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The Professional Learning Landscape
for Teen Parent Educators in New Zealand
A thesis presented in partial fulfilment of the requirements for the degree of
Doctor in Education at Massey University, Manawatū, New Zealand.
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Abstract

Teen Parent Units (TPUs) are a unique context in the New Zealand educational system. The purpose of this study was to explore the professional learning landscape for teen parent educators in New Zealand, using the qualitative in-depth case studies of three TPUs. Drawing on the theoretical framework of complexity theory and interpretative phenomenological analysis (IPA), the study provided a rich description of practice and teachers' perceptions of their professional learning experiences, opportunities, and practice. The study considered teacher professional learning using three recursive subsystems: the teacher subsystem, the context subsystem, and the activity subsystem, to develop a more nuanced understanding of teacher professional learning in the teen parent context. Listening to educators in this space revealed that not only is professional learning a complex system but also proposes that a fourth subsystem—the student subsystem—is needed to understand the professional learning landscape in this space.

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Chapter One: Introduction

Professional learning is central to the importance for improving schools, increasing teacher quality, and improving the quality of student learning (Alton-Lee, 2011; Avidov-Ungar, 2016; Cole, 2012; Opfer & Pedder, 2011). The focus on the nature, the process, and the impact of teacher professional learning has increased in conjunction with discussions about the role of teaching in a global 'knowledge economy' (Alton-Lee, 2011; Cole, 2012; Doecke, Parr, & North, 2008; R. Mitchell, 2013), and more accountability within a world of increasingly diverse societies (Alton-Lee, 2003, 2011; Timperley, Wilson, Barrar, & Fung, 2007). This interest coincides with the expectation for teachers to provide young people with opportunities to succeed in a fast changing world (Cole, 2012)—a world which is fluid and where a teacher's professionalism is shaped by the external environment (Evans, 2008; Sachs, 2016).

Given that the professional learning landscape has steadily expanded (Evans, 2018) over the last few decades, it is not surprising that variations of what is commonly understood by the term *professional learning* exist (Cole, 2012). Historically, much educational research has focused on the nature of professional development programmes and their effectiveness rather than delving into the complexities of professional learning, which include teacher perceptions of professional learning in their everyday working life (Alton-Lee, 2011; Avidov-Ungar, 2016; Evans, 2018; Keay, Carse, & Jess, 2018; Opfer & Pedder, 2011). Moreover, teacher professional learning has been viewed as discrete one-off activities rather than a continuum of learning starting with pre-service education and continuing throughout a teacher's career (Beck & Kosnik, 2014; Darling-Hammond & Bransford, 2005; Doecke et al., 2008; Webster-Wright, 2009).

Recent research suggests that we need to embrace the conceptualisation of professional learning (Cochran-Smith, Ell, Ludlow, Grudnoff, & Aitken, 2014; Opfer & Pedder, 2011). Opfer and Pedder (2011) argue that if we oversimplify professional learning then we "fail to consider how learning is embedded in professional lives and working conditions" (p. 376) of teachers in unique contexts. To address these

concerns, we are seeing the emergence of a growing body of research which notes the need to not only focus studies on professional development programmes but also consider the contextual and teacher influences of professional learning (Cochran-Smith et al., 2014; Ell et al., 2017; Jörg, Davis, & Nickmans, 2007; Opfer & Pedder, 2011).

Jörg et al. (2007) argue that a theory of complexity is needed to "grasp the complex processes of learning" as the "present paradigms in the field of education are based on physicalism or linearity thinking" which "neglect the inherent complexity of educational reality" (p. 145). This argument is supported by other scholars, who agree that professional learning should be considered holistically to account for the web of relationships which influence teachers and their learning (Cameron, Mulholland, & Branson, 2013; Clarke & Hollingsworth, 2002; Devine & McGillicuddy, 2016; Goos, 2013; Korthagen, 2010, 2016; Kwakman, 2003; Opfer & Pedder, 2011; Timperley & Alton-Lee, 2008; Timperley et al., 2007).

Recognising that professional growth is complex, this study is a response to the call for professional learning to be researched holistically rather than in parts (Cochran-Smith et al., 2014; Jörg et al., 2007; Opfer & Pedder, 2011). Specifically, this study will research professional learning through listening to teachers' voices—listening for the nuances of the interactions and intra-actions of their professional learning experiences, opportunities, and practices in the unique contextual setting of Teen Parent Units (TPU): an alternative education provision in New Zealand.

1.1 Alternative Education

With no commonly understood or accepted definition of alternative education, scholars view alternative education as any activity that falls outside of the mainstream/regular classroom (Chalker, 1996; Siegrist et al., 2010; te Riele, 2007; Wilson, Stemp, & McGinty, 2011). In New Zealand, alternative education is a term used to refer to the provision of education for disengaged students. It can refer to TPUs, activity centres, alternative education and satellite units, all examples of programmes that can be physically located either on or off a mainstream school site, or more generally, it can refer to programmes of work with students, aged 13-16, who are

disengaged from mainstream schooling (Bruce, 2005; Education Review Office, 2011a, 2011c; Ministry of Education; Schoone, 2010). It is important to note that there are also a number of students who, while they may fit the disengaged from mainstream schooling definition, may not be enrolled in any of the programmes defined above as they have either fallen through the cracks, or alternatively, they may be enrolled with a private training provider or the correspondence school.

A consequence of the lack of a commonly understood definition for 'alternative education' is a lack of evidence-based data. In fact, the actual number of alternative education students enrolled, in New Zealand, is not known and could vary depending on the definition used. This variability and lack of data also applies to the number and types of alternative education programmes. As Siegrist et al. (2010) note, this lack of data adds complexity to the alternative education environment.

The concern of young people disengaging from mainstream/regular education without formal qualifications and/or the skills needed for the economic environment is not a new one (O'Brien, Thesing, & Herbert, 2001; SmithBattle, 2006; te Riele, 2007). Governments of individual countries, and the world as a whole, including the New Zealand Government, have a focus on economic growth and see education as contributing to the economy (Basch, 2011; Bissell, 2000; Kim & Taylor, 2008; Lagana-Riordan et al., 2011; O'Brien et al., 2001; Siegrist et al., 2010; te Riele, 2007; Wilson et al., 2011). The focus on education aligns with the Organisation for Economic Cooperation and Development (OECD) documented evidence that correlates the relationship between the impact of lower levels of leaver qualification and the difficulty of entering into and remaining in the workforce (OECD, 2011). The cost of the economic impact of drop-outs through the disengagement of students from mainstream education focuses not only on the reduced earnings for individuals, but also the "social and economic cost to the rest of the nation" (Siegrist et al., 2010, p. 133). If a young person disengages from school, it is more likely, they will be unemployed, earn less, suffer from health issues such as depression, drug and alcohol abuse, commit acts of violence, and be incarcerated, all of which have a social cost to a country (Collins, 2010; Lagana-Riordan et al., 2011). Therefore, government goals often include goals to minimise the impact of disengagement of young people. These goals are likely to be stated in terms of desiring better educational outcomes for young people which in turn will improve the economic and social position of the individual and the country (Ministry of Education, 2011).

Alternative schools/programmes are one initiative aimed to minimise the long-lasting consequences of underachievement and dropping out of school (Lagana-Riordan et al., 2011; Rumberger, 2011; te Riele, 2007). In the New Zealand context, the 1995 Education and Science Select Committee recommended providing "alternative education for students who had opted out of school for a variety of reasons" (Baragwanath, 1997, p. 99). The growth of alternative schools during the 1990s can be attributed, in part, to the belief that one size does not fit all and a non-traditional school environment would improve outcomes for students (Baragwanath, 1997; Kim & Taylor, 2008; Vaithianathan, Maloney, Wilson, & Staneva, 2017).

However, the growth in alternative education options (Kim & Taylor, 2008; O'Brien et al., 2001; te Riele, 2007; Wilson et al., 2011)—and the individualised nature of alternatives—means that the evaluation of an alternative education programme is difficult to measure (Thomson & Russell, 2009). While the data around the provision of alternative education is not precise, particularly for community-based programmes, there is some data around Ministry of Education funded alternative education provision in New Zealand. Currently, we know that in New Zealand there are 23 TPUs (Vaithianathan et al., 2017) and 14 activity centres (Education Review Office, June 2013). Furthermore, some data can be found in the evaluative reports of the Education Review Office (Education Review Office, 2007, 2011a, 2011c, 2018, June 2013, October 2014).

The challenge for these alternative programmes is to improve learner outcomes while minimising the impact of social and economic outcomes of disengagement. At the same time there must be flexibility for alternative education providers to address the needs of disengaged learners through the provision of a programme based on the context in which they are situated, for example, some alternative education provisions

provide a wraparound approach that includes health professionals being part of the programme to minimise the impact of health related issues for the student and enable students to gain qualifications (Clark et al., 2010). New Zealand TPUs are a specific example of the wraparound approach. They provide not just education for the teen parent but also remove potential attendance barriers with the provision, in most cases, of attached child care facilities on site, transport to and from home for the teen parent and child(ren), and a curriculum which focuses on both academic and pastoral needs of the learner.

Despite the laudable aims of alternative education, the growth of alternative education schools over time has also engendered a negative perception of these environments. With a lack of data around the quality of the provision and the successful outcomes for students, it is difficult to change community attitudes towards them (Kim & Taylor, 2008; O'Brien et al., 2001; Schoone, 2010). In a deficit-oriented paradigm the blame is often on the low-socioeconomic strata for students' failure to learn, rather than a probe into systemic factors that can impact on student outcomes (Bryson, 2010; Kim & Taylor, 2008; Peterson, Rubie-Davies, Osborne, & Sibley, 2016) factors such as tracking students, inequalities in financing the alternative environment, lack of curriculum differentiation and low teacher quality. In the USA and UK, Bryson (2010) maintains that stereotyping the complexities of young people's lives brands them as either mad, bad, or sad. For TPUs in particular, one example of a deficitorientation is the assumption that teen parents are 'irresponsible' and therefore, they should lose some of their parental autonomy and have choices taken away (Pillow, 2004). Pillow goes on to note that it is society's perception that it has a "vested interest in the economic viability of the teen mother" that "justifies prescriptive policy interventions, including where and how the teen mother manages her child" (p. 167). This view appears to be behind the New Zealand Government's introduction of the Young Parent Payment (YPP) policy in 2012 (Ministry of Social Development, 2014; Work and Income) that requires teen parents to be enrolled and attending some form of education before receiving a benefit payment that increases upon the completion of a budgeting and/or parenting course.

The Education and Science Committee (1995 as cited in O'Brien et al., 2001) indicate that it is a lack of research evidence that hinders the understanding of successful attributes in alternative education. Although staff engagement in ongoing professional learning has been identified as a characteristic of effective alternative programmes (National Alternative Education Association, 2009), there is little evidence of what teacher professional learning in this context looks like and no measure of how successful professional development programmes in this setting are (O'Brien et al., 2001), or indeed, whether the uniqueness of the educational environment creates a requirement for professional learning opportunities to be different to mainstream schools. As O'Brien et al. (2001) note, teachers working in an alternative environment "assume a qualitatively different role to mainstream teachers" (p. 33) that involves them needing to have the knowledge of multiple approaches in order "to handle every individual student's needs in the learning situation" (p. 24). They require skills such as conflict resolution, social work, and counselling. The National Alternative Education Association (2009) contends that there should be support for teacher professional learning in alternative environments. It suggests that this support could be in the shape of written professional learning plans based on teachers' identified learning needs with opportunities for professional learning based on quality research and best practices.

Given the limited literature that explores holistically the influences of teacher professional learning (Cochran-Smith et al., 2014; Opfer & Pedder, 2011) and less research in the alternative education setting (Baragwanath, 1997; Collins, 2010; Fergusson & Woodward, 2000), this study aims to address this gap. Specifically, this exploratory study, situated in the unique alternative education environment of New Zealand TPUs, explored teacher perceptions of their professional learning experiences, opportunities, and practices.

The impetus for this study came from my personal experience as a facilitator of professional learning for educators. My work with TPU teachers-in-charge through the Schooling Improvement Project (2009-2011) sparked an interest in understanding the professional learning landscape. This spark was lit at the first national hui where

teachers-in-charge told us, the facilitators, that we did not understand their context or their learning needs. Walking alongside these educators as part of the Schooling Improvement Project highlighted the need to tell their story, to make their situation clearer through providing a mapping of current and potential future focused professional learning experiences, opportunities, and practices.

1.2 History of Teen Parent Units in New Zealand

Within New Zealand, TPUs are an alternative education provision for pregnant or parenting teens. The underlying purpose of these units is for teen parents to be able to continue their education with minimal disruption to their learning. However, despite the attention teen pregnancies receive and the extensive research around pregnant and parenting teens, there is little educational research specific to their context (Collins, 2010; Pillow, 2004; Vaithianathan et al., 2017). Most research in this environment "is repeatedly situated as a psychological, health, or social welfare issue, not as an educational issue" (Pillow, 2004, p. 4).

The first community based TPU was established in 1994 by Porirua College as a school within a school. Responding to a high incidence of teenage mothers who were known to have dropped out of school (Baragwanath, 1997; Vaithianathan et al., 2017), the purpose of the unit was to provide a holistic alternative for teen mothers to access education and gain qualifications. A number of other community based TPUs followed, each with their own unique character in response to local community needs.

These early teen parent initiatives were funded from the social welfare vote. Given that young mothers were deemed to be 'at-risk' of either dropping out or had already dropped out of school, it was seen as appropriate that the state-funded Crime Prevention Unit allocated financial assistance for the community-based alternative schools. It was not until 2004 that the resourcing of TPUs fell under vote education (Ministry of Education, 2004). This shift from welfare to education resourcing resulted from the lobbying of the Association of Teen Parent Educators New Zealand (ATPENZ)—the professional body for teen parent educators established in 2002.

From 1994 to 2006 the number of TPUs grew to 18. The location of these units spread from Whangarei to Christchurch. In 2006, a moratorium was put in place by the Ministry of Education to identify if more TPUs were needed. Between 2006 and 2017 a further five units were established bringing the current total of Ministry of Education funded TPUs in New Zealand to 23 (Vaithianathan et al., 2017). It must be noted that, in 2014, in response to concerns that not all teen parents could access a unit for their education due to either access or capacity issues, the Ministry of Education ran a yet to be evaluated pilot programme supporting teen mothers to continue their education in their local school (Vaithianathan et al., 2017).

TPUs are viewed as attached units and are governed by a New Zealand secondary school Board of Trustees. Each governing school has a memorandum of understanding between themselves and the Ministry of Education. However, operationally, TPUs receive independent funding and staffing entitlement, for example, for every 10 students the unit is entitled to one teacher. In each case, TPUs are funded as decile 1A school, thus recognising the uniqueness of such units and the needs of the teen parents. Rolls in a TPU vary, depending on context, from 20 to 50 students. Overall, TPUs cater for the educational needs of approximately 750 to 800 teen parents in any one year, with at least half of these students identified as priority learners (Education Review Office, August 2012).

With respect to the provision of teen parent education in New Zealand, a national Education Review report (Education Review Office, 2007) and an independent report (Evaluation Associates Ltd., 2008) highlighted the need for ongoing teacher professional development. Specific competencies highlighted in these reports included teacher skills in data analysis to inform self-review, practice, and the monitoring of student progress. As a result of these reports, the Ministry of Education undertook to provide targeted support for staff involved with teen parent education through a national schooling improvement project which ran from 2009–2011. The Schooling Improvement Project was designed to support the teachers-in-charge to develop their leadership capability and raise student achievement through the strengthening of teaching and learning practices.

Although there is some research emerging from New Zealand TPUs (Collins, 2010; Vaithianathan et al., 2017), there is a paucity of literature that considers teacher professional learning in the teen parent setting.

1.3 Research Objective

The overall objective of this research was to explore the professional learning landscape for teen parent educators in in New Zealand. The study was designed to ascertain the understanding of the experiences, opportunities, and practices of teacher professional learning in the teen parent context in order to inform practice and/or policy.

1.4 Research Questions

Two overarching research questions guided this study:

- 1. What is the nature of professional learning within TPUs in New Zealand?
- 2. How do staff perceive their professional learning experiences, opportunities, and practices?

1.5 Overview of Chapters

This thesis is divided into seven chapters. This first chapter introduces the research and sets the context in which the research is located. It highlights the significance of the research, the lack of research literature concerning the teen parent educational context alongside the need for more inclusion of teachers' voice around their professional learning. The chapter concludes with the research objectives and questions that guide the study.

Chapter two reviews the relevant literature to provide an overview of the professional learning landscape as sourced from mainly mainstream educational programmes. Adopting a holistic approach proposed by Opfer and Pedder (2011), the various influences of professional learning are discussed using three recursive subsystems: *the teacher subsystem; the context subsystem; and the activity subsystem.* The chapter concludes with the rationale for using complexity theory as a framework for this research.

Chapter three presents the methodology employed for the study. It situates the research and the researcher, gives consideration to complexity theory as a theoretical framework with the use of interpretative phenomenological analysis as a tool, and outlines the research design.

Chapters four—six present the findings of each case. Discussion within each of the case chapters are organised around the three subsystems as proposed by Opfer and Pedder (2011). Drawing on interview, document, and observational data from each TPU, the findings provide a snapshot of the individual professional learning landscapes.

Chapter seven draws together the individual case findings under three significant themes: *uniqueness; community of learners; and motivation for learning*. In doing so, the web of relationships between the influences of teacher professional learning emerge as a complex system (Cochran-Smith et al., 2014; Ell et al., 2017; Opfer & Pedder, 2011). Arising from the findings, five implications for practice, future areas of research are noted, and the limitations of the study are acknowledged. This is followed with some concluding remarks from the researcher.

Chapter Two: Literature Review

Professional learning in our 'knowledge economy' (Cole, 2012; Doecke et al., 2008; R. Mitchell, 2013) serves "both a 'political' purpose as well as a capability one" (Sachs, 2016, p.414). This chapter reviews literature, both international and national, pertaining to the teacher professional learning landscape within a dynamic and politically charged environment. In doing so, the literature review unpacks three different subsystems of professional learning: the teacher; the context; and the professional learning activity—offering a critical review of the ways in which these subsystems combine and interact with one another. To better understand the multifaceted phenomenon of teacher professional learning, the review also considers the interaction of influences/drivers found within each subsystem.

The review is divided into five sections. Overviewing the professional learning landscape, the first section of the literature review profiles the changing understanding of professional learning in the field of education. The second, third, and fourth sections review literature pertaining to the three subsystems—the teacher subsystem, the context subsystem, and the activity subsystem—as proposed by Opfer and Pedder (2011), taking theories of learning into consideration. The last section provides a rationale for professional learning to be researched using the lens of complexity theory.

2.1 Professional Learning Landscape

There are several varied and interchangeable terms for professional learning (Evans, 2014; O'Brien & Jones, 2014; Opfer & Pedder, 2011; Timperley et al., 2007). Understanding of the term professional learning is influenced by one's individual perspective (Cole, 2012) and personal history (Hardy & Edwards-Groves, 2016). Amid the variability, there is a growing body of research that conceptualises professional learning as an umbrella term that overarches all other terms (Doecke et al., 2008; Evans, 2014; Timperley et al., 2007). For example, Timperley et al. (2007) argue that professional development is the learning activity or the 'delivery' system which sits under the umbrella term of professional learning. In contrast, Doecke et al. (2008)

contend that despite a range of terms being associated with teacher professional learning, there is a consensus that 'professional learning practices' overarches these.

Within this diversity, there is, however, agreement that professional learning should not to be regarded as a discrete one-off activity. Rather, it is a continuum which for teachers starts with pre-service education and continues throughout their career (Beck & Kosnik, 2014; Darling-Hammond & Bransford, 2005; Doecke et al., 2008; Feiman-Nemser, 2001; Webster-Wright, 2009). Like other professionals, teachers should update and extend their professional knowledge and practice throughout their career (Cole, 2012; Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011). That is, professional learning is both a "professional and personal obligation" which enables teachers to develop their capacity "within a changing socio-economic climate" (Doecke et al., 2008, p. 259).

2.1.1 What does professional learning involve?

Cole (2012) contends that an individual's "definition of professional learning influences the practices that are adopted" (p. 3); a contention supported by Hardy and Edwards-Groves (2016) who found, in their study of teachers in an Australian school, that professional learning practices are influenced by previous learning experiences and linked to specific contexts. As a consequence, professional learning practices will be varied, have multiple purposes such as promoting the awareness of a new policy, developing teacher capability, or embedding and refining strategies in the classroom, and include different models and activities (Akiba, 2012; Cole, 2012; Doecke et al., 2008; A. Kennedy, 2014). These practices range from formal, for example, conferences and workshops, to informal professional learning experiences such as talking or interacting with a colleague.

The length of a professional learning experience may be short, as in a passing comment from a colleague or a day's workshop. Alternatively, the professional learning experience may be sustained over a period of time, as in personal study, teacher inquiry, or participation in a professional learning community. Although there are various forms of professional learning opportunities and experiences, Timperley et

al. (2007) found no "particular professional learning activity, or form, as being more effective than others" (p. xxxv). Rather, what was important was for teachers "to engage in multiple and aligned opportunities that supported them to learn and apply new understandings and skills" (p. xxxv).

While it is easy to identify different professional development designs, Clarke and Hollingsworth (2002) argue that it is not so clear what the process is "by which teachers grow professionally" or what the conditions are "that support and promote that growth" (p. 947). Taylor (2015) suggests that one way to advance our understanding is to listen to teachers' perceptions of how their professional learning experiences and opportunities support their learning.

2.1.2 What influences professional learning?

Teacher professional learning is more complex than a professional development programme and cannot be simplified to one single formula or set of criteria (Cochran-Smith et al., 2014; Evans, 2014; Opfer & Pedder, 2011; Pedder & Opfer, 2011; P. Taylor, 2015; Timperley et al., 2007). Rather it is a complex web of relationships influenced by intra-personal, interpersonal, and systemic determinants (Clarke & Hollingsworth, 2002; Opfer & Pedder, 2011).

Guskey (2002) posits that the goal underpinning any professional development is the goal of improving education. While the goal is laudable, Guskey argues that too many programmes fail because they do not "take into account two crucial factors: (1) what motivates teachers to engage in professional development; and (2) the process by which change in teachers typically occurs" (p. 382). Interrelated influences identified in a number of studies (Borko, 2004; D. Cohen, Moffitt, & Goldin, 2007; Cole, 2012; Doecke et al., 2008; Guskey, 2002; Knapp, 2003) include the individual teacher's perspective (Cole, 2012) and personal history (Hardy & Edwards-Groves, 2016) of professional learning. Importantly, Doecke et al. (2008) note the importance of "cultural, curriculum, policy and political factors" (p. 18) arguing that professional learning practices are therefore "profoundly influenced by differences in context" (p. 19). Moreover, Borko (2004) highlights how cultural influences such as an individual

teacher's personal qualities, characteristics, and beliefs influence professional learning, and Cole (2012) identifies the variables which influence to be leadership, context, learning culture, and delivery model.

External influences such as national reform agendas (D. Cohen et al., 2007; Darling-Hammond & McLaughlin, 2011; A. Hargreaves & Fink, 2000; Imants, 2002; Parise & Spillane, 2010; Spillane, 1999) can also influence teacher professional learning. However, notably, an external reform agenda's desired outcome may or may not be achieved, with impact variability attributed to interpretations of policy at the national, local, and school level (D. Cohen et al., 2007; Knapp, 2003), for example, Imants' (2002) review of structural changes and instructional innovations implemented as part of inclusion reforms in Dutch elementary schools, found that changing school structures did not necessarily change "the beliefs, habits, knowledge, and skills that underlie the instructional practice of teachers" (p. 728)—one of the crucial factors identified by Guskey (2002) for improving education. There is a strong argument that to change teachers' instructional practice, the vision underlying a nation's reform agenda must support teachers to inquire into their own practice and for the learning to be constructed around teachers' questions and concerns (Anthony, Hunter, & Hunter, 2018; Darling-Hammond & McLaughlin, 2011; Timperley, 2010; Timperley, Kaser, & Halbert, 2014). Such inquiry requires evidence from the teachers' own contexts to inform the focus of their inquiry, and is likely to be cyclical, involving several iterations based on the evaluation of each cycle. Another driver that may influence professional learning is the notion that teacher professional standards support or hold teachers accountable to build capacity and capability. This is especially so where teacher professional standards mandate requirements for teachers to provide evidence of professional learning throughout the stages of their career (Doecke et al., 2008; Koster, Dengerink, Korthagen, & Lunenberg, 2008). However, some researchers (Doecke et al., 2008; Sinnema, Meyer, & Aitken, 2017) contend that attempts to formalise professional learning through teacher professional standards can create a tension between an individual's pursuit of learning and learning required by a school's system for accountability purposes. In mapping the professional learning landscape in Australia, Doecke et al. (2008) identified this tension and argued that to minimise the

impact there is a need to facilitate teacher inquiry which will directly address the challenges teachers face. Sinnema et al. (2017) suggest that teacher inquiry is used to minimise tensions through the use of an "inquiry-oriented model that prompts explicit integration of theory and practice" (p. 9). Like Doecke et al., they argue that an inquiry-oriented approach must enable teachers to focus on teaching and learning matters rather than any particular knowledge, skill or disposition. Such an approach acknowledges that the nature of teaching is a "complex, situated, and an active enterprise" (p. 9) with multiple influences, sometimes unknown as each learning and teaching situation is unique.

Given the variety of influences and differing perspectives of professional learning, it follows that a number of studies highlight the complexity of teacher professional learning (Cochran-Smith et al., 2014; Ell et al., 2017; Opfer & Pedder, 2011; Timperley et al., 2007). Several scholars note that while it is possible to study the individual influences of professional learning, care is needed to ensure the professional learning is viewed holistically to yield a deep understanding of the phenomenon (see Cochran-Smith et al., 2014; Evans, 2014; Opfer & Pedder, 2011; Timperley et al., 2007; Webster-Wright, 2009). Within this holistic framework a growing body of educational research, emerging under a framework of complexity theory, challenges the traditional linear causality assumptions (Cochran-Smith et al., 2014; Davis & Sumara, 2012; Ell et al., 2017; Jörg et al., 2007; Koopmans, 2014, 2017; Opfer & Pedder, 2011; Radford, 2006).

Complexity theory draws attention to the interconnectedness of influences and sees connections between individual or sets of influences within systems. Paradoxically, however, a phenomenon such as professional learning needs to be simplified first to be understood with the challenge being "to simplify in a manner that preserves a sufficient sense of the inherent complexity (Jörg et al., 2007, p. 148). One such simplification for the study of professional learning is proposed by Opfer and Pedder (2011), who posit professional learning is studied using three overlapping subsystems: the teacher; the school; and the activity. They argue that not just each individual system, but also the relationship between, and within each organisational system requires further exploration. The following sections of this literature review discuss the

three subsystems and the variables within them as proposed by Opfer and Pedder (2011) as a structure to review the teacher professional learning landscape of teachers within this current study.

2.2 Teacher as a Subsystem

The first subsystem of professional learning to consider is the *teacher*. The teacher subsystem involves many variables that contribute to how a teacher teaches and how they learn. The constitution of the professional learning landscape for each teacher will be influenced by varying permutations and combinations of their personal understanding of teaching and learning. These influences include:

- existing knowledge, theories, and practices (Fairbanks et al., 2010; Fraser, Kennedy, Reid, & McKinney, 2007; Hardy & Edwards-Groves, 2016; Opfer, Pedder, & Lavicza, 2011);
- their disposition to learning (Cameron et al., 2013; Shulman & Shulman, 2004;
 Timperley, 2010; Timperley et al., 2007);
- their own attitudes and beliefs (de Vries, van de Grift, & Jansen, 2014; Fives & Buehl, 2008; Meirink, Meijer, Verloop, & Bergen, 2009; Van Driel, Bulte, & Verloop, 2007);
- their motivation to participate in professional learning (Avidov-Ungar, 2016;
 Guskey, 2002; McMillan, McConnell, & O'Sullivan, 2016); and
- their career stage (Beck & Kosnik, 2014; Richter et al., 2011; Vermunt & Endedijk,
 2011).

While each of these can be considered separately, they are variables which combine to make up who individuals are as teachers, how they learn, and how they teach.

Consideration of these variables, which contribute to the teacher subsystem and their interconnectedness, is explored further.

2.2.1 Teacher learning

Teachers bring their own histories and socio-cultural experiences to their learning (Fraser et al., 2007; Hardy & Edwards-Groves, 2016; Jurasaite-Harbison & Rex, 2010; Kelly, 2006; Nolan & Walshaw, 2012; Opfer et al., 2011). To illustrate how teachers' learning practices are located simultaneously in both the past and the present, Hardy

and Edwards-Groves (2016) studied teachers from 26 primary schools in rural Australia. They found teacher learning was "intrinsically 'ecologically' related to teachers' practices" (p. 538) and provided teachers' insights into the "inextricable connectedness between earlier professional learning and later learning practices" (p. 551). Their study exemplified a collaborative approach to professional learning with teachers' learning practices presented as a bundle of social practices which 'hung together' through the common focus of improving outcomes for student learning.

Collaborative practices reflecting the socio-cultural nature of teacher learning are discussed in the work of several key researchers (see Clarke & Hollingsworth, 2002; Desimone, 2009; Goos, 2013; Kelly, 2006; Korthagen, 2010; Lave & Wenger, 1991; Opfer & Pedder, 2011). Given that teacher practice is perceived to occur in a professional context, a situative perspective provides an appealing theory for teacher learning (Clarke & Hollingsworth, 2002). However, with numerous competing theories of learning in the field of education (Jörg et al., 2007), it is only one possible theory. While it is not feasible to discuss all of these in this review, consideration needs to be given to some alternative perspectives that are particularly relevant to this study.

