TEACHERS' PERCEPTIONS OF THE IMPACT OF PROFESSIONAL DEVELOPMENT ON TEACHING PRACTICE: THE CASE OF ONE PRIMARY SCHOOL

By

Nurul Aini Aminudin

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Declaration

Name of candidate: Nurul Aini Aminudin

This Thesis/Dissertation/Research Project entitled Teachers' perceptions of the impact of professional development on teaching practice: The case of one primary school. is submitted in partial fulfilment for the requirements for the Unitec degree of Master of Educational Leadership and Management

CANDIDATE'S DECLARATION

I confirm that:

- This Thesis/Dissertation/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.
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Candidate Signature: …………………………………………….Date: …………………

Student number: 1361272

ABSTRACT

This research examines teachers' perceptions of the impact of their professional development experience on teaching practice. Teachers' professional development is often regarded as the key to successful education reforms. Hence, teachers are expected to experience continuous professional development to keep abreast with the relentless change taking place in the education system. However, problems arise when too much emphasis is placed on making sure that teachers take part in professional development initiatives. To some teachers, professional development is seen as a burden and not as an opportunity to improve their practice as the reforms has intended. 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 it has become less effective in helping the teachers improve their own practice.

This research takes the form of a qualitative study that employs three research instruments: document analysis, questionnaires that are filled in by all the teachers and five semi-structured interview sessions. This research study is guided by three key questions: What are teachers' perceptions of the impact of professional development on their teaching practice? Secondly, what factors influenced teachers' perceptions of the impact of professional development on their teaching practice? Finally, what are the challenges or difficulties experienced?

The findings reveal that the participants have issues with sustaining changes to their practice; they experience external professional development overload while at the same time they are also struggling to create more opportunities for school-based professional development. In addition, the findings from this study also indicate that the participants want to have some say for their own professional learning. In addition, this study also stresses on the need for to the participants to experience one professional development programme at a time and to have sufficient support and follow-up during that time to ensure that changes in teaching practice are best sustained.

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CHAPTER 1

INTRODUCTION

There appears to be a lack of consensus among the scholars on a working definition for teachers' professional development (Bredeson, 2002). This is evident from the various definitions of teachers' professional development offered in the literature. Interestingly, as highlighted by Bredeson (2002), there are a plethora of terms such as in-service, staff development, continuing education, training, and self-improvement that are used interchangeably with the term professional development with little regard for any conceptual and practical differences. Guskey and Huberman (1995) explain that this may happen as the concept of teachers' professional development can be viewed from several different perspectives, each with its own conceptual premise and is informed by different bodies of research.

Despite the apparent lack of consensus, most of the literature base reviewed described teachers' professional development as an intentional, ongoing and systematic process (Bolam, 2002; Gabriel, Day, & Allington, 2011; Guskey, 2000) of formal and informal education, training, learning and support activities taking place in either external or work-based settings (Bolam, 2002; Hawley & Valli, 1999) and proactively engaged in by qualified, professional teachers, school principals and other school leaders, alone or with others, which have direct or indirect benefit to the individual teacher, the school and also the nation (Bolam, 2002; Day, 1999).

STUDY BACKGROUND

I chose to research on teachers' perceptions of the impact of professional development on their teaching practice as I often wonder the impact it has on my own practice. As a teacher, I had been involved in various professional development programmes. These programmes were mostly conducted during school hours and often during the school holidays. I had always felt that I should have been better off in the classroom, teaching instead of spending hours, listening to the speakers talking about things that are of little interest to me. This feeling I experienced had sparked the interest for me to find out what other teachers felt about the impact of their professional development experience on their teaching practice.

This research study involved a small primary school in West Auckland. I chose to research the perceptions held by the teachers of the school studied in relation to the impact of professional development on their practice. The data was collected using three research methods; document analysis, questionnaire and semi-structured interviews which were conducted in stages. Due to time constraint, I was not able to research the topic based on a particular professional development experienced by the teachers in the study school. Hence, the findings of this research study were based on the participants' overall professional development experiences.

RATIONALE FOR THIS RESEARCH

A review of the literature on teachers' professional development gives the impression that it is the key to successful education reforms. This is evident in the work of several authors (Hargreaves, 2000; Fullan & Mascall, 2000; Darling-Hammond & Sykes, 1999). Changes in the government policies, particularly the policies which are related to the education system have an immense impact on the teaching profession and the professional development of the teachers (Cardno, 2005; Fullan & Mascall, 2000). Day and Smethem (2009) argue that most governments believe that its intervention in the education system is necessary to ensure the nations' economic

competitiveness. Hence standards-based reforms are introduced to raise the quality of education received by the children; however government intervention in the forms of education reforms are argued to have taken away teachers' autonomy in their practice (Day, 2002).

Key authors suggest that teachers' professional development is central to the successful implementation of any education reforms (Desimone, 2009; Desimone, Porter, Garet, Yoon, & Birman, 2002; Elmore & Burney, 1999; Fishman, Marx, Best, & Tal, 2003; Guskey, 2002). This claim is supported by Fullan and Mascall (2002) who restate that "professional development is the key to the success of any reform (change) initiative, provided that it is linked to ongoing learning of individuals and to school improvement and to related policy and program implementation" (p.33). In the context of American education system, Birman, Desimone and Garet (2000) highlight that "professional development plays a key role in addressing the gap between teacher and standards-based reform" (p. 28).

Professional development for teachers is believed to equip them with the necessary knowledge and skills to implement the changes as intended by the reform introduced. Although teachers are believed to have gained many benefits from their participation in professional development programmes as that highlighted in the literature; several issues regarding the effectiveness of such programmes are also raised. One of the most concerning issues highlighted is the negative perceptions amongst teachers who viewed professional development as "something that they must endure and get out of the way" (Guskey, 2000, p. 15). A further investigation of this issue identifies several factors that contributed to such negative views.

The teachers' understanding of the idea of professional development very much influenced their attitudes towards having to participate in one. Traditionally, teachers' professional development has been understood as "a series of unrelated short-term workshops and presentations with little follow-up or guidance for implementation" (Guskey, 2000). This is normally done by having outside experts conduct a training session or series of training sessions for teachers outside of the school environment.

Fullan (2001b) contends that these one-shot workshops are ineffective as the topics are selected by the people in-charge of the workshop instead of the teachers. Moreover, this narrow perspective of professional development for teachers is also criticised as the outside experts may disregard teachers' opinion and classroom experience. Hargreaves and Fullan (1992) describe this as "the perceived superiority of the hard research knowledge of the experts to the soft practice wisdom of the teachers" (as cited in Garrett & Bowles, 1997, p. 29).

This view of teachers' professional development as series of activities that are detached from the actual classroom engagement often resulted to teachers feeling that their professional development experience as "meaningless and wasteful" (Guskey, 2000, p. 4). As most teachers are not usually consulted of their professional development needs, they often perceived their professional development experience to be as extraneous to the improvement of their teaching practice. This in turn makes it difficult for the teachers to incorporate the knowledge and skills gained from the professional development experienced into their practice as the reforms intended.

However, a large amount of resources and time have been invested to develop and manage professional development for teachers. Hence, it is important that the effectiveness of professional development experienced by teachers and its impact on the quality of teaching practice are continuously researched. It is expected that the financial resource spent on providing teachers with the needed professional development will help to achieve its goals of providing its citizen with quality education. However, this research study is not just aiming at providing justification for the amount of resources spent on teachers' professional development and the benefit received by the teachers.

The decision to research on the teachers' perceptions of the impact professional development on teaching practice was made to also seek the rationale for having teachers participate in numerous professional development programmes. This research study is also designed to identify some of the best practices in the field to maximise the benefit that teachers gained from their professional development

experience.

Fishman et al. (2003) claim that continuous research on teachers' professional development will help to create an empirical knowledge base that links various forms of professional development to effective teacher learning. However, having the knowledge of effective forms of teachers' professional development alone is insufficient to ensure successful professional development for teachers. Buczynski and Hansen (2010) forward the argument that for any professional development to be effective, teachers must practice their professional experiences. For this reason, this research study will also look at the factors that affect teachers' commitment and motivation to change their teaching practice. In addition, the sustainability of these changes is also examined.

In general, this research study is aimed at exploring teachers' perceptions of the impact of professional development on their teaching practice. Hustler, Howson, McNamara, Jarvis, Londra and Campbell (2003) note from their research that there is evidence of much variation in the teachers' perception, knowledge and understandings of the processes and products of professional development. Morewood, Ankrum and Bean (2010) lend their support to this statement saying that this happens as "professional development may be perceived differently by individual teachers (p. 202). Hence, Powell et al. (2003) state that the teachers' experiences and perceptions of the impact of their professional development amount to an important part of an evaluative process of their continuing professional development.

RESEARCH AIMS AND QUESTIONS

Research aims

1. To investigate the perceptions held by a group of primary school teachers of the impact of professional development on their teaching practice; and

2. To examine the factors that influenced teachers' perceptions of effective professional development

3. To examine the challenges or difficulties experienced in relation to teachers' professional development

Research questions

1. What are teachers' perceptions of the impact of professional development on their teaching practice?

2. What factors influenced teachers' perceptions of effective professional development?

3. What are the challenges or difficulties experienced?

OUTLINE OF THE STUDY

Chapter one outlines the study while providing the rationale for this research, its aims and key questions.

Chapter two provides a review of the body of literature from the international and New Zealand context. This chapter looks at the meaning of teachers' professional development and discusses its significance to the teaching profession and the notion of teacher professionalism. Several themes that emerged from the literature base reviewed such as the changing paradigm of professional development, the impact of professional development on teaching practice, core features of effective professional development, changing teaching practice and teachers' motivation to change are also discussed.

Chapter three outlines the research epistemology and methodology and explores the research instruments used for data collection. The research instruments chosen for this research study are document analysis, questionnaire and also semi-structured interviews. Details regarding the methods chosen, data analysis procedures, reliability and validity of data collected and the ethical consideration involved are explained further in this chapter.

Chapter four reports the findings gathered using the research methods chosen. Chapter five discusses the findings of this research study. The key findings of this research project are critically discussed and integrated with the literature reviewed in chapter two.

Chapter six presents the conclusions and lays the suggestions and recommendation. In addition a brief review of the limitation of this research study is also presented.

CHAPTER 2

LITERATURE REVIEW

Introduction

This chapter looks at the meaning of teachers' professional development and discusses its significance to the teaching profession and the notion of teacher professionalism. Several themes that emerged from the literature base reviewed such as the changing paradigm of professional development, the impact of professional development on teaching practice, core features of effective professional development, changing teaching practice and teachers' motivation to change are also discussed.

TEACHER AS PROFESSIONAL AND TEACHER PROFESSIONALISM

There is a body of evidence of the growing advocacy for teachers to engage in continuous professional development in the efforts to maintain the level of their professionalism. Cardno (2005) for example states that professional development for teachers is important to ensure the sustainability and growth of teaching profession. This claim reinforces Boyle, While and Boyle (2004) assertion that "the continual deepening of knowledge and skills is an integral part of the professional development of any professional working in any profession" (p. 46).

The relationship that is established between teachers' professional development and teacher professionalism has shaped this literature review to the discussion of teaching as a profession. Dean (1991) defines the term 'profession' as "an

occupation which requires long training involving theory as background to practice, has its own code of behaviour and has high degree of autonomy" (p. 5). Paramount to this definition is the emphasis on the significance of learning the theories of teaching to inform teachers' teaching practice. Dean's (1991) definition of the term 'profession' also implies that for teaching to be considered as a profession, it is mandatory that teachers are offered continuous learning opportunities that expose them to the theories of education to develop their practice.

As emphasised earlier by Dean (1991), professional development for teachers needs to be strongly grounded to the theory. Goodson (1997) supports this statement by explaining that "at its best, theory works back to informed and improved practice" (p.30). He also cautions that separation of the theoretical knowledge from practice will affect the idea of teaching as a profession, which "is based on a set of research expertise and theoretical bodies of knowledge" (Goodson, 1997, p. 32). The strength of teachers' professional development that embodied the theories of teaching and learning is evident in the Best Evidence Synthesis (BES). Timperley, Wilson, Barrar and Fung (2007) report that from the six studies on teachers' professional learning examined in the Best Evidence Synthesis (BES), the three studies of teacher professional learning that recorded the lower outcomes for its learners are the ones identified as having the least emphasis on theories. This finding further supports the argument that theory oriented approach is essential to teachers' professional development for it to have some impact on teaching practice.

In addition to having a strong focus on the theory aspect of professional development, the definition of the term 'profession' as offered by Dean (1991) also implies that for teaching to be considered as a profession and teachers as professional, it is fundamental for the teachers to continuously experience professional development throughout their career. This is further explained by Kwakman (2003) who says:

> Keeping up is a core responsibility of professionals, as the professional knowledge base underlying professional work does rely on the input of

new information since it is subject to continuous improvement. The main aim of reading is keeping up to date with new insights and developments influencing the professional field such as new subject matter, new teaching methods and manuals, new pedagogical approaches, but also new societal developments which have an impact on education and teaching in general (p. 153).

Bredeson (2002) however points out that continuous learning opportunities for teachers to enrich and refine their professional knowledge and practice is often undermined by the lack of time, money, and appropriate structures.

In addition to understanding the relationship between professional development and the notion of teachers as professionals, the literature review also reveals that some authors choose to shape their discussion of teaching as a profession by first looking at the term 'professionalism'. Defining the term professionalism in the manner that best describes the work that teachers do prove to be a challenging task as the literature appears to be divided in the approaches used.

Hargreaves (2000) for example has established the link between professional development and teacher professionalism by looking at the different phases of teachers' professionalism. He asserts that the idea of 'professionalism' refers to the quality of teaching and the conduct, demeanour and the standards that guide it. In addition, Hargreaves (2000) argues that the idea of teacher professionalism has evolved in the past years due to the changes that are constantly taking place in the world's education system. He further elaborates that there has been four historical phases of teacher professionalism identified over the years; the pre-professional age, the age of autonomous professional, the age of collegial professional and finally, the post-professional or post modern.

Consequently, the force of change affecting teacher professionalisms is also identified to be affecting the nature of teachers' professional development.

Hargreaves (2000) notes that during the phase of the 'professional autonomy', the nature of teaching is often described as working in isolation. It is common during that phase of time for teachers to work alone in their classroom with minimal interaction with their colleagues (Hargreaves, 2000). Hence, their professional development experiences come in the form of workshops and courses that are delivered away from the classroom and school by outside experts, and received by teachers as individuals. However, these teachers were not able to integrate what they had learned into their practice when they returned to workplaces as they did not understand or received support to apply the new knowledge and skills in their classrooms (Little, 1993 as cited in Hargreaves, 2000).

In their quest to improve the nations' economic competitiveness, the governments become preoccupied with the effort to increase the standard of education received by the students. This increased expectation in the quality of education sees more teachers facing the prospect of having to teach in ways they had not been taught themselves (McLaughlin, 1997). Hargreaves (2000) explains that for this reason, "many teachers are starting to turn more to each other for professional learning, for a sense of direction, and for mutual support" (p.162). Consequently, this has caused the shift in the nature of teaching from working alone in the isolation of their classroom to working in collaboration with their colleagues. This collegial relationship also changed the form of teachers' professional development. Instead of having off-site workshop for individual teachers, recent professional development programmes are designed to be more collaborative in nature.

To sum up, the literature base reviewed has established that teaching is a profession and as professionals, teachers need to be provided with sufficient amount of professional development so that there are able to maintain their level of professionalism. Hence this suggestion has raised some very important questions such as: Do the teachers agree with the statement that professional development helps to improve their teaching practice? If so, what are the impacts? Do the forms and activities of professional development experienced by the participants enable them to be more effective in their practice? This research study will attempt to seek

the answers to these questions.

THE CHANGING PRADIGM OF PROFESSIONAL DEVELOPMENT

In general, teachers' professional development falls under two categories: the traditional and the 'reform-type' professional development (Birman, Desimone, Porter, & Garet, 2000). The traditional approach of teachers' professional development often assumed that there is a deficit or a gap in teachers' knowledge and skills which can easily be developed in "one-shot" workshops (Clarke & Hollingsworth, 2002). In addition to the workshop approach, traditional form of teachers' professional development also comes in the forms of within district workshop or training, out of district workshop or training and also formal postgraduate courses (Desimone et al., 2002). Although the traditional approach of teachers' professional development helps to foster teachers' awareness or interest in deepening their knowledge and skills, is believed that this approach alone is insufficient to foster learning which fundamentally alters teaching practice (Boyle et al., 2004).

Moreover, the traditional form of teachers' professional development is also criticised as being shallow and fragmented (Hawley & Valli, 1999). This is echoed by Ball and Cohen (1999) who describe the in-service workshops as "intellectually superficial, disconnected from deep issues of curriculum and learning, fragmented, and noncumulative" (p.4). The authors further explain teachers' professional learning is often shallow and fragmented because teaching is perceived as mostly common sense and has little need for professional learning. In addition, it is also perceived that teachers do not required sustained learning to perform their work (Ball & Cohen, 1999).

The alternative to the traditional model of teachers' professional development is the 'reform-type' or else known as the 'growth' model of professional development (Huberman & Guskey, 1995). The authors describe this model as "a variety of professional development activities that accompany continuous inquiry into one's instructional practice" (p. 270). This paradigm shift from the traditional model to

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reform-type sees that professional development for teachers is changing "from replication to reflection, from learning separately to learning together, and from centralization to decentralization" (Smylie & Conyers, 1991 as cited in Hawley & Valli, 1999).

