ENHANCING PROFESSIONAL LEARNING

IDENTIFYING OBSTACLES AND SOLUTIONS TO THE SUCCESSFUL DEVELOPMENT OF PEDAGOGICAL SKILLS FOR TEACHERS IN AN ONLINE DISTANCE SCHOOL

By

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A thesis submitted in partial fulfilment of the requirements for the degree of Master of Applied Practice

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Declaration

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This Thesis/Research Project entitled enhancing professional learning: Identifying obstacles and solutions to the successful development of pedagogical skills for teachers in an online distance school is submitted in partial fulfilment for the requirements for the Unitec degree of Master of Applied Practice.

CANDIDATE’S DECLARATION

I confirm that:

· This Thesis/ Research Project represents my own work;

· The contribution of supervisors and others to this work was consistent with the Unitec Regulations and Policies.

· Research for this work has been conducted in accordance with the Unitec Research Ethics Committee Policy and Procedures, and has fulfilled any requirements set for this project by the Unitec Research Ethics Committee. Research Ethics Committee Approval Number: 2017-1088

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Abstract

This study examines obstacles and possible solutions to the successful development of pedagogical skills for teachers in an online distance school, with a particular focus on enhancing professional learning. Governments around the world have invested millions in professional development for teachers to compete in a globalised knowledge economy. There is a growing demand for more advanced technological skills for teachers, for example: teaching in distance contexts. In practice, however, much of the available professional learning opportunities for teachers is short-term reactive, designed to 'solve' problems that arise, rather than long-term and proactive, with a focus on developing teachers holistically.

This study set out to explore the impact of enhancing professional learning on teachers’ professional practice in an online distance school. A mixed-method approach was used to explore why some of the teachers do not use the full range of the online features available in the online platform of the school, and in what ways professional development might inadvertently contribute to this.

Results show that for some teachers, professional learning is seen as a burden and not as an opportunity to improve their practice. This happens as the teachers are made to take part in various standardised professional development programmes that are not tailored to their specific needs. As a result, these becomes less effective in helping the teachers improve their own practice. In addition, teachers face barriers during professional development, such as the generic, un-personalised nature of the professional learning, a lack of financial support, the short-term/one-off nature of professional learning, and above all a lack of time. It was found that professional development is more likely to enhance teachers' practice if the teachers are provided with more time and resources to consolidate their learning. The final part of the thesis offers a number of recommendations for enhancing professional learning opportunities and delivery in schools, with particular reference to the New Zealand context.
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ABBREVIATIONS

LMS - Learner Management System
OTLE - Online Teaching and Learning Environment
PD - Professional Development
PPTA - Post Primary Teachers Association
MOE - Ministry of Education
NCCA - National Council for Curriculum and Assessment
NZ - New Zealand
NZTC - New Zealand Teachers Council
# Table of Contents

DECLARATION ........................................................................................................... i
ABSTRACT .............................................................................................................. ii
ACKNOWLEDGEMENT .............................................................................................. iii
ABBREVIATIONS ..................................................................................................... iv
TABLE OF CONTENTS ............................................................................................. v
CHAPTER ONE: INTRODUCTION ............................................................................. 1
  1.1 Introduction .................................................................................................... 1
  1.2 New Zealand Programmes ............................................................................. 3
  1.3 Te Kura Context .............................................................................................. 4
  1.4 Study Background .......................................................................................... 6
  1.5 THE RATIONALE FOR THIS RESEARCH ......................................................... 7
  1.6 Conclusion ................................................................................................... 9
RESEARCH AIM AND QUESTIONS ........................................................................ 9
OUTLINE OF THESIS .............................................................................................. 10
CHAPTER TWO: LITERATURE REVIEW ................................................................ 12
  2.0 Introduction .................................................................................................. 12
  2.1 Teacher challenges in general ...................................................................... 12
  2.1.1 Educational reform .................................................................................... 12
  2.1.2 Initial Training ........................................................................................... 14
  2.1.3 Institutional Pressure .................................................................................. 15
  2.1.4 The Influence of the Teacher .................................................................... 17
  2.1.5 The Major Influence - Professional Development ..................................... 19
  2.2 History of Professional Development ........................................................... 19
  2.2.1 Recent Synthesis on Teacher Professional development ......................... 20
  2.2.2 Challenges Faced by Teachers during Professional Development ........ 21
  2.2.3 What makes Professional Development successful ............................... 22
  2.3 Teacher Challenges in an Online setting ...................................................... 23
  2.4 Why do the teachers do not make use of the LMS features despite the PD ... 24
  2.5 Conclusion ................................................................................................... 27
CHAPTER THREE: METHODOLOGY ...................................................................... 29
  3.1 INTRODUCTION ............................................................................................ 29
  3.2 Stakeholder Engagement .............................................................................. 29
  3.3 Aims, Objective and Research Questions ..................................................... 31
  3.4 Outcomes and Outputs/ Benefits of Study .................................................... 31
  3.5 Sample Selection .......................................................................................... 32
  3.6 RESEARCH METHODOLOGY ....................................................................... 33
  3.6.1 Study Design ............................................................................................ 33
  3.6.2 INSTRUMENTS .......................................................................................... 36
    Questionnaire .................................................................................................. 36
    Interview ......................................................................................................... 37
    Focus Group Interview ................................................................................... 38
  3.7 ANALYSIS OF DATA ..................................................................................... 40
  3.8 VALIDITY ...................................................................................................... 42
  3.9 ETHICAL CONSIDERATIONS ....................................................................... 42
CHAPTER 1: INTRODUCTION

Teaching is regarded as a noble profession, which can be inspiring and energising or, perhaps because of a never-ending round of challenges, it can be viewed as draining and difficult. Fullan (2016) believes that educational reform is an ongoing issue and changes will continue to be imposed on teachers. In this context, teachers’ professional development (PD) plays an important role in successfully implementing change. However, today’s teachers face enormous challenges during their PD process and sometimes the PD that teachers receive does not always prepare them for these challenges.

In this piece of research, teacher PD is defined as “teachers learning, learning how to learn, and transforming their knowledge into practice for the benefit of their students’ growth” (Avalos, 2010, p.10). Scholars such as McGill, Klobas and Renzi (2008) highlight some of the challenges faced by teachers during PD. These include a lack of targeted PD, limited financial support, time constraints; work overload; insufficient rewards; unclear institutional policies; insufficient pedagogical or technical skills; staff resistance, poor motivation and lack of practice, among other factors. In the next section, I will look in more detail at these technological and general challenges faced by teachers.

Due to globalisation, educational policies are being reformed. Teachers require both new pedagogical skills and extensive technical skills to use technology effectively (Reinders, 2009). This requires a substantial amount of PD, time and resource at a personal and institutional level. The inclusion of new technologies into teaching and learning is an opportunity for teacher growth, while offering new challenges for teachers and learners alike. Literature would support the many challenges teachers face both in general and in online teaching (Hubbard, 2003).

According to Helms, Lorenz, Slof, Vermue and Canrinus (2012) teaching can be a difficult profession and teachers are faced with many challenges in general. These authors agree that the first challenge faced by teachers is developing autonomy and an identity as a teacher. Teachers learning needs and styles are variable but, “all levels of pedagogical competence can be progressed where
support for teacher learning is differentiated” (Hoekstra, Brekelmans, Beijaard, & Korthagen, 2009, p. 10).

In addition, teachers are being faced with new cultural or social circumstances which can also impact their sense of identity and efficacy in the classroom (Adie & Barton, 2012). Additionally, they are challenged with constant curriculum reforms which erodes their sense of self-efficacy (Mutch, 2012). Also, teachers are faced with the challenge of upskilling their pedagogical and technical knowledge with each new wave of educational change, a change that is often politically or economically motivated.

Online teaching has accelerated considerably, even though there may be evidence of an ineffective use of technology (Hubbard, 2003). In an online teaching environment teachers are often expected to fulfil multiple roles, despite facing unique challenges. Thus, Day and Sachs (2004) argue that, whenever educational policies are reformed the expectation of teachers is to go through ongoing PD. Both cognitive and emotional involvement are required from the teachers to effectively engage in professional learning either individually or collectively (Avalos, 2010).

Mostly, professional learning for teachers occur in school environments or educational policy environments, where some learning may be more productive than others. However, not every form of PD is relevant to all teachers, even if there is evidence of its overall positive impact. To teach effectively in the 21st century using an online medium, teachers are continuously challenged to respond to evolving educational reform. The use of technology in an online distance context is almost seen as a remedy to help increase the relevance of school education.

Even though change is inescapable, often it is not change that is the problem for teachers, but the way that change is introduced. Teachers are unlikely to embrace change if they feel uncomfortable or if they feel they are out of a familiar schema. According to Fullan (2016) “educational change depends on what
teachers do and think” (p. 97), therefore, relevant PD that teachers can embrace is an important factor whenever there is any suggestion of educational change.

Educational change is often rushed through without any genuine support or opportunity for prior exploration, due to the lack of a consultation process. This can lead to teachers feeling threatened and defensive and the excitement of learning may be dissipated. Scholars such as Learn NC (2008) and Ray (2009) found that while teachers are often provided with online options to teach, there is often a failure to provide them with the necessary preparation or PD to allow online teaching. As a result, teachers express detrimental feelings about teaching online (Allen & Seaman, 2009; Shattuck, Dubins, & Zilberman, 2011).

As stated by Sikes (2013) irrespective of the reasons for educational reform, teachers are always ‘the subject’ and ‘the agent of change’. For teachers to implement these changes, they are required to revitalise their beliefs, attitudes, knowledge and skills, and above all their teaching practices. However, Fullan and Hargreaves (2013) argue that for any educational change to be implemented successfully, there has to be teacher PD. They believe that educational reform and teachers’ PD are inseparable, since during the implementation process teachers are required to implement new ideas and put knowledge into practice. Thus, the implementation of the change is seen as the learning process and any change in teacher practice as PD. However, the implementation process comes with many challenges. In the next section, I will look at the role of PD in the New Zealand context and the factors influencing the PD of teachers.

1.2 New Zealand Programmes

In the New Zealand education system teachers are provided with reasonable opportunities for effective and appropriate PD by their employers (PPTA, 2013). In addition, teachers are required to maintain professional Learning and Development as part of their Registered Teacher Criteria (RTC). In recent years several milestones related to educational policies in the area of Information and Communication Technologies (ICT) have occurred in New Zealand. Examples include network for Learning (N4L), high speed Broadband connections, and Digital Services for teachers. There is no specific literature on the induction of
online teachers, but there is a variety of School Induction programmes for teachers in New Zealand schools.

First and Second year teachers are required to undertake an induction programme, to develop their knowledge and skills (New Zealand Teachers Council, 2010). The Ministry of Education (2012) pointed out that there are many factors affecting the success of online teachers and teaching, but the key element is PD and learning. Similarly, Meyen, Aust, Gauch and Hinton (2002) believe that ongoing PD is vital for online teachers to maintain enthusiasm and to overcome challenges. Despite that, there is no indication of what form this PD may take. For teachers to master sophisticated forms of teaching in the 21st century teacher PD is needed in order to help develop student competencies such as critical thinking, effective communication, collaboration, and self-direction. Effective PD helps teachers refine the pedagogies required to teach these skills, which should be personalised and responsive.

Finally, scholars such as Evers, Van der Heijden, and Kreijns (2016) have pointed out that continuous PD is necessary to fill in the gaps in the skill sets of new online teachers as well as, helping teachers in their daily practice to keep up-to-date with new pedagogies. For successful implementation of PD, teachers must be active learners and should be part of coherent PD activities. Sinnema, Sewell and Milligan (2011) also highlighted that teachers should embed new pedagogical understandings by collaborating in their everyday practice, despite the obstacles. In the next section, I will look at the role of PD at Te Kura and the factors influencing the PD of online teachers.

1.3 Te Kura Context
Te Kura’s move towards an online method of delivery comes with many challenges for teachers especially for those new to Te Kura. This is consistent with Villani (2002) who believes that online teaching is very challenging and the introduction of new LMS requires continuous PD. In the school studied, some teachers are failing to use all the features of LMS in online teaching. Teacher failure to use all the features has a detrimental effect on teacher/ student
satisfaction, usually due to poor teaching by the teacher. There could be many reasons for this, but the focus of this research is on enhancing teacher PD despite the obstacles they face.

Although it has been possible to change the online environment and structure of learning in the school studied, this may not be the best way forward for distance education in a school such as Te Kura. When change is imposed on teachers it produces resistance, therefore, teachers and communities should be consulted prior to change. In the school studied the teacher's role is more of a facilitator, as they are no longer viewed as the fount of all knowledge. This may lead to professional dissatisfaction for teachers and further their resistance to adapting to online teaching.

Despite the move to online teaching there is very little research into its rationale and perceived benefits. In addition, very little is known of teacher failure to use all features of an online teaching environment when using LMS. However, the shift to online teaching in New Zealand's largest education provider is happening, despite the scarcity of research. Apart from just a technical move, this shift in education also has an impact on pedagogical change. It is perceived that this shift is the 'future pathway' for learning in distance education in New Zealand. To support this the school has appointed mentors to facilitate PD for smooth transition of the LMS, known as Online Teaching and Learning Environment (OTLE).

Systma (2006) argued that education systems and schools do not move at the same rate as society and teachers need to progress with these changes. Even though there is continuous PD, sustainability of new practices by teachers is critical, and yet very little evidence is available on whether schools sustain and embed such changes. Schools employ a short-term focus, while long-term effects are often ignored (Ofsted, 2006; Timperley, 2008). Earley and Porritt (2010) pointed out that continuous PD and building on teacher expertise enhances teacher confidence and student outcomes.
In the next section I have outlined barriers/ challenges faced by teachers during PD and my own challenges in delivering PD to teachers. Gates and Gates (2014), Ravhuhali, Kutame, and Mutshaeni (2015) indicate many PD initiatives are simply not working for the benefit of teachers due to many reasons, such as time, lack of support, standardised PD, one-off PD, lack of finance and the educator’s beliefs. The result is that my own practice has changed at a very slow pace even though a lot of time and money has been spent in providing the PD programmes. My enthusiasm during the delivery of PD has provided me with the inspiration for this topic of research in Te Kura’s context. The focus of this research is on the gap between PD delivery and some teachers’ failure to use all the features with the LMS. The research mostly focussed on the barriers faced during PD delivery with the integration of new tools within the LMS, and teachers’ personal experiences. However, the main question remains, how can PD be enhanced for teachers in an online teaching environment?

1.4 Study Background
I chose to research the challenges faced by online teachers in enhancing their PD in OTLE. I often wonder what impact PD has on my own teaching practice and other teachers’ practice. As an OTLE mentor my role is to provide continuous PD to teachers in OTLE, as OTLE is still in its development phase. I have been involved in various PD programmes throughout my teaching journey either as a facilitator or as a passive listener. Most of the time these programmes were conducted in school hours or during the school holidays. During most of the PD sessions I attended, I often felt that I would be better off doing “business as usual”, instead of spending hours listening to the speakers talking about things that were of little interest to me. This nurtured my interest in how other teachers felt about their PD provided by the OTLE mentors and how this could be enhanced for their teaching practice.

This research study involved year 11-13 online distance teachers from the Auckland office, their insights in relation to their OTLE PD and how it could be enhanced. The data was collected using three research methods: survey/questionnaire, semi-structured interviews and focus group interviews
which were carried out over time. Due to time constraints, I was not able to research broader aspects of PD experienced by the teachers in online teaching.

1.5 Rationale for this research
This research arises from my personal disappointment of two years of facilitating professional learning and development as an online facilitator in an Auckland distance school. I have delivered PD on topics ranging from the finer points of OTLE to engaging and designing the use of functionalities within OTLE. The delivery of the content on OTLE, however, is not what disappoints me. In fact, I usually found the content to be relevant to teachers practice and supported by a sound rationale.

The PD was delivered in a variety of forms, including on-site seminars and workshops, involving whole-staff participation. Often teachers had discussion in groups, with increased use of practical examples and statistical evidence. In the last few months, the format of PD has been spread over longer time frames with multiple points of contact between the OTLE facilitator and participants. Of course, being a facilitator, I varied the presentations either orally or visually, but in general I seldom questioned the method of my delivery for promoting teachers’ learning. My disappointment with the format of PD delivery has only been realised in retrospect.

Meanwhile, my practice has changed but only slowly, if at all. This caused me to wonder if another teachers’ practice has changed. Any changes or improvements to my practice seemed to bear unclear cause and effect with my PD experiences. Many times, from my own experience the improvements from PD occurred after months or years. A good example is the enhancement of PD to improve teacher competency.

In my experience, Te Kura’s data tracking system provided little motivation to attempt any changes to practice. They did not adequately measure the extent to which teachers had effectively incorporated new OTLE tools into their practice. For most of my mentoring role, managers or other teachers have relied on rare observations of my lessons as direct evidence of my practice. My performance
in OTLE was often appraised against perfunctory checklists or very generalised performance standards. These approaches seemed to avoid the central question of whether PD has been effective in improving teachers’ ability to use OTLE tools.

Meanwhile, the pressure to enhance PD continues to escalate. Gradually, Te Kura has shifted their adopted pedagogical vision towards an increased mentoring role, and towards promoting knowledge acquisition for online teachers. Furthermore, existing teachers at Te Kura seemed more likely to fit the new pedagogical vision. I also have felt the need to enhance PD but factors beyond my control have always brought me back to the status quo.

Therefore, the purpose of this research is to identify why teachers do not use all the features of Te Kura’s online learning environment despite several PD opportunities. Also, to examine the success or challenges experienced during PD and how the PD could be enhanced. Themes such as lack of time and lack of finance are predictable constraints during PD. However, this research seeks to analyse their varied impacts on the challenges of PD for teachers in an online distance school.

Perhaps my role and method of PD experiences are shared to a greater or lesser extent by other teachers. Both teachers and school leaders pay a price for PD programmes. Teachers always have problems of the busy day to attend to and leaders seek to find resources for teacher time and expertise. The facilitator’s role is to make the PD program effective, in order to enhance learning, resulting in efficiency.