Researchers agree that teacher professional learning should be considered holistically to enable understanding of the web of relationships between teachers and their learning (Cameron et al., 2013; Clarke & Hollingsworth, 2002; Goos, 2013; Guskey, 2002; Korthagen, 2010, 2016; Kwakman, 2003; Opfer & Pedder, 2011; Timperley & Alton-Lee, 2008; Timperley et al., 2007). The early work of Guskey (1986) challenged behaviourist teacher learning theories. In arguing that most professional development programmes were "a systematic attempt to bring about change—change in the classroom practices of teachers, change in their beliefs and attitudes, and change in learning outcomes of students" (p. 5)—Guskey highlighted that assuming teacher learning changes teacher behaviour is just that: an assumption. It is widely accepted that teachers will not acquire new knowledge or change their beliefs without explicit support nor will they learn by simply being told what to believe. Rather, teacher learning needs to be situated with an infrastructure which supports them to learn (Kwakman, 2003). Thus, the contextual factors of the environment in which teachers

work have taken on more significance as enabling or constraining factors for teachers to take charge of their learning (Clarke & Hollingsworth, 2002; Kwakman, 2003; Opfer & Pedder, 2011; Sinnema et al., 2017).

Similarly, by accepting that professional learning in itself does not necessarily change teacher beliefs, neither can it be assumed that participation in professional learning activities will change teacher practice. This is also an assumption and leads one to explore what motivates teachers to participate in professional learning (M. Kennedy, 2016; Korthagen, 2016). Motivation for teacher participation in their learning journey at any point in time will be influenced by the relative strengths and expectations of professional and personal learning needs.

To understand a teacher's learning journey, Cameron et al. (2013) posit a framework which "draws on the work of Kolb (1975), Jarvis (1995), Argyris and Schon (1978) and Yeigh (2008)" (p. 389) to conceptualise the idiosyncratic stressors—points of influence—of teacher learning. The stressors identified include: personal influences, environmental influences, professional influences, and work/life space. Cameron et al. (2013)argue that opportunities for professional learning should enable personal growth as well as opportunities for learning that is relevant to the individual teacher's classroom and pedagogy. Like Cameron et al. (2013), Korthagen (2016) notes that it is crucial to connect teacher learning to the teacher as a person. In his earlier work, Korthagen (2010) argued that all knowledge "is originally grounded in personal encounters with concrete situations and influenced by social values, the behavior of others, implicit perspectives, and generative metaphors" (p. 103). He posited a threelevel model of learning based on experiences: gestalt level, schema level, and theory level. The gestalt level being the process whereby a teacher comes to an understanding based on their existing knowledge; the schema level is a teacher's current view of teaching and learning based on their prior experiences; and the knowledge that "is helpful in understanding a certain class of situations on the basis of a logical framework" (p. 102) refers to the theory level. Korthagen argues that building on a situated knowledge perspective, the three-level approach to learning "helps to reconcile the situated learning perspective with the perspective of traditional cognitive theory" (p. 102), that is, the complementary perspectives of situated learning and cognitive theory combined provide an integrated view of teacher learning.

An integrated view of learning is taken by Clarke and Hollingsworth (2002). Their interconnected model of professional growth interprets professional growth from either a cognitive or situative learning perspective depending on whether teacher growth is viewed as the development of knowledge or of practice. Their model is based on four domains: the external domain, the personal domain, the domain of practice, and domain of consequence. The external domain sits outside the teacher's personal world, while the combination of the personal domain and domains of practice and consequence sit within the "the individual teacher's professional world or practice" (p. 951). Within each domain there are several variables, for example, the external domain constitutes the external source of information or stimulus, while the personal domain includes variables such as teacher knowledge, beliefs and attitudes. The domain of practice allows for experimentation within the teacher's context and the domain of consequence is the outcomes achieved. Change can occur in any one of these domains. Each domain interacts and connects to the others through mediating processes of enaction and reflection, as influenced by an awareness of one's beliefs, own theories of teaching and learning, and one's context (Clarke & Hollingsworth, 2002; Shulman & Shulman, 2004, 2008).

A different view of understanding teacher learning is taken by Goos (2013) who adapts Valsiner's zone theory and applies it in an educational setting using a socio-cultural learning lens. Goos argues that zone theory enables researchers to analyse the interactions "between people, their environments, while still emphasizing individual agency" (p. 523). She contends that the three zones, posited by Valsiner—(1) the zone of proximal development (ZPD), (2) the zone of free movement (ZFM), and (3) the zone of promoted action (ZPA)—can be applied to teacher professional learning. ZPD is the set of possibilities for teachers to develop new knowledge, beliefs, and practices through the interaction with the environment or professional context (ZFM), while ZPA includes the activities, both formal and informal, where the teacher explores different teaching approaches and strategies. Goos argues that tensions between these zones

"arise from dissatisfactions that teachers experience when their ZPD does not map on the ZFM/ZPA complex in ways that promote the desired development" (p. 523). However, such tensions can be viewed as productive if they are resolved by bringing the zones into alignment, for example, if the environment can be modified (ZFM) or if learning opportunities are available and engaged with (ZPA).

The array of different professional learning theories provides a set of possible perspectives to study teacher professional learning. While Korthagen (2016) argues that most teacher learning occurs unconciously, some scholars argue that one way to approach professional growth is for continual opportunities which evolve over time in a conscious and systematic manner (Clarke & Hollingsworth, 2002; Guskey, 2002). The assumption that professional growth is continual embraces the notion that teachers are life-long learners, starting with initial teacher education and continuing throughout one's career (Avidov-Ungar, 2016; de Vries et al., 2014; Evans, 2014; D. Hargreaves, 1994; Knight, 2002; Shulman & Shulman, 2008; Timperley et al., 2014).

This focus on life-long learning, like the changed terminology from professional development to professional learning, is linked to research which confirms student outcomes are 'integrally connected' to teachers' ongoing learning (Meiers & Ingvarson, 2005; Timperley, 2010; Timperley & Alton-Lee, 2008). The recognition of the teacher as a professional learner has coincided with the shift from seeing professional learning as a series of one-off opportunities towards the involvement of teachers in repeated cycles of inquiry which focus on learning, their students and their context (Timperley, 2010; Timperley et al., 2007). In this scenario teachers themselves are the "key actors in directing and arranging their own learning processes" (Kwakman, 2003, p. 151). Exploring why and how teachers participate in professional learning enables one to acknowledge teachers as people with their own motivations and interests specific to their context and their perceptions.

2.2.2 Dispositions to learning, attitudes, and beliefs

Teacher participation in professional learning is influenced by one's orientation to learning, which is the integration of "attitudes, beliefs and practices as well as the

alignment of oneself and one's ideas to circumstances and context" (Opfer et al., 2011, p. 444). While beliefs can change over time through the learning process, how a teacher responds to, acts on, or interprets new information will be filtered by existing beliefs (de Vries et al., 2014; Fairbanks et al., 2010; Fives & Buehl, 2008; Opfer et al., 2011; Pajares, 1992; Van Driel et al., 2007). In studying beliefs, scholars identify two distinct orientations to teaching and learning: one is student-centred orientation, and the other is subject matter orientation (de Vries et al., 2014; Meirink et al., 2009; Van Driel et al., 2007).

In their study of 260 teachers in four secondary schools in the Netherlands, de Vries et al. (2014) explored how teachers' beliefs about learning and teaching impacted on their continuing professional development (CPD). This included exploring teachers' self-efficacy beliefs, their judgment of their competency, their beliefs about teaching and learning, as well as their orientation to learning. de Vries et al. noted a "symmetry between teachers' student orientation and their own learning (a higher student orientation means a higher participation in CPD)" (p. 351). Teachers with a high student-centred orientation were more likely to engage voluntarily with both formal and informal professional learning. These teachers believed collaboration and dialogue with colleagues would improve their practice and in turn enable better outcomes for their students. However, this study could only partially confirm that a teacher's lack of interest in their own learning was linked to a subject-matter orientation. The authors observed that teachers with a subject-matter orientation were more likely to favour a traditional transmission model of teaching. In contrast to teachers with a studentcentred orientation, teachers with a subject-matter orientation frequently viewed collaboration with colleagues as having little relevance to them and their teaching. de Vries et al. concluded there was a need to understand the relationship between a teacher's teaching and learning beliefs and their participation in professional learning.

Opfer et al. (2011) also explored whether teachers held an orientation to learning that encompassed both beliefs and practices. In their study of 1126 teachers from 388 schools in England, they argued that the dynamic and not necessarily sequential nature of teacher learning meant that separating learning activities from an individual

teacher's orientation to learning would be ineffective. The concept that teacher learning is not necessarily sequential is supported by other scholars (Clarke & Hollingsworth, 2002; Timperley et al., 2007) who describe teacher learning as non-linear and idosyncratic.

Opfer et al. (2011) found that the catalyst for learning was driven by internal or external *value* beliefs—the personal characteristics a teacher brings to their learning. Arguing that teacher reflection is an internally driven value belief and that teachers seeking out learning were driven by external value beliefs, Opfer et al.'s study illustrated that the *how* and *what* teachers learn is influenced by their orientation to learning. Specifically, teachers with "high levels of belief and practice related to reflection, modifying, and experimenting as individual teachers" (p. 448) had an internal orientation to learning. However, the study did not explore the influence of context, experience, nor the organisational conditions which could influence teacher learning. Acknowledging that teacher learning is continuous and complex, Opfer et al. take care to note that any measure of change that focuses on single variables may fail to measure essential elements which are entangled in the process of teacher learning. They argue that in order to understand how characteristics of individual teachers and their schools interact to either enhance or constrain professional learning, further studies are needed.

2.2.3 Motivation

Understanding what motivates teachers to participate in professional learning and how motivation to participate in professional learning combines with other teacher subsystem variables is critical (Doecke et al., 2008; Guskey, 2002; M. Kennedy, 2016). Motivation to participate in teacher professional learning may be intrinsic or extrinsic (Avidov-Ungar, 2016; McMillan et al., 2016), and/or may be influenced by systemic or personal factors (Cameron et al., 2013; Ng, 2010; Shanks, Robson, & Gray, 2012).

A topology of four patterns linked to intrinsic and extrinsic motivations was found by Avidov-Ungar (2016) in a comprehensive study of 43 teachers in ten Israeli schools. While the individual teacher stories did not fit neatly into one category, overall analysis

of the participants' responses identified four patterns that could be attributed to two distinct motivations for professional learning: one where the teacher had unique needs, as both a professional and a person; and one which continued the personal growth paradigm to address the combination of a teacher's motivations and aspirations. Examples of intrinsic motivation shared by participants included a "sense of satisfaction and enjoying the challenge of teaching" (p. 658), whereas extrinsic motivation descriptions indicated an external locus of control influencing participation in professional learning. This study also found different motivations according to the type of professional learning sought by teachers. These fell into two main groups of either 'lateral' or 'vertical' motivation: lateral professional learning was defined as learning within the realm of teaching, and vertical professional learning was learning undertaken with the view of obtaining a promotion.

A study of 74 qualified teachers undertaking a post graduate course in the Republic of Ireland and Northern Ireland by McMillan et al. (2016) also considered intrinsic and extrinsic motivators for teacher professional learning. This time, the researchers noted three distinct groups of motivators for participation in professional learning: intrinsic, school-related, and system-wide motivators. Participants who were intrinsically motivated believed they were responsible for seeking out their own professional learning—they felt that they needed to do something in relation to their teaching. Their participation in professional learning was attributed to either:

- curiosity—described by Timperley et al. (2014) as an inquiry habit of mind; or
- a personal interest in the learning opportunity; or
- timing for them, personally, to participate in the learning experience was suitable (see influence of career stage).

The second grouping of motivators were school-related factors that either supported or inhibited intrinsic motivation, for example, for some teachers, it was their responsibilities within their school which motivated them to learn; a finding which is supported by other studies (see Cameron et al., 2013; Kwakman, 2003; Putnam & Borko, 2000; Richter et al., 2011). Other factors identified as school-related motivators included the allocation of time for learning to occur, financial support, or expectations of attendance by the school leader. Likewise, each of these could enable or hinder

teacher motivation, for example, a lack of resourcing or time might inhibit one's motivation to participate in professional learning. The third group—system-wide motivators—included factors that required a teacher to engage in professional learning activities either by school management, or as a result of national policy. However, McMillan et al. concurred with the findings of an earlier study by Herzberg (1968) that in this scenario where engagement is mandated, the teacher's motivation is at best tangential.

McMillan et al. (2016) argue that the impetus for participation in teacher professional learning starts with the personal intrinsic motivators, noting however, that motivators should be interwoven and negotiated into the provision of professional learning opportunities. They also identified several context variables linked to motivation such as personal responsibilities, school leadership, and culture which will be discussed further in the *context as a subsystem* section.

Several other studies have identified the importance of system-wide motivators for participation in professional learning (Ng, 2010; Vermunt & Endedijk, 2011; White, Bloomfield, & Le Cornu, 2010), for example, Ng (2010) explored the influence of a national policy directive on teacher professional learning with 275 Hong Kong teachers enrolled in a compulsory Bachelor of Primary Education programme. He described the participants' motivation in terms of two careers goals: one intrinsic whereby teachers "learn for improving professional competence" (p. 397); the other extrinsic with teachers focused "on learning for tangible benefits such as career promotion and higher professional qualification" (p. 397). Ng concluded that those teachers who focused on improving their professional competence had a more positive attitude to learning.

While there are some similarities that motivate teacher participation in professional learning, these studies highlight that individuals have their own unique reasons for participating.

2.2.4 Career stage

A body of research has found changes in career pathways, or stages of a career, also influence involvement and uptake of professional learning (Richter et al., 2011; Timperley et al., 2007; Vermunt & Endedijk, 2011). Depending on the stage of a teacher's career and/or a teacher's experience, the learning needs for individuals will be different (Cameron et al., 2013; de Vries et al., 2014), for example, it is most likely for beginning teachers to engage in informal discussions with colleagues to improve their practice and seek professional learning around classroom management (Richter et al., 2011). Whereas, teachers with new management responsibilities will likely seek professional learning to support them in their new role (Knight, 2002; Richter et al., 2011; Timperley & Robinson, 2001; Timperley et al., 2007).

Also, mid-career teachers have specific needs, as noted in Richter et al.'s (2011) study of 1938 German secondary teachers across 198 schools. This study confirmed the hypothesis that "teachers pursue in-service training most frequently in the middle of their careers and show less involvement as they approach retirement" (p. 118). However, as this study focused only on participation in professional learning and career stage, researchers noted that further studies were needed to examine whether and to what extent the school context impacts on teachers' learning behaviour throughout their career.

The variables explored in this subsytem affirm the need for further research to aid our understanding of perceptions and practices of teacher professional learning in specific contexts. This section also demonstrates the interconnectedness of variables both within and between subsystems (Koopmans, 2017; Opfer & Pedder, 2011; Radford, 2006). In particular, Radford (2006) contends that there is a need for professional learning research to take into account the influence of contextual factors.

2.3 Context as a Subsystem

The context subsystem, like the teacher subsystem, involves many variables that interact and combine to influence teacher professional learning. Figure 1 portrays the teacher nested within a range of contexts (Cochran-Smith et al., 2014; Davis & Sumara,

2012; Ell et al., 2017; Opfer & Pedder, 2011; Radford, 2006). The teacher is situated within their classroom which sits within the wider school system. School contexts could include a syndicate, a department, or an attached unit. Finally, all these contexts are nested within the wider educational systems and polices of the district and/or country.

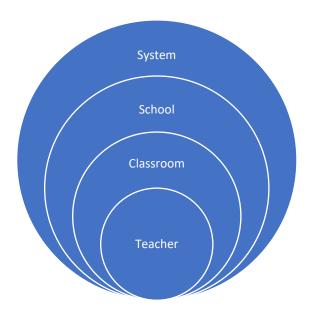


Figure 1. The nested educational system

Each context will be unique, and this study is no exception. Although the variables which influence teacher professional learning are similar to those found in a mainstream learning context, the manner in which they combine and interact in the TPU context is unique. These variables include:

- policy (D. Cohen et al., 2007; Hardy, Ronnerman, Furu, Salo, & Forsman, 2010;
 Knapp, 2003; Knight, 2002; Timperley & Alton-Lee, 2008; White et al., 2010);
- reform (Darling-Hammond & McLaughlin, 2011; Davis, Sumara, & D'Amour,
 2012; Walshaw & Anthony, 2007);
- leadership (Collinson, 2012; Evans, 2014; Robinson, Hohepa, & Lloyd, 2009);
- school culture (Flores & Day, 2006; Giles & Hargreaves, 2006; Jurasaite-Harbison
 & Rex, 2010; Le Fevre, 2014); and

organisational systems (Davis et al., 2012; Giles & Hargreaves, 2006; Kearney &
 Zuber-Skerritt, 2012).

Opfer and Pedder (2011) have called for further research into the complex professional environments in which teachers work to provide a deeper understanding of teacher professional learning. This section considers variables which contribute to the context subsystem and their interconnectedness.

2.3.1 Policy

Van Geert and Steenbeek (2014) argue that policy makers are "driven by the goal to make a nation's or a region's or a city's formal educational system successful from the point of view of political goals and values" (p. 28). Despite numerous studies which focus on the influence of educational policy on teacher professional learning and practices (D. Cohen et al., 2007; Knapp, 2003; Knight, 2002; Sinnema et al., 2017; Timperley & Alton-Lee, 2008), enacting educational change by national policy continues to be challenging. D. Cohen et al. (2007) argue that the relationship embodied between policy and practice is a dilemma as "policies aim to solve problems, yet the key problem solvers are those who have the problem" (p. 515). It is teachers, who mediate policy using their own lens, as influenced by their own histories and socio-cultural experiences of learning (Hardy & Edwards-Groves, 2016). As such, policy implementation relies on "the fit between capabilities that support implementation and aims" (p. 515), and policymakers are reliant on practitioners to interpret and implement policy. Scholars, therefore, argue that to effect change there is a need to underpin teacher learning with a theory of learning, not just the tools to support teachers in responding to student needs (M. Kennedy, 2016; Timperley & Alton-Lee, 2008; Timperley et al., 2007).

Other issues to be considered when reviewing professional learning policy include: investment levels, evidence base, structures, content focus, expertise, incentives and norms, accountability, and connection to reform agenda. One might hope that policy implementation will be successful if enough time and resources are available. However, a review by Timperley and Alton-Lee (2008) found little evidence to support

this claim. Rather, they found that despite providing time and resources, learning opportunities did not necessarily "develop teachers' current knowledge and practice or challenge problematic attitudes" (p. 348).

To minimise the impact of different contexts on educational policy, Knapp (2003) argued for strategic use of policy that includes clear and consistent messages about the purpose and importance of the professional learning opportunities. Without clearly articulated strategic direction teachers face mixed messages and noise (M. Kennedy, 2016) which makes it difficult for them to discern what is important learning for them in their context.

The relationship between professional learning and policy change can vary across different educational systems depending on the overarching purpose of the policy (Alton-Lee, 2011; D. Cohen et al., 2007; Hardy et al., 2010; Radford, 2006), for example, a large international study of professional development policy implementation found policy purpose varied from that which was praxis-oriented to policy which was a passive-technicist activity (Hardy et al., 2010). The praxis-oriented policy was reflected in and "supported by intelligent accountability and a culture of trust" (p. 84). The passive-technicist policy tended to be focused on standardisation and measurement. Hardy et al. (2010) recommended that professional development policy, which is sometimes contradictory in response to multiple pressures, should consider professional development practices which are aligned to local needs as well as the learning needs of the teachers and students in their schools. The findings of this study support the argument that policy implementation is a dilemma for both the policymakers and the practitioners.

Policy initiatives focused on school-based reforms frequently involve professional learning at the national level (Hardy et al., 2010; A. Hargreaves & Fink, 2000; D. Hargreaves, 1994; Imants, 2002; McQuillan, 2008; Scribner, 1999). The focus of such professional learning might be to:

improve teacher quality (D. Cohen et al., 2007; Davis et al., 2012; Hardy et al., 2010; Knapp, 2003; Parise & Spillane, 2010; White et al., 2010);

- support curricula reform (Spillane, 1999); or
- meet standards (Doecke & Parr, 2011; Doecke et al., 2008; Giles & Hargreaves,
 2006; Sinnema et al., 2017).

With such diverse purposes, there is likely to be tension between the policy reform initiative and the multiple contexts that implement the initiative.

One study which highlights the tension between national policy reform and implementation in different contexts is that of Giles and Hargreaves (2006). This case study of three schools, which had "established themselves as learning organizations and professional learning communities" (p. 124), examined if the school could sustain their innovations under the pressure of standardised reform. Three reasons were proposed as to why an innovation might fade over time. They were (1) the perception from outside that the innovation was not being reported accurately by the school, (2) the perception that an innovation had a limited life span, and (3) that the circumstances changed either internally or externally over time. The case studies demonstrated that while a school might "have the capacity to offset two of the three change forces that threaten the sustainability of innovative efforts" (p. 152) it did not have the ability to minimise the impact of standardised reform over time.

Collectively, these studies uncover complex connections between policy, implementation, and practice. Radford (2006) argues that given the sensitivity of situations and the unpredictability of outcomes from the interaction of multiple variables, research should examine how policy and practice might develop relationships between "strategies or organisational forms and desirable outcomes" (2006, p. 180) rather than focus on how policy will influence direction.

2.3.2 Leadership

Policy implementation at a school context level involves the school leadership team. A leader's influence of the learning culture will be affected by their own orientation to learning (Collinson, 2012; Robinson et al., 2009), the systems they put in place for professional learning (D. Hargreaves, 1994; Knight, 2002; Scribner, 1999; Timperley et

al., 2007), how they model learning, and their understanding of how teachers learn (Evans, 2014; Fullan, 2002; Timperley, 2010).

Multiple studies have explored the characteristics of leadership behaviours that encourage teacher learning and agency (Blase & Blase, 2002; Bredeson, 2000; Knight, 2002; J. Mitchell, Riley, & Loughran, 2010; Pedder & Opfer, 2011; Robinson et al., 2009; Stevenson, Hedberg, O'Sullivan, & Howe, 2016). A large-scale study by Blase and Blase (2002) that sampled over 800 elementary teachers in the United States, noted two significant leadership behaviours. The first involved leaders talking with teachers to promote reflection. This included leaders "making suggestions, giving feedback, modelling, using inquiry and soliciting advice/opinions, and praising" (p. 256). The second involved leaders promoting teachers' personal growth through encouraging teachers to study teaching and learning, providing support for teachers to collaborate, implementing action research in the school, and applying principles of adult learning. Overall, the teachers in this study perceived "effective principal-teacher interaction about instruction and staff development included inquiry, reflection, exploration, and experimentation" (p. 257), which all develop teacher agency.

However, Robinson et al. (2009) and Cole (2012) argue leaders should not merely be *encouragers* of professional learning but must also be active participants. In their review of the literature, Robinson et al. (2009) identified the single-most influential leadership practice in strengthening student outcomes was their participation in teacher professional learning. They found that high performing schools had leaders who worked with teachers or department heads to plan, coordinate, and evaluate teacher practice and learning. Robinson et al. also found leaders who participated in the professional learning were more likely to understand the conditions required to achieve and sustain improvements. An example being knowing when it was necessary to use external expertise and knowing what systems and structures, in their context, were needed to support teacher learning.

An Australian study, which aimed to build teacher capacity to lead professional learning (J. Mitchell et al., 2010), found important insights for understanding the

complexity of teacher-led professional learning as well as policy implementation. In seeking to understand experiences of teacher leaders, they noted a recurring challenge for leaders was being confronted with teacher perceptions of the value, or not, of the opportunity given their view that time was precious. They argued that the relationship and emotional dimensions were important factors in understanding "the complexity of teacher-led professional learning, as well as for the design of policy and practice pertaining to leading professional learning" (p. 545). This contention is supported by Jappinen (2014), who argued that leadership is a complex system nested within other complex systems such as the political, the economic and social domains, each with their own attributes. A consequence of this nested complexity is "even greater expectation on the execution of educational leadership for responding to the increasing educational and social demands of today" (Jappinen, 2014, p. 82).

Collectively, these studies highlight that leadership influences professional learning through the participation in and facilitation of professional learning. As noted by Zellermayer and Margolin (2005), while the leadership role does not influence participants directly, it does foster and implement conditions for and culture of learning by modelling learning.

2.3.3 Culture

A number of scholars argue that professional learning is culturally bound and therefore connected to the context (Jurasaite-Harbison & Rex, 2010; Korthagen, 2016; Nolan & Walshaw, 2012; Opfer & Pedder, 2011; Stevenson et al., 2016), for example, Stevenson et al. (2016), in their study of three schools, noted that that the diverse school approaches to teacher professional learning reflected the different priorities and values for their school community.

The influence of culture is also identified in studies which links teacher motivation to participate in teacher professional learning to the nature of the learning environment (Le Fevre, 2014; Pedder & Opfer, 2011; Timperley et al., 2007). For example, Le Fevre (2014) found that in a supportive environment, where professional learning was iterative and ongoing, participation was linked to the perceived risk. If the risk was

perceived to be too high the teachers would not engage in the promoted pedagogical practices. The level of the risk was determined by teachers, themselves, who considered not just their own orientation to learning and motivation to participate but also the culture of the learning environment in which they worked and the organisational systems in place to support their learning (Opfer & Pedder, 2011; Timperley et al., 2007).

In each context there will be varying organisational systems and structures which will either enable or hinder professional learning. Examples include: the provision of time for collaboration, the alignment of professional learning with school goals and individual learning needs, and the monitoring and evaluation of the learning through systems such as appraisal (Knapp, 2003; Robinson et al., 2009; M. Taylor, Yates, Meyer, & Kinsella, 2011; Timperley et al., 2007). Too often, however, often the school-level systems and supports for teacher professional learning are lacking, for example, Pedder and Opfer's (2011) national study of teacher professional learning in England reported that the potential for teachers' professional learning to enhance classroom teaching and learning was largely untapped: what was needed was a culture which enabled teachers to be active and agentic learners. This required consideration being given to the idiosyncrasies of the teacher as a learner.

In the New Zealand context, an example of policymakers not taking into consideration the idiosyncrasies of the teacher subsystem occurred during the 1990s. National educational policy, at the time, focused on new curricula, and professional development for teachers was part of the policy implementation. Policymakers assumed new learning from the professional development would be implemented in the context of schools (Wylie, 2013). However, following the roll-out of workshop days, teachers returning to their schools had to implement the professional learning within the systems located in their specific context. The assumption was that each school context had systems to support teachers to collaborate about their practice and to support the implementation of the national curricula reform. However, each school could not ensure everyone implemented curricula in the same way, as this was

dependent on the individuals (D. Cohen et al., 2007)—a variable within the teacher subsystem.

In this section, discussion of the context subsystem variables highlight the complexity of professional learning as these variables interconnect with other subsytems variables, for example, while leadership is noted as a context variable, a leader cannot influence a teacher directly (Zellermayer and Margolin, 2005), but they can influence the conditions in which teacher professional learning occurs. Likewise, the implementation of a politically driven reform is dependent on individual teachers and the organisational structures and support of their context.

2.4 Activity as a Subsystem

The last subsystem that combines with the teacher and context subsystems to influence professional learning is the *learning activity* subsystem. Represented by the different types of learning opportunities and experiences teachers participate in to understand and inform their practice, the variables within this system include:

- the purpose and type of activity (Akiba, 2012; Garet, Porter, Desimone, Birman,
 & Yoon, 2001);
- the model of delivery (A. Kennedy, 2014; Lieberman & Mace, 2010; Lieberman & Miller, 2011; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006); and whether
- the formal and informal professional learning opportunities (Eraut, 2004;
 Jurasaite-Harbison & Rex, 2010; Kwakman, 2003; Parise & Spillane, 2010; Richter et al., 2011; Scribner, 1999).

Consideration of the different professional learning opportunities and experiences are explored further.

2.4.1 Models and types of professional learning

There is a large body of research that embraces various models of professional learning (Akiba, 2012; Darling-Hammond & Richardson, 2009; A. Kennedy, 2014; Stoll et al., 2006). Classifying the types of frequency of formal and informal professional learning activities has resulted in a plethora of categorisations, for example, Akiba (2012) in a study of 577 middle-school mathematics teachers in Missouri, noted seven

types of activities: professional development programmes, teacher collaboration, university courses, conferences, mentoring/coaching, informal communication, and individual learning. Teachers in this study spent the greatest amount of time involved in "teacher collaboration, professional development programs, and individual learning activities" (p. 1). To add to the understanding of professional learning, Akiba recommended future studies consider teachers' working conditions and the relationships between teachers (that is context influences) to establish possible predictors for teacher participation in professional learning activities. Another large-scale review of professional learning, this time in Scotland by A. Kennedy (2014), identified nine professional development models: training, award-bearing, deficit, cascade, standards-based, coaching/mentoring, community of practice, action research, and transformative.

Summarised in Table 1, these nine models fit into three broad categories of purpose: (1) transmission (2) transitional (3) transformative. Commenting on the role of purpose, Kennedy (2014) argued that the capacity for teacher autonomy increases as one moves from the transmission, through to the transitional and transformative categories. She contends that the training, award-bearing, and deficit models prepared teachers to implement reforms and are, therefore, aligned with the purpose of transmission. In contrast, models that support teachers' contribution to educational policy and practice align more closely with the purpose of transformation. The models that have the underlying capacity to support either a transmission or transformative purpose are described as transitional.