Advocates of the reform-type model also believe that professional development for teachers is most effective when it is done within their working context. Sparks and Hirsh (1997) for example argue that it is imperative for teachers' professional development to be treated as multiple forms of job-embedded learning for meaningful changes to occur in teaching practice. Wilson and Berne (1999) suggest that:

> some learning, no doubt, goes on in the interstices of the workday, in conversations with colleagues, passing glimpses of another teacher's classroom on the way to the photocopying machine, tips swapped in the coffee lounge, not to mention the daily experience of the classroom (p. 174).

The school is said to be the most suitable place for teachers to develop professionally as new teaching competencies can only be acquired in practice (Kwakman, 2003). However, despite the advocacy for teachers' professional development to be centred in practice, Ball and Cohen (1999) argue that it "does not necessarily imply situations in classrooms in real time" (p. 14). Instead, they suggest that better learning opportunities for teachers can be created through strategic documentation of practice. The authors recommend among others the collection of "concrete records and artifacts of teaching and learning that teachers could use as the curriculum for professional inquiries" (p. 20).

Professional development for teachers can take many forms. Hence, this study explores the different types of professional development experienced by teachers and their perceptions of its impact on their practice, does school based professional development is better than one that is provided externally?

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THE IMPACT ON TEACHING PRACTICE

Based on their research on teachers' perceptions of the impact of continuous professional development, Powell, Terrell, Furey and Scott-Evans (2003) choose to define the word 'impact' as "changes in professional knowledge, practices and affective response as perceived by the individual practitioner" (p. 399). They argue that to measure impact, it does not necessarily have to rely only on quantifiable data. Instead, they propose that the impact of professional development on teaching practice can also be assessed from the teachers' insight and reflection of "what constitute significance and value in relation to their own personal, academic and professional needs and development" (p. 399).

Gabriel et al. (2011) observe that teachers in general believe that certain professional development programmes they attended have significant impact on their development as teachers. Several authors (Dean, 1991; Guskey, 2000) for example, describe teachers' professional development as a process which is aimed primarily at promoting learning and development of teachers' professional knowledge, skills and attitudes.

Cognitive and affective impact of professional development

Participation in professional development is believed to have some impact on the teachers' ability to acquire and critically develop the knowledge, skills and emotional intelligence essential to good professional thinking, planning and practice with their students and colleagues through every phase of their teaching lives (Borko, 2004; Buczynski & Hansen, 2010; Day, 1999; Gabriel et al., 2011; Poskitt, 2005). In addition, Desimone (2009) asserts that professional development also impacts on the teachers' ability to decide on and implement valued changes in teaching and leadership behaviour so that they can educate their students more effectively, thus achieving an agreed balance between individual, school and national needs (Bolam, 2002; Hargreaves & Evans, 1997).

Immediate and long-term impact of professional development

According to Powell, Terrell, Furey and Scott-Evans (2003), teachers will experience immediate and long term impacts of professional development. Their research on teachers' perceptions of the impact of continuous development reveals that most of the teachers identified the immediate impact of professional development as having the ability to reflect more deeply on their practice (Powell et al., 2003). It is believed that this ability to reflect has enabled the teachers to better evaluate the effectiveness of their own practice. Similar findings are also reported by Harris, Cale and Musson (2010) who conducted research on primary teachers' perceptions of physical education. They state that almost all of the teachers involved in their research report immediate positive impact on their perceptions of physical education as the result f professional development experienced.

In the long-term, teachers also believe that their professional development experiences have helped them developed greater confidence with their practice (Buczynski & Hansen, 2010; Powell et al., 2003). Likewise, Harris et al. (2010) also reveal that most of the teachers involved in their research perceived their professional development experience as having positive impact on their confidence in teaching. This also reinforces Hustler et al. (2003) assertion that most teachers are satisfied with their professional development experiences.

In light of this finding, Powell et al. (2003) maintains that teachers' growing confidence is evident in their ability to clearly articulate their personal views on educational matters. Professional development programmes also help teachers to become more knowledgeable in the subject content taught. In addition, reflective practice and constant evaluation of their teaching practice are also believed to lead to a better lesson structure to effectively meet the students' needs (Harris et al., 2011; Powell et al., 2003).

As discussed earlier, the literature based review in general suggests that professional development for teachers has positive impact on their practice. This

study research seeks to explore the participants' perceptions of the impact of their professional development experience. Do all the participants share similar understanding with the findings of the literature reviewed?

EFFECTIVE PROFESSIONAL DEVELOPMENT

A review of the international literature base reveals plethora of research that focused on the examination of the features of some of the best practices in relation to teachers' professional development (Garet et al., 2001; Hawley & Valli, 1991, Wilson & Berne, 1999). Desimone (2009) for example points out the fact that there is a growing consensus on the features of professional development that are believed to result in the changes in teacher knowledge and practice and possibly students' achievement. She later proposes that these common features of effective professional development are measured to assess the effectiveness of any professional development programmes, no matter what types of activity they include, (Desimone, 2011).

Features of effective professional development

Content focus

There is a widespread agreement among scholars for teachers' professional development to be largely viewed as knowledge and skills development (Desimone et al., 2002; Garet et al., 2001; Timperley et al. 2007). The literature reviewed exhibits a strong advocacy for teachers' professional development to be understood as opportunities for learning (Fishman et al., 2003). Professional development for teachers needs to give them the opportunities to learn from their own practice by way of self-reflection in addition to preparing them for their new roles and responsibility (Garrett and Bowles, 1997). Fishman et al. (2003) further add that teachers' professional development needs to focus on the enhancement of their professional knowledge, beliefs and attitudes so that they will be able to improve their student

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learning. This reinforces Hargreaves and Goodson (1996) earlier statement that professional learning for teachers will enrich their knowledge base, improve their teaching practice, and enhance their self-efficacy and commitment to quality service.

In general, the content focus of any teachers' professional development falls into two categories. Fishman et al. (2003) explain that the first category of content focus refers to the knowledge related to general teaching work such as assessments, classrooms organisation and management and teaching strategies while the second category refers to the subject content itself. Assessment is a major component of all the core studies covered in BES as through their assessment skills teachers are able to judge the impact of their changed practice on student learning (Timperley et al., 2007). The authors explain teachers' sound assessment skills make it possible for them to make ongoing adjustment to their teaching practice so that it can be more effective.

Consequently, knowledge content has become the most significant component of any form of teachers' professional development programme. Borko (2004) argues that having a strong emphasis on knowledge content is critical to the success of any professional development experienced by teachers. This is because participation in professional development programmes is believed to allow teachers the opportunities to renew their knowledge base while at the same time introducing new knowledge and skills into their repertoire to continuously improve their conceptual and teaching practice (Borko, 2004; Grundy & Robison, 2004). Furthermore, Borko (2004) argue that it is important for teachers to have "rich and flexible knowledge for the subject" (p.5) to foster students' conceptual understanding.

Active learning

Numerous researches conducted to study the forms of high quality teachers' professional development conclude that reform-type professional development is more effective in changing teaching practice (Hawley & Valli, 1999; Helmer et al., 2011). The traditional form of teachers' professional development is critised for not

being conducive enough to foster meaningful changes to their teaching practice (Birman et al., 2000; Desimone, 2009, 2011; Kwakman, 2003). This happens as the activities designed do not provide teachers with ample opportunities to engage in active learning which is believed to be a crucial factor in sustaining the changes made to their teaching practice (Fullan & Mascall, 2000). This assertion is supported by several other authors' suggestion that professional development for teachers need to provide them the opportunities to become active learners (Harris et al., 2011; Sparks & Hirsh, 1997; Villegas-Reimers, 2003).

Birman et al. (2000) explain that professional development that incorporates active learning for teachers also:

> includes opportunities to observe and be observed teaching; to plan classroom implementation, such as practicing in simulated conditions, and developing lesson plans; to review student works; and to present, lead and write – for example, present a demonstration, lead a discussion or write a report (p. 31).

These various forms of strategies linked to active learning are said to be most effective in changing teaching practice. Southworth (2004) who researched on primary school leadership in the context of small, medium and large sized schools asserts that modelling, monitoring and professional dialogue and discussion as the strategies identified to have the most effect in changing teaching practice. In addition, Guskey (2000) argues that professional development for teachers needs to provide them the opportunity to get regular feedbacks on the changes made to their teaching practice. This approach is believed to be able to change teaching practice compared to professional development programmes conducted in the forms of large group presentations, training programmes, workshops and seminars (Guskey, 2000).

Collective participation

Reform-type professional development for teachers is also believed to be more effective than the traditional model as it focuses on collective participation. Collective

participation refers to the participation of teachers from the same department, subject or grade in the same professional development programme. Birman et al. (2000) assert that collective participation in professional development is more likely to afford opportunities for active learning and are more likely to be coherent with the teachers' other experiences. Moreover, teachers' professional development that involves collective participation, especially for teachers in the same school is believed to be able to sustain the changes made to their teaching practice. This is because they are more likely to have more opportunity to discuss the concepts, skills and problems arise during their professional development experiences (Garet, Porter, Desimone, Birman, & Kwang Suk, 2001).

In other words, collective participation in teachers' professional development programmes also engendered collaboration among the teachers. Hargreaves (1995) for example discusses the use of collaboration as one of the ways for teachers to improve their teaching practice. One of the advantages of collaboration is that it increases the capacity for reflection (Hargreaves, 1995) which is argued to be a critical point to teachers' professional learning experience. Collective participation in professional development also gives teachers more opportunities to learn from each other's practice. Kwakman (2003) says that feedback, new information or ideas do not only spring from individual learning, but to a large extent also from dialogue and interaction with other people. This reinforces Hargreaves (1995) earlier assertion that collaboration can be "a powerful source of professional learning: a means of getting better at the job" (p.154).

In addition, collaboration in school also increases efficiency as it "... eliminates duplication and removes redundancy between teachers and subjects as activities are co-ordinated and responsibilities are shared in complementary ways" (Hargreaves, 1999, p.151). As this happens, teachers can allocate more of their time and effort on the preparation of their lesson which will improve the quality of teachers' teaching (Hargreaves, 1995). Consequently, collaboration that exists in school provides teacher with moral support (Hargreaves, 1995) as it allows teachers the opportunities to work with their colleagues instead of having to handle the frustration and failure

alone.

Duration

Professional development activities that are designed based on the reform type are believed to be more effective compared to the activities of the more traditional approaches because of its longer duration. Duration refers to the contact hour spent in a particular professional development activity and also the time span or period of time over which the activity was spread (Garet et al., 2001). Similarly, Birman et al. (2000) argued that "the activities of longer duration have more subject-area content focus, more opportunities for active learning, and more coherence with teachers' other experiences than do shorter activities" (p. 29). This is further reinforced by Garet et al. (2001) assertion that longer professional development activities also more likely to provide opportunities for in-depth discussion of the content, student conception and misconception and also pedagogical strategies to take place among its participants. The authors also suggest that activities that extend over time are more likely to allow teachers more time to try out new practices in the classroom and obtain feedback on their teaching (Garet et al., 2001).

Coherence

Finally, reform type professional development is believed to incorporate the element of 'coherence' in its design. The literature highlighted three dimensions of coherence in teachers' professional development: 1) the alignment between the professional development activity and teacher's goals for professional development, 2) the alignment between the professional development activity with the state or district standards and curriculum frameworks and with state and district assessments, 3) the ongoing professional communication with other teachers who are also trying to change their practice (Desimone et al., 2002; Garet et al., 2001). This reinforces Day's (1999) earlier assertion for the personal and institutional professional development approaches to be synchronised to maximise the opportunities for change and development in schools.

In addition, Duffy and Cunnigham (1996) also assert that teachers need to construct their own knowledge by anchoring new information obtained to pre-existing knowledge (as cited in Ozkal, Tekkaya, Cakiroglu, & Sungur, 2008). This assertion supports Borko and Putnam (1996) earlier statement that the active learning process as emphasised by the constructivist approach is "heavily influenced by an individual's existing knowledge and beliefs and is situated in particular contexts" (p. 674). Similarly, Kwakman (2003) believes that professional development for teachers needs to allow teachers the opportunities not only to construct their own knowledge but also to direct their own learning.

Despite the suggestions for teachers' professional development to encapsulate the features of high quality professional development, Wayne, Yoon, Zhu, Cronen and Garet (2008) argue that this consensus "lacks sufficient specificity to guide practice" (p. 470). These authors also raise some issues related to the practicality of some of the elements of teachers' professional development best practices. They in particular highlight the issue of the cost to provide teachers with more professional development as opposed to having the 'one shot' workshop. Wayne et al. (2008) argue that it is more expensive to provide teachers with professional development that is catered to their personal needs. In addition, the suggestion for teachers' professional development to extent over a longer period of time is believed to result to teachers leaving their classroom more often and hence causing more disruption to the students' learning (Wayne et al., 2008).

The common features of effective teachers' professional development as highlighted in the work of several key authors discussed earlier will be used to investigate the participants' responses in relation to the factors that influenced their perceptions of effective professional development.

EDUCATIONAL CHANGE

Understanding change

A review of the literature on teachers' professional development reveals that the field of education is constantly undergoing change. Bolman and Deal (2008) describe change as "a complex systemic undertaking" (p. 378). Due to the complexity of change, Duke (2004) has attempted to define 'change' based on several distinctions he has made. First, the word 'change' is defined as "a different or departure from the status quo" (Duke, 2004, p.16). There are two types of changes taking place in the context of education; branch changes and root changes. 'Branch changes' or otherwise known as the 'first-order' change refer to "significant, yet specific changes of practice which teachers can adopt, adapt, resist or circumvent, as they arise" (Hargreaves & Hopkins, 1991 as cited in Hargreaves, 1994, p. 6).

Root changes or the 'second-order' change on the other hand is defined as "deeper transformations at the very root of teachers' work which address and affect how teaching itself is defined and socially organized" (Hargreaves, 1994, p. 6). This type of change is more difficult to achieve as it involves the alteration of the deep underlying assumptions of the system (Duke, 2004). Borko and Putnam (1995) note that almost all reform efforts are calling for some form of changes in the education system that help students achieve higher standard of learning. For this reason, Hawley and Valli (1999) argue that professional development for teachers has become increasingly more important than before. This is further supported by Sykes (1999) who state that professional development has become the centrepiece for promoting change.

The impetus of teachers' professional development as a crucial element to education reforms has caused many schools to eagerly participate in all the professional development programmes made available to them. Cardno (2005) believes that this realisation of the relationship between of teachers' professional development to successful reform as one of the reasons teachers experienced professional

development overload. She elaborates by saying:

> As a consequence many schools, concerned that they will miss out if they do not register to participate, have chosen to involve teachers in too much professional development resulting in overload and disenchantment with what should be a positive and rewarding experience (p. 295)

Guskey (1995) however cautions that "there is no easier way to sabotage change efforts than to take on too much at one time" (p. 119). He suggests that schools start off by making small changes and to treat it as part of a more comprehensive change process. Hargreaves and Fink (2006) has succinctly described educational change as "easy to propose, hard to implement and extraordinarily difficult to sustain" (p.1).

The process of teacher change

Clarke and Hollingsworth (2002) explain that the concept of teacher change can be understood from various points of views. The authors argue that the traditional view of understanding teacher change as a training session has been proven to be ineffective in changing teaching practice. They reason that this happens because the professional development programmes arranged for teachers from the perspective of teacher change as training have often failed to consider the processes that occur in teacher change (Clarke & Hollingsworth, 2002; Guskey, 2002). Hence, this argument suggests that teachers require more than a day in the workshop for a sustained change in teaching practice to occur (Timperley et al., 2007). This is further supported by Helmer Bartlett, Wolgemuth and Lea (2011) who assert that one shot workshop as ineffective at yielding teacher change.

Moreover, Clarke and Hollingsworth (2002) highlight that most of the teachers' professional development activities that failed have focused on initiating change in teachers' attitudes, beliefs, and perceptions. These changes in the teachers' attitudes

and beliefs are then assumed to lead to specific changes in their classroom behaviours and practices, which in turn will result in improved student learning. In contrast, Guskey (2002) argues that teachers' attitude and belief will only change when they are convinced that their student learning outcomes have improved as the result of the changes made to their teaching practice. Similarly, Desimone's (2009) core conceptual framework for studying the effects of professional development on teachers and students proposes that a high quality professional development will induce changes to teachers' attitudes and beliefs before changes to teaching practice can take place which will then lead to improved student learning. The work of these two authors support the argument forwarded by Hargreaves (1994) who says "change is a process; not an event; that practice changes before beliefs" (p.10). This statement also proves that 'deep change' will only occur when the 'first-order change' has been successfully achieved.

Interestingly, the view of understanding teacher change as a linear process as demonstrated by Guskey (2002) and Desimone (2009) is challenged by several other authors. Huberman (1995) for example suggests that teacher change is a cyclical process. This belief is reiterated by Clarke and Hollingsworth (2002) and Opfer, Pedder and Lavicza (2010) who argue that there is a reciprocal causative relationship that exists between teacher beliefs, learning and changes in practice. Opfer et al. (2010) further explain that "change is driven by personal beliefs, interest, motivations and social/historical contexts and processes rather than solely through rational and logical accumulation of knowledge and skills via participation in a learning activity" (p. 446). Based on the finding of their research, Opfer et al. (2010) conclude that teacher change is not a sequential process as suggested by other authors.