**How could the PD be enhanced?**

The research conducted for this thesis will examine the obstacles for teachers not using all the features of OTLE in conjunction with the role of PD. There are many reasons which could lead to failure, but the focus of this study will be on teacher PD. Teachers are challenged to respond to evolving educational reform with continuous PD for successful educational redesign. This study is to closely examine what is the best way to enhance the PD offered by OTLE mentors. OTLE
mentors receive training prior to upgrades being implemented by the whole school. The rationale for this thesis is that the SLT have evidence that some teachers at Te Kura have failed to adhere to the requirements necessary to use OTLE. For example, there are several OTLE tools that some teachers seem to lack skills in, particularly in the areas for feedback, assessment and communication. The results will enable me to find possible solutions to support teachers by enhancing teachers’ PD and encouraging and maintaining teacher compliance.

The implementation of the possible solutions may promote more acceptable practices for online learning. In addition, it will allow growth for professional relationships and show how the PD can be enhanced by the OTLE mentors to better support the professional learning of the teachers and bridge the gaps in their professional learning and practices. Finally, when teachers know how to use the OTLE tools for more effective online teaching then students will reap the benefits from consistent and effective teacher practices. I will apply the findings to my own practice and share my knowledge with Te Kura’s other regional offices and with educational communities such as COOL (Community of Online Learning). Online mentors may benefit from training in best practices for online course facilitation, which can improve online pedagogy (Koepke & O’Brien, 2012; Vaill & Testori, 2012).

1.6 Conclusion
In general, this research study is aimed at enhancing the best way to deliver PD for online teachers. Due to rapid changes in technology and Te Kura’s shift to online learning teachers are required to be active learners during PD activities to keep abreast of changes. With the reform and new demands on teacher performance at Te Kura not only within the curriculum, but also with the institutional changes, teachers are required to undergo new learning processes and rethink their roles as teachers (Campos, 2013; Johnson, Carla, Fargo & Jamison, 2014). This study explicitly addresses the issue of PD of online teachers and how it could be enhanced.
Research aims and questions
The overall aim of this research was to enhance professional learning by identifying obstacles and solutions to the successful development of pedagogical skills for online teachers, from the point of view of the teachers.

Research aims
1. To identify why teachers do not use all features of Te Kura’s online learning environment.
2. To examine the success or challenges experienced in relation to teachers’ PD.
3. To propose strategies for enhancing PD.

Research questions
1. Why teachers do not use all features of Te Kura’s online learning environment?
2. What are the successes or challenges experienced during PD?
3. Does the PD teachers receive play a role in this? If so, how?
4. How could the PD be enhanced?

Outline of thesis
This thesis is organised into six chapters, summarised as follows:

Chapter One: Introduction
Chapter one provides the context of the research and the reasons for its inception. It provides a definition of PD and illustrates how PD of teachers could be enhanced. This chapter provides a summary of challenges / obstacles faced by teachers and mentors and some possible solutions. The chapter also presents the profile of Te Kura to provide background information of the focus of study to the readers. A rationale for a review of the literature for each of the themes in Chapter Two is provided.

Chapter Two: Literature review
The literature review covers four themes. The first two, namely teacher challenges in general and in online environment, thirdly, the role of PD activities in New Zealand and overseas context following a synthesis from BES. The fourth
theme, PD for online teachers was included because of its emphasis in the *New Zealand Curriculum* (Ministry of Education, 2007).

**Chapter Three: Methodology**
This chapter discusses the methodological approach of this research that is informed by both quantitative and qualitative methodology in the interpretivist paradigm. The research settings and sample, and the data gathering tools are described and justified. The method of organising and analysing the collected data are explained. Issues of validity and ethics are also considered.

**Chapter Four: Results**
This chapter reports the results gathered using the research methods chosen. The data has been coded and grouped according to themes and subthemes that emerge from the data.

**Chapter Five: Discussion**
This chapter begins with a discussion of the research results. The key results of this research project are critically discussed and integrated with the literature reviewed in chapter two.

**Chapter Six: Conclusions**
This chapter presents the conclusions and lays out the suggestions and recommendations. The chapter includes limitations and recommendations for those who design and deliver PD programmes, and suggestions for further study on this topic.
CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction
Today’s teachers face enormous challenges. Teaching is regarded as a noble profession, which can be inspiring and energising or, perhaps because of a never-ending round of challenges, it can be viewed as draining and difficult. Due to globalisation and the ever-changing needs of teachers, governments throughout the world are attaching increasing importance to teachers’ PD (Swafford, 2000). Darling-Hammond (1994) claims that due to a rapidly changing technology-based economy and an increasingly complex society, teachers are being asked to engage in skilful continuous professional learning and development organised by their school. The focus of this study is on challenges faced by teachers during PD, and how it could be enhanced.

2.1 Teacher Challenges in General
In this section, I will look at teacher challenges in general. Due to the challenging nature of their job, teachers face hurdles which are beyond their control (Bucznyski & Hansen, 2010). Some examples of challenges faced by teachers in general or during PD are: educational/curriculum reform, lack of time/resources, school/institution, teacher’s prior knowledge, initial training, student behaviour, constant technological changes and above all, teacher PD (Kennedy, Judd, Churchward, Gray & Krause 2008; Hargittai 2010 & Thinyane, 2010).

Of the identified barriers, the above authors noted time and money, as the biggest barrier to PD. In this research light will be shed on other barriers such as educational reform, teacher/initial training, teacher PD. In the next section, I will look at the role of educational reform, as a barrier to PD for teachers.

2.1.1 Educational Reform
Educational reform is a barrier to teacher PD, so we should understand how the change impacts the roles teachers play. In the current literature educational change can commence due to many reasons. As stated by Fullan (2016) for instance, “change may come about either because it is imposed on us... or
because we voluntarily participate in or even initiate change when we find dissatisfaction, inconsistency, or intolerability in our current situation” (p.19).

Similarly, Bell and Gilbert (2005) asserts that change can either originate from external factors such as governments/social events or it can be from internal factors such as self-regulation by teachers (problems/professional dissatisfaction). Irrespective of the reason for educational reform, teachers are always placed in the situation of being concurrently the “subject” and the “agent for change” (Sikes, 2013).

While teachers are implementing the change from the educational reform, it is mandatory for them to make changes in their beliefs, attitudes, knowledge and skills, and their teaching practices. On that occasion, Fullan and Hargreaves (2013) argued that for change to be successful PD is essential, since teacher performance and development is inseparable.

In addition, Day and Sachs (2004) identified that another essential function of PD is that teachers’ practice must align with educational policies and should be supported continuously to improve their teaching practice.

Furthermore, Mutch (2012) believes that teachers are challenged with constant curriculum reforms which erodes their sense of self-efficacy. When curriculum changes contradict teachers’ opinions of best practice and essential specialist knowledge, it challenges teachers’ effective pedagogical practice and creates internal conflict which impacts on teachers’ effectiveness. Teachers can be left feeling confused, frustrated, resistant and uncertain. It has been described as an ‘emotional rollercoaster’ and teachers either ‘sink or swim’ (Lawson as cited in Clark, 2012). Hall, Pataniczek and Isaacson (2012) wrote that entering the teaching profession is a “baptism of fire” (as cited in Clark, 2012). In the next section, I will look at the role of teachers initial training, influencing the PD of teachers.
2.1.2 Role of Initial training

According to Hanushek (2011); Wei, Darling-Hammond, Andree, Richardson, and Orphanos (2009) it has been acknowledged that teachers matter to society from an economical point of view. They recommended that teachers' professional growth is becoming increasingly important to lift student achievement and promote social change.

Teachers bring varied level of knowledge about their experiences with PD to the training room. Therefore, the initial training they receive should be sufficient to support their learning (Marshall 2010; Mitchell, Clayton, Gower & Bright, 2005; Tearle, 2004). They also recommended that scaffolding should be done in a way to support the implementation of PD and effective learning.

A similar idea about mentoring where appropriate learning takes place during initial training compared to those receiving traditional PD was expressed by (Allan, McKenna & Hind, 2012). Similarly, Volery and Lord (2000) agreed that insufficient training, or training that did not meet individual’s needs and lack of hands-on experience, lead to challenges.

As explained by Johnson and Fargo (2014) teachers should be active learners during training sessions and their learning should be continuous or spread over time. Putnam and Borko (1997) also agreed that despite teachers’ experiences they should be treated as professionals and should be given the opportunity to construct their own understanding.

Furthermore, many researchers confirm that teachers are still not prepared or provided with PD for 21st century teaching (Johnson, Adams Becker, Estrada, & Freeman, 2015). According to Plair (2008) teachers who had their training/PD prior to the evolution are technology illiterate. A similar suggestion about teachers being trained, using a traditional method of industrial age which is no longer valid was expressed by (Laffey, 2004; Plair, 2008). These authors also believed that a decade ago, neither the teachers were provided with the resources nor adequately trained.
Due to these barriers the teachers use of technology is restricted (Ertmer, 2005; Ausband, 2006). In addition, a study by TALIS (2013) showed that the amount of PD teachers receives decreases with experience. International literature confirms that more PD is provided to less experienced teachers and that it decreases with age (Desimone, Smith, & Ueno, 2006; Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011).

Finally, Jackson and Fearon (2013) argued that sometimes teachers felt that their training or PD was not what they expected, and it failed to give them confidence. Some sessions were poorly planned with errors, rushed and not fully functional. In the next section, I will look at the institutional pressure as one of the factors influencing PD of teachers.

2.1.3 Institutional Pressure

Hargreaves and Fullan, (1992); and Kervin, (2007) claim that the school is another key factor which influences the contexts in which teachers work. The school setting is relevant for most of the teaching and learning. Thus, it has policies which deeply affects teachers’ professional identities, goals, content and form of their professional learning’ (Kelchtemans, 2004). For example, in some cases teachers often had to pay for their own PD often leaving teachers out of pocket.

In a school context, teacher professional learning and development are the vehicles used to bring about sustainable change leading to improved teaching practice (Timperley, 2011).

In addition, scholars such as Darling-Hammond (2000); Guskey (2000); Villegas-Reimers (2003); Stoll, McMahon and Thomas (2006); King and Newmann (2004) explained the importance of structural or procedural barriers which hinder PD as it is common practice in NZ for school leaders to authorise PD for teachers. These authors believed that the design of PD should contemplate not only how individual teachers learn, but also how schools as organisations, inspire teachers’ learning or are inclined by teachers’ learning. Additionally, Harbison and Rex (2010)
confirmed that both school culture and teachers have significant value in teaching and learning which cannot operate in isolation, therefore the quality of teachers is reliant upon the quality of the schools as a learning organisation.

Furthermore, King and Newmann (2004) also mentioned that the school culture is crucial in forming the relationship among teachers which help them in mutual learning. They also recommended that participation in school wide PD enables teachers to develop skills and share ideas which build a positive atmosphere and practice. Similarly, Timperley, Wilson, Barrar and Fung (2007) agreed that whole school PD enhances peer collaboration and communication which fosters improvement in practice. Teachers get on board with the opinions and experiences of colleagues (Mathews, 2010) rather than navigating their own way.

In addition, Song, Wang and Liu (2011) confirmed that the addition of new LMS is a decision made by the school which may be quite a daunting encounter for many teachers. Hence, Lochner, Conrad and Graham (2015) agreed that for successful integration of LMS it is the school's responsibility to provide teachers with PD, as this would affect their teaching and help them develop a clearer teaching technique.

Furthermore, Brand (1998) and Timperley & Anton-Lee (2008) expressed the opinion that great PD and effective learning can only occur in school environments where the level of belief and trials is high enough to enable teachers to make substantial changes to their practice. Hence, Opfer and Pedder (2011) reported that due to organisational settings, teachers may not be able to practice their beliefs and values. Teachers need multiple opportunities for PD throughout the evolution of LMS to learn new information and to make significant changes to their practice, even if they are experienced online teachers (Boyer & Lee, 2001).

Moreover, as identified by Boardman, Arguelles, Vaughn, Hughes and Klinger (2005) due to school policies and cost of delivering the PD most schools adopt one-size-fits-all which is a real challenge for some teachers. From school’s policy it is easier to organise one-off and standardised PD as it requires less time and
human capital to implement. As a result, the PD fails to meet the individual's need, and prevents teachers from consolidating the learning and does not give them opportunity for self-accountability.

Furthermore, Johnson and Fargo (2010) echoed that there will always be issues with equity challenges of PD delivery between urban and rural schools. They noted that there can always be crises such as school closure, shortage of teachers, uncertainty of employment which may be barrier during PD implementation. The systematic problems of the school for example limited funding may create an obstacle for teachers due to the policy of the school’s resource allocation.

Finally, Tooley and Connally (2016) also identified that only few schools assess the outcomes of the PD to make sense of what has worked and why, and what needs to be implemented in future and which obstacles needs addressing. In the next section, I will look at the Influence of the teacher, one of the most quoted factors influencing PD.

2.1.4 The Influence of the teacher
Teachers are perceived as change agents who can make most momentous change to learners, therefore their beliefs about PD is important (NCCA, 2010; Opfer et al., 2011). As identified by Cordingley, Bell, Rundell and Evans, (2003) that at an emotional level, teachers can change their beliefs, attitudes, confidence, self-efficacy by varying their practice and showing willingness to trial out new things. However, Webb (2007) disputed that teachers may not sustain such practices. Gleeson and O'Donnabháin (2009); Opfer and Pedder (2010) goes on to state that changes are not a linear process and there is insufficient evidence of changes in teachers' belief and values.

According to (NCCA, 2010) educational change is only successful when teachers connect their personal and professional lives. Even though it has been argued that there is constantly a gap between the PD needs of an individual and that of the organisation (Bolam, McMahon, Stoll, Thomas Wallace, Greenwood, Hawkey, Ingram, Atkinson & Smith, 2005). In scenarios like this Bell and Bolam
(2010); Booth (2003); King (2011) suggested that teachers are challenged to create headspace and become acquainted to the organisations strategy so that it can be aligned to their own values and context.

Moreover, as identified by Bubb and Earley (2008) and Evans (2010) for PD to be effective it is essential to win both teachers ‘hearts and minds’ as well as behavioural change. Yet, Cordingley et al. (2003) claim that when teachers are allowed to identify their own PD needs, then it offers them greater autonomy and gives them a reason for voluntary individual needs which leads to a high road to success (Blase & Blase, 1998; Kervin, 2007).

In addition, scholars such as Lind (2007); Penuel et al. (2007); Klingner, (2004), argued that any barrier encountered during PD is more specifically targeted at an individual level rather than the structural level due to the varied skill levels of individuals. They also reminded us that, due to diverse individual needs, different PD programmes need different amount of time due to differences in technological skills among online teachers, their experiences, teachers’ attitudes towards computers, the degree of computer anxiety etc.

Furthermore, several writers (Kervin, 2007; Priestley et al. 2011; Vygotsky, 1978) have suggested that PD needs to be at teachers “zone of proximal development” or level of professional experiences, academic background, skill and motivation so that they can feel competent plus have the dimensions for the practice. These factors contribute to teacher’s self-confidence, effectiveness and self-esteem, which are essential for teacher growth and inspiration (Bubb & Earley, 2008).

Finally, Creemers, Kyriakides, and Antoniou (2013); Maulana, Helms-Lorenz, and van de Grift (2015) wrote that teachers require time to grow professionally to consolidate their learning from PD sessions, and it should connect to their prior experience. They also found that teachers with many years of experience can achieve higher levels of teaching quality if they will be provided continuous opportunities to learn and develop professionally.
In the next section, I will look at the factors which makes PD successful, one of the most quoted factors influencing PD.

**2.1.5 The major Influence -PD**

In this study the phrase ‘professional learning and development’ comprises both the dissemination of information to professionals for changing their practice (professional development), and the internal process of creating professional knowledge (professional learning) Timperley et. al., (2007). According to Timperley et. al. (2008) professional learning is only successful if it leads to changes in teacher practice.

Researchers such as Ganser (2000), Craft (2002) and Lieberman (1995) reported that PD is a mixture of both formal and informal learning experiences such as attending workshops; reading professional publications; watching television documentaries; development of curriculum materials; conferences; college courses; coaching; classroom observations; paired reflection; action research; and involvement in professional associations (Desimone, 2009).

**2.2 History of PD**

Historically PD had been described by researchers as teacher-centered (Girvan, Conneely, & Tangney, 2016). They contended that during historical times PD included the revolution of information by a professional person to ensure a fast transformation. This was asserted by Bausmith and Barry (2011) that PD does not bring immediate change. In addition, Apple (2009) claims that in the traditional days and even today most of the PD is organized by the school which results in the teachers being passive recipients of commands. Kennedy (2016) reasoned that during the traditional days PD approach was more on mastering a set of skill rather than the means by which teachers learn. Therefore, the result was that it failed to action the needs of a teacher (Trust, Krutka, & Carpenter, 2016).

In contrast, PD in this era extends beyond mastering a skill. It requires teachers to think critically, and to create new skills, beliefs and pedagogy (Nelson & Hammerman 1996; Prawat 1992). During reform PD requires teachers to be both learners and teachers. It is believed that this method signals a departure from
traditional style and models reforms where teachers develop capacity or construct knowledge in their own way rather than the usual top-down method (Darling-Hammond, 2000). In the next section I will look at the synthesis of teacher PD.

2.2.1 Recent synthesis on teacher PD
Fullan (1995) believes that PD lacks a conceptual base and relevant focus therefore, it has a poor track record for teachers. In one aspect PD is used as a remedy to keep abreast of the changes, while on the other aspect, it is seen as learning which is detached from real-time. He argued that PD becomes either a workshop or ongoing sessions which fails to have a sustained progressive impact. Fullan (2007) also believed that despite the intentions of PD, it does not lead to professional learning.

In addition, scholars such as Garet, Porter, Desimone, Birman and Yoon (2001); Yoon, Duncan, Lee, Scarloss and Shapley (2007) discovered that there is very minimal research evidence available for the repercussions of teacher PD influencing teacher practice.