Table 1
Models of Professional Development

Model of Professional Development	Purpose of Model	Description	Comment
Training	Transmission	Skills based technocratic	Generally delivered by an expert off-site and participation is passive
Award-bearing	Transmission	Emphasises an external validation of quality assurance	Can limit alternative models
Deficit	Transmission	Designed to address "a perceived deficit in teacher performance" (A. Kennedy, 2014, p. 340)	Does not necessarily consider cause of issue or influences such as organisational and management practices
Cascade	Transmission	Individual teachers trained as lead or expert teachers for their school	Used when resources are limited May not consider the wide range of contexts teachers come from
Standards-based	Transitional	Focuses on standards which teachers are expected to meet with some professional learning activity support	Can create a tension between individual professional learning needs and system requirements
Coaching/mentoring	Transitional	Uses a variety of professional learning practices Mainly one-to-one	The experience could be transmission or transformative
Community of Practice	Transitional	Involves more than two people Based on socio-cultural theory	Individual's roles and beliefs will determine if participation is active or passive
Action Research	Transformative	Practitioners ask "critical questions of their practice" (A. Kennedy, 2014, p. 347)	Likely to be cyclical/iterative
Transformative	Transformative	A combination of characteristics from all models which focuses on 'inquiry'	

Adapted from: Kennedy, A. (2014). Models of continuing professional development: A framework for analysis. *Professional Development in Education, 40(3), 336-351.* Doi:10.1080/19415257.2014.929293.

Internationally, a recognition of differing purposes of professional learning has resulted in a shift from the traditional workshop or one-day course, to communities of learning, often but not necessarily, involving school-based or school clusters (Ainscow, 2012; Edwards Groves & Rönnerman, 2013; Timperley, 2003; Timperley et al., 2007). Learning within shared communities of practice involving educators working together to improve and critique their practice supports the socio-cultural nature of teacher learning, as discussed in the *teacher subsystem* section.

Recent studies (see Lieberman & Miller, 2011; Stoll et al., 2006; Timperley et al., 2007) affirm that professional learning communities (PLC) which share and critically interrogate "their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth promoting way" (Stoll et al., 2006, p. 223) can, over time, support teacher learning to improve the educational outcomes for learners. However, the establishment of a PLC does not automatically result in positive outcomes for teacher learning. The purpose of the professional learning community needs to be clearly established and allow for individuals to express their own perceptions of learning and teaching (Lieberman & Miller, 2011). While an individual's roles and beliefs will also influence the nature of their participation, participation will also be influenced by leadership and enactment of the key characteristics of effective PLCs (Nehring & Fitzsimons, 2011; Stoll et al., 2006; Watson, 2014).

Ultimately, success will be influenced by the conditions and learning opportunities provided. In recent times, the term PLC has "become so ubiquitous it is in danger of losing all meaning, or worse, of reifying 'teacher learning' within a narrowly defined ambit" (Watson, 2014, p. 18). Care is needed that a PLC is not viewed as an end-to-itself, rather clearly identified and shared goals with a focus on learning needs to be cultivated. Stoll et al. (2006) argue that to understand what influences effective PLC more consideration needs to be given to the teacher's orientation to learning, their context, and the opportunities for them to participate in professional learning.

2.4.2 Formal versus informal learning

Professional learning may be either formal, informal, or a blend of both. Occurring both in the practice setting and outside the school context, the distinction between formal and informal learning can be considered as the difference between purposefully structured learning and workplace or on-the-job learning (Cobb, McClain, Teruni de Silva, & Dean, 2003; Jurasaite-Harbison & Rex, 2010; Parise & Spillane, 2010; Richter et al., 2011). Jurasaite-Harbison and Rex (2010) define formal learning as professional development that is used to deliver innovations mainly through workshops, presentations, and projects. In contrast, informal professional learning is sometimes planned but often occurs as happenstance interactions in the workplace.

In moving from the assumption that professional learning is a set of externally directed discrete, finite episodes towards a more holistic approach, there is a greater awareness that professional learning is supported by, and in the work context of, teachers (Webster-Wright, 2009). As such, both informal and formal learning are regarded as important components to effect change. Teacher inquiry, when formalised through requirements of a school system or policy for appraisal or teacher registration purposes, is one way to capitalise on both informal and informal professional learning opportunities. However, formalising these activities can create tensions for teachers who may be motivated by compliance rather than their own personal learning needs or aspirations (Avidov-Ungar, 2016; Benade, 2015).

Accounting for the myriad of influences within the teacher and context subsystems, together with the activity subsystem, is important. As Koopmans (2014) contends, reducing the phenomenon of professional learning to a simple input-output relationship "leaves important questions unattended about how change is produced in educational systems" (2014, p. 20).

2.5 Complexity Theory as a Lens to Study Professional Learning

A number of scholars argue that if the linear logic which underlies much educational research has not yielded sufficient explanations of how a phenomenon—for example, initial teacher education or professional learning—works then it may be timely to

apply new theoretical frameworks (Cochran-Smith et al., 2014; Davis, 2008; Davis & Sumara, 2012; Ell et al., 2017; Jörg et al., 2007; Opfer & Pedder, 2011). Underlying the argument is that educators know that education is complex (Koopmans, 2017) and that human organisations are non-linear, adaptive and involve complex feedback loops (Zellermayer & Margolin, 2005). Complexity theory offers a holistic non-linear approach that takes into account not only individual teacher influences but also the complex and nested layers of contexts such as schools, policy, and political environments. It draws on the interconnectedness of multiple variables within and between systems (Cochran-Smith et al., 2014; Davis & Sumara, 2012; Ell et al., 2017; Fels, 2004; Jörg et al., 2007; Koopmans, 2017; Opfer & Pedder, 2011; Radford, 2006; P. Taylor, 2015; Waks, 2011; Zellermayer & Margolin, 2005). Viewing a phenomenon from a complexity perspective "involves viewing it as a network of multiple, connected, open systems which can vary dramatically due to their unique trajectories of emergent development and unique interactions with other, larger systems" (Hetherington, 2013, p. 79).

Paradoxically, although scholars argue educational phenomena should be studied holistically, there is also an argument that to aid understanding, the phenomena of focus need to be simplified (Jörg et al., 2007; Van Geert & Steenbeek, 2014). Reducing a complex system into smaller units—simplex systems—can be a challenge for researchers. Simplex systems themselves are complex dynamic systems meaning the interaction of one system can become entangled with another making attempts to preserve the inherent complexity of the phenomenon under study challenging. No more so than in the field of education where the behaviour of individuals cannot be isolated from their systemic context and a system "cannot be understood without analysing the behaviour of its constituent components" (Koopmans, 2017, p. 21).

The dynamics of teacher behaviour, even for simple decisions, will interact and combine in different ways and can result in multiple pathways options. The complexity of teacher professional learning is evident in its parts and how they combine and interact with each other. In looking at these complex interactions Davis and Simmt (2003) make an important distinction concerning external influences, claiming that

they can only provide conditions for system actions—that is, they occasion learning rather than directly dictating what will happen. Reflecting the characteristics of complexity theory—self-organisation and emergence—it is the system itself that will determine the relationships between the variables (Cochran-Smith et al., 2014; Koopmans, 2014; Van Geert & Steenbeek, 2014; Waks, 2011; Zellermayer & Margolin, 2005).

Sections two-four of this review conceptualised teacher professional learning as three overlapping and recursive subsystems (Figure 2): *teacher; context; and activity;* as proposed by Opfer and Pedder (2011). Within this framework, a complexity lens does not isolate individuals and subsystems from the larger system of professional learning. Using this framework, this study explores and takes account of teacher perceptions of their professional learning experiences, opportunities, and practices, and their motivations for participating in professional learning, while simultaneously acknowledging the contextual factors which interconnect with other sets of variables in the teacher and activity subsystems.

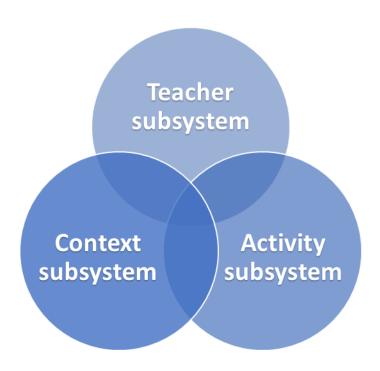


Figure 2. The complexity of professional learning

Complexity theory compels us to investigate the interplay and interrelationships between the different parts of the teacher professional learning phenomenon.

2.6 Summary

This literature review has discussed the changing landscape of teacher professional learning and reviewed the myriad of influences that impact on teacher professional learning. Through consideration of three overlapping and recursive subsystems—the teacher, the context, and the activity—(Opfer & Pedder, 2011), the review has advanced the position that the nature of teacher learning is complex and therefore should be considered holistically rather than in parts (Cochran-Smith et al., 2014; Davis, 2008; Jörg et al., 2007; Opfer & Pedder, 2011). In addressing the holistic nature of professional learning, recent studies (Avidov-Ungar, 2016; M. Kennedy, 2016; McMillan et al., 2016; Ng, 2010) indicate the importance of attending to teachers' situated experiences and motivations when studying why and how teachers participate in professional learning opportunities. One way to understand better how teachers continue to learn throughout their working lives is to ask them to describe experiences "where they feel they have learned" (Webster-Wright, 2009, p. 705). Webster-Wright (2009) argues there is the need for research that "views the learner, context, and learning as inextricably interrelated rather than acknowledged as related, yet studied separately" (p. 712).

Within the changing landscape of professional learning, the literature review identifies a gap between the learning experiences of teachers and their context (Radford, 2006; Webster-Wright, 2009). In particular, this review has found no study of professional learning experiences, opportunities, and practices for educators working in the teen parent context in New Zealand, or indeed internationally. As noted in the introductory chapter, although there are a number of studies that consider pregnant and parenting teens, most of the research is located in the fields of health and wellbeing rather than education (Collins, 2010; Pillow, 2004).

Although a complexity paradigm might not provide access to an ultimate truth, it is a paradigm, which "seems to be better fitted to our rapidly evolving, ever-more-

complicated times" (Jörg et al., 2007, p. 152), that includes the non-sequential and unpredictable nature of teacher learning. With the knowledge that the multiple variables of teacher professional learning in a specific context might be unpredictable and interact and combine in different ways, using a lens of complexity theory—through its adherence to a 'holistic framework'—to better understand professional learning offers new possibilities within TPUs, a context bound setting that is unique within the New Zealand education system.

Chapter Three: Methodology

The type of methodology a researcher undertakes should be guided by the objective(s) of the research (Creswell, 2013; Fraenkel, Wallen, & Hyun, 2012). The objective of this qualitative study was to explore the professional learning landscape for educators working in TPUs in New Zealand. Qualitative research studies people in their natural settings and "attempts to capture data on the perceptions of local actors 'from the inside'" (Punch, 2009, p. 117). It enables a holistic view of a phenomenon to be considered by the researcher. Thus, a qualitative research design lent itself well to examine teen parent teachers' and leaders' perceptions of the experiences, opportunities, and practices of professional learning in their context. The specific research questions which guided this study were:

- 1. What is the nature of professional learning within TPUs in New Zealand?
- 2. How do staff perceive their professional learning experiences, opportunities, and practices?

Within an overarching framework of a qualitative methodology, there are several possible research approaches (L. Cohen, Manion, & Morrison, 2011; Creswell, 2013; Fraenkel et al., 2012; Punch, 2009), for example, narrative research, phenomenology, grounded theory, ethnography, and case study. For this study, a case study approach was seen as appropriate, as case study makes it possible for the researcher to study a problem or issue through the exploration of variables which are not easily measured, and allows for the voices, which normally may be silenced, to be heard (Creswell, 2013). To explore the phenomenon of teacher professional learning in the TPU context in New Zealand, the qualitative case study drew on the theoretical framework of complexity theory (Cochran-Smith et al., 2014; Opfer & Pedder, 2011) and interpretative phenomenological analysis (IPA) (Smith, Larkin, & Flowers, 2009) as an analytical tool. Case study when combined with complexity theory and interpretative phenomenological analysis fosters an attitude which focuses on emerging patterns and enables the researcher to shift the focus from the knowledge and skill of an individual teacher to the experiences and performances of individuals that "are shaped by

complex practice environments and organizations" (Anderson, Crabtree, Steele, & McDaniel, 2005, p. 31).

The first section of this chapter situates the researcher and the study, and outlines the theoretical framework. The research design follows and includes a description of case study methodology, ethical considerations, participants, data collection, management and analysis. Consideration is then given to the reliability of the study and limitations of the design. The chapter concludes by outlining how the findings of the study are presented in later chapters.

3.1 Situating the Research and the Researcher

This research studied *the professional learning landscape for teen parent educators in New Zealand*. As discussed in chapter one, a TPU in New Zealand is an alternative education option for teen parents. Although individual units are governed by their own secondary school's board of trustees, each unit tends to be run autonomously and as such the teacher-in-charge (TiC) and the staff are responsible for their professional learning.

It is acknowledged that research is located in the social, economic, and political context of the researcher (Foote & Gau Bartell, 2011). Therefore, aspects of these contexts will influence a researcher's theoretical and philosophical beliefs, and inform the methodology chosen, the questions asked, and the interpretation of responses. The researcher's position should be explained at the outset, identifying the researcher's personal experiences, expectations, and values (Creswell, 2013; Foote & Gau Bartell, 2011; Fraenkel et al., 2012; Grbich, 2010; Nolan & Walshaw, 2012; Punch, 2009).

The researcher, for this study, is an experienced educationalist with a background in secondary mathematics education, leadership as a school principal, and as a facilitator of teacher professional learning including working with several teen parent educators (prior to undertaking this study). These different roles in education highlighted, for the researcher, the complex nature of teacher professional learning. Collectively, the

experiences, perspectives, and assumptions that the researcher brings to this study cannot be eliminated. These experiences can be a disadvantage in that there is "a risk of subjectivity and bias" (Punch, 2009, p. 44). The mitigation of such risk will be discussed under ethical considerations, later in this chapter. On a positive side, these experiences "can enrich and deepen the research, including interpretation of its results" (Punch, 2009, p. 44).

3.2 Theoretical Framework

Boylan, Coldwell, Maxwell, and Jordan (2017) contend that over the last 15 years there have been five proposed models of professional learning processes: three are variations on path models (Clarke & Hollingsworth, 2002; Desimone, 2009; Guskey, 2002), one uses a systemic conceptualisation of learning (Opfer & Pedder, 2011), and one is a cognitive learning model (Evans, 2014). While each model has differing foci and purposes, Boylan et al. (2017) argue that "the complexities of professional learning mean that seeking an answer to theoretical and methodological challenges or an overarching synthesis is unrealistic" (p. 18) and consideration should be given to multiple answers. Furthermore, professional learning is neither predictable nor likely to occur in one single way and there is a need for teacher professional learning research to be "guided and informed by theoretical frameworks with a holistic view" (Cochran-Smith et al., 2014, p. 33). Scholars, therefore, argue that when studying professional learning landscapes there is a need to adopt methodologies which focus on identifying, exploring, and understanding how the multiple forces interact and combine to influence the professional learning phenomenon (Cochran-Smith et al., 2014; McQuillan, 2008; Opfer & Pedder, 2011). As this research was guided by questions that explored the nature of teacher professional learning in the teen parent context and teacher perceptions of their professional learning experiences, opportunities, and practices, complexity theory was seen as a useful theoretical framework for this study.

3.2.1 Complexity theory

Several scholars argue that much teacher education research has a tendency to break teacher education into parts (Cochran-Smith et al., 2014; McQuillan, 2008; Opfer &

Pedder, 2011). These scholars note that a complexity theory framework will challenge traditional notions of linear causality, imposed or predetermined order, and be beneficial for education research. Cochran-Smith et al. (2014) contend that complexity theory takes the view that teacher education is a complex, self-organising and multiple system. Within complexity theory framework, the researcher can acknowledge the school setting as a human organisation, which is a complex, adaptive, and non-linear network (Zellermayer & Margolin, 2005).

However, the challenge when using a complexity theory framework is "to balance the open-ended, non-linear sensitivities of complexity thinking with the reduction in complexity inherent in making methodological choices" (Hetherington, 2013, p. 71). It is possible to do this, Heatherington (2013) argues, using case study, if the complexity theoretical framework "is rooted in the key concepts of emergence and complexity reduction" (p. 71). Emergence refers to the self-organisation of the variables within a system and how these variables act and relate to each other over time (Cochran-Smith et al., 2014; Hetherington, 2013; Jappinen, 2014; Koopmans, 2017; Van Geert & Steenbeek, 2014). The concept of complexity reduction occurs when the number of variables within a system are reduced (Koopmans, 2017), that is, the researcher simplifies a system, normally into smaller units called simplex systems, to conduct the research. While at first glance this may appear to be paradoxical, Hetherington (2013) contends that, these two concepts should not be seen in opposition to each other. Rather, "the two concepts can be seen as working at the same time, using the 'both/and' logic common post-structural thinking" (p. 74). She argues that the use of case study to explore these relationships within an emerging system can help us to think about not just "gaining answers about how this case will proceed, or indeed about how all such similar cases may proceed" (Hetherington, 2013, p. 77) but also can enable an openness to possibilities of taking ideas in new directions. Cochran-Smith et al. (2014) also note challenges in using complexity theory. They identify that using complexity theory as a descriptive lens, or as a metaphorical tool as a framework for empirical research cannot guarantee a prescription for the future as it is based upon the premise that teacher learning is unpredictable. However, when combined with interpretative phenomenological analysis (IPA) as an analytical tool it enables the

researcher to examine each case and then move, cautiously, "to the examination of similarities and differences across cases" (Smith et al., 2009, p. 38).

Accepting that teacher professional learning is not a linear process, but a web of complex relationships influenced by a myriad of variables, enables one to identify and explore the links between the different variables (Clarke & Hollingsworth, 2002; Opfer & Pedder, 2011). Furthermore, case study using a complexity theory framework supports the crucial element of emergence within the system and enables the researcher to identify smaller units (simplex systems) to explore the web of relationships (Hetherington, 2013).

Supporting conceptualisation of how non-linear systems might interact and adapt in multiple ways in ever-changing environments, complexity theory is "good to think with" (McQuillan, 2008, p. 1772). It provides a framework to analyse emerging patterns and trends and illuminate how the parts are either working together or not. Using complexity theory, with interpretative phenomenological analysis, provides the framework to explore teacher professional learning in the teen parent context, while at the same time identifying how the organisational structure and systems combine with other influences such as the teacher's own orientation to learning and the learning activity (Opfer & Pedder, 2011; Timperley et al., 2007). In doing so, a snapshot of the complex web of relationships between variables in a specific context is presented (Davis, 2008; Davis & Simmt, 2003; Opfer & Pedder, 2011).

This study used complexity theory to map out and understand the professional learning landscape within TPUs using teen parent educators' perceptions of professional learning experiences, opportunities, and practice. In utilising complexity theory as a conceptual framework to support the exploration of the professional learning phenomenon—this study, explored three subsystems. The three subsystems are a complex mix of interactions argued by Opfer and Pedder (2011) as the key influences of teacher professional learning: (i) the teacher (ii) the context (school) and (iii) the activity. Figure 3 illustrates how the three key influences on professional learning as identified by Opfer and Pedder (2011) might combine and interweave.

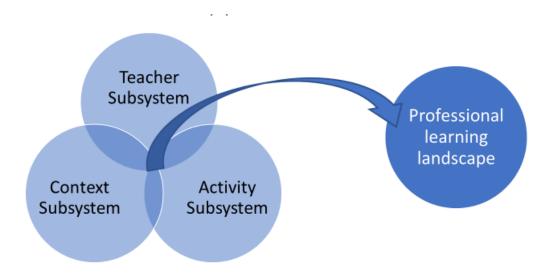


Figure 3. Conceptual model of the complexity of teacher professional learning landscape

Given the unique context of TPUs, and that currently there is little research which links professional learning and the teen parent sector, this research explored 'what is' teacher professional learning in a teen parent setting and 'why this is so' using data generated from the participants' perspectives. In mapping the professional learning landscape of this context this methodology aimed to identify, through a complexity theory framework, the relationships between the influences on teacher professional learning in the TPU context.

3.3 Research Design

Several scholars report variations in case studies as a research design (see Creswell, 2013; Punch, 2009; Stake, 2006; Yin, 2014), for example, Stake (2006) refers to intrinsic, instrumental, and multiple or collective case studies, and Yin (2014) proposes four types of design—single-case, multiple-case and embedded single or multiple case. Yin, also, identifies that a case study can be descriptive, explanatory, or exploratory in nature. Employing a multiple case approach, this study combined three descriptive and exploratory case studies: descriptive, in that each individual case describes the professional learning phenomenon in its real-world context, of a TPU; exploratory as not only is there little research in the teen parent context but also in seeking teacher perceptions it will raise further questions about professional learning opportunities, experiences and practices in this context.

Data were generated from semi-structured interviews with teachers, teachers-incharge and principals, as well as governing school and unit document analysis to explore perceptions of professional learning experiences, opportunities and practices in the teen parent context. The research design is outlined in Figure 4.

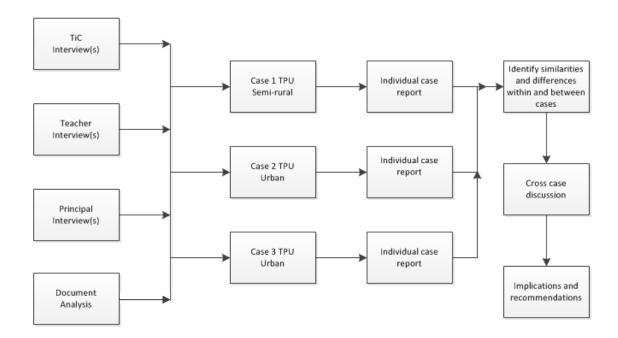


Figure 4. Research design

3.3.1 Case study methodology

A descriptive case study provides a framework "to investigate a contemporary phenomenon (the "case") in depth and within its real-world context" (Yin, 2014, p. 16). Case study, as a design tool, looks at the whole situation and how the different variables within the case might interact with each other (L. Cohen et al., 2011; Stake, 2006; Yin, 2014). Drawing on complexity theory as a framework, Cochran-Smith et al. (2014) argue that case study can provide a rich description of practice, and allow one to interpret what is happening "rather than to change it directly" (p. 13). Hetherington (2013) describes this as the ability to gain the richest possible picture of the ongoing process, not to identify cause and effect or to predict what will happen, but to map "interactions and relationships within the case" (p. 78). Importantly, according to

Anderson et al. (2005), case study with complexity theory is a place to begin when studying a system which is integrated as it provides a way to discern patterns. Hetherington (2013) further notes that case study is also compatible with the notion of nested levels within a complex system, such as evident with the TPU context that is nested within the bigger system of its governing school and the local and national educational context.

An important feature of a case study context is its uniqueness (L. Cohen et al., 2011; Merriam, 1998). Case studies investigate real-life, dynamic, instances of events and human relationships in a specific context. As Merriam (1998) contends it is that uniqueness and what can be revealed about a phenomenon that lends itself to a case study approach. A complexity perspective of case study "involves viewing it as a network of multiple connected, open systems which can vary dramatically due to their unique trajectories of emergent development and unique interactions with other, larger systems" (Hetherington, 2013, p. 79).

While the teen parent setting is a bounded system, each teen parent setting has different factors interacting within their particular context to make them unique in themselves, for example, although each TPU is governed by a school board of trustees, it may or may not be situated on the governing school site. Additionally, the number of students and teachers will vary according to an agreement between the Ministry of Education and the governing school Board of Trustees. To capture some of the diverse of contexts (initial conditions), three TPUs were identified as cases. Thus, the data captures the teacher perceptions of the professional learning landscape in similar but different teen parent contexts. Multiple cases aided a richer understanding of the influences on teacher professional learning (Opfer & Pedder, 2011; Yin, 2014).

3.3.2 Ethical considerations

At all stages of the study Massey University ethics procedures guided the research process. Approval from Massey University's Ethics Committee was gained in February 2014 (see Appendix A).

Qualitative researchers do their best to "capture the thinking of participants from the *participants*' perspective (as opposed to the researcher merely reporting what he or she thinks) as accurately as possible" (Fraenkel et al., 2012, p. 427). In doing so, one must respect individual participants for who they are, what they say and what they do while ensuring that no individual nor the organisation they work for is harmed.

In the New Zealand context, cultural identities and practices must also be respected. For this project, the kawa (protocols and procedures) of each unit were respected and interviews were conducted in a culturally respectful manner. To ensure these principles were upheld, care was given to the consent process and the protection of participants. An initial consent to participate was sought from the TPUs' governing schools prior to any request for participants within the TPUs. The consent by the governing schools was given based on the information letter provided outlining the purpose of the study (see Appendix B) and an information sheet for participation (see Appendix C). An information sheet outlining the purpose of the study was also provided to individual participants (see Appendix D). Consents were sought from case study participants prior to commencing the interviews (see Appendices E,F, and G) and a further consent was sought from participants to ensure that their interview transcript was accurate (see Appendix H). Given that in previous years I had worked with many of the teachers-in-charge, reassurances were provided that neither participation nor non-participation would have a negative impact on ongoing relationships between us. Furthermore, each participant was informed of his or her right to withdraw from the study. At all times, the intention to maintain confidentiality was stated in information sheets and letters. However, as the teen parent setting in New Zealand is relatively small, total confidentiality is not possible. Efforts to ensure anonymity included reporting all participants as a feminine persona. This avoided the potential identification of unit or individual due to the small number of male teachers in TPUs. Furthermore, if any specific data had the potential to identify a unit or a participant it was not reported in the results or discussions of the research.

Punch (2009) contends there are disadvantages for a researcher to be researching in their own environment. Therefore, an "awareness and analysis of the issue is the best

defence against it, and will likely throw up possible measure for its control" (p. 44). My prior work involvement with the teachers in the TPU space brought considerable expert knowledge to the study. However, to minimise the potential for conflict and/or researcher bias, TPUs where I had been working in the previous 12 months prior to data collection were not included in this study.

3.3.3 Participants

The sample for this study was a purposive sample of three TPUs. A purposive sample is one which is "based on previous knowledge of a population and the specific purpose of the research" (Fraenkel et al., 2012, p. 100). My professional knowledge assisted in selecting three cases which would potentially offer a range of professional learning experiences in the teen parent setting. The sample included a representation from the urban and semi-rural mix of TPUs (see Figure 5).

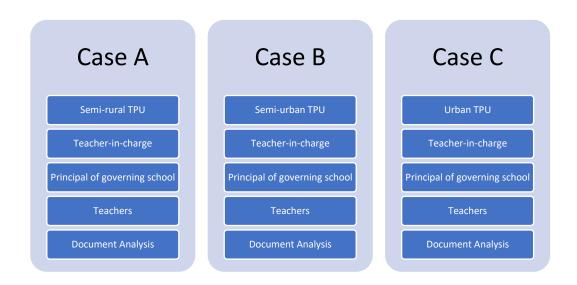


Figure 5. Sample cases

The selection of a small number of cases was undertaken with the view that they would be likely to yield in-depth information about the professional learning phenomenon (Teddlie & Yu, 2007).

3.3.4 Data collection

Using multiple data collection tools contributes to the richness of a case's description (Creswell, 2013; Yin, 2014). For this study, semi-structured interviews—with teachers, teachers-in-charge and principals—combined with document analysis were used to explore the perceptions of professional learning experiences, opportunities, and practices in each of the three teen parent settings. Additionally, where practical, the researcher observed staff briefings, meetings, and informal discussions during site visits. See Table 2 for a description of these data sources.

Table 2

Data Sources

Case	Principal Interview	Teacher-in- charge Interview	Number of teachers Interview	Document Analysis	Observation of staff meeting
Α	٧	√ *2	5	٧	
В	٧	٧	2	٧	٧
С	٧	٧	3	٧	٧

^{*2} TiC gave two interviews as she wanted to add something to her initial interview

3.3.5 Pilot

Following Massey University Ethics Committee approval gained in February 2014 (see Appendix A), and in discussion with supervisors, the proposed interview questions were piloted with a TiC and three teachers from an urban TPU. These interviews lasting between 25 and 40 minutes, were digitally recorded and transcribed for general meaning only. As a result of these interviews the phrase 'professional learning and development' was deleted from interview questions as this tended to focus participants' attention on externally facilitated professional activities such as courses rather than teacher learning, which can be either formal and/or informal. Semi-structured interviews provided a framework whereby participants, through an initial lead-in question, could divulge information about their teaching background, teacher training, qualifications, and how and why they came to teach in a TPU. Questions were asked to identify participants' perceptions of professional learning experiences,

opportunities, and practices. Based on the length of these interviews it was decided to allow three days for each site visit. For the researcher, these pilot interviews also provided an insight into interview techniques and possible issues with digital recordings. For example, ensuring enough time for participants to respond to questions and placement of the digital recorder to capture responses clearly.

3.3.6 Interviews

Interviews with participants are a tool which allows the researcher to delve deeper into the perceptions individuals have of the phenomenon under study (L. Cohen et al., 2011; Fraenkel et al., 2012; Punch, 2009). The semi-structured interview, as used in this study, provided a framework for the interview and provided flexibility to explore responses with participants as needed (Butin, 2010; L. Cohen et al., 2011; Fraenkel et al., 2012; Punch, 2009; Smith, 2004). They allow people "to talk about their experiences, their feelings and their intuitions surrounding the issues you are examining" (Butin, 2010, p. 97). The semi-structured interview approach, also, provides a way to check for accuracy either to refute or verify the impressions gained (Fraenkel et al., 2012).

In this study, the semi-structured interviews (Appendix I) enabled the voices of the teacher, TiC, and principal to be heard (Punch, 2009). Interviews with participants with different roles and responsibilities enabled the researcher to analyse similarities and differences not just between the perceptions from different roles but also between cases.

3.3.7 Document analysis

For this study, the unit and or governing school's professional learning policy, strategic plans, staff meeting minutes or notes, and professional learning records (if shared) were accessed (see Table 3).