Teachers are unlikely to change their belief immediately as the result of the professional development programme they have attended. According to Hawley and Valli (1999), teachers need more time and opportunities to investigate why some practices might be better than others. This belief is echoed by Poskitt (2005) who also highlights the importance of time. She explains that "teachers wanted time to

trial, reflect and improve their practice, understanding of it and their teaching programmes. Time is needed for teachers to personalise information before they can change their ideas or behaviour" (p. 145).

Moreover, Fullan (2001a) explains that "changes in beliefs are even more difficult: they challenge the core values held by individuals regarding the purpose of education; moreover beliefs are often not explicit, discussed or understood, but rather are buried at the level of unstated assumptions" (p. 44). This is reiterated by Guskey (2002) who argues that teachers' attitudes and beliefs are not changed by the professional development attended. Instead, he believes that it is the experience of successful implementation that changes the teachers' attitudes and beliefs. Guskey (2002) explains that this happens as "they believe it works because they have seen it work and that experience shapes their attitudes and beliefs" (p.383). Furthermore, Fullan and Mascall (2000) recommend that the impact of changes to student outcomes is demonstrated as it also contributes to the sustainability of the changes in teaching practice.

The process involved in changing teaching practice

There has been little research done on the processes involved in changing teaching practice (Timperley et al., 2007). Despite the lack of research on the topic, a research by Borko and Putnam (1995) offers evidence to support the suggestion that a relationship exists between professional development and changing teaching practice. The authors suggest that for teachers to change their teaching practice they would need to expand and elaborate their knowledge systems (Borko & Putnam, 1995) and this can be achieved through participation in professional development programmes. This statement further strengthens the arguments that effective professional development for teachers has to encompass the theories of curriculum, effective teaching, and assessment developed alongside their applications to practice (Timperley, 2008).

Kwakman (2003) says that "change in teaching practice always affects pre-existing

knowledge and beliefs as new knowledge and beliefs about teaching, learning, learners, and subject-matter have to be acquired" (p.150). Because of this, the author also asserts that "teachers must be supported to acquire this new knowledge and beliefs, whereas specific attention has to be paid to support for changing their existing knowledge and beliefs in different domains" (p. 150). Hence, Kwankman (2003) recommends that for changes to occur in teaching practice, a teachers' professional development needs to be facilitated by creating favourable learning environments in which the teachers can be responsible for their own learning.

The literature also suggests that teaching practice will only change when teachers have developed full understanding of the new information acquired (Timperley et al., 2007). Because of this, Timperley (2008) recommends that teachers are given enough opportunities for them to absorb new practices and implement it in their classroom. Timperley and Alton-Lee (2008) explain the way teachers interpret and use the recently acquired knowledge and skill as a complex process. Poskitt (2005) adds that "because teachers need time to experiment and work through a process of mutual adaptation to personalise a new innovative strategy, support during this time of adjustment is important in order to integrate the new knowledge and skills into classroom practice" (p. 146). The statement made by these key authors (Poskitt, 2005; Timperley, 2008; Timperley & Alton-Lee, 2008) was used as one of the interview questions to investigate the factors that influenced teachers' perceptions of effective professional development.

Timperly et al. (2007) however argue that the synthesis of the research does not identify a particular activity as being more effective than the others despite the evidence gathered from the literature base reviewed of some authors (Garet et al., 2001; Sparks & Hirsh, 1997) advocacy for a particular approach as being able to further enhance teachers' understanding of the new knowledge acquired. Poskitt (2005) for example believes that acquisition of knowledge and skills base are better gained through active ongoing professional learning, through experience in and reflection on classroom-based practice, deepening theoretical and practical content and pedagogical knowledge, and involvement in professional communities of

learning where teachers engage in meaningful dialogue.

Similarly, other authors also believe that collegial communities (Timperly, 2008) or the professional learning communities (Desimone et al., 2003; Desimone, 2009; Garet et al., 2001) are able to enhance teacher's understanding. Hawley and Valli (1999) assert that knowledge and skills of education can be increased substantially through collegial opportunities to solve authentic problems that create the gap between student performance and expectations. A professional learning community provides teachers the opportunities to work collaboratively with each other, where they share their passion and purpose for their work, or else the professional development will be short-lived (Fullan & Mascall, 2000). Collaborative relationship that exists provides teachers the opportunities to discuss their practices with each other and this is believed to have some effect on teaching practice. This supports Guskey (1995) earlier assertion that teachers need to receive regular feedback on the efforts made to improve their teaching practice so that those changes can be sustained. This is reiterated by Timperley (2007) who says "frequent contact is important in sustaining the change process" (p. 139).

In addition, Hawley and Valli (1999) recommend that to sustain changes to teaching practice, teachers' professional development need to be "continuous and ongoing, involving follow-up and support for further learning, including support from sources external to the school that can provide necessary resources and an outside perspective" (p. 141). Helmer et al. (2011) succinctly sum that:

> Overall, instructional principles espoused in the contemporary approaches to professional development highlight the importance of an ongoing approach that: is embedded in teaching practice; is organized around collaborative problem solving; involves reflection and feedback; is followed up with support from a range of experts (p. 198).

The effectiveness of a teachers' professional development experience is assessed on its impact on teaching practice. How effective is the professional development

experienced by the teachers in changing their practice? And what are the steps involved to sustain changes made to teaching practice?

TEACHER MOTIVATION TO CHANGE

Teacher beliefs

Teachers' perception of the impact of professional development that they have experienced may be influenced by their beliefs (Borko 2000). According to Opfer et al. (2010), 'teacher belief' in relation to professional development involves "those general understandings related to learning that a teacher holds to be true" (p. 444). This reinforces Fives and Buehl (2008) earlier statement that:

> In learning contexts, pre-service and practicing teachers may be guided by their beliefs about teaching knowledge and ability. Such beliefs may lead them to question the value of information presented; make epistemic assumptions about the nature of teaching knowledge; question the validity of knowledge content; and support their views on teaching and the need for teacher education (p. 135).

Because of this, it is imperative that the notion of teacher beliefs is explored. This is supported by Fives and Buehl (2008) who argue that "understanding these beliefs in the context of learning to teach and their relation to other important outcomes (e.g., classroom practices, student achievement) can inform the development of learning experiences tailored to the needs of future and practicing teachers" (p. 135). This implies that teachers will attach a high priority to practice knowledge and skills that confirm to their own belief (Opfer et al., 2010).

Capacity belief

The second factor that affects teachers' motivation to change is their capacity belief.

Leithwood, Jantzi and Steinbach (2003) explain that "perceived capacity or self efficacy increases the intrinsic value of effort and contributes to the possibilities for a sense of collective capability or efficacy on the part of a group, as well" (p. 139). Self-efficacy refers to a person's belief of his or her capabilities to successfully perform a task or responsibility to the level expected (Bandura, 1982). The literature also suggests that teachers' perceived self-efficacy determines their behaviour and their level motivation towards the accomplishment of school goals (Tschannen-Moran & Hoy, 2007). Hence, it is important that the factors which increased teachers' perception of capacity or self-efficacy are examined.

Leithwood et al. (1999) identify teachers' actual performance or 'mastery experiences' (Tschannen-Moran & Hoy, 2007), vicarious experience provide by role model and verbal persuasion from others as among the factors that affect teachers' perception of their self-efficacy. From this, it is evident that school leaders need to pay more attention on providing teachers with the proper working climate to maintain their positive self-efficacy. This also supports the argument for collaborative relationship among teachers as it allows teachers the opportunities to provide positive feedbacks to their colleagues concerning their teaching practices (Guskey, 2002; Tschannen-Moran & Hoy, 2007). Strong self-efficacy also helps teachers to believe that they are capable of accomplishing the goals set.

In the context of teachers' professional development, Opfer et al. (2010) identify the intersection between teacher beliefs and practice as the catalyst for professional learning. Wheatley (2002) suggests that discord between personal expectation and sense of self-efficacy may open up the possibility for teacher learning to occur.

Context belief

The third factor is context beliefs. This refers to the manner in which a change process is handled. Teachers' perception of any new initiative introduced in school is very much shaped by their past experiences dealing with other initiatives of a similar nature. Experiences with ill-managed change process will adversely affect their

perception of the current initiative thus reducing their motivation to implement it (Guskey, 2002; Leithwood et al., 1999).

There are several conditions that give rise to positive context belief. Leithwood et al. (1999) identify teachers' perception of the congruence between their personal and school goals and also their perception of the presence of support (structural, human resource, financial and positive climate) that will help with the accomplishment of the goals. This suggests that teachers need to be convinced that the change initiative introduced can be usefully implemented at school level and the evidence to this need to be made available through a clear communication process.

In general, teachers' motivation and commitment to professional development are influenced by the three factors discussed earlier. The most important factor that affects teachers' motivation and commitment to undergo professional development programmes is the integration of their personal goals and school goals. This gives teachers the more reasons to continuously seek opportunities to improve their practice. If the teachers perceived that the professional development programmes serve them no purpose, this will result to resistance.

Teachers are also motivated to participate in professional development programmes when they believe a gap exists in their practice. This claim emphasises the need for high expectation but achievable goals so that it does not only affect teacher motivation level but also maintain their positive self-efficacy. Finally, teachers need to be convinced that they will be able to practice the new knowledge and skills they have learned from attending the professional development programmes in their classroom. This can be achieved by providing teachers the learning culture that provides working conditions that values collaboration and constructive feedbacks.

The effectiveness of teachers' professional development is also determined by the teachers' own belief and their motivation and commitment level to improve their practice. With this understanding, the impact of teachers' professional development

will be explored from the teachers' perspective.

Summary

Professional development for teachers is essential to maintain the level of professionalism so that teachers are able to keep up with the changes in demand and expectation held by the nation and society in regard of the quality of education received by school children. Professional development for teachers is believed to be more effective in creating sustained change to teaching practice when it is designed to accommodate to the learning needs of the students as well as the teachers. To achieve this, attention needs to be given to the processes of teacher change and other factors that enhance such change. Hence, several themes that emerged from the literature base review such as the impact of teachers' professional development, features of effective professional development and factors that influenced teachers' perception will shape the design of this research study.

CHAPTER 3

RESEARCH METHODOLOGY AND METHODS

Introduction

This chapter explores the research methodology and the various research instruments used to collect data on teachers' perceptions of the impact of professional development on their practice. The description of the three research instruments; document analysis, semi-structured questionnaire and also semi-structured interviews is also provided. Details regarding the methods chosen, data analysis procedures, reliability and validity of data collected and the ethical consideration involved conclude this chapter.

RESEARCH METHODOLOGY

Cohen, Manion and Morrison (2007) contend that the views of social reality can be understood from either the subjective or the objective approach. This research study adopts the subjective approach to highlight the "subjective experience of individuals in the creation of the social world" (Cohen et al., 2007). This decision was made as this research study was focused on generating understanding of the research topic from the teachers' perspective. Consequently, the data gathered from the research participants was heavily influenced by their overall professional development experiences which provided justification to pursue this research study from the interpretive paradigm.

The interpretive paradigm is described as a view that sees "the subject matter of the social sciences – people and their institutions – is fundamentally different from that of the natural sciences" (Bryman, 2008, p. 15). This is supported by Coleman and Briggs (2002) who assert that "the world of educational research is different from the world of the natural science researcher – all educational research needs to be grounded in people's experience" (p. 18). In addition, the interpretive paradigm is also said to place great emphasis on "the meaning people attribute to their experiences" (Davidson & Tolich, 2003, p. 29). Moreover, Cohen et al. (2007) add that the interpretive paradigm treats the knowledge gathered from a research undertaken as "personal, subjective and unique" (p. 7). For this reason, the interpretive paradigm is believed to be the most suitable for this research study as it allows in-depth exploration of the teachers' views of their professional development experiences.

The interpretive paradigm is adopted despite of its weaknesses. One of the criticisms of the interpretive paradigm put forward in the literature is its lack of reliability (Davidson & Tolich, 2003). Contrary to the positivist paradigm where methods often dominate subject matter, the interpretive paradigm allows more flexibility in term of the research instruments employed. Davidson and Tolich (2003) argue that this necessary is to accommodate for changes in the subject matter which often occur in the field of qualitative study.

The interpretive paradigm adopted in this research study is linked to the qualitative research approach. Lankshear and Knobel (2004) assert that the qualitative research approach provides rich and detailed description of the research subjects and the event being researched. Similarly, this belief is echoed by Ary, Jacobs, Razavieh and Sorenson (2006) who say that "the ultimate goal of this kind of study is to portray the complex pattern of what being studied in sufficient depth and detail so that someone who has not experienced it can understand it" (p. 450).

The research strategy

A case study is an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident which results to an intensive, holistic description and analysis of a single instance, phenomenon or social unit (Merriam, 1998). The case study approach is chosen as it allows in-depth investigation of the teachers' perceptions of the impact of professional development programmes on their practice. This decision is supported by Ary et al. (2006) who say that a case study approach allows a detailed examination of the phenomenon being studied.

The literature base reviewed also acknowledged that a case study approach has the strength to allow detail exploration and interrogation of an activity or an instance in action using multiple methods and data sources (Bush, 2002; Stark & Torrance, 2005). This is reiterated by Yin (2009) who asserts that "... a major strength of a case study data collection is the opportunity to use many different sources of evidence" (p. 114 -115). This distinctive characteristic of the case study approach results to "a rich description of a phenomenon in order to represent it from the participants' perspective" (Stark & Torrance, 2005).

The rationale for choosing the case study approach

A case study approach is often criticised as lacking in rigor (Yin, 2009) and breadth (Ary et al., 2006). Hence it is argued to provide little basis for scientific generalisation (Yin, 2009). Despite these criticisms, the case study approach still has its strength as it posses several characteristics that are beneficial to this research study.

One of the most appealing characteristics of the case study approach which is believed to fit the purpose of this research study is that it allows the creation of

certain boundaries that are relevant to this research (Merriam, 1998). I was able to exert more control over the amount and type of data gathered from each research instrument designed using the case study approach. Nevertheless, creating boundaries to find out the answers to the research questions was a difficult task and involved crucial decisions as the way it was conceptualised and defined was fundamental to the findings of this research study (Knight, 2002; Stark & Torrance, 2005).

For the purpose of this case study, I decided to set the boundaries for this research study by only researching the topic from the perspective of a group of primary school teachers, while at the same time aiming at gathering rich information from them within the restricted time frame available to me. This is supported by Yin's (2003; 2009) contention that a single case study is possible when a researcher wanted to investigate a typical case, which in this study refers to teachers' professional development.

Sample selection

This research study was conducted in a small full primary school in West Auckland. Due to the size of the school, I hoped to be able to involve as many teachers as possible in this research study. Because of this, the questionnaires were distributed to all 13 teachers who hold a teaching position in the school. For the second phase of my data collection, I decided to interview five teachers who have completed the questionnaire. The list included a senior teacher, a new teacher, female and male teachers and also a teacher with a leadership role in the school studied. I had earlier planned to choose the teachers to be interviewed based on the questionnaires collected. However, due to some unforeseen circumstances, the interviews had to be conducted earlier than planned. Consequently, I could not use the questionnaires to identify the participants who had indicated their willingness to be interviewed. Instead, I had to ask my contact in the school studied to nominate five teachers whom fitted the pre-determined criteria to be interviewed.

RESEARCH METHODS

In choosing the most appropriate research design, Lankshear and Knobel (2004) recommend that issues related data collection to be taken into consideration. First, the authors highlight the importance of using the research questions to guide researchers with the type and amount of data that need to be collected which will fit the purpose of the research. There are different types of data available to a qualitative-based research. As a qualitative research focuses on the subjective aspect of an area of concern; spoken, written and observed data have to be taken into consideration.

Consequently, the research questions were constantly referred to in deciding on the types of data to be collected for this research study. By doing so, I believed that I had successfully avoided being overwhelmed by the amount of data collected in the process. Similarly, my epistemology which shaped this part of research design had guided me in deciding which information was significant to this research study.

The most commonly employed research methods for a case study are interviews, document analysis and observation (Stark & Torrance, 2005; Yin, 2009). For this reason, I choose to utilise documentary analysis, questionnaire and one-to-one interview as the most fitting research methods to gather information for this project. Each of the instruments used in this research project had been carefully chosen to maximise the amount of relevant data collected within the limited time frame available. Detailed justification for choosing each of these methods was provided in the subsequent sections of this chapter.

The literature however criticises this choice of research methods because overly empiricist analysis will result to findings that are locked into the 'here-and-now' of the participants' perceptions (Stark & Torrance, 2005). This criticism however supports my decision to use these methods for data collection as this research study is focused on investigating the teachers' perceptions of the impact of professional development on their practice.

Documentary analysis

Documents are defined as written texts (Cortazzi, 2002). Documentary analysis was chosen as one of the research instruments for this case study as it was an unobtrusive method that provided stable data that can be reviewed repeatedly (Yin, 2003). This research instrument also has the advantage of providing broad coverage of information on professional development experienced by the teachers in the school investigated (Hall, 2009; Yin, 2003). In addition, I also found that the use of document helped to verify some of the spelling for some of the professional development programmes attended by the teachers that were mentioned during the interview sessions. This supported Yin (2009) assertion that documents are very helpful in verifying correct spelling and titles and also able to provide specific details to validate information from other sources. The documents analysed were:

1. The Education Review Office Report (ERO) 2010

2. The Literacy Leader Report (2010-2011), and

3. The Numeracy Leader Report (2010-2011)

In choosing document analysis as one of my research instruments, I was completely aware of its major weakness, which is low retrievability (Yin, 2003). With this problem anticipated earlier in my research design, I had included in my information sheet for the school the details of documents that I needed access to for the purpose of this research study. By being clear with the specific documents that I required and the school principal's agreement to accommodate my request, I believed that I had overcome the risk that access to such documents may be deliberately blocked.

