Effective Evaluation of Professional Development

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ABSTRACT

Professional development is an area in which New Zealand schools invest large amounts of resources. In education today there is a strong focus on accountability. New Zealand schools are required to provide evidence in their charter document to the Ministry of Education to show that their spending is allocated appropriately within their organisation. The expenditure of time and funding on professional development is a significant part of any school’s budget. The evaluation of professional development is therefore vital to meet accountability requirements. Effective evaluation is necessary to establish the link between professional development and the impact on both teacher practice and students’ achievement and learning. There is limited research in New Zealand focused on professional development evaluation in a primary school setting. The purpose of this research was to investigate the effectiveness of professional development evaluation in New Zealand primary schools.

A mainly qualitative research methodology was used for this study. Two research methods, interviews and questionnaire, were used to collect the data. Four Auckland primary schools were involved in the study. Interviews were carried out with four leaders who were responsible for professional development in their school and in this study 56 participants from the four schools took part in the questionnaire.

The findings revealed that all of the research schools espoused that their evaluation focus was primarily on the impact professional development had on teacher practice and students’ achievement. The leaders were reflective and some were open to improving their evaluation practice. The findings showed that there was limited use of research and/or models to support evaluation practice in the schools. The findings suggested that complex evaluation models are inaccessible for schools to use without adaptation from a theoretical level to practical use in a school. The main recommendations from this research are for schools to carry out a self review of their current evaluation practices and for leaders to have opportunities to investigate alternative evaluation approaches used by other schools.
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CHAPTER ONE: INTRODUCTION

Rationale for this research

The purpose of this study was to investigate the effectiveness of evaluation of professional development in New Zealand primary schools. My interest in this topic was prompted by my personal experience as a Deputy Principal and my review of the literature. My experience as a Deputy Principal led me to question how well professional development has been evaluated. Evaluation is important because it is a process which can be used by leaders to gain insights into their schools’ practice and areas for improvement (Killion, 2008). Professional development in New Zealand schools is provided for teachers both internally and through external providers. In my experience, this professional development is rarely substantially evaluated. It seems that large amounts of resources, such as time and money, are invested into professional development with little evaluation used to support this investment.

Recent literature has confirmed the importance of this issue because it points to the inadequate use of evaluation of professional development in primary schools. Large scale research has been undertaken by Timperley, Wilson, Barrar and Fung (2007) which has evaluated “97 individual studies and groups of studies that met a set of methodological criteria and had substantive student outcomes associated with teacher professional learning and development” (p.xxiv). The Timperley et al. (2007) research has shown “the most common measure used to judge the success of professional development is teacher satisfaction with the professional development, or, using Guskey’s [1998] term, ‘happiness quotients’” (p.19). The form of evaluation Guskey (1998 as cited in Timperley et al., 2007) refers to is a low-level form of evaluation which has a limited focus on both teacher practice and student achievement and learning. Beyond this study alone, the literature strongly points to the limited use of evaluation in primary schools which is focused at this low-level (Goodall, Day, Lindsay, Muijs & Harris, 2005; Timperley et al., 2007). It was
concerning to me in my role within a senior leadership team that this form of evaluation is heavily utilised and therefore it would be valuable to investigate what is commonly relied upon in New Zealand schools.

My research examined the overall effectiveness of professional development evaluation in a sample of New Zealand primary schools. It was worthwhile to find out whether evaluation of professional development practices in New Zealand primary schools mirrored those in overseas contexts where researchers, such as Guskey (2002) and Goodall et al. (2005), have established that evaluation of professional development practice is commonly at a low-level. Lowden (2005) also notes, however, in American schools they would prefer to see a change in practice towards higher-level forms of evaluation that focus more on teacher practice and student achievement and learning.

In order to examine the effectiveness of evaluation I investigated the approaches used by primary school leaders to evaluate professional development in the sample schools. My research sought to find out if teachers were aware of evaluation of professional development in their school and whether they saw evaluation as a priority for effective professional development. Additionally, I requested feedback from teachers about how effective they view the current evaluation of professional development in their schools. This research also intended to provide some insights into whether leaders saw that part of their role involves evaluation, specifically in the area of evaluation of professional development. It was then important to ask about the leader’s commitment to evaluation and what challenges they face in evaluating professional development.
Research aim and questions

The overall aim of this research was to examine the effectiveness of professional development evaluation in a sample of New Zealand primary schools.