A similar idea about very little evidence of changes and sustainability of practices by teachers in teaching and learning from PD was expressed by (Baker, Gersten, Dimino, and Griffiths, 2004; Priestley et al., 2011). Even though many inventions are initiated in schools, there is insufficient evidence of it being sustained by teachers during their practice (Cuban, 1988; NCCA, 2010).

Moreover, in a study done by Timperley et. al. (2007) in the Best Evidence Synthesis Iteration (BES) of nearly one hundred studies of professional learning it was shown that the theory and research around teacher PD and support for professional learning is comparatively undeveloped. Only seven studies from one hundred provided sufficient evidence of sustainability for the authors. The gap identified by the above authors was lack of sustainability evidence. It is logical to assume that after attending PD, teachers will implement changes into their practice, as there is a relationship between this, but there is no direct evidence (Desimone, Porter, Garet, Yoon & Birman, 2002; Mayer & Lloyd, 2011).
In contrast, a recent research by Glewwe et al. (2011) shows that the impact of PD on in-service teacher training is moderate. While Yoon et al. (2007) discovered that PD which is sustained for 14 hours or more had greater effect, whereas short duration of between five to 14 hours had no effect.

Whitworth and Chiu (2015) asserts that during successful PD sessions teachers collaborate by forming relationships which makes the learning sessions more effective.

From the synthesis there are mixed views from the researchers about PD. Each scenario had a different context in which the PD was conducted. However, it can be stated from the study that the benefits of PD outweigh the disadvantages. In the next section I will look at challenges faced by teachers during PD.

2.2.2 Challenges faced by teachers during PD

Above all, teachers face the challenges of PD throughout their teaching career. Scholars such as Gates and Gates (2014); Ravhuhali et al. (2015) found that many PD initiatives are simply not working to benefit teachers due to reasons such as time, lack of support, standardised PD, lack of finance and the educator’s beliefs. Silins, Zarins and Mulford (2002) recommend that inadequate time, traditional hierarchical arrangements (standardised PD/one-off PD) and lack of access to finance, are also inhibitors to PD.

Similarly, Watson (2001) claims that the time taken for PD programmes must include the initial stage, adoption stage, evaluation and innovation stages to the final stage. Emphasising this Garet, et.al. (2001) and Timperley et al. (2007) argued that if teachers are not given enough time to consolidate the new knowledge and skills then it becomes difficult for teachers to sustain and embed the skills into practice.

In addition, Archibald, Coggshall, Croft, and Goe (2011) believe that PD programmes are often planned and designed without teacher consultation which becomes a major barrier to teachers engaging fully with that PD. A similar idea of top-down PD planning by Ministry of Education or school heads was expressed
by (Archibald et al., 2011). Due to a lack of consultation with teachers regarding their PD needs, teachers often feel isolated and view PD experience as irrelevant, ineffective and unconnected to their professional practice (Ravhuhali et al., 2015). These authors also believe that the PD programs increase teacher workload and at times involves teachers in extra-curricular matters. Guskey (2000) confirmed that by involving teachers in too many PD activities would have a negative effect, resulting in poor teaching performance.

Another barrier encountered by teachers is that most PD initiatives practice a ‘one size fits all’ approach (Rivero, 2006). Darling-Hammond et al. (2009) contended that even though standardised PD is cost effective, it is not useful as it does not meet the professional needs of individual teachers.

Another issue with PD is that teachers experience one-off sessions instead of enduring professional learning over an extended timeframe (Kervin, 2007; Opfer & Pedder, 2011). Despite lack of data about the effectiveness of PD sessions, (Pedder et al., 2008) reported that longer term continuous PD has a more lasting effect than a one-shot session.

Gates (2014) highlights that due to high cost of PD which includes, refreshments, venue, travel etc, most of the sessions are standardised and one off as it is too costly to cater for personalised PD, which limits the attendance of teachers. This can be seen in an example from New Zealand; PPTA (2017) teachers not being provided with financial support with paid working time and or hiring relievers to cover their work and no salary incentives. In the next section, I will look at what makes PD successful.

2.2.3 What makes PD Successful

PD is only successful when teachers are treated as active learners where they can construct their own understanding, and are treated as professionals (Putnam & Borko, 1997). In the literature it has been recommended that even if the PD providers have withdrawn their support, teachers should sustain the practice. Norton and Hathaway (2013) believe that a PD program is only successful when it is implemented using a variety of methods.
In addition, Harnett (2012) highlights that PD is only successful when teachers are provided with continuous opportunities allowing them to create confidence and take away the fear of risk taking. Hence, Louws (2016) confirmed that PD is more effective when it is tailored to the specific needs or competence level of the teachers instead of implementing the traditional “one size fits all’ approach.

Furthermore, Desimone (2009); Timperley and Alton-Lee (2008) argued that quality PD is the driver for upskilling teachers and has long-term benefits, is ongoing, social, constructivist and job-embedded.

2.3 Teacher challenges in an online setting
New Zealand’s current educational system offers opportunities and challenges that can both help and hinder the teaching profession (Ministry of Education, 2018). One challenge is the rapid technological and societal changes which require teachers to not only keep abreast of but often lead. The following section describes the challenges faced by teachers in an online setting.

Keeping abreast of subject knowledge is no longer sufficient, “Teaching online comes with many challenges which utilises a different pedagogical skill set and demands teachers who overtly consider a broader range of technologies” (Tomei, 2011, p.12). When using technology teachers are challenged on their pedagogical and technical skills which require substantial investment of time and resources at the personal and the institutional level (Swenson & Redmond, 2009; Meloncon, 2007; Mayes & Morrison, 2008).

Scholars such as Bain and Weston (2012); Gilakjani and Leong (2012) confirmed that simply providing technology resources to teachers does not ensure that these tools will be used for effective educational purpose. While, Jones, Ramanau, Cross and Healing (2010) pointed out that there is a diversity in technology experience among first-year online teachers because of differing levels of exposure to it.
According to Reeder, Macfadyen, Chase and Roche (2000) teachers want to use technology but often support is low within schools possibly because of inadequate investment in infrastructure and lack of provision of technological assistance. Teachers are faced with institutional pressure to become proficient digital teachers and upskill (Jackson & Fearon, 2013).

Teachers are challenged to design and deliver online course material, so that successful teaching and learning takes place. Failure to implement the pedagogy will have negative impact on student learning (Ellis, O’ Reilly & Debreceny, 1998).

According to Sywelem, Al-Harbi, Fathema, and Witte (2012) due to the nature of online teaching, the students’ learning styles can be unclear. This has implications on how teachers develop learning material. This challenge has implications for learning outcomes and poses a serious issue for teachers being able to understand the learning styles of their students in an online environment.

Lastly, teachers face the challenge of managing their time in an online environment. For example: educators in an Estonian University found online time management was very complicated, as it took them longer to design online notes or answer queries than anticipated and there was no reward system for the educators’ increased workload (Mihhailova, 2006). A similar claim was made by Cornelius and Macdonald (2008), that teachers in the UK found it problematic to keep up with online discussions and forums due to an increase in working hours and workload.

The number of teachers formally trained in their teacher preparation programs for instructing in an online learning environment is minimal (Archambault, 2011; Dawley, Rice & Hinck, 2010).

2.4 Why do the teachers not make use of the LMS features despite PD?
Despite teachers experience and professional learning, it is still confusing why some teachers become experts while others don’t. There are many reasons for the failure of teachers and for them not to effectively implement their professional learning. Scholars such as Gates and Gates (2014) and Ravhuhali et al. (2015)
indicate PD initiatives are simply not working to benefit teachers, due to many reasons; such as time, lack of support, ‘one size fits all” one-shot PD, lack of finance, etc.

The gap in the literature is due to school policies and budget constraints. Most schools adopt a one-size-fits-all PD which is a real challenge for teachers (Boardman et al., 2005). It requires less time and effort to organise but the whole purpose of PD fails to meet the individual needs and prevents teachers from reflecting and consolidating their learning (Ravhuhali et al., 2015). While, Sywelem et al. (2012) believe that when individuals who are taught using their own learning style, with tailored PD there is a higher scope for learning, as there are more chances of meeting their challenges and struggles.

Another essential factor identified in the literature is that PD barriers are more applicable to teachers’ level rather than at a structural level Lind (2007); Penuel et al., (2007); Klingner, (2004). This is evident from the literature that individuals bring varied level of experiences with them.

In the literature both time allocation and time management has been identified as a barrier to PD. The gap in the literature is allocation of time to teachers (Hawley & Valli, 1999; Helmer et al., 2011; Poskitt, 2005; Timperley et al., 2007) management of time (Burd & Buchman, 2004).

Furthermore, Birman, Desimone, Porter and Garet (2000); Timperley et al. (2007) suggested that teachers PD should extend over a longer period for it to be effective. In addition, Yoon et al. (2007) claim that any PD to be effective and sustainable it should be conducted for more than 14 hours, while short duration PD has no positive effect.
A summary of challenges faced by online teachers during PD identified by the following researchers.

<table>
<thead>
<tr>
<th>Challenges faced by teachers during PD</th>
<th>Authors</th>
</tr>
</thead>
</table>
| Lack of Time                           | Tomei, (2011)  
| Teacher Educators- Professional context | Kervin, (2007); Priestley et al., (2011)  
| Academic background                    | and Vygotsky, (1978)  
| Professional experience                | Sun, Tsai, Finger, Chen and Yeh (2008)  
| Zone of Proximal development          | Archibald, Coggshall, Croft, and Goe (2011)  
| Teachers Personal factors             | NCCA, (2010); Opfer and Pedder, (2011)  
| Dispositions                          |  
| Relationships                         |  
| Beliefs                                |  
| Attitudes                             |  
| Confidence                            |  
| Self-efficacy                         |  
| Teachers as change agents             |  
| (resistance to change)                |  
| Technological skills                  |  
| The PD itself                         | Archibald, Coggshall, Croft, and Goe (2011)  
| Types of PD (one size fits all)       | Rivero, 2006)  
| One off PD instead of continuous      | Darling-Hammond, Wei, Andree, Richardson, and Orphanos (2009)  
<p>| Poor planning and delivery            |</p>
<table>
<thead>
<tr>
<th>Lacks depth or content knowledge</th>
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<tr>
<td>School culture</td>
<td>Kelchtemans (2004)</td>
</tr>
<tr>
<td>Conflicting requirements</td>
<td>Darling-Hammond (1994)</td>
</tr>
<tr>
<td>Inadequate resources (lack of shared vision about what high quality instruction entails)</td>
<td>Hargreaves and Fullan, (1992); Kervin, (2007)</td>
</tr>
<tr>
<td>Unsupportive management</td>
<td>King and Newmann, 2004).</td>
</tr>
<tr>
<td>Work pressure to meet deadlines and staff shortages</td>
<td>Jackson &amp; Fearon, (2013)</td>
</tr>
<tr>
<td>Restructure</td>
<td></td>
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</tbody>
</table>

| Teachers workload                                                                         | Mihhailova, (2006) |

2.5 Conclusion

The PD challenges faced by online teachers have been studied and presented in relevant literature in many ways. Nevertheless, at the core of such endeavours, the biggest challenge faced by teachers is time constraints. In addition, the basic understanding of a PD approach is one size fits all. It is evident from the above-mentioned literature that both micro (social, personal, professional) and macro context (institutional context) affect and encompass the PD of teachers.
Each context offers different responsibilities and expectations for teachers and may impose constraints and opportunities for learning at the same time. Therefore, PD can take various forms with different individuals, and can differ in diverse settings. The literature also showed that learning can take different forms including formal and informal. Thus, with the advancement in technology there is a continuous need to study the expectations of online teachers working conditions, along with the PD opportunities and challenges that are available to them.
Chapter 3: Methodology

3.1 Introduction
This chapter explores the process of stakeholder engagement and how this enhances PD for online teachers. A description of the research tools, Google survey (questionnaire), semi-structured interview and focus group interview is provided. The methodology, including data analysis, reliability and validity of the data and the ethical considerations of the research project are given.

3.2 Stakeholder engagement
The purpose of this project is to explore why teachers in an online environment are not using the full range of functionalities available via OTLE. Many teacher challenges have been identified in the literature: such as, lack of time, finance, pedagogical or technical skills, standardised PD, one off PD, staff resistance and teacher motivation. The impact of these may be seen in poorer teaching performance but the focus of this study is on challenges with teacher PD. This thesis also extended an opportunity to the OTLE mentors to reflect upon and successfully develop their mentoring leadership role in enhancing PD for teachers.

The main stakeholders recognized for this project were Auckland region year 11-13 teachers, the OTLE mentors and the Regional Manager. The purpose of engaging with teachers was to gather information about their experiences with PD provided by OTLE mentors from their perspective. The purpose of engaging with OTLE mentors was to find out how they could be better supported in their mentoring role. It also allowed the researcher to gather information about OTLE mentors/teachers' perceptions, attitudes/beliefs and feelings and cut through the clutter of taken-for-granted assumptions and conventional wisdom.

The SLT informed the staff in a formal meeting that some teachers are not using all the features within OTLE. Later, while mentoring teachers, I randomly selected five to talk with individually and carried out a similar conversation to validate the findings from the SLT. Afterwards, I chatted with five OTLE mentors from Auckland region individually and carried out a similar conversation, again to validate or compare the findings from the SLT.
I also had a discussion with the Regional Manager to find out his thoughts and how teachers’ PD could be enhanced in supporting them to use all features of OTLE. The findings from the manager was surprising and contradictory. The focus was to have more PD with less time allocation and limited finance even though new functionalities in OTLE are adopted by the school regularly. In addition, the mentors’ role increased form OTLE mentors to Systems mentors and the number of mentors in the office significantly reduced due to insufficient funds. The issues he anticipated around teacher PD were organizational, the systems itself (the school may have no control), staff resistance, teacher motivation /skill, time and limited finance.

The manager together with the staff were keen for me to carry out a research on enhancing teacher PD. The teachers personally felt they needed more PD to work with the features of OTLE. Staff also mentioned lack of pedagogical technological knowledge with OTLE and that not knowing how to integrate technology successfully in their online teaching can have many negative effects.

The results from the literature review had implications for my own professional practice as it gave the teachers and mentors an opportunity to reflect on the PD opportunities available to them. It has also enabled me to realise the importance of PD for each teacher to teach via OTLE. In addition, there is a need for SLT to realise that it is not about just providing teachers with the technology or tools, but to maximise the PD opportunities so that teachers can effectively use the tools. Also communicating clearly and professionally if leaders are made aware of an issue which needs to be addressed. Any findings from this research will be shared amongst all Te Kura teachers, regional OTLE mentors and SLT to help improve teachers practice and sustain their learning.

For this research study, I chose to use three research instruments; survey (questionnaire), focus group interview and one-to-one interviews. In addition to methodological triangulation, this research study also has data source triangulation whereby, the participants interviewed were asked the same questions, but responses gathered were varied as they had different views to the
questions asked. These varied responses were influenced by the teachers’ personal experiences and teaching experience. Data triangulation is believed to be more superior to a single data source or instrument (Cohen, Manion, & Morrison, 2007).

There was a shift in my frame of mind about teachers not using all features within OTLE and its implications on their teaching. I had taken for granted that the stakeholders would be inquisitive in teasing out about the implementation of online learning being more effective, by providing more mentors and more time but I had to concentrate on their issues, which related more to the problems or challenges faced by the institution or the LMS itself.

3.3 Aim, Objectives and Research Questions
The aim of this project is to enhance the professional learning ability of online teachers at a distance school in Auckland. The objectives are:
1. Identify why teachers do not use all the features of Te Kura’s online learning environment.
2. To examine the challenges or difficulties experienced in relation to teachers’ PD.
3. To propose strategies for enhancing PD.

In order to do this, I will answer the following questions:
1. Why teachers do not use all features of Te Kura’s online learning environment?
2. What are the success or challenges experienced during PD?
3. Does the PD teachers receive play a role in this? If so, how?
4. How could the PD be enhanced?

3.4 Outcomes and Outputs / Benefits of study
The intended outcome of this project is to identify why teachers do not use all features of Te Kura’s online learning environment and how their PD could be enhanced. There are many barriers to successful development of pedagogical or technical skills for online teachers but the focus for this study will only be on teacher PD provided by the OTLE mentors. It could enable SLT to consider the findings and review their current LMS use and PD in terms of online teaching.
practices. They may consider making changes to their PD plan to cater for the new learning needs identified through the findings and adjust their strategic planning. The leaders may also find it useful to provide more in-house facilitators depending on individual staff need. Students could benefit from the research as the teachers may develop better understanding of OTLE functionalities.

The findings should inform the OTLE mentors and teachers on how to enhance the PD of teachers so that teachers can use all the features within OTLE. Online mentors and teachers should have some ideas, approaches and solutions which may benefit them to enhance their capability and improve teacher practice.

For me personally, I should be able to carry out needs-based research for identified stakeholders and see how to communicate with them clearly. I should also be able to apply the findings in my own practice and share my knowledge with other regional offices and with communities like COOL (community of Online learning). Online mentors may benefit from training in best practices for online course facilitation, which can improve online pedagogy (Koepke & O’Brien, 2012; Vaill & Testori, 2012).

3.5 Sample Selection
This research study was conducted at an online distance school in Auckland regional office, New Zealand. Te Kura is on a journey of phasing out print-based resources in favour of interactive online modules delivered through a LMS called OTLE. OTLE has been used as a primary teaching tool firstly, for NZ Curriculum Level 1 in 2016 and it has been extended to Level 2 in 2017. The vision of the school is to have all NZ Curriculum Level 1-3 courses online by 2018.

Teachers at this school are expected to work in an online platform called OTLE. I work in Auckland office; therefore, it was easier for me to select this site, and my role is to provide PD to teachers whenever there is an upgrade in OTLE. The demographics of the office consists of almost forty year 11-13 teachers and twelve years 1-10 teachers. There are 3 office administrators, 4 student support advisors, 2 relationship coordinators and 1 regional manager. There are couple of regular relievers or part timers. Some teachers have been teaching in an online
environment for more than ten years while some are novice, but majority of them have many years of face to face teaching experience. All the teachers have a bachelor's degree, while some have a master's Degree or a PhD.