Questionnaire

According to Verma and Mallick (1999), a well constructed questionnaire is an economical data collection instrument that has the advantage of providing the answers to the research questions. I realised that it would be almost impossible for me to interview all the teachers in the school studied due to various reasons. The

most critical issue is the time factor; it would be difficult for me to arrange interview sessions for all the teachers at a time that is convenient to both parties as this research project has to be completed within the set period of time.

Designing and developing a good questionnaire can be a very challenging activity especially for a novice researcher (Hinds, 2000). It requires considerably a lot of time in the planning and preparation stage (Cohen et al., 2007). In deciding on the best questionnaire design to fit the purpose of this research, Verma and Mallick (1999) cautioned that researchers need to consider the function of the research instruments that are used in the data collection process. They asserted that researchers need to decide whether the use of questionnaire in a research is to supplement or complement the other instruments used.

I chose to use self-administered or self-completion questionnaire (refer to Appendix Four) as the second research instrument because it is quick to administer (Bryman, 2008) and potentially has higher percentage rate of return if well-planned. My decision was also influenced by Bryman's (2008) claim that self-completion questionnaire in many ways is similar to structured interview. The only difference is that the former does not require the presence of an interviewer. Bryman (2008) however cautioned that researchers need to make sure that the self-completion questionnaire has to be easy to be completed by the respondents by themselves. As I intended to use questionnaire as the research instrument to gather baseline information of the teachers' overall perceptions of the impact of teachers' professional development on teaching practice, and then conduct five semi-structured interviews to gain better understanding of the research topic, it is clear that questionnaire for this research study was designed and consequently used to supplement the data gathered from the interviews sessions.

For the purpose of this research, I chose to use semi-structured questionnaire. For the semi-structured questionnaire, I decided to use a combination of closed and open-ended questions. There were two sections in the questionnaire. The first section required the respondents to answer a number of questions that elicit some

information on their background such as their age and the length of teaching experience. The second section of the questionnaire comprised a combination of closed and open-ended questions that were designed to bring forth the respondents' responses on their experiences with the professional development programmes attended and their perceptions of the improvement to their teaching practice.

The closed questions were asked in the second section as it made it easier for the participants to complete the questionnaire as they were not expected to write at length (Bryman, 2008). My decision to ask several open-ended questions in the second section is well supported by the literature as being useful in the event where the answers to these questions are unknown and when rich personal data is sought (Cohen et al., 2007).

Furthermore, the use of open-ended questions also enabled the respondents to "write a free account in their own terms, to explain and qualify their responses and avoid the limitations of pre-set categories of response" (Cohen, et al., 2007, p. 321). This is well supported by Bryman (2008) who believes that open questions enable the respondents to answer in their own words. Finally, open ended questions were chosen for this research as it allowed honest, personal comment from respondents" (Cohen, et al., 2007). I have also tried to minimise the number of open question asked in the questionnaire as cautioned by Bryman (2008) that "people are often deterred by the prospect of having to write a lot". Being a novice researcher, I however struggled to find the right balance of the number of open and closed questions to be asked in the questionnaire without jeopardising the chance of gathering as much data as possible from the respondents.

The rationale for using a questionnaire

One of the main reasons for choosing to use a questionnaire in this research study is due to its convenience for the respondents. Teachers in general work in a very hectic environment. I believe that the use of a questionnaire helped to bring together as much information as possible from the teachers in the school investigated as they

were able to complete the questionnaire given at their own pace and time (Bryman, 2008).

In addition to its convenience, Cohen et al. (2007) explain that questionnaire provides anonymousity to its respondents; hence it encourages them to provide honest response to the questions asked. Moreover, the use of a self-completion questionnaire has the potential of eliciting bias-free responses compared to an interview. Bryman (2008) explains that the presence of an interviewer, for example has the tendency to cause respondents to exhibit "social desirability bias" (p.218) which will distort the reliability of data collected. Hence, the use of the questionnaire provided me sufficient base-line information that was further supplemented by data collected using the second research instrument that I had chosen.

Although I had decided to use a questionnaire based on the advantages discussed above, it is also important that the disadvantages of this research instrument were also discussed. One of the main weaknesses of having a questionnaire is that it did not allow a researcher to prompt and probe the respondents (Bryman, 2008) thus limiting the depth of data collected. As the questionnaire respondents remained anonymous, it was difficult for the researcher to identify the respondent to seek clarification if needed. The use of a questionnaire also limits the number of questions that can be asked due to the possibility of 'respondent fatigue' (Bryman, 2008, p. 219). This resulted to limited amount of data collected using this form of research instrument. To complement the weaknesses of questionnaire, the use of interview is seen as most appropriate to supplement the data collected.

In addition to the data collected to answer the research questions, Verma and Mallick (1999) stress researchers also need to collect biographical data from the subjects such as age, teaching experience, level of education received to substantiate the data collected. As the questionnaire respondents are expected to provide information on the number of years they have been teaching, this information will help the researcher decide on the sampling choice for the second data collection instrument.

Through the analysis of the data gathered from the questionnaire, potential respondents for the interview process can be identified. Although the use of questionnaire is often associated with a large scale survey, its application in a case study approach remains valid. Cohen et al. (2007) assert that it is possible to use a less structure and word based questionnaire to a small sized sample. The questionnaire forms were given to all teachers who have volunteered to participate in the research. The use of questionnaire helped me to form some ideas regarding the teachers' general perception of the relationship between teachers' professional development and their teaching practice.

Covering letters & follow-up letters

Questionnaire is the product of an elaborate process that involves a lot of thinking and anticipating possible responses that influence the researcher's choice over the types and number of questions to ask. The preparation of a questionnaire also extends to the preparation of information sheet (refer Appendix Two) and the covering letter (refer Appendix Four) that accompanied the questionnaire. The information sheet needs to provide relevant information regarding the purpose of the research. To ensure that all questionnaires were returned, I had included in the covering letter the specific date when I would come to collect the questionnaires completed.

Interview

Interviews are planned; pre-arranged interaction between two or more people, where one person is responsible for asking question related to the research topic while the other person is to respond to the questions asked (Lankshear & Knobel, 2004). There are different types of interviews that are commonly used to gather information. Qualitative interviews which are generally semi-structured or unstructured, of longer duration, and conducted one-to-one is the most suitable for this research as I wanted to get in-depth understanding of the research topic from the teachers' perspective (Bryman, 2008; Mutch, 2005). Moreover, a qualitative interview is believed to be the most appropriate research tool for this research project as it focuses more on the

interviewee's point of view instead of the interviewer's as practiced by quantitative researchers (Bryman, 2008).

In general, there are two types of qualitative interview; semi-structured and unstructured interviews. The use of semi-structured interview is suitable for researchers who know exactly the kind of information they wish to obtain from the interviewees (Lincoln & Guba, 1985, as cited in Cohen et al., 2007). It involves the use of an interview guide (refer Appendix Five). Bryman (2008) explains that an interview guide refers to the brief list of memory prompts of areas to be covered. Bryman (2008) further suggests that researchers use their research questions to help shape the interview questions in the manner that it appears to be significant to the research study. Unstructured interview on the other hand is described to be similar to a conversation (Burgress, 1984 as cited in Bryman, 2008).

As suggested by the literature, I chose to do an in-depth semi-structured interview as one of the research instruments as it allowed deep information to be collected (Hinds, 2000) from the participants interviewed. Cohen et al. (2007) for example state that one of the reasons of choosing interview for a research instrument is its ability to gather information that answers the research questions. The advantage of using a semi-structured interview is that it ensures enough amounts of data relevant to the research is collected whereas the unstructured interview, although it has the potential of generating a large amount of rich data, its relevance to the research is not guaranteed. Hence, due to the time restriction that I had anticipated to encounter during the data collection process, semi-structure interview appears to be the best option.

I was able to have all five interviews done on the same day. With the help of my contact person in the school study, we were able to arrange a schedule that allowed me to interview all five teachers during school hours while my contact person relief the classes of the teachers being interviewed. Although this had speed up the process of data collection, it also presented me with a problem. Since all the interviews were done back to back, I did not have the time to reflect on the interview

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process or to check of the depth of data gathered to see if adjustment was necessary.

QUALITATIVE DATA ANALYSIS PROCESS

Qualitative data analysis involves organizing, accounting for and interpreting the data; in short, making sense of the data in terms of the participants' definition of the situation, noting key features, relationship, pattern, themes, categories, and regularities (Cohen et al., 2007; Lankshear & Knobel, 2004). In addition, Lofland, Snow, Anderson and Lofland (2006) described qualitative data analysis as inductive in nature. This is supported by Bryman (2008) and Yin (2009) who both suggest that analytic induction as one of the best approaches to qualitative data analysis.

Analytic induction is "an approach to the analysis of data in which the researcher seeks universal explanations of phenomena by pursuing data collection until no cases that are inconsistent with a hypothetical explanation (deviant or negative cases) of a phenomenon are found" (Bryman, 2008, p. 539). Bryman (2008) explains that as this approach is described as iterative, it can also be described as strategies for data collection. Bryman (2008) further asserts that "data collection and analysis proceed in tandem, repeatedly referring back to each other" (p.541). In short, data analysis is simultaneously conducted with data collection, data interpretation and narrative reporting writing through an iterative, recursive and dynamic process (Ary et al., 2006; Creswell, 1994).

There are three key stages to analysing qualitative data; 1) familiarisation and organisation, 2) coding and recoding, and 3) summarising and interpreting. Before qualitative data can be analysed, it is important that the researcher be comfortable with the process. Lofland et al. (2006) assert that "researchers are the central agents in the analysis process" (p.195). Qualitative data analysis is a process that requires that the researcher be comfortable with developing categories and making

comparisons and contrast (Creswell, 1997), which is the first stage of data analysis. Creswell (1997) suggests several points to guide qualitative data analysis (p. 153). He quotes Marshall and Rossman (1989, as cited in Creswell, 1997) who explain that qualitative data is analysed using 'reduction' and 'interpretation' where the enormous amount of information collected is reduced into certain patterns, categories and themes to generate meaning (Huberman & Miles, 1998). This reduced information is later interpreted using some schema.

This is echoed by Huberman and Miles (1998) that have also identify data reduction as one of the main components of data analysis process. I was aware that the qualitative nature of this research has the strength to enable enormous amount of data to be collected. Hence, the research questions were used to guide the data collection process for the purpose of achieving data reduction, which is essential for data analysis (Creswell, 1997; Huberman & Miles, 1998).

Analysis of data collected from documents

For the purpose of this research, I had requested copies of the school's professional development policies and the teachers' job description. The rationale for doing this is for me to develop general understanding of the professional development programmes experienced by the teachers and its relevance to the teachers' needs. Plummer (1983, as cited in Wellington, 2000) asserts that at the exploratory stage, documents help to highlight key issues or problems in the field investigated. The study of the documents retrieved from the school allows the research questions to be clearly articulated (Wellington, 2000) and helped me refined the interviews questions. In addition, the study of the documents at the complementary stage of the research enriches the data collected from the in-depth interviews conducted (Plummer, 1983 as cited in Wellington, 2000).

The documents obtained from the school were studied as I searched for meanings. The documents were studied and analysed as 'socially situated products' (Scott,

1990 as cited in Wellington, 2000). Documentary analysis relies on the researcher's ability to accurately interpret the documents (Wellington, 2000). Documentary analysis involves making interpretive understanding of the documents where deep understanding and interpretation of the documents, or its connotation (Wellington, 2000).

I also referred to the framework for exploring and analysis documents highlighted by Wellington (2000). The author suggests that when doing a literal reading of a document, it should be examined of the context, authorship, intended audiences, intention and purposes, vested interest, genre, style and tone and finally, presentation and appearance.

Analysis of data collected from interviews

Before spoken data can be analysed it must first be turned into written text or transcripts and organised (Lankshear & Knobel, 2004). I decided to personally transcribe all the interviews to become familiarised with its content. Once the interviews were transcribed, the transcripts pages were numbered for easy retrieval. For the purpose of this research, the use of verbatim transcript, which is a very detailed recording of the participant conversation, is not required. The transcripts were then emailed to the respective teachers for checking. The teachers were informed that I would assumed they were satisfied with the content of the transcripts and proceed with the next stage of the research if I did not get any feedback from them after two weeks. In addition, I also had notes written in the margins of the transcripts indicating key ideas as suggested by Ary et al. (2006).

The second stage of data analysis is 'coding'. Lofland et al. (2006) state that coding is "the process of sorting your data into various categories that organize it and render it meaningful from the vantage point of one or more frameworks or sets of ideas" (p.200). As suggested by Bryman (2008), coding needs to be done as soon as possible as it "sharpen your understanding of your data" (p. 550). Ary et al. (2006)

suggest the use of a framework for analysis, referring to the set of concepts identified from the literature that are used as codes. Once the categorical analysis done, I was be able to identify emerging categories where items with similar coding will be placed together. From there I began to explore the relationship between the different categories and identify the major themes that have emerged (Ary et al., 2006).

The third stage of data analysis is summarising and interpreting. Summarising is about making connection between the themes to create a story. Ary et al. (2006) recommend the use of visual representation of the patterns or relationships observed. The two common strategies for summarising and interpreting qualitative data are constant comparison and negative case analysis. For the purpose of this research, the use of constant comparison method is chosen. Interpreting data is about reflecting about the words and acts of the researched respondents and abstracting their world understanding of the research. At this stage of data analysis, the researcher as an individual plays a very important role. Ary et al. (2006) explain this by saying that "the quality of the interpretation depends on the background, perspective, knowledge, and theoretical orientation of the researcher and the intellectual skills he or she brings to the task" (p.500).

RELIABILITY AND VALIDITY

Researchers need to be cautious of the validity and reliability of the data collected. Cohen et al. (2007) argue that "reliability is a necessary but insufficient condition for validity in research; reliability is a necessary precondition of validity; and validity may be a sufficient but not necessary condition for reliability" (p. 133). The notion of validity in qualitative research is discussed by Cohen et al. (2007) who argue that since qualitative research in essence differs from quantitative research, the term 'validity' which is synonymous to quantitative research should be replaced with the term 'understanding'.

The term validity in qualitative research is suggested to be used in connection to the accounts instead of the data or methods used in data collection (Hammersly & Atkinson, 1983, as cited in Cohen et al., 2007). Hence it is most important for qualitative researcher to be honest in reporting the findings of the research. Cohen et al. (2007) assert that greater validity for interview can be achieved by minimising the amount of bias as much as possible. Lansing et al. (1961, as cited in Cohen et al., 2007) defined 'bias' as "a systematic or persistent tendency to make errors in the same direction, that is, to overstate or understate the 'true value' of an attribute" (p.150).

While engaging in data analysis, there is opportunity for researcher to maximise the validity of the data collected. Cohen et al. (2007) explain that the use of respondent validation, avoiding poor coding of qualitative data, avoiding making inferences and generalisation beyond the capability of the data will help researchers to maximise the validity of data gathered. Furthermore, Cohen et al. (2007) argue that as the field of qualitative research acknowledges the uniqueness of certain phenomena, the term reliability as used in quantitative research which generally refers to the possibility of replication is viewed as inappropriate. Instead the authors suggest that reliability of a qualitative research to be regarded as "a fit between what researchers record as data and what actually occurs in the natural setting that is being researched, i.e. a degree of accuracy and comprehensiveness of coverage" (Bogdan & Biklen, 1992, as cited in Cohen et al., 2007, p.149).

Triangulation

To ensure the validity of data collected in qualitative studies it is a common practice for researchers to use methodological triangulation. According to Cohen et al. (2007) triangulation refers to "the use of two or more methods of data collection in the study of some aspect of human behaviour" (p. 141). For this research study, I chose to use three research instruments; document analysis, questionnaire 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 et al., 2007).

ETHICAL CONSIDERATIONS

"Ethics is concerned with ensuring that the interests and the well-being of people are not harmed as result of the research being done" (Lankshear & Knobel, 2004). Bogdan and Biklen (2003) suggest several guidelines to conducting a qualitative research:

- Avoid research sites where informants may feel coerced to participate in your research

- Honour your informant privacy

- Provide information necessary

- Unless otherwise agreed to, the identities of the research subjects need to be protected.

- Treat subject with respect and seek their cooperation in the research.

- In negotiating permission to do the research, the researcher needs to make the terms of the agreement clear and that she will abide to that contract.

- To tell the truth when writing and reporting the findings.

This research study complied with the ethical requirements of Unitec Research Ethics Committee (UREC) in the following ways:

- The use of information sheet to provide participants information pertaining to this research study (refer to Appendix 1)

- The use of consent form for the participants who were interviewed (refer to Appendix 5)

- Participants are encouraged to have the interview transcripts checked and verified before it is used as a data in this research study

- The identities of the participants were not revealed in this study. Instead, a special code was assigned to each of them to protect their true identity

Ethical issues in gaining access and acceptance

The first stage of data collection is to gain access to the school. Cohen et al. (2007) explain that a researcher may face difficulty in gaining access hence greater preparation is advised. This is a case study of one primary school that has agreed to participate in the research. I was introduced to the school's principal through a network of friends. I used the information sheet detailing information on this research study when I approached the school principal to invite the school's participation. In that meeting, I assured the school principal that the information gathered will be kept confidential and I also promised him that I would abide to all the terms agreed before proceeding with the data collection process.