Table 3

Document Sources

Documents	Source		
Professional learning policy	Teacher-in-charge		
Strategic plan	Teacher-in-charge and/or Principal		
ERO Report	Website		
Staff meeting minutes or notes	Teacher-in-charge		
Professional learning records	Individuals (only if offered)		

The purpose of analysing these documents (L. Cohen et al., 2011; Fraenkel et al., 2012; Punch, 2009) was to better understand the mandated and/or intended practices of professional learning in the teen parent context and triangulate these with the implemented practices discussed in the interview data between cases.

3.3.8 Data management

All interviews were digitally recorded, then transcribed by me and stored securely. Transcribing the interviews myself enabled me to become familiar with the data, reflecting the step one of IPA analysis as identified by Smith et al. (2009). Electronic copies of transcripts were sent to participants once completed, via email, to check for accuracy of transcription (see Appendix H).

3.3.9 Data analysis

Qualitative data analysis is almost inevitability interpretative (L. Cohen et al., 2011; Creswell, 2013) and presenting the findings of a case study takes no particular format (Creswell, 2013). Some cases will generate theory, some will simply describe the case, while others may be "more analytical in nature and display cross-case or inter-site comparisons" (Creswell, 2013, p. 236).

While there may be some variation in the strategies used to analyse qualitative data, Creswell (2013) argues there are three broad stages of analysis: first, data are prepared and organised; second, the data set are reduced to themes through a process of coding and condensing codes through review; and third, data are used to

present findings in the form of figures, tables, or discussion. The analysis of case study data is iterative, in that there is no formula for the analysis and therefore a starting point when analysing the data is to 'play' with the data (Yin, 2014). To ensure that data analysis is of high quality, Yin (2014) recommends adhering to four principles when analysing case study data:

- i) ensure "all the evidence is included in the analysis";
- ii) address "all plausible rival interpretations" if possible;
- iii) ensure "the most significant aspect" of the case study is addressed;
- iv) "use your own prior, expert knowledge" (p.168).

Data were analysed using interpretative phenomenological analysis (IPA). Like Yin, Smith et al. (2009) argue there is no single method prescribed when analysing data using the lens of IPA, rather there is a set of common processes: emergent patterns, close analysis, and inductive analysis. Furthermore, the route through these processes will not be linear, but it will be subjective and iterative. Smith et al. (2009) suggest six steps for IPA data analysis. These are:

- Step 1 Reading and re-reading transcripts
- Step 2 Initial noting (this can be descriptive, linguistic or conceptual)
- Step 3 Emergent themes
- Step 4 Searching for connections across emergent themes
- Step 5 Moving to the next case
- Step 6 Looking for patterns across cases

While these principles/steps as outlined are suggested to analyse qualitative data they cannot be taken as a simple recipe to follow step-by-step, rather they should be adapted and developed by the researcher for their study (Smith, 2004; Smith & Shinebourne, 2012).

Interpretative phenomenological analysis (IPA) is a contemporary approach to qualitative data analysis influenced by idiography (Smith et al., 2009). Idiography is concerned with the particular in that the understanding of a phenomenon is being analysed from the "perspective of particular people, in a particular context" (Smith et al., 2009, p. 29). As such, IPA is useful to research areas which we do not know much

about or those which are considered complex (Smith & Shinebourne, 2012) like the under-researched TPU context. Interpretations, by the researcher, using IPA analysis of the 'thick rich' data (Lincoln & Guba, 1986) from a case study will contribute to existing knowledge through the interrogation of convergent and divergent themes both within and between cases and explanations developed around the themes.

Data analysis was supported with computer software. Transcribed interview data were uploaded to QSR International NVivo software. Transcribed interview data were initially noted under descriptive headings using an open-coding approach (see Appendix L). Open-coding is where the researcher codes the data using major ideas based on the information at hand (L. Cohen et al., 2011; Creswell, 2013). The next stage of the analysis was inductive as the researcher worked back and forth to establish if the descriptive codes could be categorised around themes (Creswell, 2013). These initial codes were then reviewed to identify those which were similar. For example, dialogue/conversation/talking were grouped under a heading of collaboration. It was clear from this process, using an deductive approach, that the open-codes could also be clustered around the conceptualisation of professional learning as proposed by Opfer and Pedder (2011): the teacher, the context, and the activity (see Appendix M). Within each of these system organisers, the researcher then determined the themes. During the analysis, there were some instances where the themes appeared to overlap—a finding which is supported by Figure 3 (p. 48). The predominant influences on teacher professional learning identified in and between case setting supported the theoretical framework of complexity theory in that the framework captured the web of relationships between the variables of teacher professional learning within the parts: the teacher, the context, and the learning activity.

Data were also reviewed to identify whether within each case's professional learning landscape there was a predominant subsystem. The identification was made by counting the number of influences/drivers within each subsystem—*note* multiple references to an influence from participants were only counted once. Based on this

count, a proportional representation of the relationship between the subsystems was created for each case as presented at the end of Chapters 4 to 6.

3.4 Evaluating Quality of Research

With many research perspectives it is important that a researcher can validate the quality of their research (Creswell, 2013). Creswell (2013) proposes that validation of qualitative data involves "accepted strategies to document the 'accuracy'" of one's study and that no one "distinct validation approaches exist" (p. 250). For this study, the strategies used to check accuracy included: triangulation; declaring researcher bias (see positioning of researcher earlier in this chapter); rich, thick descriptions; participants checking their transcribed interview; and review of analysis by supervisors. Triangulation enabled the researcher to look for both convergent and divergent outcomes, using different data sources (Creswell, 2013). The professional learning landscape was explored through the triangulation of interview data taking into account the different roles of participants and looking at data between cases. In looking at three case studies, each with their own unique sites, triangulation produced consistent themes as well as inconsistencies and contradictions among the data.

The transferability of findings is dependent on the data sets that judgements are based on and if there is "a sufficient knowledge base for both sending and receiving contexts" (Lincoln & Guba, 1986, p. 359). This is often referred to as external (Ellinger & Cseh, 2007; Lincoln & Guba, 1986; Merriam, 1998). In the social sciences, in particular, this can be problematic as human behaviour is never static (Merriam, 1998). Therefore, rich, thick descriptions are needed to enable those reading the research to determine if their context matches the research context. As Merriam (1998) argues, "studies must be rigorously conducted, they need to present insights and conclusions that ring true to readers, educators and other researchers" (p. 199).

For this study, the rich case data were analysed and reported under three recursive subsystems for each case (see chapters four to six): the teacher, the context, and the activity. However, consideration should also be given to internal validity (Fraenkel et al., 2012; Merriam, 1998). Internal validity is said to occur when alternative

explanations have been systematically ruled out, researcher biases are identified, and data is triangulated. Yin (2014) argues that this is when interpretations are made on what is not being said. For this study, triangulating the data from both within and across cases led to two emergent themes as discussed in chapter seven: *uniqueness* and *community of learners*.

The following six criteria are proposed by Creswell (2013, p. 265) to evaluate the quality of a case study:

- "Is there a clear identification of the "case" or "cases" in the study?
- Is the "case" (or are the "cases") used to understand the research issue or used because the "case" has (or "cases" have) intrinsic merit?
- Is there a clear description of the "case"?
- Are themes identified for the "case"?
- Are assertions or generalizations made from the "case" analysis?
- Is the researcher reflexive or self-disclosing about his or her position in the study?"

These six criteria guided the research design and analysis of this study, for example, each case was clearly identified, and the findings were reported using the proposal that professional learning be explored using three subsystems. Taking this approach enabled the researcher to explore similarities and differences not just within a case but also between cases.

3.4.1 Design limitations

In setting up any research programme limitations at the design, sample, instrument, analysis, or researcher knowledge level should be considered. Acknowledgement of limitations enables the impact of these to be minimised and/or identified to allow readers to read the research with a critical lens.

While a qualitative study is a way to explore a phenomenon in depth, a case study design involving interviews has the potential for generating too much data and/or misinterpretation between what is said and what is heard as the data represents text that the researcher has constructed (Fraenkel et al., 2012; Oxley, 2016; Punch, 2009).

To minimise these issues, the researcher provided transcripts to participants to confirm that their intended responses were represented in the transcript. Also, in several instances, the researcher discussed possibilities regarding interpretations with supervisors.

Another limitation is with instrumentation, for example, interviews have the potential to be inconsistent and questions could be ambiguous. To minimise the impact of this, interview protocols were piloted with particular emphasis on establishing shared meaning for the questions.

The self-reporting of practices can also be a limitation (Ellinger & Cseh, 2007). In this study, professional learning experiences and practices reported by participants relied on their recall of these. To minimise these limitations, triangulation of data through the integration of multiple sources of data was undertaken. Semi-structured interviews were conducted with participants, each with varying roles within the unit, and this data were considered along with document analysis to minimise the limitation of self-reporting.

3.5 Presentation of the Findings

This study describes the professional learning landscape in TPUs and identifies similarities and differences between cases. The use of IPA as an analytical tool provided an idiographic basis to develop teacher perceptions of the professional learning landscape, in their context. Complexity theory provided a framework to view emergent themes from the data analysis—themes that were referenced in the work of Opfer and Pedder (2011): *the teacher, the context, and the activity.* Findings from this study are presented as follows:

Chapters four to six present case findings from the three participating TPUs. Each case study describes participants' perceptions of the professional learning landscape for their unit. The principals' perceptions of teacher professional learning in the TPU under their governance are also included. Based on analysis of interviews, school-based documentation, and observations, the findings are organised within the framework of teacher subsystem, context subsystem, and

activity subsystem variables (Opfer & Pedder, 2011). Each participant was involved in a semi-structured interview (see Appendix I). Documents such as staff meeting minutes/notes, appraisal documentation (if shared by the participant), Education Review Office reports, policies relating to professional learning, strategic and annual plans, were analysed to gather information on the nature of each unit's professional learning practices and to triangulate with participants' perceptions of these practices.

• Chapter seven discusses the findings using two emergent themes: *uniqueness* and *community of learners*, with a third emergent theme: *motivation* weaved into these.

Chapter Four: Case A

Teacher professional learning is located within a complex web of relationships (Clarke & Hollingsworth, 2002; Opfer & Pedder, 2011). In presenting the findings of this research, Opfer and Pedder's (2011) complexity theory framework for professional learning—involving three subsystems: (a) teacher as subsystem, (b) context as subsystem, and (c) activity as subsystem—was used to map the potentially complex, non-linear, and messy landscape of professional learning for each case. The individual case analyses presented in the next three chapters identify the inherent complexities and subtleties of how the multiple variables within each of the three sub-systems influenced the teacher professional learning landscape in the TPUs.

4.1 Case A Context

Case A is a semi-rural TPU of 35 students, located some distance away from its governing school, with a guaranteed minimum formula staffing (GMFS) of 3.5 full-time teacher equivalents (FTE). Overstaffing, according to entitlement under GMFS (see Table 4) was made possible through study grant allowances and/or Ministry of Education operational funding. Four of the participants, including the TiC, had been working in the TPU for five or more years, and Teacher D and E, were recent appointments (see Table 4)

Table 4
Case A: Staffing Allocation, Length of Time in Unit and Subject Responsibilities

Governing School: Board of Trustees and Principal						
Teen Parent Unit Staff						
Who	FTE*	Subjects/Roles within TPU	Number of Years in TPU			
Teacher-in-charge A	1.0	Leadership Hospitality	9			
Teacher A	0.7	English Communications Hauora	5			
Teacher B	0.7	Mathematics Science	5			
Teacher C	0.6	Careers Gateway/Star Vocational Pathways	9			
Teacher D	0.4	Health Sport and Recreation Hauora	<1 (7 months)			
Teacher E	0.2	Literacy Numeracy Science	<1 (1month)			

^{*}Note: Two other teachers are employed for two hours each during a week for textiles, hospitality and food and were not available at the time of data collection.

4.2 Teacher as a Subsystem

There were several variables identified that influenced teachers' perceptions of professional learning in this TPU. They included teachers' (a) biographies, (b) perceptions of professional learning, and (c) their dispositions to learning.

4.2.1 Teacher biographies

Hardy and Edwards-Groves (2016) contend that teachers' perceptions of professional learning are influenced by their individual histories and socio-cultural influences. The histories of these participants were reflected in their diverse backgrounds, and different career pathways prior to teaching in the TPU.

Previous to that I was in the senior leadership team [at the governing school] with assistant principal responsibility for Years 7-13. In 2007 I completed my University Diploma in Educational Management [supported by a study award]. I returned to school in 2008 and was keen to look for a new leadership position.

The five part-time teacher participants had a variety of pathways into the TPU. Teacher A and Teacher B described their move to teach in the TPU as a lifestyle choice, to suit personal circumstances. For Teacher B, part-time work with students who had potential challenges presented as an appealing career choice after extended maternity leave:

I liked the idea of working with what was potentially going to be more low decile students and in a situation that I could empathise with, that is, motherhood and the opportunity came up, so I grabbed it.

Teacher C joined the staff when the TPU was first established under the management of the Ministry of Social Development. Shortly after, the TiC at the time went on sick leave and Teacher C stepped into the leadership role. She noted that the challenges in this role led her to her own pathway of study in careers:

And someone from Careers New Zealand called in. I was completely snowed under and I said to her, "all I'm doing is really spending time with all of those students trying to understand where they've come from and what we can offer then to re-engage them". And she said, "that is career development".

For the more recently employed staff members, it was their relationship with existing staff that prompted them to consider teaching in a TPU. Teacher D, who had done some relief teaching in the unit, was subsequently approached by the TPU physical education teacher to teach one physical education unit. Later, with the resignation of the physical education teacher, Teacher D was employed on a permanent basis.

Teacher E became aware of a part-time position coming up in 2016 through a teacher friend contact. She noted that she believed she was a better teacher with small groups of students and thought the TPU was an ideal setting to use her teaching strengths.

These accounts affirm the findings of Anthony and Ord (2008) who contend that one's

decision to embark on a new career pathway in teaching is multifaceted, complex, and sometime happenstance. It is these individual career pathways and professional histories which Keay et al. (2018) argue need to be recognised and appreciated as part of the 'initial conditions' of each teacher's professional learning process.

Within this case, each teacher was responsible for several subjects, often at many different levels (see Table 4) and these responsibilities could change depending on the subject selections made by the students each year, for example, Teacher A reported she had previously taught music and drama to meet the needs of a particular student cohort. A point to note for this context is that the teaching is not reliant on distance material. The exception to this would be if a student wished to study a specific subject and teacher knowledge of the subject was limited. In this instance distance material would be arranged and a staff member would be delegated the responsibility of facilitating the learning.

4.2.2 Perceptions of professional learning

Teacher professional learning means different things to different individuals (Cole, 2012), and this was confirmed by Case A participants. Throughout the interviews, although the researcher referred to *professional learning*, at times participants would use the phrase *professional development*. Three of the teachers (Teacher A, Teacher B, and Teacher C) identified that teacher professional learning involved seeking out new knowledge either through reading, research, or discussions. These teachers believed the processing of new knowledge—by making connections with prior learning, reflecting, or absorbing the knowledge—was how teacher professional learning occurred:

It's the formal readings you might do and digest, then take some ideas and put into practice and then reflect on whether they work or not and sharing them with others. So, sort of quite dynamic and it's two way. [Teacher B]

When you research something, when you're trying to find out information. I would say it's seeking knowledge to integrate with existing ideas. [Teacher A]

Expressing a sense of 'newness' in the TPU, Teachers D and E talked about professional learning as building new knowledge related to their new role, for example, Teacher E

described a professional learning experience as one where the learning meets "a person's needs or expressed needs of what they wanted to learn" adding it "may be identifying an area of weakness or an area where I could do better and then finding someone who has more expertise and knowledge than myself to get some ideas, and see it in practice."

For the TiC, professional learning was multi-faceted and a personal learning journey influenced by "where you are up to at a particular point of your career." Professional learning focused on building her capability within the leadership role, for example, as she did not feel overly confident in leading staff learning she sought out a mentor to support her in this specific leadership task. In doing so, she was an active participant in her professional learning, a key characteristic that is influential in supporting teacher professional learning (Robinson et al., 2009).

4.2.3 Teacher dispositions

A dominant variable in the teacher subsystem was the participating teachers' disposition towards learning. Overall, seven different dispositions were raised during interviews. These were: ongoing learning, self-belief, desire to learn, have a go/can do attitude, willing to fail, motivation to learn, and open to learning. Dispositions referenced by the principal, the TiC, and the three longest serving staff members were: motivation to learn, open to learning, and ongoing learning. The latter two were supported by (a) analysing the self-reflection documents prepared for their appraisal, and (b) letters supporting study grant applications.

4.2.4 Motivation to learn

The principal of the governing school believed that TPU teachers were motivated to learn and this was reflected by the number of study awards and study support grant applications from TPU staff. The governing school's professional learning policy of supporting staff study awards and grant applications endorsed her belief that it was "a great thing that people are motivated to want to keep learning and expand their knowledge." The principal argued that these awards were especially important for TPU

staff because they supported teachers to have outside references, minimising isolation that could potentially be a downside of working in the TPU.

Teacher A identified that the motivation for her learning was important because she was the only English teacher in the unit. Therefore, she "sought out a little support network" to minimise the potential of her "subjectivity". Teacher B identified that she needed to upskill herself to teach science and maths as her degree was in law, beside teaching qualifications. She noted that continuing with her own study not only gave her confidence to teach mathematics, but also served to remind her of what it was like to be a student. The motivation to learn more about mathematics was also explicitly linked to her desire for her students to have the best possible experience of learning mathematics. To warrant this claim, Teacher B discussed her earlier teacher inquiry, where she explored digital resource options to ensure her students did not miss out on National Certificate of Educational Achievement (NCEA) qualifications because of absences.

4.2.5 Desire for learning

The TiC perceived herself to be *open to learning*. She noted that every year "we are doing things differently and better." She described herself and her staff as looking for the possibilities to enhance learning opportunities in their own context. One example was her attendance at a cluster meeting for teachers-in-charge of TPUs where they read about and discussed 'flipped classrooms'—a strategy she later shared with her staff. Taken up by Teacher B as the basis for her digital resource platform known in the unit as 'Facebook Maths', this initiative provided students with opportunities to continue their learning when attendance was disrupted, for example, by needing to care for their sick child. Teacher B noted that the need to be open to new learning was the impetus behind her explorations of how digital platforms such as Facebook might work to provide alternative access to classes:

It's a social media thing they're familiar with and already engaged in and it's a group that they join, and they've got access to links to google docs which are those power point videos. But I'm changing that and creating a YouTube channel

now because I think it's easier in terms of their data usage or something. Not really au fait with the background stuff. So, that's a bit of a learning curve.

Likewise, Teacher A discussed how new technology meant it was important to be *open to learning*. For her, openness included ongoing learning and likened this to being like students, who are asked to learn all the time. She believed that if a teacher was not open to learning then they were "never going to be able to reach students in the class because we're never going to know how, they're forever evolving like technology." Teacher A qualified her comments stating that one should be discerning about what is learnt by reflecting on how new knowledge might be applied to one's subject and context.

Teacher C described being *open to learning* involved making the most of your opportunities for learning, for example, she noted that taking the time to have informal conversations with the person next to you and listening to what they had to say might be useful even if the seminar/workshop you were attending was not useful.

Three of the participant teachers and the TiC have had a study award/grant while employed in this unit. Teacher B had a study grant that provided time for tertiary study at masterate level. Teacher C had a study award in 2014 to complete tertiary study related to her work with careers and transition in the TPU. The TiC had a study award prior to her appointment, and in 2016 she had a ten-week sabbatical to look at assessment of student well-being within TPUs. Teacher A was currently in receipt of a post-graduate study award that provided teacher release time to complete coursework.

4.2.6 Professional learning needs and focus

Given that the timing of these interviews was early in 2016, the formal process for identifying teachers' professional learning needs was work in progress. The staff employed in the unit prior to 2016 reported that their current professional learning focus built on earlier teacher inquiries. Teacher A was revisiting an inquiry on how to use blogging to support student learning from four years ago. Although blogging had

not been successful previously, she believed now was a good time for further exploration. Reflecting on the possible reasons why blogging was working now she wondered if she had connected the blogging in a different way for her students to their learning, or if she had scaffolded the process better. What she did acknowledge was that you must be willing to fail sometimes and prepared to try again.

Teacher B and Teacher C also reported continuing with earlier inquiries. Teacher B was refining and improving her understanding of digital strategies to engage her students in learning and Teacher C was reviewing ways to improve her transition plans as part of her careers programme.

At the time of the interview, Teacher D and Teacher E, who had been employed in the unit less than a year, had not decided upon a focus for their professional learning. Teacher E noted she was comfortable with her subject responsibility and if she found she needed anything she would ask Teacher B. She was thinking that she wanted to access professional learning that would enable her to teach better and believed personalised professional learning rather than something "designed for the masses" was needed. Teacher D said she would like to understand the community within which she was working better but had no specific plan of action.

4.3 Context as a Subsystem

The context subsystem variables identified in this case were (a) school's professional learning policy; (b) professional learning practices, including staff induction/orientation and identification of professional learning; and (c) leadership.

4.3.1 Policy

The governing school had a professional development policy that included both the governing school and the TPU. The policy stated that the professional development focus should be based on:

- delivering high quality learning programmes for students;
- individuals goals arising from the appraisal process and needs identified during the year; and

• school-wide goals and foci as stated in the school charter and annual plans.

Based on an annual budget set by the TiC and the deputy principal for governing school staff, the policy suggested priorities for professional development were those which directly benefited the quality of teaching and learning, provided participation with maximum benefit, and were school-based.

4.3.2 Professional learning practices

Consecutive ERO reviews (2010 and 2013) indicated that teaching in this unit reflected current educational research on best practice and advocated that teachers participate in professional learning and network groups. ERO also identified that staff participated in professional learning to address targeted school-wide priorities.

It was apparent in the interviews that participants saw themselves as a community of learners (Stoll et al., 2006; Watson, 2014) with the TiC facilitating the professional learning community through supportive organisational structures, such as providing time for part-time staff to meet as a whole team and ensuring the professional learning was context (TPU) specific. Having set staff meeting times provided teachers with the opportunity to present and discuss their individual teacher inquiries as well as share professional readings. It was from these discussions that teachers reported adaptions to their practice. However, although opportunities to meet and discuss their practice were provided, the TiC also identified some potential barriers to teacher professional learning. These included limited access to professional development opportunities offered in the governing school, largely due to being off site, and challenges around arranging meeting times that all staff could attend. She viewed her role as the leader was to minimise these potential barriers and create an inclusive culture of learning.

4.3.3 Staff induction/orientation practices

One of the areas explored in interviews was induction or orientation into the teen parent environment. The TiC reported she herself had no formal induction on her appointment as leader of the unit. Her predecessor had vacated the position suddenly

without a succession plan in place. Describing her move to the unit as a clean page, she suggested this enabled her to establish her role. However, she noted that she was "very fortunate" that her appointment coincided with a Ministry of Education Schooling Improvement Project (2009-2011) for teachers-in-charge of TPUs. She believed that this provided her with a network of like-minded colleagues to share and discuss learning and leadership in the TPU context.

Teacher A and Teacher B started at the same time and remembered having many professional conversations with the TiC. The best advice they received was that teaching in a TPU was different from teaching in mainstream/regular schools. There were discussions around managing multi-level groups and individual education plans for students. Teacher D and Teacher E said there had been no formal induction/orientation for them. However, they also reported that the many conversations (both formal and informal) with the TiC and other staff helped them find their feet in this teaching environment. Teacher D, also, noted that her time relieving before she was employed in the unit provided some induction. While Teacher E also reported no formal induction process, she did acknowledge that the three days, at the start of the academic year, without any students provided her with many opportunities for informal conversations and discussions, all of which supported her transition to teaching in this environment.

4.3.4 Identification of professional learning needs

Participants did not see any tension between their own personal learning needs and unit or school-wide needs. While driven by one's individual learning needs, participants saw value in linking their individual focus to a school-wide focus selected by either management or the board of trustees. The view was affirmed by the TiC's practice of 'purposefully' involving her staff in the identification of unit-wide and individual professional learning needs. However, while meeting individual learning needs involved negotiation with the TiC, all staff were aware of requirement for staff to participate in a teacher inquiry of their choice each year as part of the appraisal process.

Indeed, Teacher A, Teacher B, and the TiC all regarded the appraisal system as the main process to identify individual learning needs. However, Teacher B noted that while learning needs were discussed in appraisal meetings staff are "pretty much trusted" to determine and seek their own professional learning opportunities—a view supported by Teacher A, who said, "I know what I don't know." For Teacher A, appraisal enabled her to discuss with the TiC how she could experiment and trial different strategies and ideas. Staff new to the unit, Teacher D and Teacher E, said they had no idea how professional learning needs were identified in the unit. However, Teacher D did indicate that the TiC had commented that a presentation she had recently given to staff would form part of her appraisal on how she was contributing to school professional learning.

Interestingly, although Teacher B stated that the appraisal system was the way professional learning needs were identified, later in the interview she said, "it's more informal than formal and that works really well here," She described how weekly staff meetings were "dedicated towards student needs" and "what flows on from that" provided professional learning opportunities for staff:

Just techniques, not technique but just informal discussion. I don't really know the words for some of the stuff, you know all of the jargon that you can use, educational theory and that. I don't know any of that, but I know we're doing some of it.

All participants readily identified how the teen parent context influenced their professional learning. Teacher A thought this was because a unit had "an everchanging cohort and the flavour of this year is it could be a different school to last year." As a result, this meant she reflected on her practice and made changes to engage the current cohort of students. Likewise, Teacher B described how the TPU environment involved working with a unique group of learners—learners who had not just academic but also high pastoral needs. She believed that the informal conversations staff had together—for example, "how did you get …?"—were not just to better their own individual learning needs but also the learning needs of their

learners. She gave the example of staff sharing strategies for working with individual students who might be causing concern.

4.3.5 Leadership

The TiC saw her role as a leader of learning. In addition to ensuring that there was an appropriate professional learning budget, she encouraged her teachers "to take and grab whatever professional learning opportunities" arose. To maximise the opportunities for all staff to access external professional learning opportunities, the TiC managed the cost of teacher relief through internal cover where possible. Formal opportunities also included encouraging staff to undertake further study supported with study award and grant applications. However, she was cognisant that most of the professional learning came from informal discussions with the staff rather than formal learning experiences.

In establishing systems to support teacher professional learning, the TiC was an active learner herself (Robinson et al., 2009). She was involved in an established professional network with other TPU TiCs, had participated in the national Schooling Improvement Project (2009-2011), and sought continued external support to help embed a learning culture within her unit. As a result of her ongoing learning she introduced a cycle of regular staff meetings focused on teacher learning. Deliberate alternation from Tuesday one week to Wednesday the next ensured part-time staff could attend at least one meeting every fortnight, which aligned with her wish to support a learning community culture. At the start of the year, the focus was on the students. As the year progressed, staff meetings included opportunities for staff to share their teacher inquiries and provide each other with feedback and feed forward commentary.

Teachers described the leadership of the TiC as very collaborative and noted she made herself available for professional conversations, for example, Teacher A noted that if she tried a different teaching strategy and it did not work she could have "open dialogue" with the TiC about why not and discuss possible refinements to improve the strategy. This openness was also reflected in the principal's description of her relationship with the TiC, which she noted as an equal partnership. Viewed as a co-

learning relationship, the principal described how they could learn from each other, seeking advice or using each other as a sounding board for ideas. She pointed out that the yearly appraisal documentation for staff supported her confidence in the TPU leadership, warranting her claim with examples of mentorship of individual staff and reference to support for subject content expertise, including for example, Teacher C's role as the chair of a local teachers' network.

4.4 Activity as a Subsystem

Participants recalled, in their interviews, many different opportunities and experiences for professional learning. These professional learning experiences included workshops, observations, professional learning communities, research, mentoring and reviewing student progress, study days, collaboration, teacher inquiries, and moderation of assessments. A summary of these opportunities and experiences, ranging from formal to informal experiences and opportunities, are listed in Table 5.

Table 5
Case A: Professional Learning Activity Summary

Type of PL Activity		Teacher Participants (n=5)	Teacher-in- charge	Principal
Formal	PD Course (includes workshops, seminars, clusters, teacher-only-days)	2	٧	٧
	Conference	2	٧	
	Tertiary Study (includes study supported by study awards)	3	٧	٧
	Research	2	٧	
	Reading (includes personal and more formal instigated by TiC)	3	٧	
	Teacher Inquiry	2	٧	٧
	Reflection	3	٧	
	Networks (includes online)	4	٧	٧
	Observation	1		
	Modelling	1	٧	
	Professional learning community (includes schoolwide PL learning)	3	٧	
	Talking with colleagues (includes collaboration at staff meetings)	5	٧	٧
Informa	Learning on-the-job	4	٧	٧

While, formal opportunities included best practice workshops, seminars, PD courses, cluster meetings, conferences, and the Schooling Improvement Project, participants considered their professional learning opportunities to be primarily informal. In some cases, an informal professional learning activity could be made more formal if there was a requirement for them to report back to others—a specific example of this was professional reading. The TiC took an active role in identifying research readings that might be of use to, not just the whole staff, but individuals. If there was something specific she would talk to the individual teacher; otherwise she included time in staff meetings for staff to discuss readings and identify the key messages and implications

for their teaching practice.

Within the range of available professional learning experiences and opportunities, a few are highlighted to reflect the propensity of informal opportunities participants engaged with. These are (a) informal conversations (b) networking, and (c) learning onthe-job.

4.4.1 Informal conversations

All participants identified professional learning as something that occurred all the time. Most notably, there was a keenness within the interviews to stress the importance of professional learning conversations that took place with colleagues within the unit. Teacher E said that discussion took place in the staffroom, while Teacher D said she sought out staff to discuss ways in which they ran their programmes. For her, the "heaps" of discussion with all staff, including the administrator, contributed to her learning and "development of my understanding" of the TPU context.

