, L., Meiers, M., & Beavis, A. (2005). Factors affecting the impact of professional development programs on teachers' knowledge, practice, student outcomes and efficacy. *Education Policy Always Archives*, 13(10), 1-26.
- Ingvarson, L., & Rowe, K. (2008). Conceptualising and evaluating teacher quality: substantive and methodological issues *Australian Journal of Education*, 52(1), 5-35.
- Irani, Z., Sharif, A., & Love, P. (2009). Mapping knowledge management and organizational learning support of organizational memory. *International Journal of Production Economics*, 122, 200-215.
- James, A., Black, P., McCormick, R., Pedder, D., & William, D. (2006). Learning How to Learn, in Classrooms, Schools and Networks: aims, design and analysis. *Research Papers in Education*, 21(2), 101-118.
- Jarvis, P. (1995). *Adult and continuing education. Theory and practice* (2nd ed.). London Routledge.
- Jarvis, P. (2004). *Adult and continuing education: Theory and practice*. London: Routledge.
- Jarvis, P., & Parker, S. (2005). *Human learning: An holistic approach*. New York:: Routledge.
- Johnston, C., & Caldwell, B. (2001). Leadership and organisational learning in the quest for world class schools. *The International Journal of Educational Management*, 15(2), 94-103.
- Joyce, B., & Showers, B. (1995). *Student achievement through staff development* (2nd ed.). White Palins, New York: Longman.
- Kamberelis, G., & Dimitriadis, G. (2005). Focus groups. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (3rd ed., pp. 887-907). Thousand Oaks, CA: Sage Publications.
- Karmel, P. (1973). *Schools in Australia: A report of the interim committee for the Australian Schools Commission*. Canberra.
- Katz, S., Sutherland, S., & Earl, L. (2005). Toward an evaluation habit of mind: Mapping the journey. *Teachers College Record*, 107(10), 2326–2350.
- Keating, J. (2004, August). *School quality: School sectors and place*, Melbourne.
- Kekale, T., & Viitala, R. (2003). Do networks learn? *Journal of Workplace Learning*, 15(6), 245-247.
- Kelly, C. (1997). David Kolb, The Theory of Experiential Learning and ESL. *The Internet TESL Journal*, 3(9).
- Kennedy, M. (1991). *A research agenda on teacher learning*. Lansing,MI: National Center for Research on Teacher Learning.
- Kennedy, M. (1999). *A research agenda on teacher learning*. Lansing,MI: National Center for Research on Teacher Learning.
- Kim, A. (2000). *Community building on the web: Secret strategies for successful on-line communities*. New York: Peachpit Press.
- King, M., & Newmann, F. (2001). Building school capacity through professional associations: Conceptual and empirical considerations. *International Journal of Educational Management*, 15(2), 86-93.
- Kloos, J. (2008). Constructionism and its critics. In J. Corrigan (Ed.), *The Oxford Handbook of Religion and Emotion* (pp. 474 -489). Oxford: Oxford University Press.
- Knight, P. (2002). Learning from schools. *Higher Education*, 44, 283-298.
- Knowles, M. (1968). Andragogy, Not Pedagogy. *Adult Leadership*, 16(10), 350-352.

- Kogal, B., & Zander, U. (1999). Knowledge of the firm and the evolutionary theory of the multinational corporation. *Journal of Intellectual Business Studies*, 24, 625-645.
- Kolb, D., & Fry, R. (1975). Toward an applied theory of experiential learning. In C. Cooper (Ed.), *Theories of Group Process*. London John Wiley.
- Korthagen, F. (2004). In search of the essence of a good teacher: Towards a more holistic approach in teacher education. *Teaching and Teacher Education*, 20(1), 77-97.
- Kothari, C. R. (2008). *Research methodology: Methods and techniques* (2nd ed.): New Age Publishers.
- Krueger, R. A. (2000). *Focus groups: A practical guide for applied research* (2nd ed.): Sage Publications.
- Kubler LaBoskey, V. (2006). 'Reality check': teachers' lives as policy critique. *Teachers and Teaching: theory and practice*, 12(2), 111-122.
- Kuhn, L. (2008). Complexity and educational research: A critical reflection. *Education philosophy and theory*, 40(1), 177-189.