3.6 Research Methodology
3.6.1 Study Design
This is an interpretive study, which seeks to understand the reasons why teachers do not use all the features of OTLE and how their PD could be enhanced. This study incorporated surveys, interviews and focus group interviews to collect both quantitative and qualitative data from teachers and OTLE mentors. Bryman (2004) and Gray (2004) believe that interviews align well with interpretive study, where the researcher focuses on qualitative analysis. All three methods were suitable for this research as it allows for an in-depth study into specific phenomena in their natural settings (Robson, 1993; Denscombe, 2003). Furthermore, attention was given to the significance of the relationships within the context of the research (Yin, 1994).

According to Bryman (2008); Coleman and Briggs (2002) the interpretive paradigm is described as the knowledge gathered from a research undertaken as personalised, subjective and based on people's experience. In addition, Cohen et al. (2007) have stated that both subjective and objective approaches recognise social reality. This study adopts a subjective approach in which participants personal opinions / experiences highlights the creation of a social world (Cohen et al., 2007). The reason for choosing this method was to gather information to understand the research topic from a teachers’ experience/adventure. Hence, the data gathered from the research participants determined by their PD experiences provided justification to pursue this research study from the interpretive perspective.

In addition, teachers as change agents have power to actively transform their social world, even though they are being transformed by it (Crawford, 2009). Despite weakness of interpretive paradigm, it was adopted for this study. Davidson and Tolich (2003) claim that interpretive paradigm lacks reliability, but it allows more flexibility in term of the research instruments employed.
The interpretive paradigm adopted in this research study is linked to the mixed method approach. Mixed method design of this research enabled data from each approach to inform the other. Tashakkori and Creswell (2007) defined mixed method as “research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study” (p.4).

Teddle and Tashakkori (2009) have stated that mixed method research, “embraces perspectives from both sides of the paradigm debate in interaction with the research question and real-world circumstances” (p.73).

**The rationale for choosing mixed method approach**
A mixed-method approach is developed and refined to suit a wide variety of research questions (Creswell, & Plano Clark, 2011). One of the most appealing characteristics of the mixed method approach which is believed to fit the purpose of this research study is that it allows methodological flexibility. This allows more control over the amount and type of data gathered from each research instrument designed. However, this method is complex to plan or conduct. Also, to find out the answers to the research questions was a difficult task which involved crucial decision making (Knight, 2002; Stark & Torrance, 2005).

**Quantitative phase- Rationale and design of the questionnaire**
While question design reflects Fink’s (2009) study (see Appendix A), which incorporated predominantly closed questions, some five-point Likert scale responses from none to completely. The research questions in this study were written specifically for this research by the researcher.

The quantitative phase occurred at the beginning of the research, providing descriptive, statistical information by surveying twenty-five teachers from Auckland office. Data was gathered for pedagogical or technical ICT skills, barriers to PD, and the support provided during PD.
Qualitative data in narrative form was analysed to provide specific examples and a deeper insight into teacher PD which were identified in the quantitative phase. Interview analysis provided further exploration of the need for PD for teachers.

**Participants Questionnaire - Respondents and data collection**

Questionnaire respondents were teachers employed permanently, or on long-term teaching contracts, in a full-time capacity. Teaching staff employed as day-to-day relievers were not approached to participate as they may not have sufficient knowledge of the schools’ OTLE capability, nor be available as an employee for the duration of the research.

Following approval of the research from the board of trustees (BOT) and SLT questionnaires were sent to all forty teachers. For manageability, the target group will be the first twenty-five responses.

**Qualitative phase – Rationale and design of the interview**

The quantitative approach partially assisted the identification of challenges to teacher PD in OTLE and options for support. The qualitative approach allowed individual teachers’ perspectives on specific PD challenges to strengthen quantitative data. Where applicable, in the interview participants were reminded of answers they gave in the questionnaire to enable reflection and explanation of their original responses.

According to May (2001) the participants answer to specific questions, could be further explored by the interviewer for additional clarification or information. Five questions based on the initial questionnaire comprised the interview framework (Appendix B). Participants were encouraged to answer in story form, including examples and personal stories. Therefore, the rich or ‘thick’ description provided an opportunity for a higher weighting to the qualitative phase of the research. The interview duration was 30 minutes.

To form a reasonable conclusion about the PD of teachers and mentors, I wanted to gather information from majority of the teachers but there could be a possibility that all participants may not respond to the survey. Interviewing at least five OTLE
mentors generated enough qualitative data to compare experience and draw themes. The common themes derived from the focus group interview were: lack of time, lack of finance, standardised PD and lack of continuity with PD.

### 3.6.2 Instruments

**Google Survey**

Google Survey was employed as a major means of data collection on obstacles to successful development of pedagogical/ technical skills for online teachers (see Appendix A). The survey was carried out online, and it was administered via Google Docs. This method of data collection was chosen because participants can answer questions at their leisure rather than trying to finish all at ones. It also allows examining individual teachers’ viewpoint regarding the issue under scrutiny.

To further enhance the likelihood of survey to reflect personal views of the participants, both unstructured (i.e., open-ended) and structured (i.e., fixed choice) questions were utilized. In an open-ended question, the participant supplies the answer on their own, which means that such question “does not constrain individual responses” (Creswell, 2012, p.387). Fixed choice questions, on the other hand, are easier for respondents to complete, are less time consuming for the respondent, and are easier to analyse (Efron & Ravid, 2013). Additionally, the response rates are often higher for the structured, rather than unstructured surveys.

The survey was divided into two parts. Part 1 was more on technical and pedagogical skills and part 2 was specifically on PD. The participants had to rate them using a scale of 1-5, where 1 was noted as not at all applied to them and 5 noted as completely applied to them. Being a quantitative study, the survey aimed at determining the diversity of perspectives within a chosen context. The survey was administered through questionnaire.

**Questionnaire**

Verma and Mallick (1999) described a well-designed questionnaire is a cheap data collection instrument that has the advantage of providing the answers to the
research questions. They also emphasised that the researchers need to decide the purpose of questionnaire, that is whether to supplement or complement other instruments used and should be fit for purpose. A considerable amount of time is required in the planning and preparation stage (Cohen et al., 2007). In this study the questionnaire was designed and consequently used to supplement the data gathered from the interviews sessions. Later, interviews were conducted with five participants to gain better understanding of the research topic.

The rationale for using a questionnaire
The main reason for choosing to use a questionnaire in this research study is due to its convenience for the respondents and it gives the flexibility to teachers to bring together as much information as possible (Bryman, 2008). In addition, the use of a self-completion questionnaire has the potential of producing bias-free responses in comparison to an interview. In the presence of an interviewer it has the tendency to cause respondents to exhibit “social desirability bias” (Bryman, 2008, p.218) which will distort the reliability of data collected.

Despite the advantages discussed above questionnaire also has its limitations. A major weakness of having a questionnaire is that it did not allow the researcher to prompt and probe the respondents (Bryman, 2008) thus limiting the depth of data collected. Since the responses are anonymous it was difficult for the researcher to identify the respondent to seek clarification if needed. In addition, Bryman (2008) believes that questionnaire limits the number of questions that can be asked due to the possibility of ‘respondent tiredness which limits the amount of data collected.

Interview
Interview with five online teachers was chosen as a second method to provide further insight into their understanding of the obstacles to PD. (See Appendix B). The interview questions were co-constructed in collaboration with my supervisor and were based on the obstacles identified in the literature review and the results from the survey. For the interview questions some research-based examples were also used. Interviews were designed to take approximately 30 minutes,
giving participants enough freedom to expand on topics of their choosing. Interviews were audio recorded.

Interview participants were recruited by asking survey respondents to express interest in participating. I had made up an interview time and upon meeting with them got the consent form signed. Appointments were made with the participants for the interview to be taken at their workplace at a time convenient to them. Due to time constraints and fifteen responses from the participants only 5 participants were selected for interview.

The range of variables used in the selection process for the interviews included the different role of the teachers: such as senior teacher, team leader, brand new teacher, teachers who have been with the school for more than 5 years and a teacher who used both OTLE and paper resources for teaching. This allowed the researcher to gather information from a range of participants with different levels of authority and experience within the organization.

I chose to use interview as it allowed me to explore a trend (Beck & Manuel, 2008). These scholars suggested that it allows the researcher to dive in to the themes quickly and can follow topics of interest during the interview. The interview will be conducted face to face as it can see facial expressions and body language. In contrast, the above researchers argued that the limitations of an interview can be that some participants may be shy or uncomfortable with a face to face conversation. Moreover, during interview the interviewer will encounter different type of people. Some may be dominant speakers, the expert type, argumentative type, and the shy person. The interviewer needs to be well organised with systems and strategies to move the interview along, suppress a potential argument, or draw out a reticent participant.

**Focus Group Interview**

I chose focus group as a third method of data collection from the OTLE mentors as it gave me the flexibility to gain deeper insight from the mentors’ perspective about their attitudes, values and opinions on the topic (see Appendix C). On one hand, this method allows for better control over the type of information received by the researcher, as the researcher can “ask specific question to elicit particular
information” (Creswell, 2012, p.218). Thus, the researcher is the one who determines the direction an interview is likely to assume. On other hand, focus group interview allows participants to better describe personal information or their point of view on the investigated phenomenon.

As Conway (2014) acknowledged, focus group interview can effectively serve as both “analysis and data collection” (p. 274). Conducted at such a period, when the researcher has already begun preliminary analysis of earlier collected data, it enables the use of the focus group to follow up on earlier findings. According to Cohen et al. (2007) focus groups are considered useful when triangulated with more traditional forms of data gathering such as questionnaires. All the participants were encouraged to talk and to take their turns. To ensure the clarity of data collection, the interview was first audiotaped and, afterwards, transcribed.

The focus group interview allowed the researcher to gather open-ended responses from other OTLE mentors about their thoughts and feelings on OTLE PD. This will consolidate the findings from the interviews and surveys about the obstacles during OTLE PD. Also, to find out if the OTLE mentors experience the same obstacles and whether they have professional support available for their own PD. Since the participants were OTLE mentors it was easier for them to convey their thoughts and feelings on the topic. In addition, the researcher was also an OTLE mentor, therefore it was in the interest of the researcher to explore and evaluate about OTLE PD challenges and successes.

Advantages of focus group
According to Cohen et al. (2007) focus groups are artificial settings where a precise group of people discuss a specific theme and the interaction within the group leads to outcomes. Since, there is flexibility, hence a certain amount of control must be relinquished by the interviewer to the participants.

Despite, the above advantages there are some limitations of using focus groups such as: difficult to organise, lengthy to transcribe and analyse, some people may dominate the discussion, may lead to disagreements or conflict, limited information in comparison to an interview (Bryman, 2004; Cohen et al., 2007).
3.7 Analysis of Data

Bryman (2004); and Cohen et al. (2007) believe that data analysis needs to be considered before designing the research instruments. They also expressed the opinion that the methods of analysis will be subject to the type of data to be collected and the variables chosen. Wilkinson (2000) claims that the purpose of analysis is to connect data in an expressive way which enables the researchers to interpret or make sense of it.

The open-ended questions were analysed thematically, while the data from the survey was pre-categorised. While I had some broad ideas from the literature review, I was still expecting surprises from the data. I was not sure if there would be any correlation between teachers’ views, OTLE mentors’ views and managers views. As I analysed the comments from the teachers’ questionnaire I looked for the commonalities between them in order to establish factors that teachers agreed on. I then looked for the “individual instances” within each area to identify the differences in opinion that were emerging. I also looked for surprising or interesting comments or trends.

The first step involved analysing the responses to obstacles in the successful development of pedagogical/technical skills for online teachers. The participants had to rate it as an obstacle using a scale of 1-5, where 1 was noted as “not at all” and 5 noted as “completely” applied to them. In social context is worth noting that aggregate data refers to a collection of group average, where information is combined from many sources.

The interviews were recorded and then transcribed individually. Every question was split into minute segments with key messages aligned to research questions which was shared with my supervisor for feedback.

The data gathered from the themes was compared with existing data, to ensure a perfect fit was achieved between all three methods. The researcher used Wilkinson’s (2000) suggestion to code all the data to draw themes. I did this for each questionnaire, focus group questions that had comments that needed
analysing. My coding theme was set up as a word document. The headings that I used to help me sort through all the data were: Key Themes, Keywords used, Number of examples, Surprising/Interesting, Supporting quote from the document.

Analysis of data from the questionnaire was in an expressive manner and was presented in terms of various summary frequencies to report what had been found. The open-ended questions were analysed thematically. According to Tolich and Davidson (1999) this is regarded as consistency of patterns especially when important meanings will come from reappearance over and over. At times the patterns may be known in advance as they are drawn from the research questions or they may emerge surprisingly from the analysis. The literature review already gave me some broad idea, but I was not sure what patterns would present themselves, and whether there would be any correlation between the teachers, OTLE mentors and the managers view. During the analysis of the questionnaire I searched for commonalities between them in order to establish factors that teachers agreed on. Later, on I observed the individualised response within each area to identify the differences in opinion. I also looked for surprising or interesting comments and trends.

The focus group discussion was recorded and transcribed with thematic analysis to collate information carefully and without vagueness. During the coding process, there was a constant comparison where the researcher compared new data with existing data, so that there was a perfect match between the two. Analysis was done for all the three instruments used: questionnaire, interview and focus group.

The participants had to rate PD challenges using a score of 1-5, where 1 indicated it “did not apply” to them and 5 being “completely” applied to them. The scores over 50% for any of the challenges to PD were considered as problematic.
3.8 Validity

For reliable and valid data every effort was made to ensure that the coded portions of text fitted the theme they were given and were not taken out of context. Bryman (2004) believes in external and internal reliability and validity while, Guba and Lincoln (2005) believe in language of authenticity and trustworthiness. The four criteria of trustworthiness are: credibility, transferability, dependability and confirmability. Credibility allows findings to be cross-checked to draw similar themes and to increase confidence in findings as it employs triangulation. When more than one group is used to confirm themes, then it strengthens the credibility of the findings and their confirmability.

According to Bryman (2004); Cohen et al. (2007) the researchers seek information from participants perspective and their social behaviour, while at the same time they are concerned with the reliability and rigor of their findings. Another possible limitation could be the participants not being aware of the real situation and consciously altering or fabricating information. While this situation may have arisen in this research, the triangulation of findings using regional managers, teachers’ and OTLE mentors’ views about the same topics, hopefully goes some way to addressing this issue of reliability or validity.

Cohen et al. (2007) emphasises that leading questions should be avoided as it contributes to biasness. It has been shown that dependability of a piece of research, its validity and reliability, arises from the honesty of the conclusions that are produced and is important for evaluating the quality of the procedures used.

3.9 Ethical Considerations

The validity and reliability of a piece of research does not necessarily make it ethical. In a research, ethical issues can rise at any stage in social research. The dominant element in ethics is how we treat others: that one cannot justify causing harm to people to benefit others. The work of Mutch (2013, 2005) was an excellent guide in preparing moral principles and guiding conduct for the researcher during the research and for ethics approval from Unitec. By simply asking questions and engaging with participants, the researcher has the potential
to coerce participants, therefore, balance of trust and power can be an issue. To mitigate these risks, Christians (2011) suggests four guidelines:

• Informed consent- participants must be informed about the research process, content and consequences. Participation in a research study must also be voluntary and this is to be expressed in the information provided to potential participants.

• Deception- full transparency is required with research free of active deception. This was avoided by informing the participants the purpose of the research and the methods used in it.

• Privacy and confidentiality- safeguards were put in place to maximise participant confidentiality, both their identity and location. This was done by avoiding asking questions outside the scope of the research or invading their privacy or not wasting their time. All data will be analysed without identifying participants by name and will be stored by the researcher in a password protected digital folder (On personnel H drive which is only accessible by the researcher). After a period of 5 years (2023) all the data will be deleted.

Accuracy- data and representation of the data must be accurate. All data was de-identified prior to publication. All participants were anonymous using pseudonym.

In this study, participation in the survey and interviews were voluntary, with participants giving full consent. Participants were advised in writing via email about the topic or purpose of the study, how the study will be reported and the position of the researcher (Mutch, 2013). The project only progressed with participants’ consent. For the questionnaire, it was important that the respondents chose to participate and were not forced in any way. Participants were involved based on informed consent, and knew they had a right to withdraw or not complete some questions; they were made aware of any potential benefit to them of the research findings and were assured of their confidentiality. In addition, I ensured to the best of my ability that the questionnaire was valid, reliable and unbiased, and capable of capturing the perspectives of the participants. During the research, any difficulties with communication or understanding the content, was addressed in the instructions, so that all the participants had a clear understanding of the topic. The participants were informed that their privacy and
identity will never be disclosed to any third party under any circumstance. Questions were straightforward and free of jargon so that participants did not feel bad because they did not understand what the questions were getting at (Mukherji & Albon, 2010). The interviews were conducted in a quiet, comfortable venue free from interruptions and a venue of their choice. The move to OTLE has been contentious through the media and within educational circles. For this reason, it is imperative participants feel safe offering their views and experiences without fear of identification and potential negative consequences.

The focus group had human factor involvement therefore, three main ethical areas were taken into consideration: informed consent, confidentiality and the consequences of the focus group interview (Cohen et al., 2007).

The following chapter explains in detail the process followed for analysing the results and the findings drawn from them.
CHAPTER 4: Results

4.1 Introduction
This chapter presents an analysis of the data collected from the three participant groups, to answer each of the research question in chapter 1.
1. Why teachers do not use all features of Te Kura’s online learning environment?
2. What are the success/challenges experienced during PD?
3. Does the PD teachers receive play a role in this? If so, how?
4. How could the PD be enhanced?

The methods used were an online questionnaire (n = 25) on participants’ online teaching experience and their challenges with PD, an interview (n = 5) who provided in-depth information about the challenges and opportunities they had experienced with PD and a focus group (n = 5) with mentors involved in providing PD.