In addition to the information sheet, I also used consent forms that were given to all research participants. Wilkinson (2001) explains that there are two types of consent; voluntary consent and informed consent. Voluntary consent refers to consent obtained without coercion while the latter refers to the respondents having adequate knowledge and understanding of the research (Wilkinson, 2001). The rationale for using consent form is to stress on the importance of respecting the autonomy of the research subjects (Wilkinson, 2001).

Summary

This chapter has outlined the qualitative approach to the research study on a group of primary school teachers' perception of the impact of professional development on their teaching practice. By using a qualitative methodology it has enabled a rich, deep and analytical approach to be adopted. Data instruments include document analysis; questionnaire and one-to-one interview were described with details of data analysis of each method employed. Issues of the reliability and validity of the findings gathered from this research study were addressed. These methods have been triangulated in order to provide research rigour to the design and analysis of the study. Finally, ethical considerations have been addressed and discussed.

CHAPTER 4

REPORT OF FINDINGS

Introduction

This chapter presents the findings of this research under the heading of each research method employed. The document analysis provided data on the school background and demographic. The questionnaire completed by all the teachers gives information on the participants' teaching and professional development experiences. Finally the semi-structured interviews conducted reveal the key findings of this research study.

DOCUMENT FINDINGS

Education Review Office (ERO) Report

The school chosen as the case for this research study is a small full primary school located in West Auckland. It has 282 students enrolled in 2011 with six of them being international students. The information obtained from the school's Education Review Report (ERO, 2010) published in June 2011, shows that the students come from multi-cultural backgrounds, with majority of them coming from either Māori or Pasifika families (see Table 4.1).

Table 4.1: Students' ethnicity composition

Ethnicity	Percentage (%)
Māori	26
NZ European/Pakeha	22
Samoan	18
Other Pacific	10
Asian	16
Other	8

Due to the diversity of its student's population, this school received support from the Ministry of Education as mentioned in the report:

> *The school receives additional support from the Ministry of Education to help these students gain language skills* (ERO, 2010)*.*

In addition, the ERO Report also highlighted the fact that this school had been making improvement in the quality of education provided to its students. The report stated:

> *Teachers know their students very well. They have improved their assessment of student learning in reading, writing and numeracy so that they can make sound judgements about student progress and achievement* (ERO, 2010).

The ERO Report also noted the impact of whānau groupings done at the beginning of 2011. The re-organisation of the school into Year 1-8 whānau groups had *"support teachers to work in teams to share their professional knowledge and skills and improve their classroom teaching"* (ERO, 2010).

The Literacy and Numeracy Leader Reports

For the year 2010 and 2011, the teachers in the school being studied responded that they experienced a variety of professional development particularly in the areas related to the revised New Zealand Curriculum. Since the introduction of the National Standards in late 2009, the professional development arranged for the teachers had been more focused on the literacy and numeracy areas of the revised New Zealand Curriculum.

The school's Literacy Leader Report 2010 revealed that in the year 2010, the teachers had been involved in professional development programmes conducted by external providers such as the English for Speakers of Other Languages (ESOL) Professional Development and Literacy Professional Development Programme (LPDP) contract. At present, the school is involved in the professional development programme on the 'Assessment for Learning' while at the same time still continuing with the ESOL Professional Development from the previous year.

As for its numeracy programmes, the school had focused on modeling and or coaching as one of its main approach of professional development for its teachers. The Literacy and Numeracy Leader Reports also noted the use of Professional Learning Community (PLC) to provide professional development for teachers in the school studied.

QUESTIONNAIRE FINDINGS

The questionnaire completed by thirteen teachers in the school studied provided information of the school's teaching staff age and teaching experiences (see Table 4.2 and Table 4.3).

Table 4.2: Teachers' profiles

Teachers' age	Number of teachers
20-30 years old	1
31-39 years old	3
40- 49 years old	3
50-59 years olds	5
Above 60 years	1
Total	**13**

Table 4.3: Teachers' teaching experience

Teaching experience	Number of teachers
Less than 5 years	5
5-10 years	2
11-20 years	2
More than 20 years	3
Total	*12

(Note: One teacher did not provide information on his/her teaching experience)

The information obtained on the teachers' age and teaching experience as presented in Table 4.2 and Table 4.3 suggests that the school has a balanced number of experienced to new teachers.

Teachers' professional development experiences

Table 4.4 below lists the different types of professional development that the participants in the school studied had experienced in the past two years.

Table 4.4: Teachers' professional development experience

English for Speakers of Other Languages (ESOL) courses

Behaviour management course

Literacy Professional Development Programme (LPDP)

Assessment for Learning

Postgraduate courses

Nine of 13 participants were involved in professional development programmes that focused on the literacy and or numeracy areas. Similar number of participants was also involved in professional development programmes that focused on the instructional methods while nine participants had taken part in professional development with focus on student assessment. Finally, three of the teachers in the school studied had attended post-graduate courses in the past years.

Teachers' assessment of their practice

All 13 participants indicated that they used self-reflection as the main method of assessing the impact of professional development experienced on their teaching practice. In addition to this, 10 of them pointed out that they used the feedbacks received from classroom observations to help assess their own practice. Nine out of 13 participants also indicated that they used students' assessment or improvement in students' performance to gauge the improvement in their own practice. One participant further indicated that professional dialogue had helped with her self-assessment of her teaching practice (see Table 4.5).

Table 4.5: Teachers' assessment of their practice

Methods of assessment	Number of teachers
Self-reflection	13
Feedback from classroom observation	10
Students' assessment and improvement in students' performance	9
Professional dialogue	1

In relation to the variety of professional development made available to the teachers in the school studied, 12 out of 13 participants responded that they believed that their profession development experiences had some impact on their teaching practice. 11 participants described their overall experience attending various professional development programmes as either 'meaningful' or 'most meaningful' to them. Overall, the participants responses indicated that the majority of the teachers in the school studied believed that their professional development experiences had helped improved their practice.

The responses gathered from all participants also concluded that they were

motivated to practice the knowledge and skills learned from the professional development programmes attended. However, despite the overall positive feelings associated with their professional development experiences, the participants in the school studied also highlighted that they faced a number of challenges or difficulties. All the participants noted that they experienced professional development initiative overload. This is evident in the following quotes:

> *Too many different types of PD. I wasn't able to really get 'teeth' into one before I was loaded with another. Often the focus area is considered by the PD facilitators to be the only thing that we teach – the reality is, we have to be generalist* (TQ-8)

> *Overload. Lack of time to embed. Too many initiatives at once* (TQ-9)

The participants' responses suggest that all of them believed that they experienced professional development overload. This is a significant finding which will be further investigated and discussed in Chapter Five.

Sustaining changes made in teaching practice

10 out of 13 participants agreed with the statement that they were able to sustain the changes made to their teaching practice. Two participants on the other hand expressed their disagreement with the statement given. In addition, one participant indicated a neutral response to the statement. Although a majority of the participants indicated that they were able to sustain the changes made to their teaching practice, they all still had some concerns over it. The participants responded that t there appeared to be a lack of continuity and follow-up for the professional development programmes experienced. As a result, the participants believed that this had contributed to their inability to sustain some of the changes made to their practice. As one participant had commented:

Lack of follow up and ways to sustain and consolidate new ideas or knowledge   (TQ-2)

INTERVIEW FINDINGS

The following are the major themes that emerged from the interview sessions conducted with five participants in the school studied.

Teachers' assessment of their own practice

When asked of the methods used to assess their own teaching practice, the participants reported that they often reflected on their teaching practice as a way to further improve it (*see table 4.5*). This is evident from a comment made by one of the participants:

> *… can it make me a better teacher in the classroom. Does it hone my practice? Does it make it more effective for the children? Does it have more focus for the children and what they need? That's how I would measure the success of it* (TI-1)

In addition, one participant stated that due to her being in the senior teacher range, she had to provide support for other teachers with less teaching experience. By doing self-reflection, the participant believed she was able to share some of her successful teaching strategies with other teachers. She explained:

> *It makes you stop and think about the most relevant thing that you do, so it does make you reflect more on your teaching...so even by supporting somebody, it helps my own development* (TI-2)

The participants further indicated that they also assessed their practice from the

students' responses to their lesson. As one participant commented:

"I think a lot of it is how your class respond to your lesson. You know your students really well and you see those changes that might be" (TI-3)

The participants also stressed on the importance of classroom observation. They noted that the feedback they received from classroom observation had also helped them to assess their own practice. One participant said:

We have classroom observations, where people that are the leaders come in and observe you and they give you feedback. That can be quite useful. I had that at the beginning of the year. She gave me some really good feedback and I've been quite conscious since then... (TI-3)

Teachers' perceptions of the impact of professional development

The overall finding of the teachers' perceptions of the impact of teachers' professional development experience on their teaching practice is presented in Table 4.6 below:

Table 4.6: Teachers' perceptions of the impact of professional development on their practice

- Learning to try new and or different approaches to teaching
- Be a more reflective practitioner
- Be able to develop better content knowledge
- Keeping-up with external forces
- Be more confident with their teaching

1. learning to try new or different approach to teaching

    I think it's just learning to be more open to try new things and trying something different (TI-1)

2. being more reflective practitioner

    …if it is writing for instance, looking at your children writing book, it's an immediate feedback for you. You can see that strategy worked. They're organising their ideas better now…I've got that message home (TI-3)

3. being able to develop better content knowledge

    The resources developed by the Ministry, for example the resources on NZ Maths, English Online help me developed that content knowledge and it's just amazing (TI-4)

4. keeping up with the external forces that resulted to changes in teaching

    There are all sorts of different aspects to being a good teacher. I definitely think that we have to keep active in what's happening and to do that you do need to continue studying…it helps you remain critical and have some confidence (TI-5)

In addition, the participants also believed that professional development was necessary to keep with the changing nature of the students that they have. One of the comments made by the participants was:

I think the ways that children learn now has changed…you've got to change with the time. I do see that keeping up with current research has made an impact on the way I deliver things now and that it turn has impacted on the students' motivation to learn because it is not the same old same (TI-1)

5. being more confident with their teaching

*By continuing to study, it helps you remain critical and have more confidence in yourself (*TI-5)

Factors that influenced teachers' perceptions

In this section, the participants' comments in relation to their perceptions of the impact of professional development were further investigated to identify the factors that had influenced such perceptions. The factors identified as having some effects on teachers' perceptions of their overall professional development experience were listed in Table 4.7 below:

Table 4.7: Factors that influenced teacher perception

- Professional development that address teachers' needs

- Realistic time frame

- The forms of professional development experienced

- Teachers' motivation and commitment to improve their practice

Through the participants' comments, five key factors that are imperative to teachers' perceptions of effective professional development for teachers were identified and explained below:

Addressing teacher needs

All the participants reported that they perceived a successful professional development experience as one that addressed their specific needs. They reiterated that for a professional development programme to have any positive impact on teaching practice, it had to be tailored to the teachers' specific needs. The quote below is a representation of the comments made by the participants:

> *Just like the children, we all got different learning styles but the professional development 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 experience. So I think if it was individualised a bit more, it'd be good* (TI-1)

The participants further commented that they believed some of their professional development experiences in the past had been unsuccessful because they were not tailored to their specific needs. The failure to address teachers' specific needs in any of the professional development programmes was identified to result to frustration with their overall experience. The participants commented that although teacher needs analysis was carried out prior to having such professional development programmes, often they ended up experiencing something that was not suited to their specific needs. Their comments were:

> *When the external professional development providers come in, they will have a formula and yes, they certainly will talk to the teachers about what they feel their needs are. There will be survey done but at the end of the day, those external professional development providers will have a formula for what being provided to the school because they are providing to other schools as well and it becomes the PD industry and it's an industry* (TI-5)

> *…some of the PD that I've experienced was sort of done to me and it*

> *was sort of like a standard format and it might not necessarily fit with my*
> *group of children and so I will sift through if that idea will work with my*
> *children.* (TI-3)

As the participants had indicated in the interviews, meeting teachers' specific needs is the key to successful professional development. Due to its significance to this research study; this finding will be further discussed in the following chapter, Chapter 6.

Realistic time frame

Another factor identified to have influenced the teachers' perceptions of the effectiveness of their professional development experiences is amount of time given to assimilate the new knowledge into their teaching practice. A participant for example pointed out that she was expected to embed the new knowledge gained into her practice within a short period of time. She said:

> *Sometimes I feel like I don't have the time to actually consolidate the*
> *knowledge, or consolidate my new learning* (TI-1)

Similarly, other participants also agreed that professional development that is longer in duration would allow teachers more time to practice and to have the new knowledge embedded into their practice.

> *I think that it is really important when you do some new learning that*
> *you actually go away and put it into practice. It is about being*
> *downloaded with more stuff to try and more stuff to do. You don't get*
> *time to get that into your practice and that can be quite frustrating* (TI-2)

The participants interviewed also expressed their frustration with some professional

development programmes that they had experienced which they believed were being hastily done to them. A participant said:

> *The frustration is often over some ideas that you want to put in place and you don't have the time to get it embedded in your practice...* (TI-2)

The comment made by these participants indicated that time is an important determinant to successful professional development. Adequate time to practice the new knowledge and skill learned will result to sustained change in teaching practice. As sustainability is perceived to be the essence of effective professional development for teachers, this significant finding will be discussed in the following chapter.

The forms of professional development

The teachers in the school studied had experienced a range of professional development. In addition to the professional development programmes offered by external professional development providers, the participants were also involved in other forms of school-based professional development programmes such as mentoring, coaching, professional learning communities. Some of them had also completed some level of postgraduate studies on their own.

The participants provided mixed responses when asked of their professional development experiences as they said it very much depended on the types of professional development programme that they had. For this reason, the participants' experiences from these various forms of professional development programmes were compared to establish if its form had any impact on teachers' perceptions of its impact on teaching practice.

One clear finding that emerged from this study showed that the participants indicated their preference for school-based type professional development over the programmes arranged by external providers. The participants noted that it would be

best if the experts at school level were involved in providing other teachers with professional development as not only it empowered them but it also helped to stretch the school financial resources longer. They said:

When we had a lot of external PD, I think that it disempowered people. I think they (the teachers) lose confidence in themselves, that they are capable. They don't need to have somebody from the outside saying 'this is the way you do it' because it just make them inactive or passive (TI-5)

I think there is value in school actually utilising the resources that they have in school first. They should try and seek whether they have that sort of expertise in school first. Far too often, too many schools go out and seek external parties to come in and provide the PD. I believe that the money paid to them could be better utilised by actually providing support and that sort of encouragement for people within the school (TI-4)

Moreover, the majority of the participants also said that they believed they gained more from school-based professional development as it gave them the most opportunities to learn from each other. For example, some of the participants noted that they learned most through modeling and coaching as compared to attending training or workshops organised by external providers. The participants' comments were as follow:

With co-teaching and modeling, I'll get a lot out of it as oppose to observation of me. Observations are quite valuable...but for me, I feel that I get more out of it if it's co-taught or modeled and then we have a dialogue about it afterwards. That just seems to work for me (TI-3)

I prefer the sharing of ideas. The actual PLC talk thing where you can

say "I did this and this is what happened". It's the collegial discussion about things. We can learn a lot from each other even if we have been teaching for ages. (TI-2)

The participants also pointed out that one of the advantages of having professional dialogue amongst colleagues was being able to sustain the changes made to teaching practice. They said:

I think professional dialogue helps me sustain the changes made to my teaching practice. Even talking in a group or with another buddy teacher asking 'How are you doing?' and 'What works for you?'...It keeps me going and motivates me because I know they have done it and it really works for their kids (TI-2)

…I really like if it's somebody leading from our school like for instance xxx and xxx because I get the dialogue going on. Like for example I might go home and think about something and I'll go back to them and that's immediate feedback the next day. Whereas sometimes with external facilitators, you can't do that. There's a gap and you can have that robust conversation (TI-3)

Overall, the participants indicated that they preferred school-based professional learning as they were able to get immediate feedback from their colleagues. In addition, the professional learning experienced was perceived to be more relevant to them as it was specifically designed to target the students that they have in the school. In addition, the participants indicated that change in teaching practice is easier to sustain through school-based professional development. This key finding will be discussed in detail in Chapter 5.

Teachers' motivation and commitment

Responses gathered from the participants showed that they were very motivated to improve their teaching practice and this was evident from their comments. As one teacher responded:

> *…for instance the ESOL, where I was looking for to really improve my practice because it lacked continuity. It wasn't as effective as I think it could have been but I do reflect. I do change and I try things. My colleague is doing ESOL papers ... and I asked her. So I tried things that she told me or she even modeled for me* (TI-3)

The participants also noted that they have strong motivation to participate in any form of activities that can enhance their knowledge and skills. In addition, the participant responded that they are more motivated to participate in professional development that is focused on the improvement of student learning. The responses gathered suggest that this type of professional development is perceived to be most effective in changing their practice. The participants for example explained:

> *It is just a personal interest of me to do some work on literacy and what hinders the progress of children in their literacy and acquiring literacy skills. So that's a personal area that I'll like to become a bit more skilled in and maybe help with some programmes, developing some programmes across the school but I need to go and do some PD myself* (TI-1)

> *I do look for opportunities to learn from my colleagues. Particularly if it's something I'm interested in like ESOL. We've got a lot of ESOL children and I wasn't getting as much as I wanted from the contract, mainly due to scheduling more than the facilitator wasn't up to it or anything* (TI-3)

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THE CHALLENGES AND DIFFICULTIES

All the participants interviewed highlighted some of the challenges or difficulties faced in relation to their professional development experiences. Table 4.8 below lists all the challenges and difficulties faced by the participants.