- Lavy, V. (2007). Using Performance-Based Pay to Improve the Quality of Teachers. *Future of Children* 17(1), 87-109.
- Le Cornu, A. (2005). Building on Jarvis: Towards a holistic model of the processes of experiential learning. *Studies in the education of adults*, 37(2), 166-181.
- Lieberman, A., & Pointer Mace, D. (2008). Teacher learning: the key to educational reform. *Journal of Teacher Education* 59(3), 226-234.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.
- Lincoln, Y. S., & Guba, E. G. (2000). The only generalisation is: There is no generalisation. In R. Gomm, M. Hammersley & P. Foster (Eds.), *Case Study Method* (pp. 27-44). London: Sage Publications.
- Lindbald, S. (2001, 27-29 June). *Education on the numbers: on international statistics and policy-making*. Paper presented at the Travelling policy/local spaces: globalization, identities and education policy in Europe, Keele.
- Lingard, B., Hayes, D., & Mills, M. (2002). Developments in school-based management: The specific case of Queensland, Australia. *Journal of Educational Administration*, 40(1), 6-30.
- Lingard, B., Mills, M., & Hayes, D. (2000). Teachers, school reform and social justice: Challenging research and practice. *Australian Educational Researcher*, 27(3), 99-115.
- Lipowsky, F., Rakoczy, R., Pauli, C., Drollinger-Vetter, B., Klieme, E., & Reusser, K. (2009). Quality of geometry instruction and its short-term impact on students' understanding of the Pythagorean Theorem. *Learning and Instruction*, 19, 527-537.
- Little, J. (1999). *Organising schools for teacher learning*. San Francisco, CA: Jossey-Bass.
- Little, J. (2002). Locating learning in teachers' communities of practice: Opening up problems of analysis in records of everyday work. *Teaching and teacher education*, 18, 917-946.
- Longhurst, R. (2010). Semi-structured interviews and focus groups. In G. Valentine & N. Clifford (Eds.), *Key methods in geography* (pp. 103-115). London: Sage.
- Lortie, D. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.
- Loucks-Horsely, S., & Matsumoto, C. (1999). Research on professional development for teachers of mathematics and science: The state of the scene. *School science and mathematics*, 99(5), 258-271.

- Luke, A., & McArdle, F. (2009). A model for research-based State professional development policy. *Asia-Pacific Journal of Teacher Education*, 37(3), 231-251.
- Lyons, A. L. (2001). Creating a community of learners among teachers: The Wineburg and Grossman model. Retrieved 24.7.2001, from <http://www.ls.sesp.nwu.edu/lc/papers/tchrcomm3.html>
- MacDonald, B. (1991). Critical introduction: From innovation to reform - a framework for analysis. In J. Ruddock (Ed.), *Innovation and Change* (pp. 1-16). Toronto: OISE Press.
- Malone, J. (1990). *Theories of learning: a historical approach*. Belmont: Wadsworth Publishing Company.
- Manning, M. (2004). Planning effective PD. *The Journal for the School Information Professional*, 8(1), 4-7.
- Markosian, N. (2004). A defense of presentism. *Oxford Studies in Metaphysics*, 1, 47-82.
- Masters, G. (2003). *Using research to advance professional practice*. Paper presented at the Teacher Quality: What does the research tell us?
- Maxfield, D. (2009). Speak up or burn out: Five crucial conversations that drive educational excellence. *The Education Digest*, 75(2), 26-30.
- Mayer, D. (2002). *Review of teaching and teacher education*. Brisbane: School of Education, University of Queensland.
- McGregor, D. (1960). *The human side of enterprise*. New York: McGraw-Hill.
- McLaughlin, M., & Talbert, J. (2001). *Professional communities and the work of high school teaching*. Chicago: University of Chicago Press.
- McRae, D., Ainsworth, G., Groves, R., Rowland, M., & Zbar, V. (2001). *PD 2000 Australia: A national mapping of school teacher professional development*. Canberra, ACT: Commonwealth of Australia.
- Meiers, M., & Ingvarson, L. (2005). *Investigating the links between teacher professional development and student learning*. Barton, ACT: ACER
- Meirink, J., Meijer, P., & Verloop, N. (2007). A closer look at teachers' individual learning in collaborative settings. *Teachers and Teaching Theory and Practice*, 13(2), 145-164.