The main themes on challenges and obstacles will be identified from three different instruments which will be discussed in the following chapter. In addition, the key themes that will enhance the professional learning will also be identified and discussed later, hopefully it will be used to change the current practice of the participants.

4.2 Questionnaire results
The questionnaire completed by twenty-five teachers in the school studied provided information regarding general and pedagogical support received by the participants in the use of technology for online teaching in a distance learning context. Part one of the questionnaire asked about the general pedagogical skills teachers need in teaching online and part two asked about specific issues relating to challenges and successes in the PD they had received.

The first aspect of the questionnaire focussed on the understanding of the different systems Te kura uses such as OTLE, EDRMS, SMS and many more. It also questioned the skill level of teachers and their ability to adapt to changes plus their level of confidence to use the available technology such as Ipad, Laptop, etc. The purpose is to find out the technological and pedagogical skills of
teachers, which is evident in their practice or attitudes towards the use of OTLE functionalities.

Figure 4.1 represents the general pedagogical skills of teachers with a focus on the technology and technical aspects.

From the figure above 24% of the participants think they have good understanding of all the system “To some extent”, 56% think that they have “Mostly” good understanding of all the systems and 20% think that they “Completely” understand the systems used by the school. In addition, regarding the general expertise to teach online, 40% feel that “To some extent “they have the expertise to teach online, another 40% feel that they “Mostly” have the expertise to teach online and 20% feel that they have the expertise “Completely” to teach online.

Furthermore, 24% of the participants feel confident to use the technology “To some extent”, 44% indicated that they “Mostly” feel confident to use the technology and 32% say that they “Completely feel confident to use the technology. The participants perception towards OTLE use were surveyed by
Google survey questionnaire. Almost all the participants perceived their ability to use OTLE was evidence of confidence and they have good general pedagogical skills. From the above figure it can be interpreted that a high percentage of teachers feel that they have good understanding of all the systems Te Kura uses. In addition, they have the expertise to teach online and adapt changes easily. Majority of them feel confident to use the technology available at Te Kura.

Having established general confidence and experience levels with teaching online, the next set of questions attempted to gauge staff perceptions of the extent to which their training needs are being met by the OTLE mentors. OTLE mentors provide teachers with PD when new features are introduced in OTLE. Despite attending the PD sessions with the OTLE mentors, teachers do not use all the features and seek support throughout their practice. The purpose of this question is to find out if teachers are able to get the amount and type of support they needed from OTLE mentors.

Figure 4.2 shows the results for the three related questions on support from OTLE mentors.

The above figure shows that most of the staff feel that they get the amount and type of support they needed from the OTLE mentors with responses ranging from “to some extent” to “completely”. None of the participant feel that they get “little
“or “not at all” support from the OTLE mentors. The first question asked about the amount and type of support from the OTLE mentors with all the systems Te Kura uses such as (OTLE, SMS, EDRMS etc). The result shows that a high percentage of participants feel that they get the support from the mentors (12% “to some extent” to 44% “Mostly” to 44% “Completely”).

The next question specifically inquired about support with online changes (for example YouSeeU, grades, dropbox, etc) and the results here were similar; the clear majority indicated they were able to get the support they needed (4% “to some extent” to 52% “Mostly” to 44% “completely”).

The final question in this section asked about support with technical changes (for example changing password, synchronising all their devices, etc). Again, the results were very similar, majority of the participants indicated they were able to get technical support from OTLE mentors they needed (8% “to some extent”, to “Mostly” 40% to “Completely” 52%).

The overall, result indicates that majority of the participants get the support they needed from the OTLE mentors.

This section of the questionnaire focused on the specific questions on PD challenges, successes and recommendations from teachers. It concentrates on the structure of professional learning that results in changes in teacher practices. It also, looks at the successful elements or the barriers to PD encountered by the participants.
Table 4.1 below tries to find out about the PD provided by the OTLE mentors to the teachers and how do they feel about each of the elements.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual PD works for me much better than collaborative one</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2=(8%)</td>
<td>23=(92%)</td>
</tr>
<tr>
<td>I feel the quality of resources used for PD used by OTLE mentors is excellent</td>
<td>0</td>
<td>1=(4%)</td>
<td>2=(8%)</td>
<td>4=(16%)</td>
<td>18=(72%)</td>
</tr>
<tr>
<td>I have an excellent working relationship with the OTLE mentors, which helps in my professional learning</td>
<td>0</td>
<td>2=(8%)</td>
<td>6=(24%)</td>
<td>12=(48%)</td>
<td>5=(20%)</td>
</tr>
<tr>
<td>I feel the PD provided by OTLE mentors caters for my needs</td>
<td>1=(4%)</td>
<td>2=(8%)</td>
<td>12=(48%)</td>
<td>5=(20%)</td>
<td>5=(20%)</td>
</tr>
<tr>
<td>I have enough time to attend PD on OTLE</td>
<td>9=(36%)</td>
<td>7=(28%)</td>
<td>4=(16%)</td>
<td>4=(16%)</td>
<td>1=(4%)</td>
</tr>
</tbody>
</table>

The first question asked about the form of PD teachers would prefer (for example: individual or collaborative form). Regarding the general thoughts by teachers on PD, result shows that, a very high percentage of teachers feel that “individual” PD works for them better than “collaborative” PD (92% “completely” to 8% “Mostly”). It shows that a majority of the teachers prefer individual PD over collaborative.
The next question asked the participants about the quality of the resources used by the OTLE mentors during the PD sessions. The result shows that most of the participants feel that the resources used by the OTLE mentors is excellent (72% “completely” to 16% “Mostly” to 8% “To some extent”, to 4% “A Little”).

The third question focussed on the working relationship with the OTLE mentors and the teachers. The purpose of this is to enhance the participants professional learning. The result shows that majority of the participants feel that they have good relationship with the OTLE mentors (20% “completely” to 48% “Mostly” to “24% To some extent”, to 8% “A Little”).

The fourth question focussed on the quality of PD whether it was fit for purpose and met their needs. Most of the participants feel that the PD provided by the OTLE mentors caters for their needs (20% “completely” to 20% “Mostly” to 48% “To some extent”, to 8% “A Little” and 4% “Not at all”). One participant feels that the PD does not meet their needs which should be investigated further, so that the participant could be supported.

The last question asked the participants if they have enough time to attend PD. A high percentage of participants feel that either they have “not at all” or “a little” time to attend PD (4% “completely” to 16% “Mostly” to 16% “To some extent”, to 28% “A Little” and 36% “Not at all”). Here the results were different 64% of the participants have either “no time at all” or a “little time” to attend PD.

The next section focuses on the features which are not used by teachers, despite being provided with PD by the OTLE mentors. The purpose of this is to find out why teachers are not using these features and how the PD could be enhanced.
Table 4.2 presents a list of the features in OTLE not used by teachers

<table>
<thead>
<tr>
<th>Features not used by teachers</th>
<th>Number of teachers</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubrics</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>SMS and OTLE integration</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>eportfolio</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Intelligent agents</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>Chat and YouSeeU</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>YouSeeU</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>Chat</td>
<td>6</td>
<td>24%</td>
</tr>
<tr>
<td>None</td>
<td>7</td>
<td>28%</td>
</tr>
</tbody>
</table>

Table 4.2 shows that the common features not used by the participants in OTLE are: Rubrics 4%, SMS and OTLE integration 4%, eportfolio 4%, Intelligent agents 12%, YouSeeU 12%, combination of both Chat and YouSeeU 12% and chat 24%. While 28% of the participants did not comment. This finding is evident that there is some element from the PD which is not integrated properly.

Table 4.3 tries to find out from the participants what would enable them to use these features.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Number of teachers with responses</th>
<th>Response in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>More PD</td>
<td>13</td>
<td>52%</td>
</tr>
<tr>
<td>More Time</td>
<td>8</td>
<td>32%</td>
</tr>
</tbody>
</table>
The result shows that a high percentage of participants feel that more PD will enable them to use the features from table 4.2 and the factors that will enable the participants to use these features: 52% more PD, 32% needed more time, 8% more effort and commitment from them, while other 8% did not comment.

Lastly, table 4.4 focuses on enhancing PD so that the participants can use these features in the near future.

Table 4.4

<table>
<thead>
<tr>
<th>How could the PD be enhanced</th>
<th>Teacher responses</th>
<th>Response in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing more continuous/ongoing PD</td>
<td>15</td>
<td>60%</td>
</tr>
<tr>
<td>Allocating more time</td>
<td>5</td>
<td>20%</td>
</tr>
<tr>
<td>Providing step by step instructions for the process</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Quick changes- difficult to keep pace</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>Providing information prior to PD</td>
<td>1</td>
<td>4%</td>
</tr>
</tbody>
</table>

Table 4.4 shows that the elements of PD which could be enhanced so that teachers could use these features in OTLE are: 60% more continuous/ongoing PD, 20% more time to enhance PD, 8% step by step instruction for their learning, 8% changes are being introduced too quickly that they find it difficult to consolidate a change before new one is introduced, 4% prefer information regarding the PD prior to the session. Overall, it shows that a
high percentage of the participants prefer continuous PD with more time allocation to use all the features.

The next section looks at the barriers encountered by teachers during PD. The purpose of finding the barriers will enable the OTLE mentors to improve their PD delivery.

Table 4.5 shows the existing barriers as identified by TALIS and its relevance in Te Kuras context.

<table>
<thead>
<tr>
<th>Barriers to participation in PD for teachers.</th>
<th>To what extent do these barriers apply to you?</th>
<th>1. never applies to me</th>
<th>2. sometimes applies to me</th>
<th>3.always applies to me</th>
<th>No comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflicts with work schedule</td>
<td>4= (16%)</td>
<td>13= (52%)</td>
<td>8= (32%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No relevant opportunities available</td>
<td>9= (36%)</td>
<td>9= (36%)</td>
<td>7= (28%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of employer support</td>
<td>12= (48%)</td>
<td>6= (24%)</td>
<td>7= (28%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no incentives</td>
<td>9= (36%)</td>
<td>11= (44%)</td>
<td>5= (20%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing prerequisites</td>
<td>2= (4%)</td>
<td>8= (32%)</td>
<td>4= (16%)</td>
<td>11= (44%)</td>
<td></td>
</tr>
<tr>
<td>Too expensive</td>
<td>9= (36%)</td>
<td>14= (56%)</td>
<td>2= (8%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The first barrier for PD “conflicts with work schedule” results show that a high percentage feel that it applies to them (32% “always applies” to 52% “sometimes applies” to 16% “never applies”). The next barrier for PD is “available opportunities not relevant”. The results here indicate (28% “always applies” to 36% “sometimes applies” to 36% “never applies”). The third barrier for PD is “lack of employer support”. The results here indicated (28% “always applies” to 24% “sometimes applies” to 48% “never applies”). The fourth barrier identified is “no incentives”. The results here indicate (20% “always applies” to 44% “sometimes applies” to 36% “never applies”). The fifth barrier identified by the participants is the “prerequisites are missing”. The results here indicated (16% “always applies” to 32% “sometimes applies” to 8% “never applies”). Another 44% of the participants did not comment. The sixth barrier identified by the participants is “too expensive”. The results here indicated (8% “always applies” to 56% “sometimes applies” to 36% “never applies”). The final barrier identified by the participants is “abundant time” to attend PD. The results here indicated (0% “always applies” to 16% “sometimes applies” to 84% “never applies”). Result shows that quite a high percentage of participants feel that the PD conflicts with their work schedule or they do not have abundant time to attend PD.

The next thing the questionnaire asked was if the participants have chosen option 2 (“sometimes applies to me”) or option 3 (“always applies to me”) then they were supposed to provide a brief example. All the factors are interdependent, they cannot exist in isolation. Some of the participants mentioned more than one aspect. The following are some of the key themes emerged from this section:

**Teacher skill**

The first theme identified by the participants is different technological skill level of teachers. Since it is online teaching the skill level of teachers with the use of technology is segmented. Also, different curriculum areas are at different stage of
online development, which means some teachers are early adopters, while some are lagging. This is evident from the quotes below:

...We teachers bring multiple layers of our own theories (knowledge, skill, beliefs, etc) to the room and through experience we can say that we have good reasons to differ....

.... Also, it requires us to shift our thinking and change our beliefs to engage with the learning. I think that the main purpose behind PD is what impact it will have on us rather than how we feel about the learning....

This shows that standard PD does not cater for teacher's needs.

Teacher workload and Finance
The second theme identified by the participants is that teachers feel they have very high workload with limited finance. Their role does not have any defined parameters for example: (marking, emails, exams, advisory, PD, etc). The heavy workload conflicts with their PD and the expectation from the SLT is high with limited finance.

One of the participants for example pointed out that:

.... since we must balance off our workload, it becomes difficult to attend PD and to keep on top of stuff without relief ...

... also, my salary should not cover the PD that should be provided by the school...

Overall, teachers feel their workload is too high compared to the time allocation.

PD not relevant
The third theme identified by the teachers is that the PD does not meet their need for example, different curriculum areas are at different phase. When teachers are provided with standard PD/ one size fits all PD on new features, it does not fit a purpose. A participant for example pointed out that:

... at times the PD is focussing on something which is not relevant to my curriculum area therefore the whole purpose of PD is missed...

Time
The final theme identified by the participants is time factor. A participant for example pointed out that:
.... With limited time and my workload, I feel burdened with PD. It is about being loaded with more stuff to try and more stuff to do without extra time allocation.

Another participant pointed out:

Since I lack confidence in technology, I don't feel necessary to move out of my comfort zone. I also don't get time to practice which can be quite disappointing for me personally. Also, there isn't time for teachers to go and do some extra study without added pressure to their workload.

The next thing the questionnaire asked was if the participants could give suggestions on how the PD could be improved.

Regarding the suggestions by teachers on how the PD could be enhanced, responses show that, 42% of the participants requested for more PD on a one to one basis, as their suggestion is that they all have different skill levels and they all have different learning needs. Also, 10% suggested that there should be continuity with the PD sessions. The other 40% suggested that they would benefit from more time allocation, 4% suggested that the changes are coming too frequently, and they find it difficult to cope, 4% suggested Q&A bank and there should be more financial support from the SLT. Some of the participants suggested more than one way to improve the PD.

Summary

The data collected from the questionnaire revealed that the success of PD comes with many challenges. In summary all the obstacles identified from the open question confirms with the literature. Even though the participants agreed that PD is great and has positive impact on their learning, but they also had concerns. Teachers are constantly faced with high level of stress and obstacles when undertaking professional learning such as work life balance.

However, time factor was the biggest obstacle identified by the participants, together with one size fits all PD. The reasons for the differences and the
significant findings will be consolidated in the interviews and discussed in the following chapter.

4.3 Interview Results

The purpose of the interview with five online teachers is to provide further insight of the common themes on obstacles to successful PD of pedagogical/technical skills. I will report on major themes only and will illustrate with representative comments. One of the major focus areas of the interview was to identify challenges or difficulties experienced by participants in relation to their PD experiences and several questions attempted to probe this. From the questionnaire, four major, recurring themes emerged: 1) issues with time, 2) one-size-fits-all 3) lack of continuity with PD; 4) lack of finance. Each issue will be discussed in more detail below.

**Time**

All the participants reported that time is a major obstacle for successful development of pedagogical skills for online teachers. They reiterated that the amount of time given to online teachers to attend the PD and to absorb the new knowledge into their teaching practice is scarce.

A participant for example pointed out that:

*Teaching profession is ‘ongoing’, there is no time for a real break. If you have taken time off for PD, then in break time, you must keep marking, give feedback, help students who need extra assistance. This hinders my professional learning as I don't have enough time to consolidate my skills from the PD.*

The participants interviewed also expressed their disappointment with time factor regarding some of the PD programmes being swiftly done to them. A participant said:

*I feel that the best time for PD should be in times of “lull” not in stress periods of exams or report writing time to embed learning into my practice. Also, we don't seem to have a review later down the line to see how it's working for us. Due to gaps, I lose interest.*
The comment made by these participants indicated that time is the biggest obstacle for successful PD for online teachers. Enough time to practice the new knowledge and skill learned will enhance the effectiveness of the PD and lead to positive sustained changes in teaching practice. This significant finding will be discussed in the following chapter.

The next question during the interview discussed the forms of PD. All the participants feel that PD session should be individualised to meet the specific needs of teachers. They feel that standard size PD fails to meet the specific needs of the teachers and prevents them from reflecting or consolidating their learning. When the teachers feel that their professional learning needs are not met then it increases the risk of alienation. One participant commented that...

.. standard size PD does not cater my needs, my learning styles and needs are different...does not give me opportunity to learn at my own pace and at my skill level...I feel left out and lose interest....

Another participant commented that:

*Teachers can only learn in a one size fits one, reinforces the self-centred Western view of life. Communal learning (one size fits all) has a real place. Humans are communal creatures. The PD sessions are always at the same pace for everyone and conducted at the same level despite teachers having different learning styles and experience.*

Overall, the participants indicated that the only time they experienced success with their PD is when it was tailored to their specific needs. They feel frustrated with standard PD sessions as it fails to fit the purpose. In addition, the professional learning experience was perceived to be more relevant to them as it was specifically designed to target the OTLE features that they have in the school.

All the participants agreed that due to rapid changes in the learning environment PD is one of the ways to be up to speed and familiar with the current systems.
The participants reported that even though PD is good they are currently being overloaded with various PD initiatives. This is evident from the following quotes:...

Rather than bombarding teachers with ongoing PD and updates, it would have been better to have a trial team to use OTLE features before opening it to the whole organisation (school). Once the trial team uses it for a term or more and find the troubles and once they have been fixed, then they could have done the training to the whole school. This way, the transition would have been much more effective, instead of dumping stuff on us. Teaching field in an online environment is always on going and overwhelming.

Due to its significance to this research study; this finding will be further discussed in the following chapter.