Table 4.8: The challenges and difficulties

The challenges and difficulties
• Creating more opportunities for school-based professional development
• High cost
• External professional development overload
• Sustaining changes made to teaching practice

Creating more opportunities for school-based professional development

All the participants agreed that their professional development experiences had a positive impact on their teaching practice. They also identified professional dialogue and professional learning communities (PLC) as important forms of professional development where they can share best practices with each other. However, the participants raised some concerns that they had, for example the lack of opportunities to engage in such activities in the school being studied. The participants aimed that they had problem finding suitable times to formally meet and discuss issues related to their practice with their colleagues. As one participant

pointed out:

> *The PLC, it was scheduled once every fortnight but things crowded in. But when we had it and being quite focused on it and keeping to the timetable, it has been quite helpful. But it's just that. Again in schools, things crowded out but when we had it, it was really useful* (TI-3)

The participants further highlighted some of the barriers identified as limiting the opportunities available for teachers to engage in more school-based professional development. The biggest barrier identified is time. This is evident from the following quotes:

> *It's still though because you still got to be in your own classroom, unless you can get somebody to look after your class to do that. So, that's quite difficult* (TI-3)

> *...there isn't time for teachers to go and do their extra study without the added pressure of being a classroom teacher and all that sort of stuff* (TI-4)

This key finding will be further discussed in the following chapter.

The high cost

The participants were well aware of their specific professional development needs. As they feel that their professional development experiences failed to address their need or their students' needs, some of the participants have made it an effort to fill that gap elsewhere. This is evident from the teachers' comments that they made the effort to seek some forms of personal professional development in the areas they need to help them do their jobs better.

Some of them also expressed their intention to apply for study award to pursue postgraduate qualification while some other participants mentioned the high cost of having professional development that addressed the issues that they have with their teaching practice. It became very clear that the cost of having professional development that addresses their specific needs had impeded them from having such experience.

> *Unlike the ESOL or the study scholarship, it's very carefully weigh up because of the cost. Since our money situation is quite critical, so I'm always conscious of that. So I haven't been on many courses lately because of the money consideration. It can be quite a barrier too* (TI-3)

However, stress arises when the teachers commit themselves into some form of professional development own their own. The teachers relate that they are often faced with various obstacles during the course of the professional learning undertaken. Among the most common obstacle faced by the teachers is the fact that they struggle to find the balance between work and their studies.

External professional development overload

The participants reported that they are currently being overloaded with various external professional development initiatives. This is evident from the following quotes:

> *We have been bombarded by tremendous amount of external PD because we have been a school that has a falling decile rating... I think there are many low decile schools just like us, coming from students from low-socio economic situation that we are all in the same boat. We*

are doing the best we can. We need the support but the PD has been packaged and dumped on schools (TI-5)

Making sure we have bits of everything, it gets too sort of haphazard. We need a really good block. If it's just literacy and that's all we do and it's scheduled and there is a real focus and you sort of immersed in it (TI-3)

Moreover, the participants expressed their frustration of being overloaded with professional development. The following comment is a representative of the participants' view of the issue:

… the fact that you might be doing or receiving some PD and get lots of ideas and strategies that you would like to try. But if you don't have the time to consolidate it and to actually go and try it before you are given a whole new package of strategies, you sort of become overwhelmed (TI-2)

A deeper investigation of the teachers' perception of experiencing professional initiatives overload further revealed that it was particularly felt as they work with ESOL students. In addition to this, one participant highlighted a dilemma faced by the school in relation to its professional development decision. She said:

For a school like ours, we would be directed to be taking up these PD opportunities also if they were offered because there is a lot of money tied in them. We do not have to take them all but ...we've done lots on numeracy and literacy in this school. We have to because we know our children. So if we say 'No. We are not going to do it', we'll be left behind and the problem will escalate (TI-1)

Sustaining changes to teaching practice

Another finding on the challenges or difficulties faced by the teachers is the time factor. As reported earlier in the finding from the questionnaire completed, the participants believed insufficient amount of time given to them as the key factor that affects their ability to sustain changes to their teaching practice.

> *One thing I find with PD is that sometimes we don't get time to consolidate it. Yes, we have done it. We might try bits and pieces of it but we don't seem to have a review later on down the line to see how it's working for us* (TI-1)

The participants also mentioned the lack of continuity and follow-up in the review process which affected their ability to sustain changes to their teaching practice.

> *I like the sort of reviewing how we are going to sustain the changes over a period of longer time too. Not just of one quick thing* (TI-1)

> *There were very big gaps. So we have a bit of PD and then there would be a big gap, then have a bit of PD and then another big gap. The gaps were too long that you lost momentum. You get all enthusiastic and you want to transfer that into your practice but you sort of over time lost your momentum. You lost engagement because there was that lack of continuity* (TI-3)

Summary

The data collected from documents, questionnaire and interviews revealed that the group of primary teachers being studied in general believed that professional

development programmes had some impact on their teaching practice. The participants' views of their professional development experience and their perceptions of its impact on teaching practice will be discussed in the following chapter. Analysis of the findings also identified three key issues; creating more opportunities for school-based professional development, professional development overload and sustaining changes to teaching practice. The following chapter will now consider the significance of the findings in relation to the literature.

CHAPTER 5

DISCUSSION OF FINDINGS

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 impact of professional development on teaching practice, the key findings, the features of effective professional development, and the challenges and difficulties faced by the teachers.

THE IMPACT OF PROFESSIONAL DEVELOPMENT

Finding from the questionnaire suggests that the participants in the school studied believe that their professional development experience has a positive impact on their teaching practice. This finding is supported by several authors (Hustler et al., 2003; Gabriel et al., 2011) who affirm that most teachers are satisfied with their professional development experiences. Finding from the interviews further discloses that the participants believe that their professional development experience has affected their practice in five ways (see Table 4.6).

These findings concur with the findings of the literature base reviewed (Hargreaves & Goodson, 1996; Powell et al., 2003; Harris et al., 2010; Borko, 2004; Grundy & Robison, 2004; Kwakman, 2003; Buczynski & Hansen, 2010). From the findings, it is clear that teachers' professional development experiences have immediate and long-term impact on their teaching practice. This is supported by Powell et al. (2003) who highlight that teachers' professional development experiences have both immediate

and long-term impacts on their practice. The impact of teachers' professional development on teaching practice is discussed below.

These findings show that teachers need to experience professional development as it has some impact on teaching practice.

Being more aware of one's teaching practice

As the participants experienced numerous amount professional development programmes either arranged by school or done personally, all of them reported that they had constantly reflected on their teaching to assess its impact on their practice. This is evident from the responses gathered from the questionnaire and the semi-structured interviews. The participants indicated that as they often experienced standardised professional development, they usually had to adapt some of the strategies learned to meet their students' specific needs. This is generally achieved by reflecting on the students' responses to the lesson they just had.

As the teachers become more comfortable with the practice of doing self-reflection, they are able to quickly assess the effectiveness of the new teaching strategies that they have used in the classroom. This finding shows that professional development has a positive impact on teaching practice as it promotes the practice of self-reflection amongst the teachers. This is supported by Powell et al. (2003) who claim that teachers identify the ability to reflect more deeply on their practice as the immediate impact of professional development.

Professional development experienced by teachers enables them to continuously make self-assessment of their own practice. The teachers are more exposed to and have access to various teaching strategies and techniques that they are able to adapt to their students' needs.

Keeping up with the changes

The finding also suggests that the idea of a good teacher extends beyond the interaction with the students. Eraut (1995) explains that teachers as professional are obliged to review the nature and effectiveness of their practice to improve the quality of their management, pedagogy and decision making. As such, it is imperative that teachers continuously update their knowledge and skill to make their teaching more relevant to their students needs. This view is reinforced by Hawley and Valli (1999) who point out the changes taking place in the teaching profession. They argue that the nature of teaching has changed that now it is no longer about telling or transmission of knowledge. The authors further elaborate that this happens because, "the idea of teaching by telling is being replaced (or should be replaced) by teaching for understanding" (p. 132).

Similarly, other authors (Borko, 2004; Grundy & Robison, 2001) also believe that as the recent education reforms have placed more emphasis on understanding subject matter, teachers must now learn more about the subjects that they teach, and how the students learn these subjects. Moreover, the literature also notes that the continual deepening of knowledge and skills is an integral part of any profession (Boyle et al., 2004; Garet et al., 2001). Likewise, the group of teachers interviewed share a similar view on this matter. This finding is further substantiated by Kwakman (2003) who observes that it is important for teachers as professionals to constantly renew their knowledge base to keep up to date with all the changes taking place in the education systems worldwide.

The findings highlight the importance of professional development to the teaching profession. It allows teachers the opportunities to equip themselves with the knowledge and skills that are more relevant and current to match the changes that have occurred in the education system.

Boost confidence level

The finding from this research study shows that all the participants agree that their professional development experiences have helped them become more confident with their teaching. This finding concurs with the literature that professional development help boost teachers' confidence in relation to their teaching practice (Buczynski & Hansen, 2010; Harris et al., 2010; Powell et al., 2003). The finding shows that the participants were able to observe and learn from more experienced teachers from modelling and co-teaching. In addition, the Professional Learning Communities (PLC) put in place also allows teachers in the school studied more opportunities to discuss amongst themselves and to share their views with each other. Several studies (Guskey, 1995; Hawley & Valli, 1999; Helmer et al., 2011; Timperley et al., 2007) also confirm that collegial professional learning gives teacher the more opportunities to discuss their practice which eventually enhance teachers' knowledge and skills.

Overall, the findings of this research study suggest that teachers' professional development in the school studied has a positive impact on their teaching practice. The participants reported that as result of their professional development experiences, they had developed better teaching strategies, became more knowledgeable of the subject content and these experiences have eventually boost their confidence level.   In addition, as all the participants continuously work to improve their practice, they relate that they have become a more reflective practitioner and are keeping up with the changes that are taking place in the education system. These key findings are discussed in detail in the following section.

THE KEY FINDINGS

The barriers

In addition to the findings that are related to teachers' perceptions of the impact of professional development on their teaching practice, this research study also highlighted several factors that inhibited teachers from maximising their professional learning experience.

- Teachers' professional development experience seldom takes into account their individual learning styles, their existing knowledge and skills.
- Realistic time frame also plays important roles in creating meaningful professional development for teachers.
- Adequate support and feedback are imperative to sustain changes to their practice.
- Lack of coherence affects the effectiveness of professional development experienced.

The four factors as listed above are further discussed in the following section.

Addressing teachers' needs

Despite the overall satisfactory professional development experience, this research study also discovered that the teachers in the school studied were feeling a little apprehensive about some of the standardised professional development that they had experienced in the past. Responses made by teachers, for example having "*PD packaged and dumped on schools*" (TI-5) further suggested that teachers from school with a falling decile rating like the school studied needed more than a standardised professional development.

As reported earlier in Chapter 4, there was a strong consensus among the

participants that they needed professional development that is tailored to the school and teachers' specific needs (see Table 4.7). This finding concurs with the work of Hustler et al. (2003) where the participants in their research express that they experience some negative feelings mostly linked to the 'one size fits all' approach that fails to take into account the teachers' existing knowledge, experience and needs. This is further supported by Tohill (2009) who said that often a teacher's knowledge and skills are left untouched as the result of standardised professional development. The finding also highlighted that the teachers perceived that professional development that was tailored to the teachers, students and the school specific needs as more effective in changing teaching practice than standardised or pre-packaged professional development.

However, although the literature provides a strong advocacy for teachers' professional development to be designed to meet the teachers' specific needs, there are some authors who are opposed to such suggestion. Wayne et al (2008) for example contend that the consensus for teachers' professional development to be tailored to teachers' specific needs as lacking practicality. The authors argue that it is more costly to provide teachers with professional development that is catered to their specific need as opposed to having a standardised course as it involves having a mentor or trainer work together with the teachers in a particular school.

This research study discovered a major problem experienced by the participants in relation to the type of professional development that was most suitable for them. The advocacy for teachers' professional development to be tailored to their specific needs is often ignored as it is said to be more costly and lack practicality. The findings of this research study however had highlighted the participants wish for a more specific professional development to meet their need. The key to this problem is finding the right balance between meeting the teachers' need and cost and practicality aspects of doing so which will be further discussed in Chapter Six.

Realistic time frame and planning

The participants conveyed that they need sufficient amount of time to assimilate the new knowledge into their teaching practice. The participants responded strongly to the idea of having adequate opportunity to practice and get the new knowledge and skills embedded into their practice. This finding affirms to the work of Ball and Cohen (1999) who say that "teaching cannot be wholly equipped by some well considered body of knowledge" (p. 10). Instead the authors argue that "teachers would need to learn how to use what they learned about students' work and idea to inform and improve teaching" (p. 11). This is further reinforced by Feiman-Nemser and Remillard (1995) who stress that this knowledge is situated in practice; hence it must be learned in practice (as cited in Ball & Cohen, 1999).

Moreover, changes to teaching practice are difficult to sustain if the teachers are not given sufficient amount of time to consolidate the new knowledge and skills gained and to have it embedded in their practice (Garet et al., 2001; Timperley et al., 2007). The teachers claim that they need more time to reflect on their lessons and to assess their students' improvement before changes to their practice can be sustained. Consequently, the finding also points out the need to allocate more time for teachers to get the new knowledge and skills embedded into their practice before any form of evaluation is made.

This finding is well supported by the recent literature reviewed (Hawley & Valli, 1999; Helmer et al., 2011; Poskitt, 2005; Timperley et al., 2007). The research done by these authors identified time as one of the key factors to sustained practice. This leads to Birman et al. (2000) recommendation for teachers' professional development to extend over a longer period of time. Through the evaluation of numerous teachers' professional development that is contained in the BES, Timperley et al. (2007) arrive to the conclusion that teachers need to participate in longer professional development to effectively sustain more complex change to their practice. This suggestion is however contended by Wayne et al. (2008) who argue that prolonged professional development may have disruptive effect on student learning if it is to occur on school days.

The finding implied that proper planning was the essence of effective professional development. It also suggested that the duration of professional development experienced by teachers had to take into consideration the period of time they need to practice and consolidate the new knowledge and skills learned into their practice.

External professional development overload

As the students in the school studied come from a low socio-economy background with a high number of them is from Maori, Pasifika and Asian families (ERO, 2010), the participants tell that they have to put up with additional professional development in comparison to other higher decile schools in Auckland area. The participants believe that they experienced tremendous amount of external professional development because the school has a falling decile rating. Finding form the interview revealed that the teachers in the school studied were directed to take up the external professional development opportunities offered so as not to be left behind. This finding is well supported by Cardno (2005) whose research finding identifies the schools' fear of being left out as contributing to the reasons why teachers experienced professional development overload.

Although the literature is laden with advocacy for providing teachers with sufficient professional development opportunities to ensure successful reform (Borko & Putnam, 1995; Sykes, 1999), it does not mean that schools need to seize all of them. Instead, the finding showed that the participants believed that they were more successful with doing one professional development at one time and made that part of their practice before engaging in another type of professional development. This finding is supported by Guskey (1995) who has earlier cautioned that schools need to begin any given educational reforms by taking small steps. This suggestion means that professional development for teachers can be designed to target small areas in teaching that needed attention. This is echoed by Eraut (1995) who proposes that teachers' professional development to be planned over a period of time to keep its demands at a realistic level.

Overall, the findings of this research identified that the teachers experienced external professional development overload as the school was categorised as a falling decile school. They were made to participate in most of the professional development initiative to prevent from being left out. In addition, the finding also highlighted that despite the participants' wish for professional development to be designed to meet their specific need, there was a huge barrier to this. Since the school is a small sized primary school, it faced some financial constraints in providing the teachers with the specific type of professional development that they needed. This fact was widely acknowledged by the teachers in that school.

Support and feedback

The finding also highlighted the importance of support and feedback to enhance the effectiveness of teachers' professional development. The participant perceived that there were inadequate support and feedback in relation to the professional development that they had received. As a result, it had made it difficult for them to sustain the changes made to their teaching practice. The literature base reviewed suggests that the keys to sustained changes in teaching practice are having access to regular feedback by maintaining frequent contact (Guskey, 1995; Timperley et al., 2007). Likewise, Hawley and Valli (1999) recommend that changes to teaching practice are best sustained by having a continuous and ongoing professional development that involves follow-up and support for further learning.

Overall, the participants of this research study believed that their professional development experience would be more meaningful and effective in changing their practice if they were given more support and feedbacks. This shows that professional development for teachers is missing some crucial elements that it is not able to create sustained change. These missing elements will be addressed in Chapter Six.

Lack coherence

Changes to teaching practice are difficult to sustain when the professional development experienced lack coherence. Birman et al (2000) assert that coherence

professional learning experiences enable teachers to sustain the changes made to their teaching practice as it encourages continuous communication among teachers. Furthermore, the coherence of professional development experienced with other professional development experiences is linked to the improved teaching practice (Birman et al., 2000).

This finding further strengthens the argument for teachers' professional development to be tailored to teachers' specific needs as it matches the teachers' new knowledge with their existing knowledge. This in turn will create a more meaningful experience for them and later have a better impact in changing their teaching practice.