- Merriam, S. (1998). *Qualitative research and case study applications in education: Revised and expanded from case study research in education*. San Francisco: Jossey-Bass Publishers.
- Merriam, S. (2001). Andragogy and self-directed learning: Pillars of adult learning theory *New Directions for Adult and Continuing Education*, 89(Spring).
- Metz, K. E. (2008). Elementary school teachers as "Targets and Agents of Change": Teachers' learning in interaction with reform science curriculum. In J. A. Bianchini & M. Windschitl (Eds.), *Science Teacher Education*. Berkeley, CA.: Wiley InterScience.
- Mezirow, J., & Associates. (2000). Learning as transformation: Critical perspectives on a theory in progress. In. San Francisco: Jossey-Bass.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.
- Miller, G. (1995). Agricultural education at a distance: Attitudes and perceptions of secondary teachers. *Journal of Agricultural Education*, 38(1).
- Ministerial Advisory Committee for Educational Renewal. (2004). *A creative workforce for a smart state - Professional development for teachers in an era of innovation*. Brisbane.
- Mitchell, C., & Sackney, L. (2000). *Profound improvement: Building capacity for a learning community*. Lisse, Netherlands: Swets and Zeitlinger.

- Monahan, T. (2004). Just another tool? IT pedagogy and the commodification of education. *The Urban Review* 36(4), 271-292.
- Morris, M., Chrispeels, J., & Burke, P. (2003). The power of two: Linking external with internal teachers' professional development. *Phi Delta Kappan*, 84(10), 764-767.
- Morrison, M. (2002). What do we mean by educational research? In M. Coleman & A. Briggs (Eds.), *Research Methods in Educational Leadership and Management*. London: Sage Publications.
- Neuman, W. (2000). *Social research methods: Qualitative and maintain approaches*. Sydney: Allyn and Bacon.
- New South Wales Institute of Teachers. (2009). Continuing professional development. Retrieved 25.5.10, 2010, from <http://www.nswteachers.nsw.edu.au/Continuing-ProfessionalDevelopment.html>
- Newmann, F., Marks, H., & Gamoran, A. (1996). Authentic pedagogy and student performance. *American Journal of Education*, 104(4), 280-312.
- Nichani, M. (2000). Learning through social interactions (Online communities). from elearningpost.com
- Nowlen, P. (1988). *A new approach to continuing education for business and the professions: The performance model*. New York: NUCEA.
- NSW DSE Training and Development Directorate. (1996). *Training and development, NSW Department of School Education: Policy statement*. Sydney: NSW Department of School Education.
- Nuthall, G. (2004). Relating classroom teaching to student learning: A critical analysis of why research has failed to bridge the theory-practice gap. *Harvard Educational Review*, 74(3), 273-307.
- O'Sullivan, K.-A., Carroll, K., & Cavanagh, M. (2008). Changing teachers: Syllabuses, subjects and selves. *Issues in Educational Research*, 18(2), 167-182.
- OECD. (2009). *Creating effective teaching and learning environments: First results from TALIS (full report)*. Paris, France.
- Palloff, R., & Pratt, K. (1999). *Building learning communities in cyberspace: Effective strategies for on-line*. Jossey-Bass.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.
- Pfeffer, J., & Sutton, I. (1999). Knowing what to do is not enough. *California Management Review*, 42(1).
- Preece, J. (2000). *On-line communities: Designing usability, supporting sociability*. Chichester, UK: John Wiley & Sons.
- Putnam, R. (1991). Recipes and Reflective Learning. In D. Schön (Ed.), *The Reflective Turn*. New York: Teachers College Press.
- Putnam, R., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29(1), 4-15.
- Queensland Board of Teacher Registration. (2002). *Networks @ work: A report of the Queensland consortium for professional development in education*. Toowong, Brisbane, Australia.
- Queensland Board of Teacher Registration. (2004). *A way forward: The future for teacher professional associations and networks, A report of the Queensland Consortium for Professional Development in Education*.