The next section asked the participants if PD ever challenged their beliefs about teaching and learning. Some of the participants feel that switching from classroom teaching to online teaching at Te Kura is challenging where they must rethink their beliefs and practices, even if they have been teaching for a long period of time. As adults they have well defined schemas about their teaching practice and all of them have this preconceived idea about how teaching works. They echoed that the purpose of PD is to transform their beliefs into measures that make a distinction. One participant commented that:

I think it is the teacher’s mindset...entering in an online environment challenges their existing beliefs which could be very challenging and demanding for teachers.

In this question during the interview the participants were asked to elaborate on that teachers need multiple opportunities for PD. All the participants believe that one off PD does not help them to deepen their thinking, which is supposed to help them foster their learning. One participant voiced that:

Too many features are being introduced so quickly, before we can get our grasp on one, another one comes through without giving us the opportunity to consolidate... Even though it could be straightforward for some, it could still be challenging to others. Most of the time there is no continuity with the PD....

The final question asked for suggestions to enhance PD.
The participants emphasised that by allocating specific time and having tailored continuous PD will be one of the ways PD could be enhanced.

Teachers are not homogeneous, some of them are new to teaching, while some are new to online teaching, while some are overseas trained. We have diverse learning needs of teachers.

The next question sought suggestions from the participants on enhancing their learning, despite the challenges they face during PD session.

Results here were very similar to the questionnaire. The participants have voiced that when PD is at teachers’ level of professional experiences and matches their skill level then they feel confident to practice their learning.

*I think you ladies rock… by sending out tips and tricks and supporting us on a need basis. Every individual has their own web of social and cultural history; therefore, it could be very challenging for the mentors to meet every individual need.*

**Summary**
The data collected from the interview revealed that even though PD had some positive impacts on teachers practice it also comes with challenges. Analysis of the findings identified four key issues: time constraints; standard size PD; lack of continuity with PD; and financial issues. The following chapter will now consider the significance of the findings in relation to the literature.

The next section looks at the focus group interview which was conducted with five OTLE mentors. The purpose of interviewing the OTLE mentors was to gather information from their perspective what are some of the obstacles or successes they have encountered during their PD delivery. Also, how their own PD needs could be enhanced to better support the teachers.
4.4 Focus Group Interview Results

In the first question, seven elements in the professional learning context were identified as important for effective professional learning, that impacted positively and successfully on teachers’ practice: content focused, active learning strategies, collaboration, Modelling, coaching and expert support, feedback and reflection, sustained duration (Darling-Hammond, Hyler, & Gardner, 2017).

All the participants agreed that all seven elements are important for successful PD and learning. Teachers are supposed to have a holistic approach towards all the seven elements. These theories and the practice of teachers cannot be divided, and an element cannot function in isolation.

*Despite the challenges with limited time and less facilitators, which may have threatened the effective continuity of all the seven elements from above, we are really taking it carefully, to fit the purpose of PD. Far too often, when we have dialogues amongst the mentors, it helps us sustain the seven elements from above, which also motivates me, because I don't feel isolated. It guides me to enhance my knowledge and skills and helps build great relationships.*

The next question focussed on the support needed by OTLE mentors to improve their practice.

*All the OTLE mentors commented that “time” allocation should be increased, together with more trained OTLE facilitators and continuous PD. Due to the diverse needs and skills of teachers, it is tricky for us mentors to find ways to support these teachers and to make it manageable. Decrease in both time and OTLE mentors has brought significant shifts in pedagogy for the remaining mentors. … “I find it frustrating, considering the PD needs and skills of our online teachers.*

In this section of the interview the mentors were asked to comment on if they have experienced encouraging relationships during effective PD. All the
participants believed that by taking up the mentors’ role it allowed them to build better relationship with other mentors and teachers. Mentoring role has allowed us to connect with each other and to learn from each other personally and professionally.

A participant commented that:

*I believe that the knowledge, skills and disposition required for quality online instruction varies hugely amongst the teachers. It is the responsibility of the mentor to provide the necessary coursework and build relationships for online teachers for effective teaching.*

In the next question the OTLE mentors were asked to elaborate on the individual needs of the teachers, their learning styles, their pedagogical competence and their differentiated level of support. All five OTLE mentors agreed that teachers enter the online space with different skill levels, beliefs, self-efficacy, etc. New features are introduced too frequently to the teachers, without taking things off from their plate. It makes it difficult for both the mentors and teachers to manage. Some grasp the concepts quickly while others take longer.

For example, one participant said:

*… From experience, I have found that teachers enter the online teaching environment with different technological skill level, which is fragmented. Their skill level and ability to use the technology effectively affects their motivation, habit and readiness to use technology. while some of them tend to drown in the online pool of OTLE features…*

In this section of the interview the mentors were asked to elaborate on lack of preparation for online teaching positions when the PD does not meet their personalised learning needs/ beliefs or reflects on best teaching practices and restricts teacher performance.

All the participants believed that due to the training teachers may have taken, impacts their professional learning. They also enter the online platform with their individual skill, knowledge, expertise, which may make it difficult for us mentors
to meet their personalised learning needs. For example: One participant stated that, 
...institutions find it difficult to allot separate time slots for each teachers’ PD which leaves the mentors overloaded as they have to help teachers at the cost of their own time. In addition, the OTLE mentor’s role does not have a boundary, so teachers approach us for all sorts of technical issues which adds to our workload. I believe it is often the hesitancy to teach online due to lack of confidence with both technological knowledge and pedagogical knowledge.... Also, many users stop using the OTLE features such as those embedded within OTLE after initial adoption and it impacts their confidence and competence.

In this section of the interview five barriers to successful implementation of PD were given such as: inadequate resources, including; lack of shared vision about what high-quality instruction entails; conflicting requirements, such as scripted curriculum or pacing guides; and lack of adequate foundational knowledge on the part of teacher and lack of time for planning and implementing new instructional approaches. The participants identified their own barriers as the requirement per curriculum is difficult and complicated.

All the participants believed that all of them are obstacles but demonstrates that another challenge is that teachers are only good as much as they can adapt to the new technology. In addition, they are faced with the challenges of time management, busy schedules and many other obstacles. Some sessions were poorly planned with errors and was rushed and not fully functional.

The final section in the interview identified many obstacles to successful development of pedagogical skills for online teachers. These include: resources especially time, restructuring of teachers work to create mental space, staff motivation, financial issues, age, staff shortage, unsupportive management, staff attitude, availability of programs, work pressure, family commitments, unsafe environments, participation on own time, etc. The mentors were asked to elaborate on how they were seen as an obstacle in their teaching practice.
All the participants commented that teachers face many challenges in their role. One of the biggest challenges for online teachers is time and work life balance. As in the life of an online teacher the expectation is that they are present 24/7. Furthermore, all the participants believed that they achieve more from school-based OTLE mentors as it gave them easy access to collaborate and reach out to each other. It provides better learning opportunities for them during PD. Inhouse OTLE mentors provided the chance to learn more through modelling and coaching.

4.5 Summary
The data collected from questionnaire and interviews revealed that the group of online teachers being studied believed that PD programmes comes with many challenges. A key finding from the three data sources is: teachers do not have enough time to integrate their learning into practice. Also, for teachers to consolidate their professional learning by changing their teaching practice, they require continuous and personalised professional learning opportunities.

Since teachers are heterogeneous with diverse learning needs, if their professional learning needs are not met then there is a risk of alienation. Teachers are also affected by organisations policy or culture which frequently shifts priorities around with no understanding or very limited understanding of how it may be impacting teachers’ practice. Furthermore, teachers themselves bring with them their own theories, experiences and skills which can be used as success factors or can be used as challenges.

Overall, the participants indicated that they appreciated the fact that the school has school-based professional learning from the OTLE mentors as they were able to get immediate feedback from them. In addition, the professional learning experience was regarded as more relevant to them as it was specifically designed to target the teachers with the systems in the school. The successful elements of PD came with many layers of challenges which will be discussed in the following chapter.
Chapter 5 – Discussion

5.1 Introduction

This chapter discusses the significant findings of the research study as reported in chapter four. The discussion integrates the thematic findings with the literature from chapter two under the following headings: the challenges/difficulties faced by online teachers during PD, and the features that will enhance their PD.

Results from the questionnaire and interviews indicate that the participants from the school studied, believe that PD for online teachers has a number of challenges (see Tables 4.3-4.5). Allan et al. (2012) state that teachers should be provided with suitable training to do their job effectively and their training should be scaffolded for deeper learning. In addition, Lai (2008) and Law (2008) confirmed that to prepare for 21st century teaching and learning, teachers need support and PD to use the technology efficiently. However, in the school studied despite several PD opportunities some teachers failed to use all the features available in the school’s LMS.

There are several reasons that these teachers’ PD was impeded, resulting in new online skills not being used or practiced. These results of the research that identify constraints relating to the lack of time and financial support are perhaps predictable however, the discussion is in the context of the chosen institution. Results from the participants’ questionnaire and interview identified four common reasons or themes. These were:

- Lack of time/ unrealistic time frames
- A one size fits all approach/ rather than individualised PD acknowledging teachers learning styles, experience, attitudes and beliefs
- One-off rather than continuous PD
- Lack of finance

These findings are similar to that reported by Kennedy et al. (2008); Kvavik (2005); Hargittai (2010) and Thinyane (2010) in the literature affirm that most teachers face challenges during PD. Gates and Gates (2014); Ravhuhali et al. (2015) found that many PD initiatives are simply not working to benefit teachers due to reasons; such as inadequate time, traditional hierarchical arrangements
(standardised PD/ one-off PD) lack of support, lack of finance and the educator’s beliefs as inhibitors to PD. Finding from the interviews and questionnaire discloses that PD barriers such as time to engage, time for planning, instruction, collaboration, the educators’ beliefs and assessment function specifically at the individual level rather than the structural level. The participants reminded me that due to their diverse individual needs, different PD programmes need different amounts of time, due to differences in technological skills among online teachers, their experiences, teachers’ attitudes towards computers, the degree of computer anxiety etc affects their ability to engage in online teaching using new tools.

Teachers perception of themselves as an experienced teacher can mean they are a little reluctant to attend OTLE PD as they feel there is nothing that they could learn at OTLE PD that they don’t already know, without realising that the systems and OTLE features within Te Kura is completely different from what exists out in face to face schools. From the findings it is clear that whenever there is an introduction of a new feature within OTLE teachers feel that they do not have sufficient time, skill, personalised or continuous PD and finance to adopt the new platform into their teaching practice. In the next section I will look at the four themes identified from this study listed above and will discuss these in detail.

5.2 Time Constraint
Firstly, time constraint is a major impediment to successful PD for online teachers. Lack of time during PD was identified as the biggest barrier from the questionnaire and interviews in the school studied which is consistent with earlier research findings. The results indicate that both teachers and OTLE mentors feel that even though they try to set aside time to learn new skills through PD, they struggle to find time to do this. All the participants expressed their feeling that time is a limiting factor which prevents them from assimilating their PD and learning. The teachers conveyed that due to other unforeseen reasons they do not have adequate time and opportunity to embed their professional learning into practice. Teachers at the school studied have wide job descriptions, their role includes: learning advisor, councillor, careers advisor, marking and giving feedback, preparing exams, moderating standards, administrative roles, solving technical issues and above all attending PD sessions either relevant or not. Some
of the reasons lack of time hinders PD consolidation include the volume of work, personal and professional responsibilities which may require urgent attention. Teachers who are not technologically savvy have their routine work efficiency hindered, while many find it impossible to schedule and practice their learning from PD. In addition, teachers may feel the guilt of taking time to attend PD at the cost of some urgent task or tasks which they give more professional priority to such as face to face meeting with students or marking and returning assessments which are worth credits for their university entrance requirements. Time may also be a limitation, and so on top of their busy and hectic day, teacher’s PD goes to the bottom of their To-do List.

There may be other obstacles in teacher’s way which may be preventing them from finding time and spending time on PD. In the interviews when teachers at the school studied were asked about the specific reasons for not having enough time, several participants mentioned that they have to juggle a large workload, it becomes difficult to attend all the different PD sessions available and keep on top of their core business. It seemed the participants were often engaged with technical issues within the different school systems, which impacted them from having time for PD for online features. Similarly, the participants mentioned that their role requires lots of time consuming administrative work which has restricted the time available for PD specifically for OTLE.

The participants also commented that for PD to be embedded effectively into their pedagogical practice, they need more time to reflect and change their existing practice. Thus, teachers have pointed out that more time should be allocated to consolidate new knowledge and skills. In addition, the participants felt that due to limited time they were not able to share good practices or ideas with their colleagues.

The findings implied that time is always scarce, therefore proper planning and delivery in a timely manner is one of the solutions for enhancing PD. It was also suggested that the successful delivery of PD had to take into consideration the length of time teachers need to practice and consolidate new knowledge and skills learned into their practice.
While all teachers in the school had wide job descriptions, individual teachers’ workloads differ according to subject. For example, the core subjects of English and Mathematics have many teachers, so the work is equally distributed, which may result in a lesser administrative workload for individual teachers. On the other hand, in the same subjects the work return from students can be high or complex, this may result in teachers not finding time to implement their PD into learning.

The next section will review the findings in the light of the literature. The finding from above is similar to that reported by (Hawley & Valli, 1999; Helmer et al., 2011; Poskitt, 2005; Timperley et al., 2007) who identified that time is one of the key barriers against PD. Similarly, Creemers et al. (2013); Helms-Lorenz et al. (2015); Maulana et al. (2015) agree that teacher’s professional growth needs time. Teachers should be given sufficient time to execute, try out and then develop a critical approach to new pedagogy (Fraser, 2005).

This finding is similar to that reported by Watson (2001) that the time taken for PD programmes must include the initial stage, adoption stage, evaluation and innovation stages to the final stage. The participants also felt that not all of them are early adopters or new to the school’s computer systems therefore, the same amount of time should not be allocated for all the teachers. They also voiced that teachers who are brand new to the teaching profession or to the school will require more time than those ones who have been with Te Kura for many years. The participants also pointed out that teachers who are not tech savvy and those ones who are frequently seeking the OTLE mentors help will continue to struggle with the systems and they will never have enough time on hand to learn new features.

However, the time taken varies per individual due to many unforeseen reasons which will be discussed in detail in the next section. Emphasising this Garet et al. (2001) and Timperley et al. (2007) argue that if teachers are not given enough time to consolidate the new knowledge and skills then it becomes difficult for teachers to sustain and embed the skills into practice. This can be seen in an
example from United States teachers who spend 80 percent of their workday directly interacting with students, leaving them with less time for PD (Darling-Hammond, Chung Wei, & Andree, 2010).

All the participants voiced that for OTLE PD to be effective it should be extended over a longer period. Yoon et al. (2007) claim that any PD to be effective and sustainable it should be conducted for more than 14 hours, while short duration PD has no positive effect apart from additional cost of nice morning tea. Furthermore, Fraser (2005) believes that when teachers engage for a longer period then they defeat anxiety and disillusionment and overcome the desire for surface level solution.

In contrast, Burd (2004) and Buchman (2004) emphasised that time is not a barrier, but it is the teachers time management which is a challenge in an online environment. The expectation is that teachers are present 24/7. Wayne, Yoon Zhu, Cronen, and Garet (2008) argued that extended PD sessions may have negative effect on the participants resulting in poor teaching performance. Hence, Gates (2014) highlights that there's not enough time to build into teachers schedules for PD, nor do the school leaders have enough time to support teacher's PD effectively. Another essential point is that due to administrative tasks it makes it difficult for school leaders to spend abundant time on instruction.

In light of this finding, the data collected from the questionnaire and interview sessions revealed that the participants felt that due to limited time they never had opportunities to share ideas or collaborate. They also felt that they struggled to find the right time to reflect and collaborate their learning. The participants felt that the time is never right, and the attendance at PD is always at the cost of some urgent work.

Overall, the participants agreed that time is an important mechanism in all aspects. They felt that to consolidate their learning their PD activities need to spread over a certain period and for them to grow professionally from their PD sessions it requires time. However, it remained unclear from all the included studies as how much time is needed to train teachers during their PD. Also,
different PD programs with different individuals need different amount of time which will be discussed in the next section.

5.3 One Size fits all
This section will discuss the theme one size fits all approach/one pace fits all approach rather than individualised PD. The biggest challenge identified with this approach is that it fails to acknowledge teachers as adult learners with varying learning styles, experience, attitudes and beliefs. Though teachers have vast array of skills, or prior experiences yet no attempts are made to meet the specific needs of these teachers and they end up being passive recipients.

It is a common practice for the PD to be delivered at the same pace and rate to every participant without realising that everyone in the room has different learning styles, experience, attitudes and beliefs. PD has mostly been delivered using a standard size and will continue to do so due to many reasons such as: time, preparation and delivery, requirement from the school/ministry, cost, organisational culture, geographical barriers, teacher workload, etc.

The issues with standard size PD is that it fails to adopt a more holistic person-centred approach for the learner to develop. In addition, it fails to cater for the demands of the individual which is not user friendly when the system changes. Moreover, it fails to give opportunities to the learner to develop in the areas in which they feel incompetent.

Teachers in the school studied enter online teaching with varying degrees of technological skills, their personal and professional experience, their attitudes towards technology, their degree of computer anxiety or confidence and the level of teachers' ICT competencies. From personal experience when teachers are provided with systems where old and new applications meet, they are challenged by technical errors, bugs, slowness etc.

....Depending on the type of PD, some teachers can be a little reluctant as they fear being exposed as inadequate. This can happen in relation to OTLE use. A lot of new features within OTLE have been introduced at Te Kura and the job
requires a level of ICT skills that some teachers wouldn’t need in the face-to-face classroom. Sometimes teachers who are less confident with technology will not ask questions in PD or admit that they need to be shown something again for fear of looking inadequate.

For PD to be effective it should be differentiated so that the personal needs and commitment of individuals are met. With most of the PD sessions teachers are given a list of menus, though this may not fit in with some teachers’ criteria or it may not support some who are less keen in developing their expertise. For PD to be made relevant and effective to meet the specific needs of teachers they should be given the opportunity to build up on their existing motivations.

In the interviews when teachers at the school studied were asked about the specific reasons for personalised PD, several participants mentioned suitable scaffolding needs to be provided for learners which cannot be achieved through one size fits all approach. It just feels like a tick box which has very little real value for me personally.