Long-serving teachers also noted that professional conversations were ongoing. They identified several examples of such 'hallway' (Dixon, 1997) conversations:

- We'll just talk at lunchtime or you know whenever we can sit down together.

 [Teacher C]
- Every morning tea or lunchtime we talk, and we talk about what's happening in our classrooms. What worked? What hasn't worked and why? [Teacher B]

These informal conversations were valuable, as noted by Teacher B, because they were "from within an environment, it's very environment specific, so it's tailored to our needs at this school and not to only our general needs as teachers but also the specific needs of our learners."

4.4.2 Networking

Networks outside of the TPU was another valued experience that encompassed talking informally with colleagues. Teacher A identified that as the sole teacher of a subject within the unit she needed networks to not only ensure she was assessing at the right

curriculum level but to also provide up-to-date subject knowledge and opportunities to bounce ideas off other practitioners. For her, accessed networks included online forums, local subject association, subject area conferences, and teachers from high schools in her wider community. Teacher C and the TiC also used subject associations to support their practice as well as national associations specific to their areas of responsibility—for Teacher C, this was the National Careers Association and for the TiC the Association for Teen Parent Educators of New Zealand (ATPENZ). Teachers D and E, who were new to the unit, thought that networks for moderation of assessment and subject support could be useful as an external view to benchmark oneself and one's practice. However, at the time of interviewing they had not yet accessed these networks.

4.4.3 Learning on-the-job

Four of the participants talked about the importance of learning on-the-job. Teacher A described the opportunity to find her own way of teaching in the TPU as "learning by doing". Teacher D gave the example of how her experience of teaching one student a particular standard had increased her understanding and practice of differentiated learning. However, participants noted that learning subject knowledge on-the-job was challenging to learn on-the-job, for example, Teacher B expressed that one had to have "top notch" subject knowledge, when teaching in a TPU.

You haven't got time to learn on-the-job in terms of your content knowledge and you need to be able to step outside of the actual subject and really dissect it and scaffold it in a way and teach it in multiple different ways to cope with the different brains you've got in your room.

While learning on-the-job was primarily informal in nature, professional learning through teacher inquiry was an example of a more formal learning experience. The expectation that staff conduct their own teacher inquiry as part of their appraisal process formalises naturally occurring reflective practices (Benade, 2015). Evidence of teacher inquiry was found in unit documents such as staff meeting notes, letters of support for study grants, and community newsletters. While newer staff had not yet started their teacher inquiry, both Teacher A and Teacher B discussed their inquiries in

some detail. Both teachers were also involved with tertiary study which they noted supported their inquiries by providing background research literature that prompted them to think more deeply about their teaching practice. Teacher A, describing how her use of digital tools to support student learning had changed, noted that she was continually "revisiting things" and refining them because of her own learning and personal confidence. Likewise, Teacher B noted she was refining her 'Facebook Maths' to enable student access to the digital learning.

These teachers exhibit what Timperley et al. (2014) call 'a spiral of inquiry'. The ongoing, cyclical nature of teaching as inquiry that sometimes takes teachers in a new direction but can also loop back to the original. In this context, several teachers attributed the leadership of the TiC as an enabler of their learning, for example, Teacher B described how the topics and discussions in staff meetings enabled her to focus her inquiry in a way that supported more productive engagement of each of the students discussed in her subject areas.

4.5 Mapping the Landscape

This section draws on participants' perceptions of professional learning experiences and opportunities within their TPU as exemplified within each of the three subsystems above to map out the defining features of their landscape, including the affordances and constraints of how participants navigate their terrain. While acknowledging that each participant "may have different kinds of simplex systems governing their understanding and praxis" (Van Geert & Steenbeek, 2014, p. 22), the emergent mapping is constructed by considering the inherent complexities and subtleties of how the multiple variables within each of the three sub-systems combine together make up the holistic phenomenon—the professional learning landscape.

4.5.1 The participants and their perceptions

This case had a total of seven participants: the principal, one full-time teacher (the TiC), and five part-time teachers. Each brought their own perceptions and experiences of professional learning (Cole, 2012; Hardy & Edwards-Groves, 2016), as well as personal dispositions and orientations to learning (de Vries et al., 2014; Opfer et al.,

2011; Van Driel et al., 2007) to the landscape. While the individual participant's rationale for making the career move to a TPU varied, their decision to be a part of this TPU appeared to be driven by a collective desire to provide young mothers with opportunities for educational success.

Participants' perceptions of professional learning reflected their individual learning dispositions. However, they also revealed their collective understanding of the importance of continuing with their own learning. For longer serving staff members this was evidenced by detailed examples of both informal and focused professional learning experiences and outcomes. For new staff (Teacher D and Teacher E) it was expressed as accessing professional learning which enabled them to teach better or understand and participate within the community of learners within which they now worked.

Interviews, also, revealed participants' motivations to involve themselves in professional learning opportunities, with most participants believing it was their responsibility for seeking out their own learning. Motivation such as this is described by McMillan et al. (2016) as intrinsic and can be attributed, in part, to their own curiosity (Timperley et al., 2014) or personal interest.

Participants' professional learning practices fell into two distinct groups depending on the number of years they had been teaching at the TPU. Those who had been teaching in the TPU for more than a year were confident in articulating their teacher inquiry and knew how their professional learning needs were identified through the appraisal system. They also accessed external or formal professional learning opportunities such as tertiary study, seminars, workshops, and conferences. In contrast, teachers who had worked in the unit for less than a year, appeared not to have the tools/knowledge to maximise the range of professional learning opportunities mentioned by their longer serving counterparts. For these teachers, the professional learning landscape was new and uncertain: they appeared less sure of how professional learning needs were identified or accessed and were unclear of the requirements of the appraisal process.

Across both groups it was acknowledged that they had little, if any, planned orientation/induction at the start of their employment in the unit. While, all staff noted that informal professional conversations with their colleagues were used to good effect it is possible that a more formal orientation/induction process could have been beneficial.

4.6 Defining Features of the Professional Learning Landscape

As discussed in Sections 4.2, 4.3, and 4.4, the participants' perceptions of their professional learning experiences in the TPU highlighted the influence of *the teacher subsystem, the context subsystem, and the activity subsystem*. In mapping the professional landscape of teachers, it is important to consider how these three subsystems intersect in terms of how the variables within each subsystem influence the opportunities and experiences for teacher learning (Opfer & Pedder, 2011).

A defining feature of Case A was the participants' desire to improve educational outcomes for their learners. The participants' framing of professional learning as both 'ongoing' and 'student-oriented' (de Vries et al., 2014), mirrored their overarching and shared vison of professional learning directed to better support the learning of their students. This focus was both threaded and realised throughout the variables within each subsystem. Having a shared goal reflects one of the defining characteristics of collaborative professional learning communities (Lieberman & Miller, 2011; Stoll et al., 2006; Timperley et al., 2007).

However, as Stoll et al. (2006) and Watson (2014) contend, a professional learning community does not happen automatically. While organisational conditions are needed to support teachers' learning opportunities, several scholars contend that it is a leader's own orientation to learning which will influence the culture of learning in the organisation (see Collinson, 2012; Robinson et al., 2009). In this TPU, the TiC deliberately sought to position herself with her staff, as a community of learners. In facilitating this community of learners, the TiC believed that she had the responsibility to ensure organisational conditions enabled teacher learning.

While several scholars contend that leading teacher learning involves more than ensuring supportive organisational conditions (Bredeson, 2000; Cole, 2012; Robinson et al., 2009), it also requires the leader to be both an active learner and participant in professional learning (Robinson et al., 2009). Examples of how the TiC demonstrated these characteristics abound: provisions to alternate staff meetings each week to ensure opportunities for part-time staff to be active members of the community of learners; provision of professional readings, with the expectation these would be shared in a communal space—staff meetings; positioning herself as a co-contributor to these discussions. Staff meetings were also used as the forum for participants to share their teacher inquiries. In collaborating with each other, they critically interrogated their teacher inquiries seeking feedback and feed forward from their colleagues. These examples align with Collinson (2012) who contends that a characteristic of successful leadership is the ability to develop supportive relationships to help others develop. In accord with a productive community of learners (Stoll et al., 2006), the TiC's leadership was recognised and valued by others. The principal and teacher participants all perceived the TiC as not just the facilitator of professional learning, but also one who modelled her commitment to her own learning (Evans, 2014; Fullan, 2002; Timperley, 2010).

This case exemplified the findings of Patton and Parker (2017), who purport that while communities of practice vary, professional learning occurs when the supportive conditions are coupled with a common identified focus, in safe but challenging spaces. Within these spaces, there were multiple formal and informal activities that contributed to teacher professional learning. In the absence of any formal induction process/programme new teachers noted the value of informal discussions with their colleagues to provide insights into teaching in a TPU context—a context that they regarded as very different to their previous classroom teaching experience.

While the TPU community of learners provided support, there was also awareness around the challenges in advancing subject specific professional learning, especially for those who were the sole teacher of a subject. To reduce the possibility of becoming insular, the TiC was active in identifying ways to expand the community of learner

space. Several participants belonged to local subject and online networks, worked with colleagues in other schools, or undertook study to support their subject development. Furthermore, the TiC supported the governing school's professional learning policy by encouraging staff to apply for study grants/awards. She, also, facilitated the access to external professional learning opportunities such as attending workshops and conferences with skilful budgetary planning.

For this TPU, the professional learning landscape was characterised as a community of teacher learners with a shared goal that their teaching practice would improve educational outcomes for their at-risk learners. This community was led by a TiC, who exhibited the two characteristics that supported teacher learning found by Blase and Blase (2002), that is by:

- talking with teachers to promote reflection, and
- promoting personal teacher growth by encouraging the study of teaching and learning and providing opportunities for teachers to collaborate.

Giving consideration to the defining features of this Case; using the subsystems proposed by Opfer and Pedder (2011), and listening to the perceptions of participants in this context, it appears that the influences/drivers within each subsystem (see analysis description in section 3.3.9) were evenly balanced (see Figure 6).

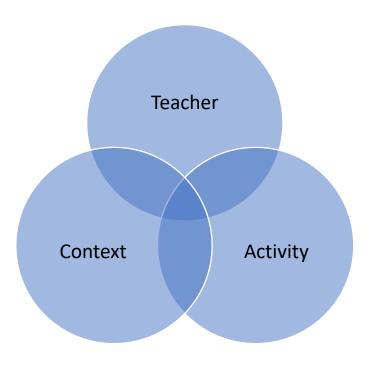


Figure 6. The relative influence of the teacher/context/activity subsystem for Case A

Chapter Five: Case B

5.1 Case B Context

Case B is a semi-urban TPU with a GMFS of 3.0 FTEs and the capacity to enrol 30 students. The unit is located on the site of the governing school. At the time of data collection, the unit staff comprised the TiC (full-time) and three other part-time staff. With 2.2 FTE part-time staff, overall staffing for this unit was 0.2FTE over the GMFS entitlement (see Table 6)—a deliberate decision to meet the learning needs of the current cohort.

Table 6
Case B: Staffing Allocation, Length of Time in Unit, and Subject Responsibilities

Governing School: Board of Trustees and Principal						
Teen Parent Unit Staff						
Who	FTE	Subjects/Roles within TPU	Number of Years in TPU			
Teacher-in-charge B	1.0	Leadership Levels 2 & 3 English Level 3 Health	9			
Teacher F	0.8	Mathematics Numeracy Computing NZQA Liaison Te Kura Liaison	13			
Teacher G	0.6	Science Biology Outdoor Education Garden	13			
Teacher H	0.8	Level 1 English Customer Services Travel and Tourism	12			

5.2 Teacher as a Subsystem

Like Case A, the teacher variables identified for this case that influenced teacher professional learning were (a) teacher biographies (b) perceptions of professional learning, and (c) dispositions to learning, including their motivation to learn, their openness to learning, and desire to learn.

5.2.1 Teacher biographies

Hardy and Edwards-Groves (2016) contend that individual histories influence individual teacher professional learning perceptions. All the teacher participants in this case had been teaching in the TPU for a significant period of time (see Table 6). Teachers F and G had chosen (and remained) part-time teaching when they were bringing up their young families. The appeal of part-time employment for them was further supported by having ready access to the on-site childcare facilities. For individual participants the nature of their part-time status had changed over time, for example, Teacher G had built her position up from 0.2 FTE to 0.6 FTE. In contrast, Teacher H had decreased her working hours from full-time to 0.8 FTE. The focus of her hours had also changed from a mixed role of social worker and teacher to one focused only on teaching.

The TiC had started teaching later in life. She had left school at an early age, returning to university at the age of 30, completing a post-graduate teaching degree. She had several senior educational leadership roles before undertaking study leave to complete her masterate qualification. Upon completion of this study she "wanted to do something slightly different in education." She "was interested in the empowerment of women and this role appealed to me."

5.2.2 Perceptions of professional learning

Although professional learning meant different things to individual participants, they agreed that their professional learning opportunities were student-centred (de Vries et al., 2014; Meirink et al., 2009; Van Driel et al., 2007). Teachers, in this TPU, defined professional learning to be their desire to identify what worked for individual students in the cohort each year. This perception was captured in the words of Teacher F, who distinguished between professional learning and professional development:

Professional learning is more student based on looking at how we can improve the students learning. It's more looking to see what readings or what information is out there and then to read, to reflect on it, going more for the students whereas professional development is more for me, making sure that I'm staying up to date with things.

The TiC concurred with Teacher F's view. For her, a professional learning opportunity would be "something that enhances your practice, enhances your environment or builds on the ideas you've got. Always focused on improving student outcomes." While this distinction between the terms professional development and professional learning was not articulated specifically by Teacher G, she stated that teacher professional learning was the "learning that a teacher would undertake to enhance their work." Teacher H viewed professional learning more as professional experiences or opportunities. These could be both informal and formal or in between. The informal was the sitting down and having a chat with colleagues; semi-formal was the "staff meeting where you share ideas, successes, things that could have gone better"; and the formal included the "workshops, the speakers, the teacher-only-day sort of thing." For the principal, teacher professional learning experiences were times where "teachers would be sharing best practice."

5.2.3 Teacher dispositions

Murray (2010) contends that an individual's perception of professional learning depends on their "dispositions as a 'reflective practitioner' and a 'lifelong learner'" (p. 200). Teacher F and Teacher G exhibited aspects of life-long learning, for example, when asked at the end of the interview if there was anything else she wanted to say, Teacher F responded with "I don't think we're static here. I think we're always learning something." Earlier in her interview Teacher F said that while leadership was important to support teacher learning, it was really that "you need to want to do it [learn] yourself". Teacher G stated very strongly that she loved learning and wished she "could do more of it." When asked why she could not do more learning, the response was that if she undertook all the learning she wanted to then she would really be working full-time not just three days. While each participant espoused they were always learning, Teacher G's willingness to participate in professional learning appeared to be tempered by her part-time status.

Also a supporter of life-long learning, the TiC noted that it was "vitally important to keep yourself stimulated, and to keep up to date with what's happening and to move things forward." She evidenced her desire to continue learning by actively seeking new

opportunities for further study. At the time of data collection, she described her recent study leave experience in some detail. One aspect of this is elaborated here to understand how her ongoing learning experiences influenced her practice. As part of her study she experienced finding herself "in a state of negative capability" and identified that this was how students might feel in a class. She believed it was good to be reminded of this feeling as it gave one empathy for the learners you were responsible for and an opportunity to identify strategies within your own teaching to minimise the impact of negative capability for your students.

The notion of being 'open to learning' was evident in Teacher F, Teacher G and the TiC. Teacher F described how she was constantly looking at ways to improve her practice to support her students, seeking to understand "what worked, what didn't and where to next". She gave a specific example of her reflective practice as it happened when teaching a trigonometry unit. Students told her they wanted her to explain concepts exactly the same way each time they asked a question related to their topic, which surprised her. She thought if students hadn't grasped a concept the first time then she needed to explain it differently. Listening to student feedback, she reflected that "there must be a better way than I'm doing. There must be a better way because it's not working. I can't be, you know. I'm not giving my time to that person when that person needs me". To resolve the issue, she introduced videos for instruction of the various aspects of the topic and then worked with individual students answering their questions identifying specific areas that needed attention. She added that this was still work in progress and she would review, revise, and adapt as required based on her students' needs. This example aligns with Teacher F's perception that her professional learning was exploring and adapting her practice to meet the learning needs of her students.

5.2.4 Motivation to learn

Motivation for teacher professional learning varied amongst participants. Teacher H's motivation to participate for the purpose of maintaining her teacher registration reflected a compliance orientation to learning. External stimulus was mentioned by Teacher G, who said she was "really inspired by the person who's presenting it or

delivering it. Yeah, I love it but there's not enough time, you know." She went on to say that "it's really motivating and inspiring to get new stuff. I mean you'd get totally bored and stale if you're not thinking of new things and looking for new ideas." It was apparent that professional learning for these two teachers was more extrinsically motivated (Avidov-Ungar, 2016; McMillan et al., 2016).

In contrast, Teacher F said her motivation to learn occurred if "it's something you want to do, or you think there's a better way or you'd like to find a better way" to help students to learn. She outlined what she called 'priority learner' work undertaken by staff in the unit in previous years. While this initial work had only focused on two priority learners she found herself continuing to look at her students and saying, "I'd like to know more about you."

5.2.5 Professional learning needs and focus

The unit-wide focus for 2016, as identified in the professional learning plan, was "participation in collaborative teaching and learning strategies and blended e-learning strategies, with a focus on independent learning." The TiC noted that collaborative teaching and learning strategies were built into the teacher inquiry requirement for appraisal. However, not all staff were aware of this requirement. Teacher H was unsure if there was a focus for the professional learning but thought maybe it was "to have a look at that new inquiry thing" that the TiC had introduced as a result of her recent study leave. Teacher F had identified that she wanted her teacher inquiry to focus on whether distance learning for her mathematics students was advantageous or not. However, she was also aware that there was an expectation for her to contribute to the unit-wide professional learning focus on collaborative learning. When asked if there was any potential tension between the two foci she said there was not, but she needed some time to think about how to manage the two foci as there would be some synergies.

5.3 Context as a Subsystem

There are several context variables that influence teacher professional learning (Akiba, 2012; Opfer & Pedder, 2011). In this case three variables were highlighted: (a) policy;

(b) professional learning practices, including appraisal and being a community of learners; and (c) leadership.

5.3.1 Policy

According to the principal, professional learning within the TPU should be aligned to the governing school, but with a slightly different focus based on specific needs of the TPU. The principal also stated that the professional learning opportunities for TPU staff were determined by the direction set by the TiC as her role as a leader of the TPU was autonomous. When probed, the principal was unaware of specific professional learning opportunities available for TPU staff other than the agreed e-learning focus of both the TPU and the governing school.

Commenting on the influence of external policy, especially recent changes in Ministry of Education professional learning policy, the principal noted that the opportunities for professional learning in the TPU were limited, not just because of the direction set by the TiC, but also because of funding restrictions. She believed that the opportunities for funding professional learning had "shrunk from allowing us to do whatever we want, to Ministry directed now, and often we don't get funding." However, despite apparent funding pressures the TiC did not see funding as a limiting factor as the TPU had operated its own budget for professional learning for many years by using their operational grant.

In terms of the TPU having a professional learning policy, the part-time staff were unsure if any such policy existed, but they did acknowledge they accessed numerous professional learning experiences and opportunities. However, Teacher G believed that there was no professional learning policy which allowed staff to attend subject specific professional learning opportunities but acknowledged that she had never asked about it. The TiC noted that "we kind of have a policy around this. It is certainly driven by me and what I think is important at the time and I think the staff kind of go along with it." She explained that the policy located in the 2016 professional learning plan contained three components. Document analysis of the TPU strategic plan and policy documents confirmed this. The first component stated that professional learning would include

"participation in collaborative teaching and learning strategies and blended e-learning strategies with a focus on independent learning." The second component labelled "subject/personal interest", stated that the responsibility of professional learning in these areas sat with the teachers themselves. Additionally, there was some guidance given to teachers which indicated they should access or seek professional learning to enable them to keep up-to-date with their subject's specific changes, including teaching practices. The last component of the plan was focused on pedagogy and stated that "pedagogical development will be in the form of teaching inquiry projects that focus on collaborative learning and identified learning/progress difficulties." These documents also stated that a shared pedagogical goal for 2016 was "the further development of e-learning capability." However, despite the written evidence, staff could only recall that they had participated in a teacher-only-day at the start of the year around collaborative learning. Although staff mentioned attending an e-learning workshop, none of them associated this opportunity with the 2016 professional learning focus.

5.3.2 Professional learning practices

In the unique context of a TPU where all the teachers know and work with all the cohort in any one year, it is not unusual for teachers to have not just subject(s) responsibility, but also a collective responsibility for all students' learning. The teachers act like a community of learners and operate as a small professional learning community, under the leadership of the TiC. The uniqueness associated with teachers' collective responsibility for the whole cohort of students was described by Teacher H as "one of the beauties" and "also one of the flaws" in that the teen parent context was "wonderfully isolated."

This sense of isolation, despite being co-located with the main school, was reflected in the sense of insularity regarding professional learning. That TPU staff collaborated with each other only, rather than with colleagues outside of the unit, was perceived as a positive thing, for example, Teacher H, reported that it was the possibility of staff being able to "sit down and talk face-to-face and meet regularly" which enabled staff to learn from each other. While she acknowledged that they could perhaps learn "from

the high school" staff, she believed that "a lot of the innovations that come in we're already doing them", for example, the unit's earlier professional learning focused on priority learners involved staff working collaboratively to identify "what worked, what didn't and where to next" for two or three key students. In this instance, participants worked collaboratively during staff meetings to identify strategies to support the learning of the identified priority learners. Each week participants discussed their findings at staff meetings, agreed on the next steps and reported back the following week before commencing another cycle. Another example where participants perceived the TPU was ahead of the governing school was the implementation of individual education plans (IEP) for students. The TPU had always written IEPs for each student based on the student's individual learning needs and personal circumstances. These two examples could be viewed as evidence of the TPU being a micro-community of professional learners (Murray, 2010). In both examples, the professional learning that supported these innovations came from within their own context through staff collaboration. The TiC supported their learning through the provision of professional readings focused on innovations, current educational issues, and developments. The staff used these readings to guide their thinking, discussions, and practice as they reflected on how to improve outcomes for their students.

Although these teachers reported learning from one another through collaboration, they also reported experiencing isolation from teaching colleagues, particularly those colleagues who taught the same subjects as them in the governing school. The degree of isolation, however, was variable, for example, Teacher F said her subject knowledge was supported by colleagues from the governing school's mathematics department, but she did not really connect with other teen parent teachers within her subject area. Although, Teacher G talked about isolation, she said this was minimised through connecting with the Te Kura (The Correspondence School) teacher in her subject area. An area which she noted as not having access to was subject specific conferences. She said she did not know how to access these but acknowledged she had not really explored this option. Likewise, Teacher F and G felt that they could minimise isolation by seeking subject support through their respective associations but noted that they had not done this because of a lack of time.

5.3.3 Appraisal

According to participants the appraisal system had been set up to enable them to report on their learning and to identify their individual professional learning needs. The unit's 2016 staff handbook that outlined the professional learning plan for the current year and the appraisal process included the written expectation that staff would conduct a teaching inquiry as part of the appraisal process. The TiC confirmed that she discussed inquiries with staff during their individual appraisal meetings and when time allowed. Formative opportunities were provided for staff to discuss the progress of their teaching inquiry within staff meetings. In a staff meeting observed by the researcher during data collection, the TiC reported back on her own teaching inquiry. However, the report back of about ten minutes, appeared to be a reflection of how a strategy for student collaboration had been used in one of her recent lessons, rather than a teaching inquiry. Following the TiC's report, there was a brief staff discussion as to how they might adapt the strategy with their students. Further report-backs by staff were put on hold for the rest of term due to time constraints.

Overall, there appeared to be a disconnect in the understandings of the nature of teacher inquiry between the teacher-in charge and other staff members. While the TiC thought that the requirement for staff to conduct their own teacher inquiry focused on collaborative practices was clearly understood, staff were unsure. They knew that it was a requirement of their appraisal to report on their teacher inquiry but were unsure what completing an inquiry involved. Teacher F thought teacher inquiry was "doing some research, or research into what sort of things work." Teacher G, who had read about teacher inquiry, thought that inquiry meant "you go into a classroom, or this group of students, whoever the example might be and you see where the difficulties might lie in their learning so you observe, analyse and take all this preinformation and then do some teaching that looks at that and then re-look at it all over again to see how successful you've been." However, Teacher G believed they did their "own version" of teacher inquiry in the TPU and, because of their size, this meant teachers could "do things sooner, so we don't have to wait for next Friday to discuss it. We can say Teacher H that looks fantastic, tell me what you're doing." Teacher H was unsure if she was talking about teaching as inquiry or inquiry learning. When asked if

she was talking about inquiry learning rather than teaching as inquiry she responded with "Teaching... I don't know what the exact phrase is, I think it might be teaching as inquiry." These varied responses suggested that there was a disconnect between what was expected, how the purpose of teacher inquiry was understood by individuals, and what was required of them individually in conducting their own inquiries. This lack of clarity is consistent with the findings of Benade (2015) who contends that teaching inquiry is not well understood and that educators are more likely to engage in informal and ongoing reflective practices rather than a more formalised teaching inquiry, "usually limited to a specific issue (much like action research)" (p. 117). Teaching as inquiry practices described by these participants appeared to be an ongoing cycle of reflective activities such as discussion and thinking about strategies which worked with students.

5.3.4 Leadership

Although there is a consensus that leaders should be encouragers of professional learning (Clarke & Hollingsworth, 2002; Cole, 2012), Robinson et al. (2009) found that the single most influential leadership practice in strengthening student outcomes was their participation in professional learning. In this case there were several examples of the TiC not just encouraging teachers, but also actively participating in professional learning. Indeed, the TiC was commended in an Education Review Office (ERO) report for leadership of "a comprehensive staff professional learning and development (PLD) programme that is enhancing learning opportunities and outcomes for students."

ERO's observations also reflected the student-centred orientation of this unit's professional learning (de Vries et al., 2014; Meirink et al., 2009). Throughout data collection, participants acknowledged that they relied on the TiC to lead their learning. The TiC agreed with this perception and believed staff "kind of go along with" the professional learning direction she determined, whatever it might be.

There were many examples of how the TiC encouraged the professional learning of individuals. Teacher H believed it was "very important" for the TiC to drive professional learning as she tended "to be on the casual relaxed side" and needed prompting. An

example of the TiC encouraging staff collectively was at the teacher-only-day at the start of the year, when she outlined the professional learning focus and expectations for the year. Teacher G felt that there had been a wide range of professional learning opportunities under the leadership of the current TiC. Her assessment was based on the belief that the professional learning focus under the previous TiC had been more pastoral rather than pedagogical. She reported that it was the TiC who provided them with "various readings and different papers" and set times for these readings to be discussed amongst each other. While the principal acknowledged that the TiC encouraged her staff to participate in professional learning, which was good, she believed that there was a need for the leader to also be an active participant. The principal assumed the TiC was an active professional learning participant but could not confirm this. However, she was confident that the TiC ensured "that the professional development align[ed] with the direction, the vision and strategic plan" of the governing school, particularly as the focus of teen parent learning was e-learning.

The TiC saw herself not only as the "driver" of professional learning but also as an active participant, for example, at the time of data collection she was the one who reported back on her inquiry to staff. She led and participated in discussions based around the professional readings she provided. Her active participation made her aware of the conditions needed to support professional learning in this context (Robinson et al., 2009) such as providing time, modelling what was expected, moving deadlines to allow for deeper discussions and knowing when to bring in external expertise.

5.4 Activity as a Subsystem

For this case, the activity subsystem (Opfer & Pedder, 2011) includes many varied teacher professional learning opportunities and experiences. These range from the more formal (workshop, tertiary study) to the informal (teacher conversation in the staffroom or in passing). The range and frequency of professional learning opportunities and experiences reported by the staff are summarised in Table 7.

Table 7
Case B: Professional Learning Activity Summary

Type of PL Activity		Teacher Participants (n=3)	Teacher-in- charge	Principal
Formal	PD Course (includes workshops, seminars, clusters, teacher-only-days)	3	٧	
	Conference	1	٧	
	Tertiary Study (includes study supported by study awards)		٧	
	Research			
	Reading (includes personal and more formal instigated by TiC)	3	٧	
	Teacher Inquiry	1	٧	
	Reflection	2		
	Networks (includes online)	1	٧	
	Observation	1		
	Modelling	1	٧	
	Professional learning community (includes schoolwide PL learning)	3	٧	٧
	Talking with colleagues (includes collaboration at staff meetings)	3	٧	٧
Informal	Learning on-the-job	1	٧	

As seen in above Table 7, participants accessed both external formal and informal professional learning opportunities. Formal opportunities, such as professional workshops and courses tended to relate to the participant's specific responsibility in the unit, for example, Teacher F, in her role as the unit's New Zealand Qualifications Authority (NZQA) principal nominee and liaison person for Te Kura (The Correspondence School), attended best practice workshops run by NZQA and attended regional mathematics days in her role as Te Kura liaison. The TiC attended cluster meetings for her role as the leader of the unit. Alternatively, it was as part of the governing school's commitment to a whole school focus on e-learning and the

community-wide learning Ministry of Education funded opportunity that saw all participants attend the externally facilitated e-learning workshops.