- Queensland College of Teachers. (2009). Professional development. Retrieved 16 May, 2010, from <http://www.qct.edu.au/renewal/PD.html>

- Queensland College of Teachers. (2010). Renewal of Teacher Registration in Queensland. Retrieved 25.5.10, 2010, from http://www.qct.edu.au/renewal/documents/QCT_FS_Renewal_of_TR.pdf
- Ramsay, G. (2000). *Quality matters: Revitalising teaching: critical times, critical choices*.
- Raskin, J. D. (2002). Constructivism in psychology: Personal construct psychology, radical constructivism, and social constructionism. In *Studies in Meaning: Exploring constructivist psychology* (pp. 1-25). New York: Pace University Press.
- Reber, A. (1993). *Implicit learning and tacit knowledge: an essay on the cognitive unconscious*. Oxford: Oxford University Press.
- Retallick, J. (1997). Workplace learning and the school as a learning organisation. In R. King, D. Hill & J. Retallick (Eds.), *Exploring Professional Development in Education*. Wentworth Falls, NSW: Social Science Press.
- Richards, L. (2005). *Handling qualitative data: A practical guide*. London: Sage Publications.
- Robert, C. (2000). Distant places, diverse spaces: early childhood professional development in isolated locations. *Contemporary issues in early childhood*, 1(3), 277.
- Robinson, R., & Carrington, S. (2002). Professional development for inclusive schools. *The International Journal of Educational Management*, 16(5), 239-247.
- Rose, H. (1991). Case studies. In G. Allan & C. Skinner (Eds.), *Handbook for Research Students in the Social Sciences* (pp. 191-200). London: The Falmer Press.
- Rowe, K. (2003). *The importance of teacher quality as a key determinant of students' experiences and outcomes of schooling*. Paper presented at the Building Teacher Quality: What does the research tell us?, Melbourne.
- Russell, C. (2008). Jarvis's Learning Process (1987), *Adult Education* (Vol. Fall).
- Sachs, J. (2003). *The activist teaching profession*. Maidenhead, Berkshire: Open University Press.
- Salaway, G. (1987). An organizational learning approach to information systems development. *Mis Quarterly*, 11(2), 245-264
- Sammons, P., Day, C., Kington, A., Gu, Q., Stobart, G., & Smees, R. (2007). *Exploring variations in teachers' work, lives and their effects on pupils: Key findings and implications from a longitudinal mixed-method study*. London: University of Nottingham and Institute of Education, University of London.
- Sarantakos, S. (1998). *Social research* (2nd ed.). Melbourne: McMillan.
- Schleicher, A. (2009). Lessons from the world. *Educational Leadership*, 67(2), 50-55.
- Schwandt, T. A. (2000). Three epistemological stances for qualitative inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (Second ed., pp. 189-213). Thousand Oaks, CA: Sage Publications Inc.
- Sefton, R., Waterhouse, P., & Cooney, R. (2009). *Workplace learning and change: the workplace as a learning environment* Retrieved from http://www.voced.edu.au/td/tnc_46.15.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday.
- Senge, P. (1993). The fifth discipline: The art and practice of the learning Organization. *Consulting Psychology Journal: Practice and Research*, 45(4), 484-491.
- Senge, P. (2000). *Schools that learn: A fifth discipline fieldbook for educators, parents, and everyone who cares about education*. New York: Doubleday.

- Shaw, R., & Perkins. (1992). Teaching organizations to learn: The power of productive failures. In D. Nadler, M. Gerstein & R. Shaw (Eds.), *Organisational Architecture* (pp. 175-192). San Francisco, CA: Jossey-Bass.
- Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-22.
- Silins, H., & Mulford, B. (2002). Schools as learning organisations. *Journal of Educational Administration*, 40(5), 425-446.
- Simkins, T., Maxwell, B. & Aspinwall, K., Developing the whole-school workforce in England: Building cultures of engagement. *Professional Development in Education*, 35(3), 433-450.
- Skilbeck, M., & Connell, H. (2003). *Attracting, developing and retaining effective teachers. An OECD education activity. Australian country background report*. Canberra: OECD.
- Small, R. (2001). Codes are not enough: What philosophy can contribute to the ethics of educational research. *Journal of Philosophy of Education*, 35(3), 387-406.