The participants in this research expressed that for PD to be embedded it has to be tailored to their specific needs, since every teacher has different challenges and struggles depending on their learning styles. Therefore, the needs are different.

...Te Kura is a unique type of a school and our day-to-day job often looks different to a classroom teacher. Teachers attending OTLE PD want to know that whatever they are learning can be applied to their everyday context. For example, recently we have had two types of OTLE PD on YouSeeU and My Korowai. The best types of OTLE PD at Te Kura are where the mentors work with someone at the school to tailor the PD to our specific context. This can be seen with My Korowai as the primary teachers do not have access to this tool, therefore having standard PD is meaningless for them.....
Every teacher is different and we got different learning styles. We tend to develop negative feelings towards OTLE PD when it is standard size as it fails to take into account our existing knowledge, experience and needs....

Although the literature is laden with advocacy for providing teachers with PD, which allows them to equip with the knowledge and skills, but it does not mean that we teachers need to seize all of them...all curriculum areas are at different levels/stages with OTLE development and some tool may be more useful in some curriculum areas while it may be meaningless for other curriculum areas....

The finding showed that the participants were only interested in PD that were relevant to their curriculum area and they believed in doing one PD at a time. The finding also highlighted that despite the participants wish for specific PD, time was a huge barrier to this. Due to teachers’ other commitments, meeting the OTLE mentors for specific PD was acknowledged by all the participants. OTLE PD that we had is always at the same pace for everyone and conducted at the same level even though the teachers have different level of expertise in OTLE tools. So, I think if it was individualised a bit more, it'd be good....

The participants expressed that when the PD was personalised they found it more effective as it helped them understand the OTLE tools better and the teaching was done at their experience level.

However, although the literature provides a strong encouragement for teachers’ PD to be designed to meet the teachers’ specific needs, there are some authors who disagree with such suggestion. Wayne et al (2008) for example oppose that the consent for teachers' PD to be tailored to teachers' specific needs lacks pragmatism. These authors argue that it is more costly to provide teachers with PD that is catered to their specific need as opposed to having a standardised PD as it involves having a mentor or trainer work together with the teachers in a school.

.....Despite having the OTLE mentors onsite, the participants still felt that when new features are being introduced in OTLE and when the mentors try to introduce
the OTLE features for everyone in the same OTLE PD, it freaks others out as those ones who have nailed the previous features either call out the answers or they make us feel inferior. Therefore, I don’t enjoy going to OTLE PD with others…..

This section will review the findings in the light of the literature. These findings are consistent with that reported by Gates and Gates (2014); Ravhuhali et al. (2015) that most PD initiatives practice a ‘one size fits all’ approach which is not working to the benefit of teachers. Thus, these teachers often view PD as irrelevant, ineffective and unconnected to their professional practice (Ravhuhali et al., 2015). Similarly, Sywelem et al. (2012) believe that when individuals who are taught using their own learning style, with tailored PD it provides higher scope for learning, as there are more chances of meeting their challenges and struggles.

The above themes are similar to many studies found in other contexts that whenever a LMS is implemented, there is no one size fits all, due to individual differences, the amalgamation and practices of teachers varies. It has been found that the standard size model does not fit a traditional method of teaching in a classroom because a teaching method that is successful with one group of students will not succeed with different group of students. In another context VET teachers in the 21st century in Australia, found out that one size fits all was not the correct approach, due to individuals varying learning styles.

Even though Kennedy (2005) states that a one-size-fits-all approach to PD will not suffice, irrespective of what teacher dispositions are at play. One size fits all approach does not transform and acknowledge an individual at a personal or professional level with their existing knowledge, skills, values, attitudes and social contexts.

The participants felt that since they are adult learners with varying personal experience, prior knowledge, beliefs and dispositions, therefore ‘one size fits all’ approach is not an effective way for learning. In addition, teacher’s motivation to attend PD varies significantly, if a teacher is not motivated then it is easy to lose sight of the purpose of the PD. This finding is supported by Darling-Hammon et
al. (2009) who contended that most of the time PD is not useful as it does not meet teachers’ professional needs (teachers learning styles, experience, attitudes and beliefs).

In contrast, William (2011) contended that even if it is standard size PD, it offers teachers a good chance of making a positive impact if they attend with a growth mindset. Furthermore, Fullan (2014) believes that having one size fits all approach practices the policy of “no child is left behind”, where everyone is given the same opportunity to learn, either positively or negatively.

Overall all the participants agreed that they are responsible for their own learning, and changing the practice is difficult at personal level as it should entail professional growth. Specifically, for the teachers studied a successful PD for them is one that is tailored to meet individual teacher’s needs. The results indicate that teachers found personalised PD more effective as it addressed the challenges specifically for them due to their varying learning needs and styles. Teachers enter with diverse levels of confidence and competence in the online environment therefore, they should be given the opportunity to react to their own needs rather than passively listening during standardised PD.

5.4 One-off rather than continuous PD

The next section will discuss the theme of one-off rather than continuous PD. Most of the schools use traditional one-shot method of PD to upskill, despite it being shallow and fragmented. Teachers enter online teaching with their own beliefs and mindsets which may be a barrier. Therefore, most of the schools implement one off top down PD to upskill teachers which is more of a tick box approach.

Teachers feel they need multiple and continuous PD opportunities to overcome their deficit mindsets. The results from the school studied indicate that both teachers and OTLE mentors feel that due to time factor having one-off PD is great to fill in the gaps and to enhance the knowledge. However, most of the time teachers are passive recipients which prevents skill developments. In addition, one off PD prevents teachers who are absent to be abreast of the change.
Teachers feel that when they have received PD then they try to practice what they have learnt, and this gives them a refresher opportunity. Also, it provides them with opportunities to strengthen new knowledge and skills to build their confidence on their existing knowledge. In addition, teachers have voiced that PD learning needs to be ongoing and continuous.

Furthermore, one-off PD events that take place once or twice in a year all over the country comes with many other barriers. The quality or the timing together with the cost may not be perfect for all the participants for such PD. The participants in the school studied also voiced that one-off PD does not have any tangible outcomes especially for the teacher as it may improve their knowledge but does not help them to implement it in their learning.

….Other OTLE PD that we have had at Te Kura involves teachers sharing examples of their practice and of their feedback using OTLE. Some teachers can find this a little confronting as feedback is a personal thing and everyone approaches it in a different way. Sometimes OTLE PD can push teachers out of their comfort-zone. There are many changes that happen in NZ Education and in OTLE functionalities and new demands are being placed on teachers all the time to do things in a different way. For example, in the last couple of years teachers at Te Kura have been asked to teach online using OTLE features, incorporating ICT into their daily teaching (eg. YouSeeU) and the move to new features on OTLE is so quick that we have no time to learn all these features…

Also, at times either no training is given on OTLE features or training is given when it is not relevant for our curriculum area, and at times there is no follow up… however, we are lucky that the OTLE mentors are onsite and are approachable…. 

There is an awareness that one-off, one-day courses often do not provide the kind of PD that enables teachers to return to school and implement what they have learned. A PD course might improve professional knowledge but does not necessarily change professional practice.
In the interview the participants in the school studied expressed their feeling that one-off PD does not give them the opportunity to consolidate and implement their learning which inhibits both the teacher and mentor to fit into their busy schedule. The teachers from the school studied also conveyed that rather than being bombarded with ongoing PD, it would have been better to have a trial team to use OTLE features before opening it to the whole organisation. Once the trial team used and fixed the problems, then they could have done the training to the whole school. This way, the transition would have been much more effective, instead of dumping stuff on us. If there is failure with the follow-up support, it results in loss of momentum to implement their learning. The participants at the school studied also voiced that they found one off PD is neither timely nor effective, they preferred continuous PD with ‘at the elbow support from OTLE mentors’.

The next section will review the findings in the light of the literature. The finding from above is similar to that reported by Evers et al. (2016) who pointed out that continuous PD is necessary to fill in the gaps in the knowledge of new online teachers and to help teachers with new pedagogies. For PD to be successful teachers should be active learners and be part of the activities.

Similarly, Ball & Cohen (1999); Hawley & Valli (1999) echoed that the traditional one-off PD is disconnected, fragmented and shallow due to the fact that teaching is perceived as mostly common sense and has little need for professional learning.

The above themes are similar to many studies found in other contexts that with nurses or midwifery when they are provided with continuous PD their attitude, skills, knowledge and empowerment is improved (Ellis, Hartley, and Harnett, 2012). These scholars believe that the knowledge of nurses should be constantly updated through continuous PD as their focus is on human care which can be very risky. In addition, when teachers are provided with one off PD with the introduction of a new LMS, then it creates scepticism within them and fear of risk taking. Furthermore, Boyle et al. (2004) found in their study of schools in the United Kingdom that one off PD had either very low or no impact on teachers, while continuous PD had a stronger impact. Due to teachers multifaceted roles it
is impossible to squeeze in one off PD and expect engagement and change in practice from the teachers.

Overall, the participants of this research study believed that if they will be provided with ongoing and longer duration PD then their PD experience would be more meaningful and effective. They also, believed that it would be more effective to implement one PD at a time and consolidate on it, before engaging with another. This shows that one-off PD for teachers is missing some crucial elements that it is not able to create change amongst teachers. These missing elements will be addressed in Chapter Six. The next section will discuss the theme lack of finance as a barrier to PD.

5.5 Lack of Finance
Lack of finance during PD has been identified as another significant barrier in this study. The results indicate that both mentors and teachers feel that due to budget constraints their PD has been impeded.

The participants expressed their feeling that their salary should not cover the cost of the PD that should be provided by the school as they are not paid enough. The teachers conveyed that due to financial constraints and budgeting issues, it hinders their opportunity to attend PD and keep abreast of the changes in the LMS. Some of the participants commented that instead of spending the money on overseas travel which is frequently done by people higher up in the organisation this money could be reallocated for teacher PD which can be used effectively for upskilling the teachers to improve their practice.

One of the participants commented that:
...I was told that I needed to self-fund to attend my own PD sessions, the budget did not allow for me to attend....

In the interviews when the teachers at the school studied were asked about lack of finance, several participants mentioned that at times they have to find their own accommodation, or travel cost to and from the venue of the PD, which impacts on their attending. Similarly, the OTLE mentors mentioned that with the amount
of training they have to provide to the teachers, they feel that they are allocated a very small amount of money to do the job.

They have commented that since the cost of implementing a new LMS was worth millions of dollars, therefore, a larger budget should have been allocated for teachers’ PD to successfully implement the transition to LMS.

The findings implied that teacher’s PD was constrained due to finance and limited budget from the organisation.

The next section will review the findings in the light of the literature. The findings from above is similar to that reported by Kruse and Luis (1997); Quinn and Restine (1996) that any PD programme comes with a cost which has to be borne either by the organisation or an individual. In addition, Gates (2014) highlights that due to high cost of PD which includes, refreshments, venue, travel etc, most of the sessions are standardised and one off as it is too costly to cater for personalised PD, which limits the attendance of teachers. This can be seen in an example from New Zealand; PPTA (2017) teachers not being provided with financial support with paid working time and or hiring relievers to cover their work, no salary incentives. In contrast teachers in Sweden; (OECD 2005) are provided with financial support with paid working time and relievers are hired to cover their work and they are given a condition for salary progression and promotion.

The above themes are similar to many studies found in other context that PD is not adequately funded in the VET sector in Australia, due to the high cost of PD and the cost of replacing a teacher while they attend PD. In addition, Penuel et al. (2007) believe that when there is an upgrade in technology teachers need PD, but the lack of financial support from the school impacts their PD attendance. Similarly, O’Brien-Pallas, Murphy, Shamian (2008) reported that to retain nurses the health care allocates on average of $25000 per nurse for their PD. They have agreed that to support their high cost, nurses could be compensated with release time, with pay, and reimbursement.
5.6 Summary

In conclusion, synthesising the results, my own experience and analysing the literature it can be concluded that the teachers in the school studied have experienced barriers to utilising their PD effectively. These barriers do relate closely to one or more of the factors and there is considerable overlap overall. The teachers' identified, time constraints, a one size fits all approach, lack of continuity with PD and insufficient financial resourcing as common challenges to effective PD. Therefore, the PD is not able to create useful change in the teachers' practice.

All the obstacles identified are confirmed in the literature. The participants agreed that the PD had some positive impact on their learning, but they also had various concerns. Teachers are heterogeneous with diverse learning needs.

Teachers are also affected by an organisation’s policy or culture which frequently shifts priorities around with no understanding or very limited understanding of how it may be impacting teachers’ practice. Furthermore, teachers themselves bring with them their own theories, experiences and skills which can be used as success factors or can be used as challenges.

More positively, the participants indicated that they appreciated the fact that the school has school-based professional learning from the OTLE mentors as they were able to get immediate feedback from them. This meant the professional learning experience was regarded as more relevant to them as it was specifically designed around the systems the teachers were using. The missing elements from all the four themes will be addressed in Chapter Six. The following chapter will also look at the research conclusions, some of the research limitations and possible recommendation.
Chapter 6: Conclusion

6.1 Introduction

This final chapter reviews the aims and research questions and summarises the results in relation to these. The main objective of this research study is to identify the barriers faced by teachers in an online environment and how PD could be enhanced to overcome these barriers. Limitations of this research are discussed, and recommendations are made for a more effective PD experience for online teachers.

What follows here is an outline of the findings of this research in relation to the initial research questions: 1. Why don’t Te Kura teachers use all of the features available in Te Kura’s online learning environment? 2. In what ways does the teachers’ PD contribute to this? 3. How could their PD be enhanced?

6.2 The challenges faced by online teachers during PD and Factors that can enhance teacher PD

The literature base reviewed in Chapter 2, and the research study results as reported in Chapter 4, concur that teacher PD comes with both success and challenge. In the light of this research results and of the scholarly literature, the success of teachers’ PD in the school studied, is only met when: there is a realistic time frame, the PD is continuous and tailored (addressing specific needs of the teachers) and when it is financially resourced. The teachers in the school studied identified that online PD helps them to develop better content knowledge and confidence. This finding is consistent with Harris et al. (2001) from the literature. However, Kennedy et al. (2008); Kvavik (2005) all affirm that PD comes with challenges for most teacher, this is also mirrored in the literature and the results.

In addition, Desimone (2009); Guskey (2000) believe that PD enables teachers to become reflective practitioners. While Creemers et al. (2013); Maulana et al. (2015) remind us that teachers’ PD comes with time challenges. In this study, time stood out to be one of the most significant factors, contributing to successful PD. It is an obstacle to PD (Lind, 2007; Penuel et al., 2007; Klingner, 2004). The
study discovered that one size does not fit all the participants. Also, as well, as everyone indicated: that they needed different amount of time to engage, plan, process and change their beliefs. Teachers should be given sufficient time to execute, try out and then develop a critical approach to new pedagogy (Fraser, 2005).

Furthermore, even though (Desimone et al. 2002; Hawley & Valli, 1999) found that teachers learn better from collaborative PD, this study discovered that teachers prefer individualised PD. That is PD which meets their specific needs. This finding is consistent with the literature by Louws, (2016). This is because individual learning strategies in the school studied gave more opportunities for teachers to voice their personalised learning needs and participate in effective learning. It was also found in this study that the participants prior knowledge and skills should be taken into consideration so that the PD is tailored to meet their specific needs and does not waste teachers’ limited time.

Furthermore, the results also stressed the need for continuous PD for teachers to consolidate and to keep up-to-date with the ongoing changing practice (Evers et al., 2016). This result is consistent with the findings from this study that the participants preferred continuous PD enabling them to incorporate their learning into their routine teaching and helps them to sustain the changes made to their professional practice. Teachers in the study emphasised that if they are introduced to one PD at a time and given sufficient time to consolidate it, then it enables them to grasp the content well. This finding is consistent to the claim made by Guskey (1995) that any educational reform needs to be undertaken in small steps.

Finally, both the literature and research findings acknowledge the significance of providing teachers with resources, to support the continuity of PD which will lead to sustained practice of new skills.

The results further revealed that barriers to teachers' PD could be reduced through several ways such as: allocating more time, providing personalised PD, providing continuity of PD and allocating sufficient finance. Consequently,
Feiman-Nemser and Remillard (1995) emphasised that for teachers to improve their pedagogy, it must be learned in practice which will enable them to develop better understanding. Despite the obstacles, teachers' PD experiences enable them to keep abreast of the changes taking place in the online environment and ensures that they are keeping with new educational changes. In addition, Evers et al. (2016) agrees that PD helps to fill in the gaps in their skills.

6.3 Limitations of the study

In this research, data was collected using both a quantitative (questionnaires) and qualitative (interviews) approach which enabled me to answer the research questions of this study. Some contribution has been made to both the research literature and methodology on online teacher’s PD challenges. Though utmost care was taken to ensure reliable data collection and to protect the integrity of these findings, this study has a number of limitations.

The research had to be restricted to only one regional office. Hence making generalisations to other regional offices is not possible. Each office caters for a slightly different demographic and has its own unique work culture. Also, it should not be assumed by the mentors or the organisation that every person with a teaching qualification can adopt to online teaching.

Additionally, due to time constraints, I could not follow a detailed sequential research method or revisit some of my findings. Also, I had to balance my full-time teaching workload to meet academic deadlines in a timely manner. The participants heavy teaching workload also impacted my data collection timeframe. It was very challenging to organise a focus group interview due to the mentor’s hectic work schedule. All the participants are not represented in this study due to time constraints, so the findings may not be a true representation of the challenges faced by online teachers in accessing their PD. Also, the participants are my colleagues and friends and they may not have voiced their opinion honestly, which again may influence the data collected.

As all the participants carry a heavy workload and have the work pressure of meeting deadlines, (preparing and marking exams, routine work, PD, for
example) the answers from some of the participants may be missing details of the true situation.

Though the study did look at the professional experiences of teachers, it is very difficult to measure this due to the vast array of individual differences. The results in chapter 5 were from teachers’ personal experiences even though it was on a specific topic on LMS use.