Teacher G also identified a wide range of both unit-based and externally delivered or accessed professional learning. She noted the professional learning activities aligned with the TiC's focus on pedagogy, referring to the descriptor that the TiC was "quite hot on pedagogy." In reviewing the opportunities for professional learning, Teacher G reported that most opportunities were informal in nature such as discussions with other staff about their practice, at staff meetings. The TiC described these opportunities as theme-focused, from which several learning opportunities and experiences would arise pertaining to their context:

In 2014 we had a big focus on our professional learning in blended e-learning. So, we did a whole range of seminars and we had experts come in here, we applied for a support grant to link in with our cluster to do more learning around blended e-learning and developing our technology, learning more skills about that. So, there are heaps of different aspects to that. The staff professional development, the technology development and being part of the bigger cluster development.

Hardy and Edwards-Groves (2016) found teacher learning to be "intrinsically 'ecologically' related to teachers' practices" (p. 538), and that there is an "inextricable connectedness between earlier professional learning and later learning practices" (p. 551). It appeared that the externally facilitated workshops for the school and unit-wide professional learning focus of e-learning confirmed participants' view that their professional learning needs and experiences were different to mainstream teachers. Three of the four participants reported that the externally accessed professional learning for e-learning was not useful. Teacher F felt she was not ready for the learning at the time it was delivered as she "was just wanting another maths person to just talk with and see how I could make it [e-learning] work" in her subject. Teacher G stated that the learning was only useful for the setting up of Google docs as a tool for administration. Elaborating on these perceptions, the TiC believed that this external opportunity did not meet their specific learning needs. Consequently, although she had decided to continue with the focus in the current year, she had also determined

that the learning needs for herself and her staff would be better served by learning collaboratively under her leadership.

Participants viewed themselves as a community of learners but their principal's view was that there were too few TPU staff to form an effective professional learning community:

There are only three or four teachers. It's quite an intimate situation and we've got 50-60 teachers here so it's a lot more open but in the TPU it's quite different. So, in the TPU they lose the ability to be a professional learning group where they can share practice with people from different faculties.

This perception that the size of a professional learning community matters is in contrast to scholars who argue that it is not the establishment of a PLC itself which is an end-to-itself, but rather that there are clearly identified and shared goals with a focus on learning (Lieberman & Miller, 2011; Stoll et al., 2006; Watson, 2014). Furthermore, based on the belief that teaching in a TPU was different to teaching in a mainstream school, the principal also believed that professional learning opportunities in the governing school would not be of value to TPU staff.

5.5 Mapping the Landscape

Drawing on participants' perceptions for this case, the defining features of Case B's professional learning landscape are presented.

5.5.1 The participants and their perceptions

Case B had a staff of 3.2 FTE lead by a full-time TiC with three part-time teachers (see Table 7). All staff were very experienced, with the part-time staff having taught in the unit for 12 years or more, and the TiC having led the unit for nine years. Teacher participants identified that under the leadership of the TiC they had been provided with multiple experiences and opportunities for professional learning. These opportunities involved learning from each other both informally through conversations and more formally in staff meetings using professional readings and discussion based

on their collective knowledge. They noted that this learning focused on both pedagogy and pastoral care.

While they acknowledged access to more formal professional learning such as workshops and courses it was noted that a recent formal experience had not met their expectations or their specific individual learning needs. For these participants, this experience affirmed that their professional learning needs were different to those of their teacher colleagues in mainstream schools and exacerbated their feeling of being somewhat isolated as teen parent educators.

Reported descriptions of their professional learning practice reflected that participation in professional learning opportunities was extrinsically motivated (McMillan et al., 2016). This was evidenced by their perceptions that the TiC drove their professional learning. A perception that was confirmed by the TiC, who said she was the main "driver" of professional learning and her staff sort of just "went along with it." Time was also identified as a barrier to professional learning participation, both in terms of 'fitting' opportunities within the day-to-day scheduling of activities within the TPU, and the time available to part-time staff.

5.6 Defining Features of the Professional Learning Landscape

Teacher participants reported having accessed a variety of professional learning activities—largely in-house in nature. In contrast, the TiC appeared to attend more external professional learning opportunities and then disseminated her learning from these opportunities to staff for consideration in their context. If they thought something would be beneficial to their learners, they were likely to implement this. However, they relied on the TiC to direct their learning and noted that they were likely to implement "their own version" of something to suit their context.

All participants perceived that their learning needs were different to their mainstream counterparts. A perception confirmed by their attendance at an external professional learning opportunity as part of a whole community learning initiative, where three out of four TPU staff noted that the experience did not meet their learning needs. Teacher

participants stated that they learnt more from each other, because they understood their context and their needs.

Participants also voiced that because they were different they felt somewhat isolated. Listening to their accounts revealed a spectrum of isolation, for example, Teacher F networked with members of the governing school mathematics department to moderate assessments but did not connect with other TPU mathematics teachers. Teacher G, despite being employed for 12 years in the TPU, had only recently met with the governing school Head of Department for her subject area and the Te Kura teacher. All the part-time staff claimed that time constraints hindered efforts to not make use of external networks such as a subject associations, for their professional learning.

Another feature that impacted on learning opportunities for this case, was the apparent disconnect between the written professional learning policy, plans, and practice. Participants provided three examples of the policy/practice disconnect. One related to the policy stating that e-learning was to be a focus of professional learning, but teacher participants thought the focus for the current year was collaborative learning. The second one was in respect to teacher inquiry; while they knew that there was a requirement for them to conduct their own inquiries as part of the appraisal process, they believed that they did their own version of teacher inquiry, for example, participants talked about their earlier work with 'priority learners' as teacher inquiry. Collectively, they identified students who were causing concern for either pastoral or academic reasons. They then identified possible strategies to address these concerns, trialled a strategy, and reported back, where the strategy used was reviewed for success and if necessary modified or replaced. These reports along with the observation of a staff meeting where the TiC presented her teacher inquiry to staff confirmed that participants' understanding of teacher inquiry was more aligned to reflective practice focused on the student, rather than formalised teacher inquiry that focused on their own teaching practice. This finding aligns with Benade (2015), who notes that teacher inquiry reviews have found that there often does not appear to be a "direct relationship between policy text and policy implementation" (p. 118). The third

example of misalignment concerned the governing school principal's view that the current Ministry of Education policy, which reduced funding unless the professional learning was a targeted ministry area of focus, inhibited teen parent staff accessing professional learning—a view that was countered by the TiC as she maintained the budget for teen parent staff professional learning. These contrasting perceptions of professional learning policy and practice are not surprising and are often seen as the dilemma of policy (D. Cohen et al. (2007), that is, the policy makers must rely on practitioners to implement professional learning policy, while practitioners will interpret policy based on their own personal learning dispositions and their context.

In contrast to the governing school principal's view that low TPU staff numbers inhibit the formation of an effective professional learning community, participants described how they operated as a micro-community of learners (Murray, 2010). Driven by a common goal of having a collective responsibility for all students' learning, TPU staff worked collectively across disciplines to meet their students' learning needs. Participants' descriptions of their professional learning opportunities appeared to exhibit aspects of a professional learning community—shared readings, discussions about their teaching practices. However, their discussions appeared to be limited to their own teacher knowledge and experiences with a reliance on input from the TiC—as a perceived expert. For a professional learning community to be more than just 'talk', discussions should be of the kind which deepens a community's understanding of practice (Lieberman & Miller, 2011).

Through sharing their perceptions and practices of professional learning, there was little evidence that these participants had intrinsic motivations for participating in professional learning, with the exception of one participant. There was a strong reliance on their learning being driven from the top down, by the TiC. Furthermore, they reported that external professional learning was not beneficial to them in their context because they were different. They expressed a desire to access subject specific professional learning but had no membership of subject association networks. Despite these limiting factors, participants viewed themselves as a community of learners, but

their opportunities for learning were constrained by their belief that their context and consequently their teaching practice was different to mainstream.

In summary, for this case a count of the influences/drivers within each of the subsystems (see section 3.3.9) indicated that the contributing influences within the context subsystem were two-thirds of the activity subsystem, while the teacher subsystem was about one-third of the activity subsystem. Thus overall, the activity subsystem influences outweighed the other two system drivers, and the teacher subsystem drivers were the weakest (see Figure 7).

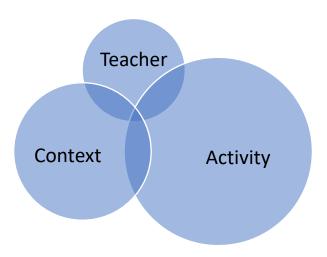


Figure 7. The relative influence of the teacher/context/activity subsystem for Case B

Chapter Six: Case C

6.1 Case C Context

Situated approximately half an hour from its governing school site, Case C is an urban TPU with the capacity to enrol 50 students and a GMFS of 5.0 FTEs. At the time of data collection, the unit employed two full-time teachers (the TiC and one other) plus five part-time staff (see Table 8).

Table 8
Case C: Staffing Allocation, Length of Time in Unit, and Subject Responsibilities

Governing School: B	Governing School: Board of Trustees and Principal						
Teen Parent Unit Staff							
Who	FTE	Subjects/Roles within TPU	Number of Years in TPU				
Teacher-in-charge C	1.0	Leadership Level 2 English Driving Civics Pastoral	11				
Teacher I	0.36	Science Biology Home Economics	10				
Teacher J	0.6	English Social Studies L3 Home Economics	7				
Teacher *	1.0	Careers Individual Education Plans Travel & Tourism Legal Studies Principal Nominee					
Teacher *	0.8	Mathematics Pathways Retail Te Kura Liaison					
Teacher *	0.6	History English Home Economics					
Teacher *	0.6	Digital Technology Te Reo					

Note: Teacher * are non-participants

Case C participants included the principal of the governing school, the TiC and two part-time staff. Four other staff in the unit did not participate in this research. However, all their areas of responsibility and employment status are identified to provide an overview of how the unit is staffed.

6.2 Teacher as a Subsystem

The teacher subsystem is considered using these influencing drivers: (a) teacher biographies (b) teacher perceptions of professional learning, and (c) teacher dispositions to learning.

6.2.1 Teacher biographies

The participants had all been teaching for seven years or more, with varying pathways into their TPU appointments. Prior to her appointment, the TiC, a trained primary teacher, had taught in local primary and secondary schools, and had also worked in several government departments. The TPU leadership role appealed to her as an opportunity to meld together the skills of her diverse career. Teacher I was retired when a chance meeting with the current TiC offered her the opportunity to teach science in the unit. After agreeing to an initial visit, Teacher I saw potential opportunities for students studying science in this unique context and accepted a part-time position 10 years ago. Teacher I spoke passionately about her students and how she could support them to experience success in science.

Teacher J, candidly, stated she "never wanted to be a teacher." However, changed circumstances resulted in her studying for a graduate diploma in education. She said that part-time teaching suited her personal circumstances of raising a family. Reflecting on her teaching in the TPU, she expressed concern that having only worked in a satellite context had potentially impacted on her curriculum knowledge. She felt that she may not have the same depth of subject knowledge understanding that you might have in a mainstream context.

6.2.2 Perceptions of professional learning

Participants' perceptions of professional learning for individuals in this TPU appeared to be similar, in that they all noted that the overall purpose of professional learning was to inform or improve their skills to help students learn, for example, the TiC referred to professional learning as the "learning around our business of teaching and being in an educational environment." She viewed professional learning as "a continuum" of learning from "the formal conference, going to a paid workshop" through to the "conversations we have here when we're working out what to do with someone, say their behaviour, and we are workshopping together." She emphasised that for her this involved reading widely. She summarised her perception of professional learning as:

To better our delivery and practice because it's all ultimately about the students being able to ideally achieve their potential. So, it's anything that informs us.

Teacher I's perception, also included a focus on students. She stated that professional learning was what she researched and learnt about "in order, to help students." Teacher J said, professional learning was "anything to do with being able to do your job better." This could be "any kind of training or learning or conversations that upskill you". The principal of the governing school defined professional learning as any time "a teacher is learning in the context of developing their practice." Specifically, she referred to the professional learning opportunity teachers had from teacher inquiry that all staff were expected to conduct as part of the governing school's appraisal process.

Overall, the participants viewed professional development as the vehicle through which professional learning occurred (Timperley et al., 2007). The TiC noted that professional development was older terminology for professional learning—referencing planned, and possibly, more formal learning. This view was supported by Teacher J, who described professional development as the courses attended off site, while professional learning was "a bit more organic, like the things that you do on a day to day basis, maybe as a team and your constant growth." The perception that professional development is course orientated was reflected by Teacher I noting she

could lead professional development for other teachers based on her own knowledge and experience, particularly for the science curriculum.

6.2.3 Teacher dispositions

Murray (2010) contends teachers' perceptions of professional learning are influenced by their dispositions to learning and individual teacher dispositions were apparent during interviews. The TiC detailed how she was always reflecting, continually looking for ideas and practices that might work for her and the unit. Her view was that "most teachers are very reflective" seeking to determine, "What didn't work there? What did I want to do? What could I have done?" and that was at the heart of teacher learning. However, this belief came with a concern that there was so much to learn, almost too much:

The constant gazette with new ideas and new good learning stories and new good practices. There's a constant sense of not bedding in one thing before the new comes.

Seeking out new ideas, strategies, and knowledge was also discussed by Teacher I and Teacher J. Their focus, however was on how they used a professional learning experience to support their work. Teacher I believed that it was her age and experience which enabled her to "take out bits" which were relevant to her work as "in most professional learning there are some good aspects." In her opinion, "you just have to be so totally open to being adaptable and learn in areas where perhaps you're not very efficient...and not be afraid to say I don't know." Teacher J gave the example of how attendance at a course provided her with a contact to support her work. She said that the course itself was not great because the facilitator "who took it was terrifying and wasn't actually very useful", but the contact she made provided an opportunity to visit a different environment, observe, and ask questions.

These participants connected their professional learning perceptions to earlier experiences and/or opportunities aligning with the contention that teacher learning is simultaneously located in both the past and the present, and teacher practice is related to specific contexts (Hardy & Edwards-Groves, 2016).

6.2.4 Motivation to learn

Participants did not directly discuss their own motivations for professional learning, however, an analysis of performance development and professional review cycle documentation revealed that teachers were expected to keep a portfolio as evidence of their commitment to ongoing professional learning and for teacher registration purposes. Two participants shared their portfolio of evidence for professional learning: the TiC; and Teacher I. Teacher I's portfolio recorded several different professional learning activities, many of these initiated by her, to progress her professional learning goals for the current year. Although, the TiC had a record of her participation in several professional learning opportunities, there were no specific goals recorded. Both portfolios provided evidence of the unit-wide learning focus, which was well-being and resilience. Teacher J knew there was a requirement to keep evidence of her professional learning, but had not yet started her portfolio documentation

6.2.5 Professional learning needs and focus

Staff meeting documentation recorded that the "whole school professional development focus is separate from individual professional development focus and subject focus" therefore, individual participants set their own professional learning goals. However, although participants set their own goals they did not necessarily adhere to policy requirements to include goals in their portfolio. Only Teacher I had written documentation of her goals including one with the unit-wide focus of well-being. Teacher J reported verbally her professional learning goals as being "to manage split-level classes and refresh her assessments."

Discussing professional learning needs with the TiC, it appeared that her professional learning goals centred around the unit-wide professional learning focus "well-being" as recorded in the governing school's annual plan, however, she stated that she felt compromised in her leadership of professional learning through needing to attend to implications of the Health and Safety Act for the unit. Reporting on briefing sessions accessed at the governing school, her approach to leading staff meetings had changed to a collaborative approach to ensure staff developed understandings of the legislative implications of the Act for the unit.

6.3 Context as a Subsystem

The context influences/drivers identified in this TPU were (a) policy, and (b) professional learning practices, including appraisal.

6.3.1 Policy

The TiC identified that there had been a lack of national policy for TPUs from the Ministry of Education. She noted that although the Ministry of Education's operational manual provided some clarity around the strategic direction of TPUs, it did not sufficiently support her leadership role. The TiC believed that professional learning for her leadership of a TPU had come from networking with other teen parent teachers-in-charge and her involvement in the Ministry of Education Schooling Improvement Project (2009-2011). She felt that external policy directives—such as Health and Safety discussed earlier—could detract from school-wide or individual professional learning foci and needed to be managed by her as a leader.

At the local level, governing school policy provided direction for the participants' professional learning, for example, the governing school's appraisal documentation stated that "professional learning is designed to develop capacities in effective pedagogies" and "to grow our professional competency and focus our professional learning, we set three goals that are linked to" learning. As noted in the teacher subsystem, participants understood there was an expectation for their professional learning needs to be aligned with the governing school's overall strategy. Indeed, the most recent Education Review Office report acknowledged alignment between the "strategic and annual planning, professional development, teaching support, resource provision and moderation processes."

In line with the three professional learning goals for the year each teacher was expected to undertake two teacher inquiries per year and each inquiry was to be linked to one of their goals set for the year. All teachers were expected to maintain a portfolio of their professional learning, including a record of their inquiry progress that would be part of the appraisal process. A further policy expectation was that teachers were expected to "be part of a critical friends group to support each other to complete

their inquiries." The responsibility of how the professional learning programme for teen parent staff would achieve these written policy expectations had been delegated to the TiC.

6.3.2 Professional learning practices

Professional learning practices will either reflect policy intentions, or not (D. Cohen et al., 2007). To support staff to implement the governing school's professional learning policy, two specific professional learning practices were noted in the school's documentation. It was written that teacher capacity could be developed through a "professional learning programme using teaching as inquiry" and teachers were to work "collaboratively in learning hubs." However, teacher portfolios shared with the researcher did not indicate collaborative engagement in learning hubs, or any detailed evidence of their inquiry. Rather they contained a record of each individual's participation in professional learning such as courses and reading. There appeared to be little monitoring of professional learning practice which resulted in variable implementation of policy.

While there was some evidence of the governing school professional learning foci (well-being and resilience) in documentation, records of practice suggested considerable variance in expectations, for example, staff meeting records did not provide any detail of professional learning practices. The TiC had no goals recorded in her professional learning plan but did have a record of her professional learning for the year to date. Teacher I's professional learning plan recorded her goals for the year and professional learning to date that supported meeting these goals. These included reading, presentations attended, conversations with colleagues, and an outline of her intended inquiry.

While, all participants noted they learnt from colleagues, they also expressed a sense of isolation. Teacher I said she had no contact with outside groups, but she did have other TPU science teachers contact her seeking curriculum support. Teacher J, who had only taught in a TPU, felt she did not have a sound curriculum knowledge because she had not previously taught in a mainstream school. Furthermore, she expressed

feeling self-conscious in "a bigger group" and thinking "oh my goodness I don't know much. What if they ask me a question and I don't know the answer?" She felt it was harder to understand curriculum in a satellite school context such as a TPU. To address this issue, she said she was in regular contact with the Head of English from the governing school via email. Exploring what 'regular' contact meant, Teacher J, revealed that she hadn't "really made any contact this year."

While there were opportunities for TPU staff to attend professional learning sessions at their governing school, the distance between the two sites was a barrier. This distance was of concern to the principal who acknowledged that while the relationship between herself and the TiC was considerably better than before, there were still times when the two entities were "not as connected in some of those ways as we could be." The principal referred specifically to TPU staff being invited to professional learning at the governing school, but not necessarily taking up the invitation. The principal noted that while invitations to attend were offered, the ones which worked best were those opportunities either at the start of the year or for teacher-only-days, not those set during a normal weekly cycle. Generally, it was only the TiC, who attended these professional learning opportunities and she would disseminate learnings upon her return to the unit. The TiC noted that this enabled her to tailor the learning to suit their specific context.

Although documentation such as annual plans and the governance and policy manual stated that "teachers foster involvement with external colleagues and professional bodies", there was limited evidence of this in practice. Professional learning plan records and interviews indicated that TPU staff talked to each other, staff at Te Kura, and staff at the governing school, but there was no evidence of networking with subject associations, teachers at other schools, or other TPU staff, teaching the same subject as them.

Participants viewed staff meetings as a vehicle for staff to discuss and learn from each other. Staff meeting records included several references to the whole unit professional learning focus, both for the current and previous years but did not specifically

elaborate on the learning achieved. Unlike Case A and Case B, at the time of data gathering and because this was their normal practice, there was the opportunity for the researcher to observe staff briefings in the morning and a more formal staff meeting after school. Staff briefings had an agenda and were led by the TiC. At the first staff briefing the TiC foreshadowed that the staff meeting that afternoon would focus on matters of compliance (Health and Safety Act 2015) with collaborative engagement expected. Staff were also advised that there had been a meeting with the principal to discuss the "performance development and professional review cycle" expectations, but no details were added at this time. Facilitated by the TiC, the afternoon staff meeting started with a brief discussion on student engagement before moving to health and safety. The TiC's goal was to ensure all staff understood the legal requirements of the act and the role they had to play in implementation. This was achieved using a strategy whereby each staff member had to read a section of the material provided, highlight key points, note implications, and present this to the others. The TiC summed up the session saying it had been "good to engage as a group" as we all take responsibility for it." Staff concurred and expressed learning new knowledge and having a better understanding of the requirements under the Act.

There appeared to be no tension between individual and unit-wide professional learning needs. However, although governing school documents stated that school-wide and personal professional learning goals were separate, the principal expressed that there was an expectation that professional learning needs of individual staff in the unit would align with the rest of the school. In her opinion, it was then the responsibility of the governing school to resource those learning needs. She identified that the exception was in the case of a teacher new to the profession who would have slightly different needs: "subject related professional learning needs." The TiC added that tension might arise around the lack of time to undertake a personal inquiry, if there was an unrelated school-wide focus. To minimise potential tensions, staff were encouraged to align their personal teacher inquiry to the school-wide foci with the view that this would result in a teacher's willingness to participate in this form of professional learning.

6.3.3 Appraisal

Although, there was considerable documentation (strategic, annual, and professional learning plans) outlining appraisal requirements, a recent Education Review Office report noted that there was a need "to conscientiously complete all aspects of the process for performance appraisal." The appraisal would "then be a meaningful tool for feedback and individual professional development." Subsequent to the report, there was evidence of some systems having been developed to address ERO recommendations for TPU staff appraisals, for example, the professional learning plan documentation had been added to appraisal documentation, however, not all aspects of the appraisal process were completed by all staff. Out of the three participating teachers, only one had completed the written documentation required for the appraisal process. Moreover, there appeared to be no formal monitoring of the appraisal process. Therefore, while Teacher J could articulate the unit-wide professional learning focus for the current year was resilience and identify her role in the school-wide focus to be "to find literature and research on the subject and then to share it with the staff where relevant", there was no written evidence to support this and she reported that no one had asked to see her portfolio. Likewise, she knew that they "always have some form of inquiry that is going on and it changes every year", but she was unable to articulate her inquiry for the current year.

Without a process for monitoring staff appraisal, the identification of professional learning needs was not clear. The principal's view was that professional learning needs for teen parent staff were identified through the "goal setting and planning and appraisal process" in consultation with the TiC. She noted that she discussed staff learning needs with the TiC at the end of the process, to identify resourcing requirements and that this would be the same for any staff member whether in the teen parent or in the governing school. However, despite both teacher participants having been employed for some years there appeared to be a lack of clarity around how their professional learning needs were identified, for example, Teacher I reported that she identified her needs in conjunction with discussions with the TiC. She thought the well-being focus for the whole unit was directed by the Ministry of Education.

Teacher J was less sure of how professional learning needs were identified but thought

that "it sort of goes two ways," that is, usually Teacher J would talk to the TiC and if there was something she wanted "to learn more about" she only had to ask. She expressed a desire, when interviewed, to meet with other TPU staff to understand the TPU learning context better. Neither of these participants referred to their professional learning needs being identified through the appraisal process.

6.4 Activity as Subsystem

Like Case A and Case B, participants in this unit experienced a wide range of professional learning opportunities. A summary of the professional learning activities can be found in Table 9.

The TiC described professional learning as a continuum from formal through to informal, a view supported by the staff. Participants defined a formal professional learning experience to be professional development, inclusive of activities such as a course or a conference—activities that were more likely to be conducted off-site. At the other end of the continuum was informal professional learning, described by participants as the conversation or discussion you had with a staff member, for example, for Teacher I, this involved the sharing of information with others. She could go to any of the other staff if she had a question. One person she knew she could always ask was the TiC, describing this support as "very good and I'll always get an answer and if she can't answer it, she will help you find out."

Collegial conversations could occur at any time, for example, the morning of Teacher J's interview had started with an informal exchange about a teaching strategy with the teacher who sat behind her. In response to a colleague mentioning that her students were not engaging with her subject, Teacher J shared a strategy she was trying in her English lessons involving reviewing text layout of subject material, changing the font size, using a bit of colour and the use of text boxes. She thought this strategy was worthwhile exploring as her students were now submitting work earlier than previous years and achieving.

Table 9
Case C: Professional Learning Activity Summary

Type of PL Activity		Teacher Participants (n=2)	Teacher-in- charge	Principal
Formal	PD Course (includes workshops, seminars, clusters, teacher-only-days)	2 √		٧
	Conference		٧	
	Tertiary Study (includes study supported by study awards)			
	Research			
	Reading (includes personal and more formal instigated by TiC)	2	٧	
	Teacher Inquiry	1		٧
	Reflection	1	٧	٧
	Networks (includes online)		٧	
	Observation			
	Modelling			٧
	Professional learning community (includes schoolwide PL learning)	2	٧	٧
	Talking with colleagues (includes collaboration at staff meetings)	2	٧	٧
Informal	Learning on-the-job	1		٧

Analysis of professional learning plan records for Teacher I and the TiC evidenced the professional learning activities they had participated in for the current year. The foci of these activities were mainly around pastoral care matters (e.g., presentations from several organisations on post-natal depression, whooping cough, obesity, and self-harm) rather than teaching and learning, which aligned with the documented unit-wide and governing school focus of 'well-being and resilience'.

Policy documents included the strategic goal to "enhance teacher involvement in the professional learning community". As part of that community, staff were expected to

participate in "learning hubs" to support their teacher inquiry. A learning hub was described by the principal as a department or group of staff working together to share their inquiries, challenge each other, and report back on new iterations as they occurred. She likened a learning hub to a professional learning community; a group of professionals working together to improve their practice which in turn improves outcomes for their learners (Stoll et al., 2006; Watson, 2014).

Additionally, the learning community space was expected to include "external colleagues and professional bodies" such as subject association membership and building of relationships with correspondence school staff, however, only the TiC referred to networking opportunities. The opportunities she spoke of related to both her leadership role and her area of subject responsibility, for example, she attended a breakfast leadership network where local schools and council partnered with the wider community to identify how they could support each other. Another network available to her was the Ministry of Education Schooling Improvement Project (2009-2011). She reported that this project extended her network with teachers-in-charge from a local to a national level. A curriculum-focused network, was a cluster specifically for English as a Second Language (ESoL) teachers. This cluster supported one another through a mix of face-to-face meetings and online support, however, the TiC found the webbased network unhelpful due to her lack of skills in this area. The cluster provided her with resources to meet the needs of ESoL students enrolled in the unit at the time as the unit had no ESoL specialist.

Although other participants did not specifically mention networking opportunities or learning hubs, it could be argued that staff meeting records of informal discussions and conversations around both pastoral and pedagogical matters was evidence that teachers in the TPU are an informal learning hub. What is not known from this data, is the depth of the learning. While, it was surprising that despite Teacher J reporting that she did not seek out networks to support her subject knowledge, it was understandable that she did not because she worried that her lack of subject knowledge might hinder the potential benefits of such a network. This fear aligns with the findings of Le Fevre (2014), who found that the fear of public failure will influence

an individual's perception of risk. If the risk is perceived to be too great they are unlikely to participate. Teacher I had a different perspective of networks such as subject associations. She believed with her years of experience she had no need to access subject association support as it would be of little benefit to her.

Another professional learning activity that all participants mentioned was teacher-only days, confirmed with document analysis of staff meeting records and reports to the board of trustees. There were two types of teacher-only day reported. One example was in 2015, whereby the teacher-only-day focused on the unit-wide focus of well-being. Held in the unit, staff looked at the draft well-being indicators proposed for TPUs by the Ministry of Education at the time. The well-being focus has continued into the current year with resilience added to it. The second teacher-only-day, consisting of a range of curriculum workshops, was held at the governing school and attended by staff from all secondary schools in the region. These examples of TPU staff participation align with the principal's belief that if a teacher-only-day was held at the start of a year or term, it was more likely that TPU staff would join them than if it was an after-school session.

6.5 Mapping the Landscape

This case's landscape while similar to the other cases, also represents its own unique features.

6.5.1 The participants and their perceptions

This TPU had a staffing allocation of 5.0 FTE consisting of two full-time staff members and five part-time teachers (see Table 8). Of the seven TPU staff, three (the TiC and two part-time staff) participated in this research, along with the principal of the governing school.

These participants agreed that the purpose of professional learning was to inform or improve their skills/practice to help students learn. Furthermore, they viewed professional development such as externally provided workshops, seminars and the like were the professional development vehicles through which professional learning

6.6 Defining Features of the Landscape

Examining the participants' perceptions, it was clear that the school policy had a strong influence on their perceptions of professional learning and practices. Like all TPUs, this TPU is nested within a wider educational system: the governing school, and the general educational context. In this case, the TPU participants mediated their professional learning needs through school policy to suit their perceived professional learning needs and their context needs (D. Cohen et al., 2007). Although they had a common understanding that their professional learning needs and the school-wide professional learning goals should be aligned, there was some variation in how this was implemented by individuals, for example, although analysis of professional learning documentation expectations for staff indicated involvement with an external community of learners such as subject associations and engagement in collaborative learning hubs, there was limited evidence of this in practice. Furthermore, appraisal documentation requirements for staff to maintain a portfolio of their professional learning and collaborative activities, including reports of their teacher inquiry were not rigorously enforced and there was variation in both the content and completion of participants' portfolios. Participants reported that they would complete these for appraisal meetings, which suggests portfolios were seen as compliance record rather than a learning tool. An external review report noted while this professional learning policy had the potential to inform individual learning needs, it was unlikely to achieve this unless monitoring of the required practices occurred.