Effective professional development

Strong focus on student learning

Firstly, the findings from the questionnaire and interviews agreed that teachers ascertained the effectiveness of their professional development experience based on the benefit gained by their students. The finding also suggested that changes to teaching practice were more likely to be sustained if the teachers were convinced that their professional development experience helped to raise students' achievement. This finding is supported by Guskey (2002) who claim that teachers' perception of success is defined by the students' achievement. Hence, teachers need to be convinced that their students' learning has improved as the result of changes made to their teaching practice.

According to the participants, they usually assessed the effectiveness of teachers' professional development experience in helping to improve students' achievement through the practice of self-reflection and the assessment of student outcomes. The practice of self-reflection allowed the participants more opportunities to inquire into their own practice. This finding agrees with the assertion made by Hawley and Valli (1999) that professional development for teachers needs to have strong focus on student learning.

The finding further suggested that changes in teachers' practice and student outcomes need to be viewed as an iterative process as improvement in one area further reinforces changes in the other and that this process works both ways. Ball and Cohen (1999) point out the misconception of belief that teachers' practices change as a product of changes in curriculum, standards, and assessments. The authors also identify the need for carefully constructed and empirically validated theories of teacher learning that could inform teachers' professional learning. This is echoed by Timperley et al. (2007) who assert that to sustain the changes made to student outcomes as result of the change in practice, teachers' professional development needs to have a strong theoretical approach and the skills to inquiry into their own practice.

Collegial learning strategies

Another factor that makes an effective teachers' professional development is the strong emphasis on collegial learning strategies. Participants in the school studied shared that they perceived professional development that was focused on the sharing of ideas as effective in sustaining changes to their practice. The participants further elaborated that they highly valued the opportunities to share some of the best practices from their colleagues and identified observation of their colleagues in the classroom and also co-teaching for the most effective strategies for their professional learning. Furthermore, they explained that with co-teaching, their professional learning was maximised as it occurred in a more natural situation. This finding is supported by Boyle et al. (2004) whose longitudinal study on primary and secondary teachers across England identifies observation of colleagues and sharing practice as two of the most popular forms of longer-term professional development.

The participants explained that they learned more by sharing ideas amongst colleagues as they were able to keep the momentum going. A research conducted by Gabriel et al. (2011) on a group of exemplary American teachers on the factors that

influenced their professional development highlights that this group of teachers have a mentor or peer support network where they could both share ideas and reflect aloud. This finding supports earlier discussion, which highlights collegial type professional development as being the most preferred approach on the ground that it provides more on the job embedded learning opportunities as compared to the others (Kwakman, 2003). As job-embedded learning involves teachers learning in and from practice (Ball & Cohen, 1999) it makes it easier for meaningful change to occur (Sparks & Hirsh, 1997).

In light of this finding, the data collected from the questionnaire and the interview sessions however revealed that the participants felt that the opportunities to share ideas with their colleagues were often limited. The participants said that they struggled to find the right time for collective professional learning. Creating time for more collective professional learning as raised by the participants often requires the school to have the lesson or school time shortened. This practice however provides no solution to the problem faced. This is supported by Hargreaves (1994) who states that "while extension and reallocation of teacher time away from the class may indeed be conditions of increased collaboration and collegiality, they are not entirely sufficient in this regard" (p. 97).

Utilise the school's internal expertise

One of the key findings reported in Chapter 4 is the participants' preference for school based over externally provided teachers' professional development. When asked of their professional development experience, it became very clear that the participants sometimes experienced having it done to them as they described their experiences with externally arranged professional development. The teachers believed that the school should focus on utilising the teachers' pool of expertise before going to the external providers for help.

The participants' views are supported by the information gathered from the questionnaire completed. Data collected from the questionnaire revealed that two of

the teachers were completing a postgraduate course while one of the teachers had attained a Masters qualification. In addition to this, several of the teachers also have tremendous amount of teaching experience around their belts, each having been teaching for over than 30 years. The participants regarded this pool of expertise as invaluable to the growth of the teachers in that school. Timperley et al. (2007) support this finding as they identify most of the programmes that had no or low impact as the ones that involved external experts. They argue that:

> Experts need more than knowledge of the content of changes in teaching practice that might make a difference to students; they also need to know how to make the content meaningful to teachers and manageable within the context of teaching practice (p. xxix)

However, having said that the authors do not dismiss the benefit of having external expertise included in the teachers' professional development programmes. They explain that by consulting external experts, it brings new perspective and help in dealing with "prevailing dialogical norms" (Timperley et al., 2007, p. xxx).

Overall, the findings suggested that the participants' perception of effective professional development is heavily influenced by four factors: strong focus on student learning, and finally teachers' professional development that involves teacher input. Significant findings of this research study suggest that professional development that utilises collegial type activities is more favoured by the group of teachers involved in this research study. The reason for this is because the teachers perceived that they are able to get the support and feedback they need to sustain the changes to their practice. In addition, the finding also establishes that the teachers perceived their professional development as more effective if they were included in the process.

Summary

This chapter has provided a discussion of the research study findings with link to the relevant literature base in Chapter Two. The findings revealed that the teachers in the school studied have in general experienced positive professional development. The teachers' professional development experiences are also identified to have immediate and long term impact on teaching practice. The teachers' perceptions of effective professional development are influenced by several factors; finally, the research study also highlights the challenges or difficulties faced by the group of teachers in the school studied in relation to their professional development experiences. These challenges or difficulties identified by the participants linked to the final chapter – Chapter Six. The following chapter will also look at the research conclusions, some of the research limitations and also possible recommendations.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This final chapter reviews the aims and research questions, summarises the findings in relation to these. The main objective of this research study is to identify the teachers' perceptions of the impact of professional development on teaching practice. Limitations of this research are discussed and recommendations are made for more effective professional development experience for teachers. What follows here is an outline of the findings of this research in relation to the initial research objectives:

1. What are teachers' perceptions of the impact of professional development on their teaching practice?

2. What factors influenced teachers' perception of effective professional development?

3. What are the challenges and difficulties faced?

CONCLUSIONS

Teachers' perceptions of the impact of professional development on their teaching practice

This research study identified that teachers' professional development had a positive impact on teaching practice. This finding implies that professional development for teachers is important to ensure high quality teaching. In general, teachers' professional development is viewed as a platform for professional learning. As teachers develop better content knowledge through participation in professional development programmes, they become more confident with their own practice (Harris et al., 2010). The finding further revealed that teachers' understanding of the subject was enhanced through the sharing of ideas among colleagues and the constructive feedback given by others. Consequently, as the teachers developed better understanding of the subject, they were able to address the issues that their students faced with the learning (Fishman et al., 2003). This will result to better student understanding of the subject taught.

Professional development for teachers also enables teachers to become reflective practitioners as they become more aware and conscious of their own teaching practice (Desimone, 2009; Guskey 2000). Most importantly, teachers' professional development experience also allows them to keep up with the changes taking place in the education system and as a result ensures that their teaching practice remain relevant to their students' needs.

Factors that influenced teachers' perception of effective professional development

The literature base reviewed in Chapter 2 and the research study findings as reported in Chapter 4 concur that teachers perceived a professional development for teachers is effective when all the criteria below are met:

- strong focus on student learning

- collegial learning strategies

- addresses teachers' specific needs

- realistic time frame and proper planning

- provides support and feedbacks

As discussed earlier, teachers' perceptions of what makes an effective professional development are influenced by several factors. One of the most significant factors that contribute to the effectiveness of any teachers' professional development is the strong focus on student learning (Guskey, 2000).

In addition, teachers learn better from professional development that integrates collegial learning strategies (Desimone et al., 2002; Hawley & Valli, 1999). This is because collegial learning strategies give teachers more opportunities to participate in active learning.

The study also discovers that it is important that teachers' existing knowledge and skill are taken into consideration so that the professional development experienced helps to address their specific needs. This finding stresses the need for cohesive professional development for teachers so that new knowledge learned can easily be consolidated into practice.

In addition, time is also identified as a significant to the success of teachers' professional development experience. To ensure that the changes made to teaching practice as intended by the reform are sustained, it is imperative that the teachers are given adequate amount of time to consolidate the new knowledge and skills into their practice (Birman et al, 2000).

Finally, both the literature and the research findings acknowledge the importance of

providing teachers with adequate support and feedback to sustain the changes made to their teaching practice. (Garet et al., 2001).

The challenges and difficulties faced

The teachers in the school studied identified external professional development overload as one of the challenges they faced in relation to their professional development experience. The teachers believe that they are able to grasp the new knowledge learned and consolidate it into their practice if they are to experience one professional development at one time and then given adequate amount of time to practise and get it embedded into their teaching practice. This finding is consistent with the claim made by Guskey (1995) for schools to begin any educational reform by taking small steps.

In addition, the lack of continuity and follow-up due to poor planning are also said to be affecting the teachers' ability to sustain the changes made to their practice. It is important that teachers experience coherent professional development so that they are able to relate it to their previous professional learning experiences and make it a meaningful experience.

RESEARCH LIMITATION

A limitation of this research study is its size as it is a case study of one small primary school. Hence, due to the small sample size, it is not possible to generalise the findings of this research study to a larger population. However, extreme care and measure were taken to ensure the reliability of data collected and to protect the integrity of these research findings. This has involved the use methodological triangulation and data source triangulation during the data collection process in the school studied.

This research study also looked into the teachers' overall professional experiences, which may vary according to the individual experience. The teachers' perceptions of the impact of professional development on their teaching practice as discussed in Chapter 5 were the results of their personal experience. Perhaps it would be better if the study were focused on studying the teachers' perceptions of the impact of a specific professional development experienced.

Time stood as the main challenge to this research study. The time spent on data collection for this research study was also limited due to the research participants' hectic schedule. Although the school studied was small in size, it was impossible to have all the teachers interviewed and had their voices heard. Only five participants could be interviewed due to the time constraint, hence the findings may not be a complete representation of the teachers' overall professional development experience.

RECOMMENDATIONS

First, as discussed earlier in chapter 4, the participants responded that they believed that effective professional development for teachers need to be one that is designed to meet their specific needs. However, the literature highlighted the practicality and the costs associated with providing teachers with a specially tailored professional development (Wayne et al., 2008). Realising the importance of meeting the teachers' specific needs as indicated by the participants, there is pressing need for schools to tap into its teacher's pool of expertise and form collaborations between the teachers and external experts.

Second, there need to be a proper and systematic planning of teachers' professional development programmes to:

- prevent professional development overload

- ensure coherence with previous professional development experiences

- consolidate the new knowledge and

- sustain the changes made to teaching practice

Third, schools need to focus on strengthening its professional learning communities to provide teachers the platform for continuous learning opportunities where they can learn from each other. This is supported by Sparks and Hirsh (1997) who maintain that change in teaching practice is easier to sustain through collegial type professional development.

Fourth, professional learning for teachers need to be able to address the concerns that they have in relation to their students' learning and achievement (Hawley & Valli, 1999). As the participants had indicated in Chapter 4, they are more motivated to take part in professional development that they believe will addresses the issues they have with their students' learning.

Research recommendation

This research study can be further replicated to involve more schools to increase the validity and reliability of its findings. It is recommended that this research be conducted on a group of teachers who had experienced similar professional development so that their perception of its impact on their teaching practice can be better understood.

CONCLUSION

Overall, this research study identifies that teachers believe that they need to continuously work on improving their practice to ensure that they are able to facilitate their students learning more effectively. Having too many professional development programmes that are arranged at close interval period of time is believed to have affected the teachers' ability to sustain the changes to teaching practice as planned.

Teachers participating in this research study highlighted that it would be more effective if they were to experience one professional development at one time. Providing teachers with adequate time to consolidate their new knowledge into practice and to apply it into the classroom is said to be more effective and helps to boost teachers' confidence with their own practice. New practices can further be reinforced through professional learning communities where the teachers are encourage to share their knowledge and experiences with each other and to support their professional learning experience. The teachers also stress that professional development for teachers need to address their specific needs so that the experience becomes more meaningful and not viewed as a burden.

References

Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2006). *Introduction to research in education* (7th ed.). Belmont: Thomson Wadsworth.

Ball, D., & Cohen, D. (1999). Developing practice, developing practitioners. In L. Darling-Hammond & G. Sykes (Eds,), *Teaching as the learning profession: Handbook of policy and practice* (pp. 3-32). San Francisco: Jossey-Bass Publishers.

Birman, B.F., Desimone, L., Porter, A. C., & Garet, M. S. (2000). *Designing professional development that works. Educational Leadership, May 2000*, 28-33.

Birman, Desimone & Garet (2000)

Bolam, R. (2002). Professional development and professionalism. In T. Bush & R. Bell (Eds.), *The principles and practice of educational management* (pp. 103-118). London: Paul Chapman.

Bolman, L.G. & Deal, T.E. (2008). *Reframing organization: Artistry, choice and leadership*. San Francisco:Jossey-Bass.

Bogdan, R. C., & Biklen, S. K. (2003). *Qualitative research for education: An introduction to theory and methods* (4th ed.). Boston: Allyn and Bacon.

Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher, 33*(8), 3-15. doi: 10.31020013189x033008003.

Borko, H. & Putnam, R. T. (1995). Expanding teacher's knowledge base: A cognitive psychological perspective on professional development. In T. R. Guskey & A. M. Huberman (Eds.), *Professional development in education* (pp. 35-65). New York: Teachers College Press.

Boyle, B., While, D., & Boyle, T. (2004). A longitudinal study of teacher change: What

makes professional development effective? *Curriculum Journal, 15*(1), 45-68. doi: 10.1080/0958517042000189470

Bredeson, P. V. (2002). The architecture of professional development: Materials, messages and meaning. *International Journal of Educational Research, 37*(8), 661. doi: 10.1016/s0883-0355(03)00064-8.

Bryman, A. (2008). *Social research methods (3rd ed.).* New York: Oxford University Press.

Buczynski, S., & Hansen, C. B. (2010). Impact of professional development on teacher practice: Uncovering connection. *Teacher and Teacher Education, 26*(3), 599-607. doi: 10.1016/j.tate.2009.09.006.

Bush, T. (2002). Authenticity-reliability, validity and triangulation. In M. Coleman & A. R. J. Briggs (Eds.), *Research methods in educational leadership and management* (pp. 59-72). London: Paul Chapman Publishing.

Cardno, C. (2005). Leadership and professional development: The quiet revolution. *International Journal of Educational Management, 19*(4), 292-306. doi: 10.1108/09513540510599626

Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teacher and Teacher Education, 18*(8), 947-967. doi: 10.1016/s0742-051x(02)00053-7.

Codd, J. (2005). Teachers as 'managed professionals' in the global education industry: The New Zealand experience. *Educational Review, 57*(2), 193-206. doi: 10.1080/0013191042000308369.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education (6th ed.).* New York: Routledge.

Coleman, M. & Briggs , R. J. (2002). *Research methods in educational leadership and management.* London: Sage Publications.

Cortazzi, M. (2002). Analysing narratives and documents. In M. Coleman & A. R. J. Briggs (Eds.), *Research methods in educational leadership and management* (pp. 196-212). London: Sage Publications.

Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks: Sage Publications.

Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks: Sage Publications.

Creswell, J. W. (2002). *Research design: Qualitative, quantitative and mixed methods approaches*. Thousand Oaks: Sage Publications.

Darling-Hammond, L., & Sykes, G. (1999). *Teaching as the learning profession: Handbook of policy and practice*. San Francisco: Jossey-Bass Publisher.

Davidson, C., & Tolich, M. (2003). Competing traditions. In C. Davidson & M. Tolich (Eds.), *Social science research in New Zealand: Many paths to understanding* (2nd ed., pp. 23-38). Auckland: Pearson Education.

Day, C. (1999). *Developing teachers: The challenges of lifelong learning*. London: Falmer Press.

Day, C. (2002). School reform and transitions in teacher professionalism and identity. *International Journal of Educational Research, 37*(8), 677-692. doi: 10.1016/s0883-0355(03)00065-x.

Day, C., & Smethem, L. (2009). The effects of reform: Have teachers really lost their sense of professionalism? *Journal of Educational Change, 10*(2/3), 141-157. doi: 10.1007/s10833-009-9110-5.

Dean, J. (1991). *Professional development in school*. Buckingham: Open University Press.

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Towards better conceptualization and measures. *Educational

Researcher, 38(3), 181-199. doi: 10.3102/0013189X08331140.

Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Education Evaluation and Policy Analysis, 24*(2), 81-112. doi: 103102/01623737024002081.

Duke, D. (2004). *The challenges of educational change*. Boston: Pearson Education, Inc.

Education Review Office Report (2010). http://www.ero.govt.nz/Early-Childhood-School-Reports/School-Reports/Colwill-School-13-06-2011.

Elmore, R., & Burney, D. (1999). Investing in teacher learning: Staff development and instructional improvement. In L. Darling-Hammond & G. Sykes (Eds,), *Teaching as the learning profession: Handbook of policy and practice* (pp. 236-291). San Francisco: Jossey-Bass Publishers.

Eraut, M. (1995). Developing professional knowledge within a client-centered orientation. In T. R. Guskey & M. Huberman (Eds.), *Professional development in education: New paradigms and practices* (pp. 227-252). New York: Teachers College Press.

Feiman-Nemser, S., & Remillard, J. (1995). Perspectives on learning to teach. In F. Murray (Ed.), *The teacher educator's handbook*. San Fransisco: Jossey-Bass.

Fidler, B. (1997). Building on success: Professional development in the future. In H. Tomlinson (Ed.), *Managing continuing professional development in schools* (pp. 161-175). London: Paul Chapman Publishing.