- Smith, L. (1999). *Decolonizing methodologies: research and Indigenous peoples*. Dunedin, NZ: University of Otago Press.
- Smith, M. K. (2002). Community. Retrieved 30.8.04, 2004, from www.infed.org/community/community.htm
- Spear, G. E., & Mocker, D. W. (1984). The organizing circumstance. Environmental determinants in self directed learning. *Adult Education Quarterly* 35, 1-10.
- Stake, R. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (3rd ed., pp. 444-466). Thousand Oaks, CA: Sage Publications.
- Steffe, L. P., Thompson, P. W., & von Glasersfeld, E. (2000). Teaching experimental methodology: Underlying principles and essential elements. In K. A. E. Lesh & Lesh, R. A. (Eds.), *Handbook of research design in mathematics and science* (pp. 276-306). Mahwah, NJ: Lawrence Erlbaum.
- Stoll, L., Bolam, R., McMillan, A., Wallace, M. & Thomas, S., (2006). Professional learning communities: A review of the literature *Journal of Educational Change*, 7(4), 221-258.
- Strahan, D. (2003). Promoting a collaborative professional culture in three elementary schools that have beaten the odds. *The Elementary School Journal*, 104(2), 127-146.
- Stringer, P. (2009). Capacity building for school improvement: A case study of a New Zealand primary school *Educational Research Policy Practice* 8, 153-197.
- Supovitz, J., & Poglinco, S. (2001). *Instructional leadership in a standards-based reform*. Consortium for Policy Research in Education.
- Swennen, A., & Bates, T. (2010). The professional development of teacher educators. *Professional development in education*, 36(1-2), 1-7.
- Taber, K. S. (2007). *Classroom-based research and evidence-based practice*. London: Sage Publication.
- Talbert, J., & McLaughlin, M. W. (2002). Professional communities and the artisan model of teaching. *Teachers and Teaching*, 8(3), 325 - 343.
- Teachers Registration Board of Tasmania. (2010). Requirements for teacher registration in Tasmania. Retrieved 25.5.10, 2010, from <http://trb.tas.gov.au/RequirementsforTeacherRegistrationinTasmania.pdf>
- Teachers Registration Board of the Northern Territory. (2010). Darwin.
- Temmerman, N. (2008). Teacher quality: It's not academic. *Professional Educator*, 7(1), 10-12.

- Templeton, J. F. (1994). *The focus group: A strategic guide to organizing, conducting and analyzing the focus group interview*. Probus Publishing Co.
- Thorndike, E., Bregman, E., Tilton, J., & Woodyard, E. (1928). *Adult Learning* New York Macmillan.
- Tough, A. (1967). Learning without a teacher. *Educational Research Series*, 3.
- Toutou, Y., Portaluppi, F., Smolensky, M., & Rensing, L. (2004). Ethical principles and standards for the conduct of human and animal biological rhythm research. *Chronobiology International* 21(1), 161-170.
- Tripp, D. (1993). *Critical incidents in teaching: Developing professional judgement*. London: Routledge.
- Truax, B. (1999). Composition and diffusion: Space in sound in space. *Organised Sound*, 3(2), 141-146.
- Tschannen-Moran, C., Uline, A., Woolfolk Hoy, A., & Mackley, T. (2000). Creating smarter schools through collaboration. *Journal of Educational Administration*, 38(3), 247-272.
- Tsui, A. (2009). Distinctive qualities of expert teachers. *Teachers and teaching: Theory and practice*, 15(4), 421-.
- UNESCO. (2000). The world education report 2000. Retrieved 24 April, 2004, from <http://www.unesco.org/education/information/wer/index.htm>
- Van der Linden, J., Erkens, G., Schmidt, J., & Renshaw, P. (2000). Collaborative learning. In P. Simons, J. Van der Linden & T. M. Duffy (Eds.), *New Learning* (pp. 37–54). Dordrecht: Kluwer Academic Publishers.
- van Driel, J. H., Beijaard, D., & Verloop, N. (2002). *Professional development and reform in science education: The role of teachers' practical knowledge*. Leiden, The Netherlands: ICLON Graduate School of Education, Leiden University.