Tension between professional learning policy and practice was evidenced in other areas, for example, an external policy influence, identified by the TiC (Health and Safety Act 2015) was seen as superseding the proposed unit-wide professional learning focus of well-being. The need to comply with legislative requirements resulted in the TiC changing a scheduled staff meeting focused on appraisal practices to one which focused on the legislative requirements of compliance. Another example was the governing school's policy expectations that staff would be involved with a community of learners such as subject associations. With the exception of the TiC, who belonged

to several networks and association, both teacher participants reported that they did not belong to a subject association, despite their expressed concerns about keeping up with subject knowledge and curriculum development.

Although policy documentation in this case outlined clear expectations for professional learning, the practice did not necessarily reflect these. There was evidence in staff meeting records that TPU staff collaborated around pastoral needs of students and compliance matters but there was minimal evidence of staff participation in subject associations or other networks. Professional learning activity records reflected individual needs and interests rather than a collective focus on problems of practice or "collaborative inquiry to stimulate evidence-informed conversations" (Lieberman & Miller, 2011, p. 19). There was a need to strengthen the link between professional learning policy and practice to support teacher collaborative learning and the monitoring of this could then better inform professional learning needs for individuals and the unit.

For this case, influences within each subsystem revealed a strong activity subsystem and a weak teacher subsystem (about one-quarter of the activity subsystem), it was the context subsystem (approximately three-quarters of the activity subsystem) which sat between the two which appeared to be the driver for this unit (see Figure 8).

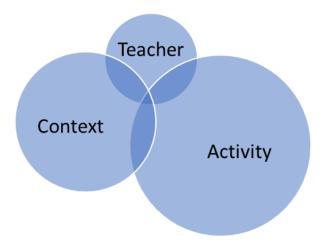


Figure 8. The relative influence of the teacher/context/activity subsystem for Case C

Chapter Seven: Discussion, Implications for Practice, and Conclusions

This study aimed to explore teen parent educators' perceptions of their professional learning and was guided by the research questions:

- 1. What is the nature of professional learning within teen parent units in New Zealand?
- 2. How do staff perceive their professional learning experiences, opportunities, and practices?

Participants' perceptions, reported in the previous three chapters for each case, represent both a recollection of their past experiences, as well as their current perceptions, of professional learning. The combination of individual participant perceptions contribute to a holistic understanding of the phenomenon under study. Van Geert and Steenbeek (2014) argue that individuals understand the complex system of education from their own perspective using 'simplex systems' which govern their 'understanding and praxis'. They define simplex systems "as connected whole beliefs, representations, values, emotions, habits, practices and material tools that serves as a simplifying representation of the overarching complex system in which a person participates and that organizes the participants' actions" (p. 23).

Professional learning sits within the wider complex education system and is itself a complex and non-linear system (Cochran-Smith et al., 2014; Ell et al., 2017; Keay et al., 2018; Opfer & Pedder, 2011). Therefore, in exploring the professional learning landscape of TPUs it is impractical to locate the affordances and constraints into one single formula or set of criteria. Rather, using recommendations advanced in the literature review and methodology to better understand the myriad of teacher professional learning influences in the TPU context, the lens of complexity theory proved useful (Cochran-Smith et al., 2014; Evans, 2014; Opfer & Pedder, 2011; Pedder & Opfer, 2011; P. Taylor, 2015; Timperley et al., 2007). In presenting three identifiable subsystems: the teacher subsystem; the context subsystem; and the activity subsystem; Opfer and Pedder (2011) provide a framework which simplifies the complex professional learning system. Reviewing models of professional learning to inform practice, Boylan et al. (2017) note that Opfer and Pedder's conceptualisation of

professional learning as a complex system within which three identifiable subsystems are nested, results in each subsystem interacting "in different ways and in different intensities to influence teacher learning" (p. 7).

Findings from each case highlighted how the drivers/influences within different subsystems of professional learning, as proposed by Opfer and Pedder (2011), are inextricably linked and offer important clues to the self-organising and emergent systems which combine together to make up the professional learning landscape for TPUs. Using a complexity theory lens, also allowed for the situated nature of professional learning and the relationships between the teacher orientation to learning (the micro), the learning activity system (the meso), and the wider educational structural system (the macro) to be explored (Boylan et al., 2017).

In this chapter, section one combines teen parent educators' perceptions of the nature and practices of professional learning from the three case studies. Three key themes—uniqueness, community of learners, and motivation for learning that emerged from the case studies are presented in section two. The interconnectedness between subsystems and themes result in a web of relationships, which serve to highlight that the professional learning landscape is, itself, a complex system (Cochran-Smith et al., 2014; Ell et al., 2017; Opfer & Pedder, 2011). Section three examines the inherent complexity of the professional learning landscape, discussing the varying intensities of the recursive subsystems across the three Cases (Boylan et al., 2017; Opfer & Pedder, 2011). The chapter's conclusion considers implications for practice, contribution to knowledge, limitations of the study, and proposes some suggestions for future research.

7.1 The Teen Parent Unit Professional Learning Landscape

Cole (2012) contends that the nature of professional learning is influenced by individual perspectives. A contention supported by Hardy and Edwards-Groves (2016), who argue that our personal histories also influence our perceptions and practices of professional learning. Sharing their stories that led them to teaching in a TPU, participants in this study were keen to note recent changes, or offer clarification,

about the way the term professional learning was used in their environment. For some, the changes were semantic in that either "professional development was the term used for professional learning in the past", or "professional learning was how one could improve student learning whereas professional development was how one kept up to date in their subject area." While for others, professional development, such as an off-site course, was the vehicle through which professional learning occurred. Across cases, participants' views aligned with the growing body of research which conceptualises professional learning as an umbrella term which overarches the many other terms associated with ongoing teacher learning (Doecke et al., 2008; Evans, 2014; O'Brien & Jones, 2014; Timperley et al., 2007).

With changing expectations related to professional learning, the focus, and therefore the expected outcome for teachers in all three TPUs was on improving student learning. Evans (2018) describes this as professional learning that is 'situated' and occurs as part of the day-to-day working lives of teachers. However, it is an area which is under-researched as much research tends to examine only explicit, or formal professional learning. Our knowledge of professional learning in the teen parent space is advanced through listening to teen parent educators' perceptions of professional learning (P. Taylor, 2015). Insights into the complexities of professional learning and growth from the actors within a specific context provided emerging details of the interactions and intra-actions that contribute to their professional learning experiences and practices.

Overall, participants perceived their professional learning to be multi-faceted reflecting literature findings that teachers engage in a plethora of professional learning activities (Akiba, 2012; Darling-Hammond & Richardson, 2009; A. Kennedy, 2014; Stoll et al., 2006). Across all cases, participants reported accessing six of the seven types of professional learning activities as identified by Akiba (2012): professional development programmes, teacher collaboration, university courses, conferences, informal communication, and individual learning. While it is not important for individuals to engage in multiple professional learning opportunities, it is important for professional learning opportunities to be aligned to each individual's different learning needs and

goals *and* also those of the context in which they are situated (Timperley et al., 2007). From the individual descriptions of the professional learning activities accessed, there emerged a strong sense of needing to align and situate external opportunities to their unique context of a TPU.

7.1.1 Formal versus informal learning

The plethora of professional learning experiences and opportunities reported by participants fell into two distinct categories: formal and informal learning. Participants perceived formal opportunities as those that are accessed off-site such as one-off workshops, seminars, professional development courses, best practice workshops, cluster meetings, as well as longer university courses. However, the most commonly discussed professional learning opportunities tended to be more of an informal nature related to on-the-job learning in their context. In such instances, professional learning occurred through informal conversations with colleagues and frequently arose through opportunities that were happenstance rather than purposefully structured (Cobb et al., 2003; Jurasaite-Harbison & Rex, 2010; Parise & Spillane, 2010; Richter et al., 2011). Descriptions of professional learning included talking with colleagues and informal conversations that happened all the time either in the staffroom, or in the 'hallway' (Dixon, 1997). These conversations most often focused on learners, were typically collaborative in nature, and presented as a suite of social practices focused on improving outcomes for learners (Hardy & Edwards-Groves, 2016). Teacher B summed up these informal conversations as being "very environment specific [TPU] so it's tailored to our needs at this school and not only our general needs as teachers but also the specific needs of our learners." Within this study, the importance and frequency placed by participants on informal learning, reflects the concern of Timperley et al. (2007) that there is little documented evidence of incidental professional learning as it relies on teacher recall of these opportunities and experiences.

No matter which case, each participant had their own personal professional learning journey to report. The journey, for some, might have been part of a change in career, as in taking up a leadership role in the unit or being new to teaching in a unit (Richter et al., 2011). For others, the professional learning journey was viewed as either a

personal or professional obligation (Doecke et al., 2008), for example, the personal journey of one TiC, included seeking learning not just for herself, personally, but also for her role as the leader of the TPU (Knight, 2002; Richter et al., 2011; Timperley et al., 2007).

All participants reported limited or no formal induction to teaching in a TPU. The lack of induction could be because prior to teaching in this context, most participants were experienced teachers and therefore it was assumed that no induction was required. Anthony and Ord (2008) noted a similar phenomenon; they termed the 'curse of competency', with change-of-career beginning teachers in New Zealand. Without access to formal induction, teachers new to teaching in TPUs tended to exhibit characteristics of beginning teachers by seeking advice from more experienced colleagues through informal discussion about what teaching in a TPU involved (Richter et al., 2011). Longer serving participants also reported no formal induction/orientation. However, like the newly appointed teachers, they did report that conversations, both informal and formal, with the TiC allowed them to explore how to support the learning of their students in this environment.

With the majority of participants engaging with colleagues informally as described, it could be argued that they demonstrated a disposition which was open to learning and embraced a commitment to life-long learning (Evans, 2014; Knight, 2002; Shulman & Shulman, 2008; Timperley et al., 2014). However, for some participants professional learning was perceived as a professional obligation to meet ongoing teacher registration requirements, or expectations of the school, more so than a personal obligation (Doecke et al., 2008). While participants acknowledged that it was mandatory to participate in professional learning as part of being a registered teacher, most reported that their primary motive to seek professional learning opportunities was to enable them to support and understand their students' learning needs.

Across the three case studies, there were different levels of understanding of a unit's professional learning practices between those in leadership roles, teachers who had been working in the unit for a period of time, and those new to teaching in a unit. The

TiCs were able to clearly articulate the professional learning practices and their expectations of teacher professional learning. Long-serving participants reported that professional learning needs were identified through the appraisal process. At times the professional learning could be an informal conversation with the TiC, rather than a formal process. Others reported that they self-identified their learning needs, while participants from one TPU noted that it was the TiC who determined the professional learning focus for the unit. Although this was not a concern for these participants, it appeared that their motivation for learning was extrinsic rather than intrinsic (Avidov-Ungar, 2016; McMillan et al., 2016).

7.1.2 Subject specific learning

Some teacher participants were unsure of how they could access subject specific learning, for example, participants noted that at times they had the opportunity to attend the Association for Teen Parent Educators of New Zealand (ATPENZ) bi-annual conference, funds permitting, but were unclear about the process for attending a subject specific conference. Teacher participants thought that teachers-in-charge had greater opportunity to attend multiple professional learning opportunities, in comparison to them. This was not viewed negatively, rather they perceived that because their TiC attended external professional learning opportunities and later shared learnings with participants, all staff were well versed in educational issues and trends compared to their governing school colleagues. This might, in part, be attributed to the Ministry of Education's Schooling Improvement Project (2009-2011), which funded and expected teachers-in-charge participation. However, in Case A, it appeared that experienced staff had accessed more professional learning opportunities than those new to this environment with all having been awarded a study award or grant at some stage. It is possible that access to these opportunities had nothing to do with the length of tenure, or role, but more to do with the individual's own orientation to learning and their motivation.

Interestingly, although teachers had differing perceptions of how professional learning needs and opportunities were identified, all the teachers-in-charge believed that the process for identifying and accessing professional learning was transparent and well

understood. This apparent gap in understanding the processes or systems in place for the identification of professional learning needs, and how to access external support, represents a disconnect between organisational systems such as policy and practice (Knapp, 2003; Robinson et al., 2009; M. Taylor et al., 2011; Timperley et al., 2007). Thus, there is an argument for the ongoing review and development of systems and strategies to support teacher learning practices (Hodkinson & Hodkinson, 2005; Pedder & Opfer, 2011).

7.2 Influences on the Professional Learning Landscape

The multiple perceptions and understandings of professional learning are unique to each individual participant and influenced by their personal biographies and histories (Hardy & Edwards-Groves, 2016), however, there are many other influences of professional learning.

In looking across the cases, the discussion within this section draws on the conceptualisation of professional learning as a web of relationships between and within the three subsystems: *teacher subsystem, context subsystem, and activity subsystem*. The intensity of each variable's influence is mediated by the context in which it is situated (Desimone, 2009; Evans, 2014). Key influences through which professional learning is mediated are "individual teacher characteristics" and "policy conditions" (Desimone, 2009, p. 185). Inductive analysis surfaced three major themes within the subsystems of professional learning to explore the web of relationships and how they influence the teen parent professional learning landscape: uniqueness, community of learners, and motivation for learning. This section will discuss uniqueness, community of learners, and the interconnected theme—motivation for learning.

7.2.1 Uniqueness

While everyone is unique and brings his or her own histories and perceptions of professional learning, so too, is the context in which these participants work a unique educational setting. As noted in chapter one, TPUs are considered an alternative

learning environment in the New Zealand context—a provision for learners who may be 'at-risk' of education failure because they are either pregnant or parenting teens.

This alternative environment is often managed in a different way to mainstream education with respect to being responsive to cohort needs, for example, the timetable in TPUs is structured to suit the learner cohort, characterised by small numbers, a mixture of academic, social, and behavioural learning goals. Often flexible in nature, an example of this is that the learning duration is not controlled by a bell. However, while participants reported multiple examples of being able to be more responsive to the learning needs of their cohorts, the nature of the cohorts also raised other issues that were more challenging, most notably the variable nature of their students' attendance. Sporadic attendance was often because of their child's ill health, or the student's own pastoral needs (e.g., housing, mental health, relationships). Consequently, to enable teen mothers to access education and gain qualifications, participants' approach to teaching and learning in this environment is more holistic rather than solely discipline focused, as it tends to be in a mainstream secondary classroom.

The uniqueness of student cohort and their learning needs and the provision of an alternative learning and teaching environment appeared to be a significant factor shaping the professional learning landscape. In terms of the landscape metaphor, participants' professional learning needs were influenced by different features (e.g., cohorts with pastoral and learning needs) and different horizons (e.g., holistic focus on overall education in conjunction with specific discipline learning goals). As such, the teacher participants saw themselves as very different to mainstream school teachers and therefore perceived their professional learning needs to be different. For many, this difference was represented as a sense of isolation, or disconnect, from the wider national and school-based professional learning opportunities. The sense of isolation was a common theme among participants, but particularly for teacher participants. Their perceptions of isolation could be categorised as either geographic or professional (Cameron et al., 2013).

Isolation. In two cases (A and C), geographical isolation arose because units were not situated on the governing school site. For one of these cases the geographical isolation was compounded by their rural setting, which resulted in perceptions of also being professionally isolated from or having few other subject teachers to connect with. Both teachers-in-charge and principals believed that geographical isolation was a possible barrier for teen parent staff participation in governing school professional learning opportunities. In particular, it was the reason given for not taking up professional learning opportunities during a school week and as reported by Principal C, could be the reason why a teacher-only-day participation at the start of a year or term was more successful. However, although geographical distance was not a barrier for Case B, which was located on the governing school site, there still appeared to be little interaction between TPU and governing school staff for professional learning. The exception to this was Teacher F, who had taught previously in the governing school and still felt connected to the mathematics department.

The physical separation from host schools was not the only reason for teachers reporting a sense of isolation. This sense of being professionally isolated was represented, and justified in some cases, in different ways. In all cases, participants reported the need for their learning and teaching to take a holistic approach that met both the educational and pastoral needs of their students consequently, there was little motivation to join in with governing school professional learning opportunities as they did not perceive these to be particularly beneficial to their learners or context. Evans (2014) proposes that this is the attitudinal component of professionalism and professional development, which takes into account how an individual's perceptions towards change are influenced by their own beliefs, mindsets, and their motivation for change. In the opposite direction, another example of the attitudinal component was noted by a principal participant who viewed the teen parent staff context as being different to the rest of her school and therefore, their learning needs would be different to the governing school, so they "did their own thing" under the leadership of the TiC.

Subject isolation was another type of professional isolation expressed by participants. The small staff numbers within TPUs meant that participants were generally sole subject teachers. For some, there was a perception that there was the potential to lack objectivity when assessing student work; others were concerned about levels of subject knowledge. To minimise the impact of subject isolation, a few teachers sought support from peers who taught the same subjects in the governing school, or through online communities, such as English Online. One TiC and governing school encouraged staff to seek professional support through other avenues such as teacher networks or further study. It was observed, that these professional learning opportunities were more likely to be taken up when the TiC exhibited she was an active learner herself (Robinson et al., 2009).

Choice of employment. A common thread for many of the teacher participants was that they had made a conscious decision to move to a part-time teaching role to suit their personal circumstances (e.g., raising a family) and interests (e.g., motherhood). In two out of the three cases, the only full-time teacher in the unit was the TiC. While for most it was a deliberate choice to work part-time, this arrangement proved to be a limiting factor for participating in professional learning. Despite many opportunities for professional learning, constraints on time to participate resulted in missed opportunities, for example, Teacher G, noted, her decision to work part-time influenced her participation in professional learning (Richter et al., 2011; Timperley et al., 2007) claiming that there was a "limit to what she was prepared to do as she had other things in her life." As a result, managing and leading professional learning for a part-time staffing cohort proved challenging for teachers-in-charge. To support teacher learning of a part-time cohort, teachers-in-charge introduced specific organisational systems such as a cycle of regular staff meetings alternating the days of the week, staff briefings each morning and notes kept of these briefings, setting aside one lunchtime a week for teachers to discuss their practice, and providing staff with professional readings.

Unlike mainstream education there is little opportunity in way of preparation for those wishing to work in an alternative environment (Price, Martin, & Robertson, 2010). In

the New Zealand context, with the exception of the Ministry of Education, Schooling Improvement Project (2009-2011), there have been no formal professional learning opportunities specifically targeted for teaching in a TPU environment. Being an educator in a teen parent environment is unique and brings with it a number of challenges. These include the potential to become insular, partly by lack of peers with similar subject area knowledge, but also from the perceptions that teaching in a TPUs is different to mainstream teaching. While the lack of specific professional learning opportunities focused on teaching in this environment did not appear to affect individual participants, participants noted that a formal induction to teaching in the TPU might have been useful to help them understand not just the organisational systems, but also the opportunities that were available for their own professional learning. Targeted professional learning has been identified in the most recent TPU report (Education Review Office, 2018) as an area for development.

7.2.2 Community of learners

Watson (2014) contends that the use of the term *professional learning community* is ubiquitous, and it is in danger of losing its meaning. In this study, all participants readily referred to themselves as a community of learners. They reported that as a community they collaborated in their workplace with each other to improve student outcomes (Riveros, Newton, & Burgess, 2012; Stoll et al., 2006; Timperley et al., 2007). The TPU teachers were emphatic in saying that their teaching practice and professional learning had to support not just the academic learning of students, but also their pastoral needs. In that regard, they believed that they were different from teachers in the mainstream. As such, they felt that they had a better understanding of their own learning needs, as they shared a common goal of wanting students to succeed, despite their students often having more challenging personal circumstances than learners in the mainstream. Within the broad description of a community of learners, it was apparent that each case study presented different professional learning community features (see Table 10).

Table 10
General Features of each Case as a Professional Learning Community

Feature	Case A	Case B	Case C	
TPU type	Off site	On site	Off site	
	Rural	Semi-urban	Urban	
Composition (members)	TiC 3 long-serving part-time staff 2 new part-time staff	TiC 3 long-serving part-time staff	TiC 2 long-serving part-time staff plus other part-time staff	
Focus	 Improved student outcomes, both pastoral and academic Teacher inquiry Shared individual practice dilemmas for feedback 	 Improved student outcomes, both pastoral and academic Had a history of focusing on priority learners 	Pastoral needsCompliance	
Reflective dialogues	 Staff meeting to discuss teacher inquiries Informal conversations Educational readings Research fed into dialogues from tertiary study 	 Staff meetings to discuss strategies to use with priority learners Informal conversations Educational readings Research fed into meetings by TiC 	 Staff meetings to discuss legislative requirements Informal conversations 	
Ownership	All staff involved	TiC led		
Task perception	Improved outcomes are the focus of all tasks	Compliance	Compliance	
Tensions		Limited time to participate	External and internal policy foci are different	
Beliefs about alignment	All staff are empowered to share their views to improve teaching and learning in their context	Staff trust that the TiC will provide them with areas for development	Principal and TiC believe that professional learning is aligned to school/unit-wide goals	
Socialisation	Regular opportunities are provided for all staff to collaborate with staff meetings alternating each fortnight	Opportunities for collaboration are restricted by time	Driven by external policy	

Adapted from: Schaap, H., & de Bruijn, E. (2018). Elements affecting the development of professional learning communities in schools. *Learning Environments Research*, *21*(1), 109-134. doi:10.1007/s10984-017-9244-y.

Having a shared goal is a key characteristic of a professional learning community (Nehring & Fitzsimons, 2011; Riveros et al., 2012; Schaap & de Bruijn, 2018; Stoll et al., 2006; Watson, 2014). In Case B, participants spoke about working collectively as a whole-school that was student-centred and orientated to meet the needs of what they termed priority learners. Similarly, student focused participants in Case A discussed how one teacher's inquiry concerning completion of numeracy and literacy credits resulted in a collective decision to change the timetable to allow more time for mathematics and English lessons. This shared goal of student learning aligns with the contention of Nehring and Fitzsimons (2011), who observed that professional learning communities emerge as being countercultural to mainstream teacher practice; countercultural, in that it is the norm for teachers in TPUs to not teach behind closed doors with most working in an open plan environment. This environment enables teachers to collaborate and problem solve puzzles of practice collectively, minimising their sense of isolation. In that sense, developers of innovative learning environments within secondary schools, could look to the professional landscape terrains of TPU as a model (Benade, 2017).

Having students at the heart of their work reflects a student-centred orientation to teaching and learning (Meirink et al., 2009; Van Driel et al., 2007). An alternative orientation to learning that is common for secondary teachers is a subject-focused orientation (de Vries et al., 2014). However, there appeared to be little evidence of the latter in these three TPUs. Indeed, professional learning, which could be considered subject-oriented, tended to include a strong student-oriented focus with subject professional learning discussed more in terms of supporting their students rather than gaining subject expertise.

While the PLC as a model of school organisation can minimise the sense of isolation through collaboration and continuous learning among teachers, there is a growing body of research that argues that teacher agency will influence the effectiveness of such learning (Opfer & Pedder, 2011; Opfer et al., 2011; Riveros et al., 2012; Stoll et al., 2006; Watson, 2014). The three cases demonstrate how individual teachers interacted

within their own "personal and local boundaries" (Keay et al., 2018, p. 5). Each had their own motivations for participating in, or seeking out, professional learning (Avidov-Ungar, 2016; Bredeson, 2000; McMillan et al., 2016; Timperley et al., 2007).

Motivation for ongoing professional learning can be both intrinsic (personal) and extrinsic (school-related or contextual factors) (McMillan et al., 2016), however, extrinsic motivators can either inhibit or support intrinsic motivators. In Case A, while motivations appeared to be more intrinsic, evidenced by the number of participants who continued with their own personal study, there were also several extrinsic motivators (e.g., TiC support for ongoing learning; school systems and policy that supported teachers further study, and shared professional learning). In contrast, Case B participants largely relied on the TiC to direct their learning, and Case C participants were mostly extrinsically motivated through policy directives. A top-down approach to professional learning, as reported in Case B, can threaten the effectiveness of professional learning communities (Schaap & de Bruijn, 2018). Rather, leaders need to enable teacher agency and ownership of professional learning community members by providing opportunities for shared discussions and collaboration (Gray, Mitchell, & Tarter, 2014; Poskitt, 2005; Riveros et al., 2012).

The effectiveness of a professional learning community is also influenced by the dynamics of the group, the history and policy of the school context, and by leadership (Evans, 2014; Schaap & de Bruijn, 2018; Stoll et al., 2006; Watson, 2014). Representing what Robinson et al. (2009) would argue as the single most influential leadership practice in strengthening student outcomes, each unit was led by an experienced TiC who actively participated in their own and the unit's professional learning. Participant teachers, across all cases, acknowledged the TiC's leadership of both informal and more formal professional learning opportunities (Bredeson, 2000; Keay et al., 2018; Opfer & Pedder, 2011; Opfer et al., 2011).

Professional learning communities go through different stages of development and their effectiveness depends on a number of processes both inside and outside of the school including, "making the best of human and social resources; managing structural

resources; and interacting with and drawing on external agencies" (Stoll et al., 2006, p. 231). Within these cases, tensions between these variables to be managed or addressed included both external (Government and Ministry of Education) and internal policies. While external policy had some influence on professional learning practices, it was internal school and TPU professional learning policies where tensions surfaced. Specifically, a lack of ownership created instances of tension around formal and enacted professional learning policy. Despite evidence that the TiCs could articulate the intent of their unit's professional learning policy, many teacher participants expressed limited understanding of the policy and its implementation. Of note was the lack of clarity around the professional learning policy which extended to expectations around teaching as inquiry. Although, The New Zealand Curriculum (Ministry of Education, 2007) describes teaching as inquiry as having three components: the focusing inquiry, the teaching inquiry, and the learning inquiry, participants referred only to teaching inquiry or teacher inquiry. Across cases, there was variance between the intent of teaching as inquiry as stated in the New Zealand Curriculum (Ministry of Education, 2007) and practice—a finding supported by Benade (2015), who found in his study of teaching as inquiry that while teaching as inquiry is well intentioned, there are flaws in implementation. This reported variance in interpretation and implementation of teaching as inquiry within each of the cases, highlights arguments of scholars who note that there is no guarantee that a policy will be implemented (D. Cohen et al., 2007; Knight, 2002; Sinnema et al., 2017; Timperley et al., 2007).

For teaching as inquiry practice to reflect the intent of the New Zealand Curriculum, other subsystems' drivers are required (Education Review Office, 2011b, 2012; Timperley et al., 2014; Timperley et al., 2007), for example, Timperley et al. (2007) noted a need for leadership (context subsystem variable) to support teaching as inquiry, and the Education Review Office (2011b) identified that organisational structures should include clarity around how inquiry should happen, alongside how it is monitored and promoted by leaders.

The challenge for teachers-in-charge, like other school leaders, is to balance national policy with school and individual development priorities (Pedder & Opfer, 2011).

Leadership, like professional learning, is a complex system nested within the wider educational system (Jappinen, 2014). Across cases, it was common practice for the leadership of the governing school to delegate the responsibility of professional learning to the TPU TiC. However, delegation resulted in the governing school leadership appearing to be ill-informed about the unit's professional learning practices. Based on an assumption that the TiC had oversight of professional learning practices and that these aligned with the strategic intent of the written professional learning policy, there appeared to be limited monitoring of practices such as appraisal and teaching as inquiry in these TPUs (Knight, 2002; Pedder & Opfer, 2011; Robinson et al., 2009; Stevenson et al., 2016). The patchy implementation of these practices, in part, might be attributed to teachers'-in-charge and principals' lack of understanding between the relationships of professional learning goals and organisational systems such as those which monitor and evaluate strategy (Cochran-Smith et al., 2014; Opfer & Pedder, 2011), or possibly there was a lack of communication of the written policy and hence a lack of understanding of expectations. Alternatively, it could be a lack of school-level systems and supports for teacher professional learning resulting in ineffective teacher professional learning (Pedder & Opfer, 2011); a possibility supported by an Education Review Office (ERO) review for Case C.

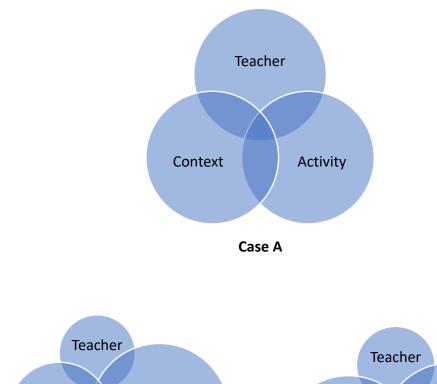
In summary, despite participants' perceptions that they worked within a TPU professional learning communities, they remained isolated from their subject counterparts, both across TPUs and in the mainstream context. This has the potential to compound participants' perception of isolation (being different to mainstream) and inhibit their ability to adapt and grow practices (Watson, 2014). Establishing networks of teen parent educator, either traditional or digital, may minimise the perceived professional isolation barrier of mainstream versus alternative environment.

Moreover, the geographical and professional isolation could be addressed through other networks, such as subject associations and online communities as these would be an ideal way to engage with a diverse range of practice ideas, thus increasing the opportunity to create knowledge and solve problems (Pedder & Opfer, 2011; Stoll et al., 2006).

7.3 The Complexity Inherent in the Teen Parent Unit Professional Learning Landscape

Approaching teacher professional learning through the lens of complexity theory—involving three recursive and overlapping complex systems that identify the emergent patterns in the teen parent context—addresses the need to account for teacher learning to be embedded in both the teachers' professional life and working context (Cochran-Smith et al., 2014; Keay et al., 2018; Opfer & Pedder, 2011). The intensity of contextual influences across the complex system—the professional learning landscape—can be highlighted by examining the similarities and differences across participants and cases (Ell et al., 2017).