Fishman, B. J., Marx, R. W., Best, S., & Tal, R. T. (2003). Linking teacher and student learning to improve professional development in systemic reform. *Teaching and Teacher Education, 19*(6), 643-658. doi: 10.1016s0742-051x(03)00059-3.

Fives, H., & Buehl, M. M. (2008). What do teachers believe? Developing a framework for examining beliefs about teachers' knowledge and ability. *Contemporary Educational Psychology, 33*(2008), 134-176. doi:

10.1016/j.cedpsych.2008.01.001

Fullan, M. (2001a). *Leading in a culture of change.* New York: Jossey-Bass.

Fullan, M. (2001b). *The meaning of educational change.* New York: Teachers College Press.

Fullan, M., & Mascall, B. (2000). *Human resource issues in education: A literature review.* Wellington: New Zealand Ministry of Education.

Gabriel, R., Day, J. P., & Allington, R. (2011). Exemplary teacher voices on their own development. *Phi Delta Kappan, 92*(8), 37-41.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Kwang Suk, Y. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945.

Garrett, V., & Bowles, C. (1997). Teaching as a profession: The role of professional development . In H. Tomlinson, (Ed.), *Managing continuing professional development in schools* (pp. 27-39). London: Paul Chapman Publishing.

Goodson, I. (1997). 'Trendy theory' and teacher professionalism. In A. Hargreaves & R. Evans (Eds.), *Beyond educational reform: Bringing teachers back in* (pp. 29-43). Buckingham: Open University Press.

Grundy, S., & Robison, J. (2004). Teacher professional development: Themes and trends in the recent Australian experience. In C. Day & J. Sachs (Eds.), *International handbook on the continuing professional development of teachers* (pp. 146-166). London: Open University Press.

Guskey, T. R. (1995). Professional development in education: In search of the optimal mix. In T. R. Guskey & M. Huberman (Eds.), *Professional development in education: New paradigms and practices* (pp. 114-131). New York: Teachers College Press.

Guskey, T. R. (2000). *Evaluating professional development.* Thounsand Oaks:

Corwin Press.

Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching: theory and practice, 8*(3/4), 381-391. doi: 10.1080/13540600210000051 2

Hall, E. (2009). Engaging in and engaging with research: teacher inquiry and development. *Teachers & Teaching, 15*(6), 669-681. doi: 10.1080/13540600903356985

Hargreaves, A. (1994). *Changing teachers, changing times: Teachers' work and culture in the postmodern age*. New York: Teacher College Press.

Hargreaves, A. (2000). Four ages of professionalism and professional learning. *Teachers & Teaching: History and Practice: 6*(2).

Hargreaves, A., & Evans, R. (1997). Teachers and educational reform. In A. Hargreaves & R. Evans (Eds.), *Beyond educational reform: Bringing teachers back in* (pp. 1-18). Buckingham: Open University Press.

Hargreaves, A. & Fink, D. (2006). *Sustainable leadership*. San Francisco: Jossey-Bass Publication

Hargreaves, A., & Goodson, I. F. (Eds.). (1996). *Teachers' professional lives: Aspirations and actualities*. London: Falmer Press.

Harris, J., Cale, L., & Musson, H. (2011). The effects of a professional development programme on primary school teachers' perceptions of physical education. *Professional Development in Education, 37*(2), 291-305. doi: 10.108019415257.2010.531973.

Hawley, W. D., & Valli, L. (1999). The essentials of effective professional development. In L. Darling-Hammond & G. Sykes (Eds,), *Teaching as the learning profession: Handbook of policy and practice* (pp. 127-150). San Francisco: Jossey-Bass Publishers.

Helmer, J., Bartlett, C., Wolgemuth, J. R., & Lea, T. (2011). Coaching (and) commitment: Linking ongoing professional development, quality teaching and student outcomes. *Professional Development in Education, 37*(2), 197-211. doi: 10.1080/19415257.2010.533581

Hinds, D. (2000). Research instruments. In D. Wilkinson (Ed.), *The researcher's toolkit: The complete guide to practitioner research* (pp. 41-54). London: RoutledgeFalmer.

Huberman, A. M., & Miles, M. B. (1998). Data management and analysis methods. In M. K. Denzin & Y. S. Lincoln (Eds.), *Collecting and interpreting qualitative materials* (pp. 179-210). Thousand Oaks: Sage Publications.

Huberman, A. M., & Guskey, T. R. (1995). The diversities of professional development. In T.   R. Guskey & A. M. Huberman (Eds.), *Professional development in education* (pp. 269-272). New York: Teachers College Press.

Hustler, D., McNamara, O., Jarvis, J., Londra, M., & Campbell, A. (2003). *Teachers' perceptions of continuing professional development.* Institute of Education: Manchester Metropolitan University.

Knight, P. T. (2002). *Small scale research.* London: Sage Publications Ltd.

Kwakman, K. (2003). Factors affecting teachers' participation in professional learning activities. *Teaching and Teacher Education, 19*(2), 149-170. doi: 10.1016/s0742-051x(02)00101-4.

Lankshear, C., & Knobel, M. (2004). *A handbook for teacher research: From design to implementation.* New York: Open University Press.

Leithwood, K., Jantzi, D., & Steinbach, R. (2003). *Changing leadership for changing times.* Philadelphia: Open University Press.

Lofland, J., Snow, D., Anderson, L., & Lofland, L. H. (2006). *Analyzing social settings: A guide to qualitative observation and analysis* (4th ed.). Belmont: Wadsworth/Thomson Learning.

Maskit, D. (2011). Teachers' attitudes toward pedagogical changes during various stages of professional development. *Teaching and Teacher Education, 27*(5), 851-860. doi: 10.1016/j.tate.2011.01.009

McLaughlin, M. W. (1997). Rebuilding teacher professionalism in the United States. In A. Hargreaves & R. Evans (Eds.), *Beyond educational reform: Bringing teachers back in* (pp. 77-93). Buckingham: Open University Press.

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: John Wiley & Sons.

Morewood, A. L., Ankrum, J. W., & Bean, R. M. (2010). Teachers' perceptions of the influence of professional development on their knowledge of content, pedagogy, and curriculum. *College Reading Association Yearbook (31)*, 201-219.

Mutch, C. (2005). *Doing educational research: A practitioner's guide to getting started*. Wellington: NZCER Press.

Opfer, V. D., Pedder, D. G. & Lavicza, Z. (2010). The role of teachers' orientation to learning in professional development and change: A national study of teachers in England. *Teaching and Teacher Education, 27,* 443-453.

Ozkal, K., Tekkaya, C., Cakiroglu, J. & Sungur, S. (2008). A conceptual model of relationships among constructivist learning environment perceptions, epistemological beliefs, and learning approaches. *Learning and Individual Differences, 19,* 71-79. doi: 10.1016/j.lindf.2008.05.005

Poskitt, J. (2005). Towards a model of New Zealand school-based teacher professional development. *New Zealand Journal of Teachers' Work, 2*(2), 136-151.

Powell, E., Terrell, I., Furey, S., & Scott-Evans, A. (2003). Teachers' perceptions of the impact of CPD: An institutional case study. *Journal of In-service Education, 29*(Number3), 389-404.

Stark, S., & Torrance, H. (2005). Case study. In B. Somekh & C. Lewin (Eds.), *Research methods in the social sciences*. London: Sage Publications Ltd.

Southworth, G. (2004). *Primary school leadership in context: Leading small, medium and large sized schools.* London: RoutledgeFalmer.

Sparks, D., & Hirsh, S. (1997). *A new vision for staff development.* Ohio: National Staff Development Council.

Sykes, G. (1999). Teacher and student learning: Strengthening their connection. In L. Darling-Hammond & G. Sykes (Eds,), *Teaching as the learning profession: Handbook of policy and practice* (pp. 127-150). San Francisco: Jossey-Bass Publishers.

Timperley, H. (2008). Teacher professional learning and development. In S. a. C. O. United Nations Educational (Ed.), *The International Bureau of Education.* Belley: Imprimerie Nouvelle Gonnet.

Timperley, H. , & Alton-Lee, A. (2008). Reframing teacher professional learning: An alternative policy approach to strengthening valued outcomes for diverse learners. *Review of Research in Education, 32*, 328-369. doi: 10.3102/0091732X07308968

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration (BES)*. Wellington: Ministry of Education.

Tohill, A. (2009). Developing effective professional development. *The International Journal of Learning, 16*(7).

Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education, 23*(6), 944-956. doi: 10.1016/j.tate.2006.05.2003.

Verma, G. K. & Mallick, K. (1999). *Researching education: Perspectives and techniques*. Philadelphia: Falmer Press.

Villegas-Reimers, E. (2003). *Teacher professional development: An international review of the literature.* Paris: International Institute of Educational Planning.

Wayne, A. J., Yoon, K. S., Zhu, P., Cronen, S., & Garet, M. S. (2008). Experimenting with teacher professional development: Motives and methods. *Educational Researcher, 37*(8), 469-479. doi: 10.3102/0013189X08327154

Wellington, J. (2000). *Educational research: Contemporary issues and practical approaches.* London: Continuum.

Wheatley, K. F. (2002). The potential benefits of teacher efficacy doubts for educational reform. *Teaching and Teacher Education, 18*,5-22.

Wilson, S. M., & Berne, J. (1999). Chapter 6: Teacher learning and the acquisition of professional knowledge: An examination of research on contemporary professional development. *Review of Research in Education, 24*(1), 173-209. doi: 10.3102/0091732x024001173.

Wilkinson, T. M. (2001). The core ideas of research ethics. In M. Tolich (Ed.), *Research ethics in Aotearoa New Zealand* (pp. 13-24). Auckland: Longman.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks: Sage Publications.

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks: Sage Publications.

APPENDICES

APPENDIX ONE

INFORMATION SHEET – School (Principal/BoT)

Title of Thesis: An investigation of perceptions of the impact of professional development on teachers' practice: The case of one primary school

My name is **Nurul Aini Aminudin**. I am currently enrolled in the Master of Educational Leadership and Management degree in the Department of Education at Unitec Institute of Technology. I am requesting your help in meeting the requirements of research for a Thesis course which forms a substantial part of this degree.

The aim of my project is to investigate perceptions that primary school teachers hold about the impact of professional development on their teaching.

I request your participation in the following way.

The teachers are invited to take part in this research. I will be collecting data using an interview schedule with selected teachers that will take about 45 minutes to complete. I would appreciate being able to interview the teachers at your school.

I will also be collecting data by examining schools professional development policies and teachers' job descriptions. I would appreciate having access to these documents from your school

Neither the teachers nor your organisation will be identified in the Thesis. I do hope that you will agree to take part and that you will approve my conducting research in your school. If you have any queries about the project, you may contact my supervisor at Unitec Institute of Technology, Dr Jenny Collins who may be contacted by phone: (09) 815 4321 ext 8369 or Email: jcollins@unitec.ac.nz

Yours sincerely

Nurul Aini Aminudin

APPENDIX TWO

INFORMATION SHEET – The Teachers

Title of Thesis: An investigation of perceptions of the impact of professional development on teachers' practice: The case of one primary school

My name is **Nurul Aini Aminudin**. I am currently enrolled in the Master of Educational Leadership and Management degree in the Department of Education at Unitec Institute of Technology and seek your help in meeting the requirements of research for a thesis course which forms a substantial part of this degree.

The aim of my project is to investigate perceptions that primary school teachers hold about the impact of professional development on their teaching.

I request your participation in some of the following ways:

I will be collecting data using a **questionnaire**;

I will be conducting a semi-structured **interview** that will take about **45 minutes** to complete and would appreciate being able to interview you at a time that is mutually suitable. If you agree to be interviewed, I will also be asking you to sign a consent form regarding this event. For your information, this interview will be recorded using a small voice recording device.

You have the right to decline to take part in this research project. If you have agreed to participate in an interview, you can withdraw at any time until the completion of the interview process. You can also refuse to answer any particular questions at any point of time. You will also have the opportunity to check the transcripts and make corrections. Your identity will be kept anonymous. Neither you nor your organisation will be identified in the Thesis.

I do hope that you will agree to take part and that you will find this participation of interest. If you have any queries about the project, you may contact my supervisor at Unitec Institute of Technology. My supervisor is Dr Jenny Collins and may be contacted by email or phone: (09) 815 4321 ext 8369 or Email: jcollins@unitec.ac.nz

Yours sincerely

Nurul Aini Aminudin

UREC REGISTRATION NUMBER: (2011-1186)
This study has been approved by the Unitec Research Ethics Committee from 22.06.2011 to 22.06.2012. 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.

CONSENT FORM – The Teachers

DATE

TO: [participant's name]

FROM: Nurul Aini Aminudin

RE: Master of Educational Leadership and Management

THESIS TITLE: An investigation of perceptions of the impact of professional development on teachers' teaching practice: The case study of one primary school

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 the interview will be recorded and transcribed by the researcher and that I will be provided with a transcript (or summary of findings if appropriate) for checking before data analysis is started. I am also informed that I may withdraw myself or any information that has been provided for this project up to the stage when analysis of data has been completed.

I agree to take part in this project.

Signed: _____

Name: _____

Date: _____

UREC REGISTRATION NUMBER: (2011-1186)
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.

APPENDIX 4

Questionnaire

Completion of this questionnaire is voluntary. The information that you provide in this questionnaire is anonymous and will only be accessed by one researcher. Individual teachers will not be identified anywhere in this research study and you are not required to provide your name in the questionnaire. This questionnaire is carried out as part of a Master Thesis study by a postgraduate student at Unitec, New Zealand.

Instruction: Please complete this questionnaire and place it in the envelope provided once completed. Please seal the envelope and leave it in the box placed on the receptionist counter by 12.00 p.m. Thursday (4th August 2011).

Section A

1. Please provide the following information:

    Your age: _____ years old

    Your teaching experience: _____ year(s)

Please list the role(s) that you hold in the school:

_____

_____

2. Have you participated in any form of professional development in the past three (3) years? Please circle your answer.

YES / NO

If you have circled "YES" in question 2, please proceed to Section B of this questionnaire. If you have answered "NO", you do not have to continue completing this questionnaire.

Thank you for your participation in this research.

Section B

1. Please indicate in the table below the content focus of the PD that you have attended (in the past 3 years) in the table below:

| PD Content Focus	Please '√'
Technology use	
Instructional methods	
Student assessments	
Others (*please specify)*:	

2. What is your overall experience from attending the PD? Please indicate your response by making a circle on scale below.

the least meaningful   *the most meaningful*

_____

1   2   3   4

Please provide any further comment:

```



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*Please respond to statement number **3, 4** and **5** by making a circle around the number that you feel is the most appropriate.*

3. My professional development experiences have some impact on my teaching practice.

Strongly disagree   *Disagree*   *Agree*   *strongly agree*

_____
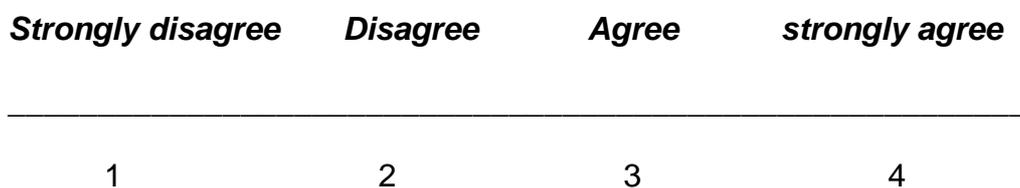
1   2   3   4

4. I am motivated to practice the knowledge and skills that I have learned form the professional development programme attended.

Strongly disagree	Disagree	Agree	Strongly agree
1	2	3	4

5. I am able to sustain the changes made to my teaching practice.

Strongly disagree	Disagree	Agree	Strongly agree
1	2	3	4

6. What are the challenges or difficulties that you faced while trying to practice the new knowledge or skill that you get from the professional development programme you have attended?

7. How do you assess any improvement in your teaching practice? Please indicate (√) in the appropriate boxes:

    Feedback from classroom observation
    Improvement in student performance/assessment
    Self reflection
    Others (*please specify)*:

Are you willing to be approached for the second phase of this research? If YES, please provide your name and contact detail.

Name: _____

Phone Number: _____

Email Address: _____

Thank you for your participation in this research.

APPENDIX FIVE

Possible questions for semi-structured interview

- How long have you been teaching?

- What motivates you to become a teacher?

- What are the areas of your teaching practice that you wish to improve?

- What do you understand by the term 'professional development'?

- Tell me about your recent professional development experience.

- Where there any difficulties or challenges?

What do teachers perceived as the impact of professional development on their teaching practice?

- What are the impacts of professional development courses you have attended on your teaching?

- Can you identify any benefit?

  For your own professional development

  Teaching practice

  Others

- How do you decide on the types of professional development that you need to improve your teaching practice?

- Once you have decided that you need to attend a professional development course, how soon is one arranged for you? How does this affect your

teaching? What do you do while waiting for the course to be arranged for you?

What evidence do teachers use to support their views?

- How do you assess the effectiveness of the professional development courses that you have attended? Has it helped you addressed the initial concern that you have in relation to your teaching practice?

What are teachers' views about successful and unsuccessful impact of professional development on their teaching practice?

- Have you experienced any successful or unsuccessful impact of professional development on your teaching practice? Can you please explain?

- How do you think this impact on your teaching practice?

- Why do you think that it has successful or unsuccessful impact on your teaching practice?

- What impact has professional development had on your own professional development?