- van Eekelen, F., Boshuizen, H., & Vermunt, J. (2005). Self-regulation in higher education teacher learning. *Higher Education* 50, 447-471.
- van Greenhauzein, M., & Nijcamp, P. (1999). The learning capabilities of regions: Patterns and policies. Retrieved 24 April, 2004, from <https://dare.ubvu.vu.nl/retrieve/1497/19990011.pdf>
- van Mook, W., van Luijk, S., H., O. S., Wass, V., Zwaveling, J., Schuwirth, L., et al. (2009). The concepts of professionalism and professional behaviour: Conflicts in both definition and learning outcomes. *European Journal of Internal Medicine* 20, 85-89.
- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24, 80-91.
- Victorian Institute of Teachers. (2008). Your guide to teacher registration – How to meet professional development requirements. Retrieved 25.5.10, 2010, from http://www.vit.vic.edu.au/files/documents/1602_Your-Guide-to-Teacher-Registration---Professional-Development-Requirements.pdf
- Warren Little, J. (1993). Teachers professional development in a climate of educational reform. *Educational Evaluation and Policy Analysis*, 3(2), 129-151.
- Warren Little, J. (2002). Locating learning in teachers' communities of practice: Opening up problems of analysis in records of everyday work. *Teaching and Teacher Education*, 18(917-946).
- Watkins, K., & Marsick, V. (1996). *In action: Creating the learning organization*. Alexandria, VA: American Society for Training and Development.
- Webster-Wright, A. (2009). Reframing professional development through understanding authentic professional learning. *Review of Educational Research*, 79(2), 702-739.

- Wells, G. (Ed.). (2001). *The development of a community of inquirers*. New York & London: Teachers' College Press.
- Wenger, E. (1999). *Communities of practice: Learning, meaning and identity*. Cambridge, UK: Cambridge University Press.
- Wenger, E. (2000). Communities of practice and social learning. *Systems Organization*, 7(2), 225-246.
- West-Burnham, J. (2000). Leadership for learning: Re-engineering 'mind sets'. In B. Moon, J. Butcher & E. Bird (Eds.), *Leading Professional Development in Education* (pp. 68-82). London: Routledge-Falmer.
- West Australian College of Teaching. (2009). Professional learning position paper. Retrieved 25.5.10, 2010, from <http://membership.wacot.wa.edu.au/GuideRecProfLearn.pdf>
- Whitty, G., Power, S., & Halpin, D. (1998). *Devolution of choice in education: The school, the state and the market*. Melbourne: Australian Council for Educational Research.
- Wilson, S., & Berne, J. (1999). Teacher learning and the acquisition of professional knowledge: An examination of research on contemporary professional development. *Review of Research in Education*, 24, 173-209.
- Wiseman, R. (1993). The interpretive approach. In H. Connole, B. Smith & R. Wiseman (Eds.), *Issues and Methods of Research*. Underdale, SA: University of South Australia.
- Wittrock, M. (2010). Learning as a generative process. *Educational Psychologist*, 45(1), 40-45.
- Wyatt-Smith, C., Bridges, S., Hedemann, M., & Neville, M. (2008). Designing professional learning for effecting change: Partnerships for local and system networks. *The Australian Educational Researcher*, 35(3), 1-21.
- Yeigh, T. (2008). Quality teaching & professional learning: Uncritical reflections of a critical friend. *Australian Journal of Teacher Education* 33(2).
- Yin, R. K. (1989). *Case study research: Design and methods* (Rev. ed.). Newberry Park, CA: Sage Publications.
- Yin, R. K. (1994). *Case study research: Design and methods*. Thousand Oaks, CA.: Sage Publications.
- Yin, R. K. (2003). *Case study research: Design and methods* (Third ed.). Thousand Oaks, CA: Sage Publications.
- Yin, R. K. (2009). *Case study research: Design and methods (Applied social research methods)* (4th ed.). Thousand Oaks, CA: Sage Publications Inc.
- Zuber-Skerritt, O. (1995). *Models for action research*. Brisbane: ALARPM Association.
- Zwart, R., Wubbles, T., Bergen, T., & Bolhuis, S. (2007). Experienced teacher learning within the context of reciprocal peer coaching. *Teachers and Teaching*, 13(2), 165-187.