Lastly, due to word limits and my time frame, I may have missed out on detailed descriptions of the different forms of challenges faced by online teachers during LMS use.

6.4 Recommendations

The following recommendations are made based on the evidence obtained from the interviews of teachers and OTLE mentors and my own understanding, which I have developed during this study. Firstly, PD programmes should be systematically organised to meet specific needs of individuals. Teachers prior knowledge or experience should be considered during the delivery of PD. Though, Wayne et al. (2008) has emphasised the costs accompanying specially tailored PD. The OTLE mentors and the school needs to realise the importance of meeting personalised PD needs, to ensure teachers engage with the PD and grow their skill base and don’t switch off as “having heard it all before”. Teachers new to distance education often reported unfamiliarity about the LMS and require individually tailored PD compared to those who have worked with the LMS over months and years.

There is a serious need to understand the workload of teachers and OTLE mentors as well as considering the different roles each mentor and teacher has to perform. In addition, there is a need to reduce this workload of teachers if more compulsory PD is to be offered. OTLE mentors need more resourcing (time and money for example) so that they can provide appropriate and tailored learning opportunities for teachers. The provision of inhouse OTLE mentors helps build professional capacity amongst teachers. Teachers can easily access the mentors
on site, this means issues can be addressed quickly and new knowledge incorporated into teaching practice.

This research study could be replicated in other regions of the same school to strengthen the validity and reliability of its findings. It is recommended that this research be conducted on a group of teachers who have experienced similar PD delivery from the same OTLE mentor to deepen the knowledge of the impact of PD on their teaching practice. The five OTLE mentors in this region, have different years and levels of experience and this could have influenced my results.

6.5 Possible area for further research
This study has furnished key insights into the understanding of challenges during the delivery of PD and how it could be enhanced for online teachers. For future research, the demographics (socioeconomic characteristics such as age, status, gender, qualifications and experience), would be worth exploring to see if they provide obstacles to online teachers’ successful engagement with PD. It also found the need for OTLE mentors to plan and implement the PD effectively according to the needs of the teachers and to include teachers in this process. Teachers shared that most of the time the PD is top-down, and they are excluded from the planning and implementation process. This finding is consistent from the previous research in the literature, where teachers preferred to be part of the consultation and implementation process (Bredeson, 2003).

A more detailed portrait of teachers personal and professional life stories and a comprehensive study of the contextual factors of each regional office would likely to produce rich data for future study. A mixed methods research study could explore the organisational culture of each region and teachers differing practices. This research has raised various concerns about online teacher’s PD opportunities, these could be explored in more detail.

6.6 Conclusion
Overall, this research study identifies that teachers believe that they only need PD which directly impacts their online teaching and improves their practice. Providing standardised PD that is deemed irrelevant by the online teacher’s
affects teacher’s ability to embrace and sustain changes in teaching practice. In addition, teachers participating in this study emphasised that it would be more effective if the PD was specifically tailored to their needs. Likewise, having too many PD programmes on different features of the LMS in a very short period affects their ability to sustain practice. Teachers preferred the introduction of one LMS feature at a time with adequate time frames for them to consolidate their learning, even if it comes with extra cost.

Also, if the PD had continuity, building on the same features, then it gave the teachers more confidence to consolidate their knowledge and skill. Some teachers said that they preferred the PD content to be written out on a shared google drive so that it was easy for reference. Reiterating again one size does not fit all as people have different learning styles. Furthermore, a shared google drive helps create learning communities and may encourage teachers to share their knowledge and skills and this may in turn, support their learning.
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31 October 2017

TO WHOM IT MAY CONCERN

This letter is to confirm that Te Aho o Te Kura Pounamu (The Correspondence School) consents to Reshmin Lata carrying out research towards a Master in Applied Practice.

We are supportive of Reshmin’s work to achieve this.

Yours sincerely

Robert Blucher
Regional Manager, Northern
Appendix A: Google survey - questionnaire

As you are aware, my role at Te Kura is to provide both technical and pedagogical support to all the teachers. The reason I am conducting this survey is to find out how I can better support you in this and, how I can better prepare and support you in implementing what you learn about in the professional development sessions, in your teaching. The survey is in two parts:
Part 1 asks about the general pedagogical skills you need, and part 2 will ask about specific issues relating to professional development.

From the literature review the following have been identified as common obstacles to successful professional development of pedagogical and technical skills for online teachers. Please indicate to what extent you have experienced these problems yourself in your practice and if you have been able to get the amount and type of support you needed from the OTLE mentors.

1. **Obstacles to successful development of pedagogical/technical skills for online teachers, as identified in previous research**

   To what extent do you feel this statement applies to you?

   Rate 1-5

   1. Not at all
   2. A little
   3. To some extent
   4. Mostly
   5. Completely

### Part 1: General

<table>
<thead>
<tr>
<th>I have a good understanding of all systems Te Kura uses (eg. OTLE, SMS, EDRMS, Google suite etc)</th>
<th>I have the expertise to teach online and adapt to changes easily.</th>
</tr>
</thead>
</table>

104
<table>
<thead>
<tr>
<th>I feel confident to use the technology we use at Te Kura</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Support provided by OTLE mentors on pedagogical/ technical skills for online teachers</th>
<th>Are you able to get the amount and type of support you needed from the OTLE mentors?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate 1-5</td>
<td></td>
</tr>
<tr>
<td>1- Not at all</td>
<td>1.</td>
</tr>
<tr>
<td>2. A little</td>
<td>A little</td>
</tr>
<tr>
<td>3. To some extent</td>
<td>To some extent</td>
</tr>
<tr>
<td>4. Mostly</td>
<td>Mostly</td>
</tr>
<tr>
<td>5. Completely</td>
<td>Completely</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>With all systems Te Kura uses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>With online changes</td>
<td></td>
</tr>
<tr>
<td>With technical skills</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part 2: Professional Development</th>
<th>To what extent do you agree with this statement?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate 1-5</td>
<td></td>
</tr>
<tr>
<td>1- Not at all</td>
<td>1.</td>
</tr>
<tr>
<td>2. A little</td>
<td>A little</td>
</tr>
<tr>
<td>3. To some extent</td>
<td>To some extent</td>
</tr>
<tr>
<td>4. Mostly</td>
<td>Mostly</td>
</tr>
<tr>
<td>5. Completely</td>
<td>Completely</td>
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</table>

<table>
<thead>
<tr>
<th>I have enough time to attend professional development</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel that the level of professional development is good</td>
<td></td>
</tr>
<tr>
<td>I feel the professional development provided by OTLE mentors caters to my needs</td>
<td></td>
</tr>
<tr>
<td>The quality of the professional development given by OTLE mentors is excellent</td>
<td></td>
</tr>
</tbody>
</table>
I feel the quality of resources used for professional development used by OTLE mentors is excellent

Individual professional development works much better for me than collaborative pd.

I have established an excellent working relationship with the OTLE mentors, which helps in my professional learning

I find the professional development on OTLE is affordable


2. Think of a feature which has recently been introduced in OTLE which you haven't used in your practice.
   a) Please explain why you haven't been using this feature.
   b) What would enable you to use this feature?
   c) How could the professional development be enhanced so that you can use this feature in near future?

3. The 2013 Teaching and Learning International Survey (TALIS) identifies the following as barriers to participation in professional development for teachers:

<table>
<thead>
<tr>
<th>Barriers to participation in professional development for teachers.</th>
<th>To what extent do these barriers apply to you?</th>
<th>If you choose 2 or 3 for any, please provide a brief reason or example</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) conflicts with work schedule</td>
<td>Rate 1-3</td>
<td></td>
</tr>
<tr>
<td>b) no incentives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Abundant time to attend Pd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Too expensive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3b) If you choose 2 or 3 for any, please provide a brief example.


4. Do you have any suggestions for changes/additions/improvements we can make as mentors to improve our professional development delivery?


THANK YOU FOR COMPLETING THIS QUESTIONNAIRE.
Please return it in the envelope provided.

After analysis of the questionnaire I will select a sample of up to 5 participants for a one to one interview via phone, video conference or in person. The sample will necessarily be of teachers who are senior teachers, team leaders, brand-new Tk teacher, experienced TK teacher and a teacher who uses both OTLE and paper resources. I would like to hear from you if you would be prepared to participate further in this way.

*Please complete the following contact details ONLY IF YOU ARE PREPARED TO PARTICIPATE FURTHER IF SELECTED*

Name:

Phone contact:
Appendix B: Interview

Interview will be used with five years 11-13 teachers from the Auckland office. These teachers have experience of working in OTLE and the professional development they have received on OTLE. The interview allows different ideas to be explored, without having to stick to set questions. They will be used to:

- Qualitatively enrich the quantitative information gathered from the survey
- To find out why teachers don't comply with the requirements of online teaching?
- To find out why some of the teachers don't use/ implement all the features they are supposed to.

1) From the survey, lack of time” has been identified as the biggest barrier for enhancing professional development. Have you experienced this? If so, can you give an example?

2) You have attended many professional development sessions on OTLE.
   a) Can you give me an example of a functionality in OTLE that you have never used?

   b) What are some of the reasons you do not use it?

   c) What would help you to use it more/ better?

   d) What could/should the professional development have done differently to better prepare you for using that functionality in your teaching?

3) While teacher knowledge is certainly a component of teacher professionalism, professional competence involves more than just knowledge. Skills, attitudes, and motivational variables also contribute to the mastery of
teaching and learning. Blömeke and Delaney (2012) proposed a model that identifies cognitive abilities and affective-motivational characteristics as the two main components of teachers' professional competence (see below)

<table>
<thead>
<tr>
<th>Cognitive abilities</th>
<th>Affective-Motivational characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>-professional knowledge</td>
<td>-motivation (intrinsic/ Internal or extrinsic/ external)</td>
</tr>
<tr>
<td>-general pedagogical knowledge or teaching strategies</td>
<td>self-regulation (ability to monitor and control your own behaviour, emotions, thoughts altering them in accordance with the demands of the situation)</td>
</tr>
<tr>
<td>-content knowledge (understanding of subject matter)</td>
<td>-Professional beliefs about teaching and learning and the subject content</td>
</tr>
<tr>
<td>-pedagogical content knowledge</td>
<td></td>
</tr>
</tbody>
</table>

3.a) From the list above which one of these characteristics (if any) do you see as an obstacle in your current teaching practice? In what ways?

3b) Can you think of a time when professional development really challenged your beliefs about teaching or learning?

4) Teachers need multiple opportunities for professional development throughout the evolution of learner management system to learn new information and understand its implications to make significant changes to their practice even if they are experienced online teachers (Boyer & Lee, 2001).

Do you agree/ disagree with the above statement? Please elaborate.

5) Louws, (2016) asserts that tailoring professional development to meet the specific needs of teachers is one of the ways to prepare them for the impact of this societal and technological change on their profession, rather than using the traditional approach of “one size fits all”.

Do you agree/ disagree with the above statement? Please elaborate.
6) Please state any other ways of enhancing professional development which will benefit you and other teachers.
Appendix C: Focus Group Interview
Focus Group will be used with five OTLE mentors. The focus group dynamic will:

- encourage mentors to open up about obstacles during mentoring,
- whether they were supported in their role
- their own future professional development needs in order to improve the way online teaching is taught.


1. How confident are you in your ability to do each of these?

<table>
<thead>
<tr>
<th>Effective professional development approach</th>
<th>unconfident</th>
<th>Somewhat confident</th>
<th>confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>a They are content focused.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b They incorporate active learning strategies.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c They engage teachers in collaboration.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d They use models and/or modeling.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>e They provide coaching and expert support</td>
<td></td>
<td></td>
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<tr>
<td>f They include time for feedback and reflection.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g They are of sustained duration.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
2. In your role as an OTLE mentor, in what areas do you feel most support is needed to improve your own practice? Why?

Starkey; Louise; Yates, Anne; Meyer, Luanna H; Hall, Cedric; Taylor, Mike; Stevens, Susan; Toia, Rawiri, (2009) demonstrated that when professional development is effective it creates encouraging relationships and the learning by teachers and mentors can be tremendously advantageous.

3) Have you ever experienced this yourself? If so give an example?

Teachers differ in the ways they learn and what they need to learn, and all levels of pedagogical competence can be progressed where support for teacher learning is differentiated (Hoekstra et al., 2009, p. 10).

4. As an OTLE mentor what are your thoughts on the above statement? Please explain?

Kennedy & Cavanaugh (2010) found that due to lack of preparation for online teaching positions which prevents the effective use of learner management system (LMS), especially when teachers are provided with LMS professional development and it does not meet their personalised learning needs/ beliefs or reflects on best teaching practices and restricts teacher performance.  

4a) Do you agree/ disagree with the above statement? Please explain.  
4b) Did you find this as a challenge in your mentoring role?

Darling-Hammond, L., Hyler, M. E., Gardner, M. (2017) believe that well-designed programs must be implemented well to be effective. Even the best designed professional development may fail to produce desired outcomes if it is poorly implemented due to barriers such as:

<table>
<thead>
<tr>
<th>Barriers to implementation of professional development</th>
</tr>
</thead>
<tbody>
<tr>
<td>a inadequate resources, including needed curriculum materials;</td>
</tr>
<tr>
<td>b lack of shared vision about what high-quality instruction entails;</td>
</tr>
<tr>
<td>c conflicting requirements, such as scripted curriculum or pacing guides; and</td>
</tr>
<tr>
<td>d lack of adequate foundational knowledge on the part of teacher</td>
</tr>
<tr>
<td>e lack of time for planning and implementing new instructional approaches;</td>
</tr>
</tbody>
</table>
5. Which one of these (if any) do you see as an obstacle to successful implementation of professional development in your current teaching practice? In what ways?

There are many obstacles to successful development of pedagogical skills for online teachers. These include: resources especially time, restructuring of teachers work to create mental space, staff motivation, financial issues, age, staff shortage, unsupportive management, staff attitude, availability of programs, work pressure, family commitments, unsafe environments, participation on own time, etc.

6. Which one of these (if any) do you see as an obstacle in your current teaching practice? In what ways?
Appendix D: Email Invitation to Participate

Dear OTLE Mentors
I am enrolled in Master in Applied Practice at Unitec, and I am writing to invite you to participate in my thesis research on enhancing professional learning: Identifying obstacles and solutions to the successful development of pedagogical skills for online teachers.

This study will contribute to the research literature of ICT skills of teachers and OTLE mentors by identifying the obstacles they face during PD. Discovering how best OTLE mentors deliver PD can reveal the best practices for teaching in OTLE platform, thus allowing mentors to learn, which may also reduce faculty scepticism about the quality of online education.

As OTLE is our primary delivery mode and you have used it for some time now, would you help me in my research study? Your participation is expected to require not more than thirty minutes of your time and will include:
Participation in an interview for OTLE mentors.
Thank you for your consideration. I look forward to your response.
Kind Regards
Reshmin Lata
Appendix E: Email invitation to participate

Dear Te Kura Teachers

I am a student at UNITEC and currently I am pursuing my Masters in Applied Practice. As part of my project I have to carry out a research based on my current practice. I am an online Teaching and Learning Environment (OTLE) mentor at Te Kura based in the Auckland office. I will be undertaking practitioner research on how the mentors can help enhancing professional learning: identifying obstacles and solutions to the successful development of pedagogical skills for online teachers.

Therefore, I would like to explore teachers’ current practices and strategies via OTLE and the role of mentors during PD delivery. For me to successfully complete this project I need your valuable time and expertise to answer an anonymous google survey which will be sent out. I would like to invite you to participate in my study by completing an anonymous survey about your experiences of OTLE PD. If you agree to take part, you will be sent a link to access the online survey which will take approximately 15 minutes. Completion of the survey indicates your consent to take part and for your anonymous information to be used in my research. Completed survey should be returned to me by 15th November 2017.

Please note participation in this study is voluntary. If you do participate, you have the right to withdraw from the study prior to your submission of the online survey. However, once you have submitted the survey form I will not be able to remove your data as there will be nothing to link your identity to your responses. You may however decide to not complete the survey or choose to leave some questions blank.

The report findings will contain only anonymised data that will not identify participants. I will be the only person who will have access to your information which will be stored in password-protected facilities and will be destroyed upon completion of this project. The findings of this research will be used to assist all the mentors to improve their practice and the ideas will be used to train Auckland based teachers consistently. At no time will you be identified as a participant. If you have any questions about the study, please contact me (my details are above) or one of my supervisors Hayo Reinders (wreinders@unitec.ac.nz) or Stephanie Sheenan (ssheenan@unitec.ac.nz)

Kind Regards

Reshmin Lata
Commerce Teacher/Learning Advisor/OTLE Mentor
A: Private Bag 115002, Shortland Street, Auckland 1150.
ph: +64(9) 3659822    E: reshmin.lata@tekura.school.nz
CONSENT FORM – ADULT PARTICIPANTS

RE:  Master of Applied Practice

THESIS TITLE: Enhancing Professional Learning: Identifying obstacles and solutions to the successful development of pedagogical skills for teachers in an online distance school

RESEARCHER: Reshmin Lata

Participant’s consent
I have been given and have understood an explanation of this research and I have had an opportunity to ask questions and have had them answered. I understand that neither my name nor the name of my organisation will be used in any public reports. I also understand that I may withdraw myself or any information that has been provided for this project up to two weeks after the semi-structured interview event.

I understand that my participation in this focus group will be recorded and transcribed.

I agree to take part in this project.

Signed: _________________________________
Name: _________________________________
Date: _________________________________

UREC REGISTRATION NUMBER: (insert number here)
This study has been approved by the Unitec Research Ethics Committee from (date) to (date). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Full name of author: Reshmin Lata

ORCID number (Optional): 

Full title of thesis/dissertation/research project (‘the work’):
Enhancing Professional Learning: Identifying obstacles and solutions to the successful development of pedagogical skills for teachers in an online distance school.

Practice Pathway: CISC 9090

Degree: MAP

Year of presentation: 2019

Principal Supervisor: Hayo Reinders

Associate Supervisor: Jo Mane

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Signature of author: 

Date: 12…… /…02……/…2019……