Reflecting the characteristics of complexity theory—self-organisation and emergence—Figure 9, using varying sizes of circles, captures the influence of each case's subsystem. The professional learning landscape for each case is unique. However, the landscape could change, over time, as the influence of each subsystem, or drivers, combine and interact together (Van Geert & Steenbeek, 2014). Despite this variation of influences within subsystems, a commonality across all cases, was the shared goal: to provide better outcomes for the students, and the desire for professional learning discussions focused around both their students' academic and pastoral needs. This strong orientation by participants on providing successful outcomes for their students aligns with findings of scholars who contend that having students at the heart of their work reflects a student-orientation to teaching and learning (de Vries et al., 2014; Meirink et al., 2009; Van Driel et al., 2007).



Context Activity Context Activity

Case B

Case C

Figure 9. The relative influence of the teacher/context/activity subsystem for each case

While these subsystems capture a range of influences and interactions that shape the professional learning landscape, it is argued here that they do not sufficiently capture the uniqueness of professional learning within the TPUs as represented by the participants in this study. Across these cases, it was clear that the complex system that represents the professional learning landscape was shaped in a large part by the participants' perception of the uniqueness of their cohorts' learning needs, that is, the learning needs of students, as reported by participants, were at the heart of their professional learning in terms of participation and activity. These findings suggest that for complexity theory to inform our knowledge of professional learning, in the teen

parent context, it would be appropriate for a fourth subsystem to be added—student subsystem (see Figure 10).

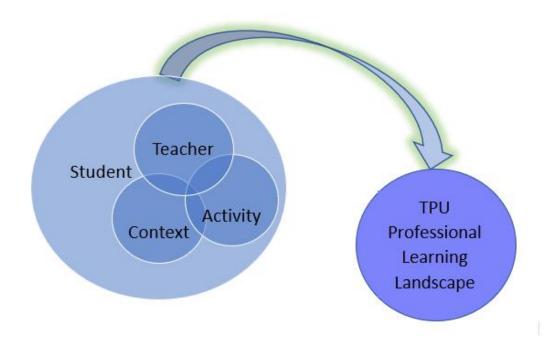


Figure 10. Introducing a student subsystem to the professional learning landscape

Five key aspects of the complex professional learning system can be identified across the case findings by drawing on the work of Cochran-Smith et al. (2014):

First, initial conditions and parameters of teacher professional learning will be influenced by individuals' perceptions, practices, and their personal histories and biographies (Hardy & Edwards-Groves, 2016). For teen parent educators, these perceptions and practices are nested not just in the teen parent context, but also within the governing school's professional learning policy and practices as well as the wider educational context. In negotiating the policies and practice, individuals mediate professional learning opportunities and experiences available to them in this context based on their own personal situation and local boundaries (Boylan et al., 2017; Keay et al., 2018). Some examples of these influences include individual teacher orientation to their learning, maintaining teacher registration requirements, school requirements, personal ability to commit time to professional learning. Understanding the individuals' perceptions and practices requires the TiC to listen to teacher voice to

identify individual teacher specific learning needs and then develop systems to enable teacher professional growth (P. Taylor, 2015). Over time, as learning is a human process, it is likely that organisational systems will need to adapt to meet the emerging professional learning needs of the cohort of teachers as they develop and grow professionally.

Second, there are multiple levels of professional learning in the teen parent context ranging from informal to formal learning, with most professional learning experiences and opportunities accessed being informal in nature. Some of these opportunities and experiences focus on personal needs, while others may be for identified unit-wide needs. The multiple levels of professional learning depend not just on each individual's starting point in their learning journey but also school-related and systemic influences (McMillan et al., 2016), and the leaders' perceptions of their role in leading learning and making connections for teachers' learning between strategy, policy, and processes (Pedder & Opfer, 2011).

Working within a TPU context, participants regarded themselves as a community of learners—with different learning needs to mainstream teachers. However, while there were characteristics of professional learning communities evident across all cases (see Table 10) such as frequent peer collaboration, a shared common goal, and leadership, there were variable levels of ownership and individual teacher agency (Opfer et al., 2011; Riveros et al., 2012; Schaap & de Bruijn, 2018; Stoll et al., 2006).

Third, there are a myriad of influences on professional learning within the recursive subsystems of the teacher, context and activity (Opfer & Pedder, 2011), with student subsystem being an important factor. The web of relationships within these subsystems is complex. Relationships occur across, for example, the organisational systems within which the learning takes place, both internal and external policies, the individual's desire to participate in learning, and their ability to commit time to their learning. Collectively across the cases, it was clear that the needs of the TPU learners with multiple pastoral needs, strongly influenced the professional learning of the teachers, however, how performance management processes and other organisational

systems aligned with professional learning policy was not clear (Pedder & Opfer, 2011). While participants reported adaptions of organisational structures, particularly those associated with the part-time nature of their employment, as a way to support their professional learning, the data also highlighted that teachers-in-charge and governing school principals could further review and monitor teachers' professional learning expectations with the view of implementing a process whereby expectations are more clearly understood. Other adaptations being considered include providing time to meet to share teaching and learning strategies and report findings of teacher inquiries. It is these interactions and adaptions which keep the professional learning "system operating in a complex manner" (Cochran-Smith et al., 2014, p. 8).

Fourth, driving the learning and change of a complex system are feedback loops (Cochran-Smith et al., 2014). Feedback loops will support or challenge a system. If a system is challenged, it can create periods of uncertainty or destabilise the status quo. In the TPU context, teachers received feedback through numerous opportunities for staff to collaborate informally with one another and with their students. Participants readily recalled examples of informal feedback loops (from both colleagues and students) that prompted or supported changes to their teaching practice. Additionally, setting up systems for staff to meet regularly to discuss and share new learnings, as reported by Case Study A and Case Study B, facilitated a more productive professional learning culture.

Participants strongly perceived that their working environment was inherently different to the main school and consequently their professional learning needs were different, however, like many teachers, they had the students at the heart of all their teaching. What was significantly different was the holistic approach to learning, whereby participants shared their practice, although most often informally, and they were not solely discipline-focused as their secondary counterparts. Professional learning communities, in this context, have the potential to sustain ongoing teacher learning but this will be influenced by "the nature and quality of leadership provided" and the "nature of the school culture" (Stoll et al., 2006, p. 235). Organisational structures that support collaborative practice from a commonly shared and

understood context can contribute to teacher professional learning (Gray et al., 2014; Nehring & Fitzsimons, 2011; Poskitt, 2005; Riveros et al., 2012; Schaap & de Bruijn, 2018). This can be achieved using both social and human resources, managing organisational resources, and the ability to interact and draw on external agents as needed.

Lastly, the complex professional learning system in any context is emergent. Hence, the professional learning landscape is a dynamic landscape, in that the web of relationships will change; new relationships may emerge and the intensity of multiple variable influences, both within and between subsystems, may change. In this study, an instance where this occurred involved changes in the leadership role, with a new TiC shifting the focus of professional learning from pastoral to pedagogical. The changing demands and nature of each subsystem require leaders to identify ways to support teacher professional learning in the teen parent context that are carefully aligned to both the current needs of students and staff, whilst working within the wider school policy constraints and affordances.

Evident from this study is the critical need for a fourth subsystem to complete the teen parent professional learning landscape—the student subsystem. Across all cases, participants identified that their context demanded teacher professional learning focused on providing their students with successful outcomes, both academically and pastorally. To support, what they perceived as more complex learning needs, participants expressed a desire for professional learning that helped them to understand teaching and learning in their context for their unique student cohort.

7.4 Conclusion

This study identified that the TPU is a unique environment—one that occasions a complex set of characteristics: students requiring a holistic approach to learning, part-time nature of staff, and geographical and professional isolation from mainstream staff. Professional learning in this context, like mainstream schools, is a complex system. However, a major influence, in the teen parent context, is educators

perceptions that they are different, their context is different, and therefore, their professional learning is different.

7.4.1 Implications for practice

While it is acknowledged that no one single model can be determined to fit the complex system of professional learning (Cochran-Smith et al., 2014; Opfer & Pedder, 2011), an exploration of the professional learning landscape through the lens of subsystems and their interactions has highlighted five implications for professional learning practice in TPUs;

- 1. TPU organisational systems need to take into consideration of the part-time nature of staff and address the potential isolation barriers, whether they are geographical or professional. In particular, the leadership of the unit and governing school need to support teacher professional learning. Providing organisational systems which support staff to be a community of learners has the potential to not only sustain effective teacher learning but also minimise the perception of isolation (Stoll et al., 2006).
- 2. A related implication is the need to explore the use of digital networks to connect educators, who are likely to be the sole teacher of a discipline, to minimise both geographical and professional isolation (Stoll et al., 2006; Watson, 2014). In addition, consideration should be given to how current networks such as subject associations and existing online communities might be used to better support teacher learning. In particular, there appears to be opportunities to strengthen collaborative arrangements between teen parent and governing school.
- 3. The need for alignment of governing school and unit professional learning policy. Case findings indicated weak policy alignment with practice and vice-versa. Leadership has a role to play in strengthening alignment through the communication, implementation, and evaluation of the policy in practice. Some specific areas identified in this study concern:

- How is policy communicated and implemented currently? What are the gaps and how will they be addressed?
- Could an induction/orientation process for new staff aid understanding of professional learning opportunities and practice?
- Does the current appraisal process support or hinder teacher professional learning?
- 4. There is a need to develop a better understanding of the purpose of *teaching as inquiry* as proposed by The New Zealand Curriculum (Minstry of Education, 2007) and how it might be used to support teacher learning. As appraisal was seen as a tool (in all cases) to ensure teacher inquiry was implemented, it may be that leaders need to consider either adapting or implementing organisational systems to meet the identified learning needs of staff. Additionally, a review of the purposes of teaching as inquiry has the potential for identifying strategies to strengthen feedback loops for practitioners.
- 5. The final implication for practice relates to TPU leadership. To ensure that professional learning practices, experiences, and opportunities meet the emerging professional learning needs of their staff, leaders are encouraged to review current practice and seek the voice of teachers by listening to the nuances which enable and/or constrain teacher learning in their context. In doing so, leaders will be better positioned to adapt professional learning practices to meet not just the individual staff needs but also collective needs of the unit as a whole.

7.4.2 Contribution to knowledge

With little educational research of TPU, both internationally and in New Zealand, this study, through the collation of case studies, provides a snapshot of the professional learning landscape for teen parent educators in New Zealand. Importantly, in terms of knowledge generation, this study focused on teacher perceptions of their professional learning opportunities, experiences, and practices; a focus that has not necessarily been listened to until now, in order to understand the conditions which enable and/or constrain teacher learning in a specific context (P. Taylor, 2015).

This study has found that it is not just the teacher, context, and activity subsystems which influence professional learning in TPUs, but a fourth *student subsystem* tends to have considerable influence in this context. A student subsystem, challenges teachers in a TPU to learn about and focus on both the academic and pastoral needs of the learner. Furthermore, a student subsystem allows student voice to be heard, ensuring that the student is at the heart of all teacher learning. Therefore, the combination of the four subsystems and the influences/drivers within each, will shape the TPU professional learning landscape.

Given the strong contextual influences on professional learning expressed by participants in the TPUs, the findings of this study and subsequent conclusions drawn from them are not intended to be generalised for teacher professional learning.

Rather, the common threads can be used as a starting point for considering further professional learning opportunities in the TPU context.

7.4.3 Limitations of the research

As noted in the methodology chapter, case study as a research design is not intended to provide generalisable findings. However, from the rich descriptions provided by participants of their professional learning practices one can interpret what is happening in a particular context (Cochran-Smith et al., 2014).

The number of staff within each setting was limited. Despite this limitation, the findings when combined with data from other cases provides a snapshot of the professional learning landscape in this context.

Two limitations were highlighted during the data gathering phase. Firstly, there was limited documentary evidence of teacher professional learning records. Furthermore, while most participants shared a record of their participation in professional learning opportunities, the record more often provided evidence of participation rather than teacher learning. The second area of limitation was that data gathering included limited observations of professional learning in practice, potentially valuable for triangulation of teacher perceptions.

Lastly, it is possible that the researcher's background and experience as a facilitator of teacher professional learning could be a limiting factor in this study, with personal knowledge and perceptions influencing data analysis. Actions to minimise the impact of this limitation were presented in the methodology chapter.

7.4.4 Future research

This exploratory research has provided an initial insight into teen parent educator perceptions of their professional learning experiences, opportunities, and practices. Further research, which could build on the findings of the study, include:

- A study which examines the learning dispositions and orientations of teachers-incharge and the influence these have on professional learning in an alternative learning environment. This study might include the identification of the professional learning support teachers-in-charge need to be a leader of learning in their context.
- A study to examine the characteristics of an effective professional learning community in this space. This could compare the benefits of a digital professional learning community to more traditional networks, including how each can minimise the barrier of geographical and professional isolation.
- A study to explore the criteria that support effective teacher professional
 learning practices focused on the pastoral and educational needs of the learner.
- An exploration of informal professional learning practices in the teen parent context or other alternative environments and how these practices impact on student outcomes.
- A study to assess the effectiveness of the performance management system to support teacher learning in an alternative environment.
- A comparative study to identify the drivers within a student subsystem which
 influence teacher professional learning including, comparisons of student
 subsystem variables in the teen parent context, and a more traditional secondary
 school environment.

 An in-depth case study which explores the nature of the interactions between the subsystems and the consequent impact on the emergent professional learning landscape.

7.5 Final Thoughts

Although often forgotten, the TPU context has much to contribute to educational knowledge. When I was first involved with TPU educators, they laid down a challenge to me, "What do you know of our world?" As a context that has little research, both nationally and internationally, this study highlights not just the challenges but also the successes of professional learning in this space. It is an important part of sharing the professional learning landscape for teen parent educators in New Zealand through the eyes of those who work in this context.

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Appendix A: Massey University Ethics Approval



10 March 2014

Johanna Wood

Dear Johanna

Re: HEC: Southern B Application - 14/07

The professional learning and development landscape for teen parent educators in

New Zealand

Thank you for your letter dated ? March 2014.

On behalf of the Massey University Human Ethics Committee: Southern B I am pleased to advise you that the ethics of your application are now approved. Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Prof John O'Neill, Acting Chair

Massey University Human Ethics Committee: Southern B

cc Prof Glenda Anthony

J. o'vered

Institute of Education PN500 Dr Vijawa Dharan Institute of Education

PN500

A/Prof Sally Hansen, Director

Institute of Education

PN500

Mrs Roseanne MacGillivray

Institute of Education.

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Appendix B: Information Letter for Governing School



5 February 2016		
The Principal		

Dear

My name is Johanna Wood. I am currently a doctoral student at Massey University, studying for a Doctor of Education. My research title is:

'The professional learning landscape for teen parent educators in New Zealand'.

I am seeking permission to conduct my research within the Teen Parent Unit (TPU) attached to your school. This research will be an exploratory study examining the nature and scope of professional learning (PL) experiences and practices within the TPU context. The research aims to identify TPU teachers' perceptions of current PL experiences, practices and and ongoing needs.

Specific research questions are:

- What is the nature of professional learning (PL) within TPUs?
- How do TPU staff perceive their PL experiences, practices and needs?

The participation of your TPU is valuable because it will provide information which will contribute towards understanding PL needs and practices in the TPU context. This insider view of current and future PL activities and associated system enablers and constraints can provide deeper understanding of the PL landscape in TPUs and inform and guide future PL experiences.

What will the research involve?

If you consent for your Teen Parent Unit to participate in this research, it will involve initial interviews with teachers and teachers-in-charge of approximately 60 minutes and an interview with yourself or your nominee of approximately 30 minutes and follow up interviews with TPU staff later in the year of approximately 60 minutes. Interviews will explore Individual's perspectives of PL. They will be scheduled during an in-unit visit to suit the TPUs staff's convenience. Interviews will be digitally recorded, transcribed and sent to each participant for verification of accuracy. At this stage participants will have an opportunity to identify aspects of the interview transcript that they either do not wish to be used in the reporting or wish to clarify.

In addition, during the in-unit visit I would like to access documentation that pertains to professional learning. For example, staff meeting minutes, and unit plans. As professional learning can be both

Te Kunenga

informal and formal, I would also like to observe, if appropriate at the time of the visit, staff meetings and participants planning with other teachers.

Sharing of information

Specific data from individual interviews will not be shared among participants. Although absolute confidentially cannot be guaranteed in any resulting reports or conference presentations, identifying details regarding TPU, teaching teams, and teachers will be omitted or changed to protect anonymity. At the completion of the research I will supply your school with a summary of my findings.

If you agree in principle, for yourself and your TPU staff to participate in this research, information sheets and consents forms will be provided to all participants. Once consent has been given, data collection will commence at a time to suit you and your unit.

If you have any questions or wish for clarification about the research, please contact me at or my supervisors Professor Dr Glenda Anthony

G.J.Anthony@massey.ac.nz or Dr Vijaya Dharan V.M.Dharan@massey.ac.nz, Institute of Education, Massey University.

Thank you for considering this request. I look forward to working with you in the near future.

Regards

Johanna Wood

Sharraghter

Appendix C: Information Sheet for Case Study Principal (or Nominee) Participants



Information Sheet for Case Study Principal (or Nominee) Participants

Researcher: Johanna Wood, Institute of Education, Massey University, Palmerston North

I am a doctoral student at Massey University (MU). As part of my Doctor of Education I am researching "the professional learning (PL) landscape for teen parent educators in New Zealand". The research project aims to explore the scope and nature of PL activities within the context of three teen parent units. The case studies will gather data on current PL practices and teacher perceptions' of professional learning and development experiences, practices, and needs.

This insider view of current and future PL activities and associated system enablers and constraints can provide deeper understanding of the professional learning and development landscape in TPUs and inform and guide future PL opportunities. You are invited to participate in this research as a principal of a teen parent unit.

As a participant in this research you will be interviewed to explore your perspectives of PL within the TPU. The interview will take approximately 30 minutes during an in-unit visit to the TPU at a time to suit your calendar. The interviews will be digitally recorded, transcribed and sent to you for verification of accuracy. You can at this stage identify aspects of the interview transcript that you either do not wish to be used in the reporting, or wish to clarify.

In addition, during the in-unit visit I would like to access documentation that pertains to professional learning.

I intend to interview all teachers/leaders associated with the TPU. Specific data from individual interviews will not be shared among participants. Although absolute confidentially cannot be guaranteed in any resulting reports or conference presentations, identifying details regarding TPU, teaching teams, and teachers will be omitted or changed to protect anonymity. You can upon request be sent a copy of the research findings. All data will be held securely and no other person other than my supervisors will have access to it.

The TPU participation in the research is voluntary and you can decline to participate without giving a reason. Individual staff will be able to review and amend interview data and can withdraw from the research at the end of the data collection phase. Your data will be destroyed upon withdrawal.

To give your consent to be involved in the research the attached consent form must be signed and returned to the researcher.

If you have any questions or wish for clarification about the research, please contact me at or my supervisors Professor Dr Glenda Anthony

G.J.Anthony@massey.ac.nz or Dr Vijaya Dharan V.M.Dharan@massey.ac.nz, Institute of Education, Massey University.

Thank you for considering this request. I look forward to working with you in the near future

Johanna Wood

This project has been reviewed and approved by Massey University Human Ethics Committee. If you have any concerns about the conduct of this research please contact Mr Jeremy Hubbard, Chair, Massey University Human Ethics Committee: Southern A. Telephone 04 8015799 xtn 63487. Email humanethicsoutha@massey.ac.nz

Appendix D: Information Sheet for Teacher Participants



Information Sheet for Case Study TPU Staff Participants

Researcher: Johanna Wood, institute of Education, Massey University, Palmerston North

I am a doctoral student at Massey University (MU). As part of my Doctor of Education I am researching "the professional learning (PL) landscape for teen parent educators in New Zealand". The research project aims to explore the scope and nature of PL activities within the context of three teen parent units. The case studies will gather data on current PL practices and teacher perceptions' of professional learning experiences, practices, and needs.

This insider view of current and future PL activities and associated system enablers and constraints can provide deeper understanding of the professional learning landscape in TPUs and inform and guide future PL programmes. You are invited to participate in this research as a teacher in a teen parent unit.

Participant's involvement

As a participant in this research you will be asked to participate in interviews to explore your perspectives of PL within the TPU. The interviews will take approximately 60 minutes during an inunit visit to suit your TPUs calendar, one early in the year and the second later in the year. The interviews will be digitally recorded, transcribed and sent to you for verification of accuracy. You can at this stage identify aspects of the interview transcript that you either do not wish to be used in the reporting, or wish to clarify.

In addition, during the in-unit visit I would like to access documentation that pertains to professional learning. For example, staff meeting minutes, and unit plans. As professional learning can be both informal and formal, I would also like to observe staff meetings and interactions with other teachers during my visit to the TPU.

Sharing of information

I intend to interview all teachers/leaders associated with the TPU. Specific data from individual interviews will not be shared among participants. Although absolute confidentially cannot be guaranteed in any resulting reports or conference presentations, identifying details regarding TPU, teaching teams, and teachers will be omitted or changed to protect anonymity. You can upon request be sent a copy of the research findings. All data will be held securely and no other person other than my supervisors will have access to it.

The TPU participation in the research is voluntary and you can decline to participate without giving a reason. Individual staff will be able to review and amend interview data and can withdraw from the research at any time. Your data will be destroyed upon withdrawal.

To give your consent to be involved in the research the attached consent form must be signed and returned to the researcher.

If you have any questions or wish for clarification about the research, please contact me at or my supervisors Professor Dr Glenda Anthony

G.J.Anthony@massey.ac.nz or Dr Vijaya Dharan V.M.Dharan@massey.ac.nz, Institute of Education, Massey University.

Thank you for considering this request. I look forward to working with you in the near future

Johanna Wood

This project has been reviewed and approved by Massey University Human Ethics Committee. If you have any concerns about the conduct of this research please contact Mr Jeremy Hubbard, Chair, Massey University Human Ethics Committee: Southern A. Telephone 04 8015799 xtn 63487. Email humanethicsoutha@massey.ac.nz

Appendix E: Principal (or Nominee) Consent



Case X: Case Study Participation Principal (or nominee) Consent

	e read each of the following points carefully. A ipate in the research.	tick in the box indicates your willingness to	
	I have been provided sufficient information in regard to the objectives of the research. I understand the information provided and I have been given an opportunity to seek clarification.		
	I understand that the researcher will take all possible steps to keep my identity and the identity of the TPU confidential		
	I understand that part of the interview train	nscript might be included in presentations	
	I consent to the digital recording of intervi	ews	
	I understand that I will be asked to check interview transcripts for accuracy		
	I consent for school documentation pertaining to PL be part of the document analysis		
	I understand that I will be observed participating in PL discussions		
	I understand that the consent forms and data will be destroyed five years after the conclusion of the research		
	I understand that I may withdraw for the research at any time during the research		
	I understand that if I withdraw any data collected that I have provided will be destroyed		
	I understand that the final thesis will be kept in the Massey University Library and could be used in publications and conferences		
Please indicate if you would like a summary of the final research findings and/or ac final thesis by providing your email address here:			
	Email Address:		
	Signed:	Date:	
	(Name):		
	Contact Information:Researcher Johanna Wood Massey University Institute of Education Phone: Email:	Supervisor Professor Dr Glenda Anthony Massey University Institute of Education Email: G.J.Anthony@massey.ac.nz	

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Appendix F: Teacher-in-Charge Consent



Case X: Case Study Participation Teacher-in-charge Consent

		. A tick in the box indicates your willingness to	
	ipate in the research. I have been provided sufficient information in regard to the objectives of the research. I understand the information provided and I have been given an opportunity to seek clarification.		
	I understand that the researcher will take all possible steps to keep my identity and the identity of the unit confidential		
	I understand that part of the interview t	ranscript might be included in presentations	
	I consent to the digital recording of inte	rviews	
	I understand that I will be asked to check	interview transcripts for accuracy	
	I understand that I will be observed in st	aff discussions around PL	
	I consent for my personal records PL records to be part of the document analysis		
	I consent for unit PL documentation to be part of the document analysis		
	I understand that the consent forms and data will be destroyed five years after the conclusion of the research		
	I understand that I may withdraw for the	e research at any time during the research	
	I understand that if I withdraw any data	collected that I have provided will be destroyed	
	I understand that the final thesis will be kept in the Massey University Library and could be used in publications and conferences		
	Please indicate if you would like a summary of the final research findings and/or access to the final thesis by providing your email address here: Email Address:		
	Signed:		
	(Name):		
	Contact Information:		
	Researcher	Supervisor	
	Johanna Wood	Professor Dr Glenda Anthony	
	Massey University	Massey University	
	Institute of Education	Institute of Education	
	Phone:	Email: G.J.Anthony@massey.ac.nz	

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Appendix G: Teacher Consent



Case X: Case Study Participation Teacher Consent

	cipate in the research.	arefully. A tick in the box indicates your willingness to	
	I have been provided sufficient information in regard to the objectives of the research. I understand the information provided and I have been given an opportunity to seek clarification.		
	I understand that the researcher	will take all possible steps to keep my identity confidentia	
	I understand that part of the inter	view transcript might be included in presentations	
	I consent to the digital recording of	of interviews	
	I understand that I will be asked to	o check interview transcripts for accuracy	
\Box	I consent for my PL records to be part of the document analysis		
	I understand that I will be observed participating in PL discussions		
	I understand that the consent forms and data will be destroyed five years after the conclusion of the research		
	I understand that I may withdraw for the research at any time during the research		
	I understand that if I withdraw any data collected that I have provided will be destroyed		
	I understand that the final thesis will be kept in the Massey University Library and could be used in publications and conferences		
	Please indicate if you would like a summary of the final research findings and/or access to the final thesis by providing your email address here:		
	Email Address:		
	Signed:	Date:	
	(Name):		
	Contact Information:		
	Researcher Johanna Wood Massey University Institute of Education	Supervisor Professor Dr Glenda Anthony Massey University Institute of Education	
	Phone:	Email: G.J.Anthony@massey.ac.nz	

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Appendix H: Authority for the Release of Transcript



TE KURA O TE MÅTAURANGA Case X: AUTHORITY FOR THE RELEASE OF TRANSCRIPTS The professional learning landscape for teen parent educators in New Zealand I confirm that I have had the opportunity to read and amend the transcript of the interview conducted with me. I agree that the edited transcript and extracts from this may be used in reports and publications arising from the research. Signature: Date: Full Name (printed):

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Appendix I: Semi-Structured Interview Questions



Interview Schedule

The professional learning (PL) landscape for teen parent educators in New Zealand

- 1. Please tell me about your teaching background
 - a. Training
 - b. Experience- mainstream, TPU, other
 - c. Roles and responsibilities
 - d. Why you chose to teach in a TPU
- 2. Tell me, how you would define PL
 - a. Formal versus informal
- 3. Tell me about current PL practices in the TPU
 - a. Organisation of PL
 - b. Opportunities for PL
 - c. Access to PL
- 4. Can you share with me a PL experience that you have found to be useful/not so useful?
 - a. Why was the experience useful?
 - b. Why was the experience not so useful?
- 5. What are your current PL needs?
 - a. How were these needs identified?



Observation – Field Log The professional learning landscape for teen parent educators in New Zealand

Observer:	Observation Shee	t Number:
Date and Time of Observation:	TPU:	
Teacher:		
Type of Lesson:		
Taught	Distance with faci	litation
Supervision		
Other (explain)		
Observation (running record of what is	s observed, heard in detail)	Follow-up (including potential teacher learning opportunity/ need)

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Appendix K: Document Analysis



Document Analysis Form:

The professional learning landscape for teen parent educators in New Zealand

Document Analysis Number:				
Date of Analysis:	TPU:			
Document Type:				
Staff meeting minutes Professional development file				
Appraisal document	Annual Plan			
Strategic Plan	Personal record of PLD			
Other (explain)				
Guidelines of what to look for				
PLD requested				
PLD allocated				
Learning from PLD put into action				
Teaching and learning issue discussed				
Mentoring opportunity				
Observation of colleagues				
Collaboration (nature of)				
,				

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Appendix L: Coding Sample

Yeah that's exactly it. It's that broad a concept of it. It's the dialogue you have on a day-to-day basis, it's the formal readings you might do and digest then take some ideas and put into practice and then reflect on whether they work or not and sharing them with others. So it's sort of quite dynamic and its two way.

Initial Coding	2 nd Tier	Subsystem	Other Theme
	Theme	Cluster	
Dialogue you	Collaboration	Activity	Informal
<mark>have on a</mark>		subsystem	
<mark>day-to-day</mark>			
<mark>basis</mark>			
Sharing them	Collaboration	Activity	Informal
with others		subsystem	
Sort of quite	Collaboration	Activity	Informal
dynamic and		subsystem	
its two way			
Formal	Readings	Activity	Formal
readings		subsystem	
Reflect	Reflection	Activity	Informal
		subsystem	

Appendix M: Themes (2nd tier) attributed to subsystems

Teacher Subsystem	Context Subsystem	Activity Subsystem
Disposition to learning:	Policy:	FORMAL
Disposition to learning: Open to learning Inquiry habit of mind Attitude and beliefs to: Teaching Learning Students Subjects Motivation: Intrinsic Extrinsic Career stage: Beginning Experienced Change in role/responsibility	Policy: National Local School Leadership Professional learning practice: Strategy Opportunities Culture for: Learning Risk taking Organisational systems: Support teacher learning Common planning time Appraisal	Workshop Courses Research Conferences Study groups School-wide planned PL Professional learning communities (PLCs) Teaching as inquiry (Tal) Coaching and mentoring Reflection Collaboration Feedback/feed forward Modelling Brainstorming Critical friends Reading Conversations
	Expectations	INFORMAL