There were four research questions used to guide this study:

1. Why is it important to evaluate professional development?;
2. How do leaders evaluate the effectiveness of professional development in the sample of New Zealand primary schools?;
3. What types of evaluation are effective from the perspective of teachers?; and
4. What challenges do leaders face in evaluating professional development?

Chapter organisation

This thesis is set out in six chapters and the chapters are organised as stated below:

Chapter One provides an overview of the topic of professional development evaluation and introduces the rationale for this study. The overall aim for this research is identified and the four key questions to guide the study are introduced.

In Chapter Two the literature is critically examined to provide an overview of the literature relevant to this topic. The literature review is organised with reference to the four key research questions and the main themes are identified and critiqued from the literature.

Chapter Three outlines the research position and discusses the research methodology. The research methods of interviews and questionnaires are explained. Research sampling is discussed and the demographic information to support this study is introduced. The chapter concludes with a discussion of the issues of validity, reliability and ethical considerations.
The findings in Chapter Four are organised under each of the research methods. The chapter includes an analysis of the data collected through the interviews and questionnaires.

Chapter Five presents a discussion of the findings from this research and links it to the literature from Chapter Two. The significant themes which emerged from the data analysis are discussed in relation to each of the four key research questions.

The last chapter focuses on conclusions relating to the four research questions. Included in this chapter are recommendations for practice. The limitations of the study are discussed and finally areas for further research explored.
CHAPTER TWO: LITERATURE REVIEW

Introduction

This literature review focuses on the effective use of evaluation of professional development in a sample of New Zealand primary schools. To enable me to investigate this issue it was necessary to explore the literature. The literature is commonly focused on the practice of leaders in relation to the evaluation of professional development and there is limited literature from the perspective of teachers.

There were a number of significant themes that emerged in this literature review, such as the strong link between professional development and performance appraisal and the insufficiency of the evaluation of professional development. There are multiple evaluation models evident in the literature with the models of Kirkpatrick (1959 as cited in Guskey, 2000) and Guskey (2000) key foundation models for education evaluation. This chapter will examine three models of professional development evaluation evident in the literature. Two of these models are focused on teacher inquiry. The third is Guskey’s (2000) model which is an in-depth and thorough approach to the evaluation of professional development. Guskey’s (2000) model is often used by researchers such as Goodall et al. (2005) as the framework for research into the evaluation of professional development.

There are a multitude of barriers to the effective evaluation of professional development. The barriers are apparent in the literature because of the complexity of evaluating professional development. In the literature it is evident there is a growing interest by authors, such as Porritt (2009), in the use of high quality evaluation. The literature identifies there is a move in education towards a greater understanding of the importance of quality professional development evaluation. This chapter will also outline the literature related to the many complexities and challenges associated with the evaluation of professional development.
The chapter has been divided into four sections. Section one focuses on the importance of evaluating professional development and section two examines how leaders evaluate the effectiveness of professional development. Section three views the evaluation of professional development from the perspective of teachers and investigates the three models. Section four identifies challenges and barriers to the effective use of professional development evaluation.

**Why is it important to evaluate professional development?**

*Professional development*

Professional development is commonly recognised as a significant approach used to achieve continued improvement in both teacher practice and student outcomes (Bolam, 2002; Goodall et al., 2005). It encompasses “all the formal and informal processes used to improve the knowledge and practice of teachers” (Education Review Office, 2009, p.1). Typically, in New Zealand, schools invest a substantial amount of resources, such as money and time, to support teachers’ regular participation in professional development.

Professional development is offered in a variety of forms and it is often provided by either internal experts or external providers. Within schools, professional development can be achieved using approaches such as the establishment of learning communities, the provision of workshops, longer term improvement projects and focused staff meetings. External provision can include specialists coming into the school, for example to take staff meetings, or teachers attending workshops or credentialed programmes outside of the school. Professional development can be focused on a variety of different areas of teachers’ practice, such as in New Zealand the introduction of National Standards in reading, writing and mathematics. Professional development in New Zealand schools is different for each individual school and is often carried out through a variety of internal and external approaches. In New Zealand, the National Administration Guidelines (NAGs) Part 3 Personnel section includes provision to promote staff performance through professional
development (Ministry of Education, 1989). School strategic plans make specific provision for resources to support professional development because it is viewed as significant for teachers.

Many authors highlight the importance of professional development in supporting teachers’ practice. Professional development is significant and as Guskey (2000) identifies from his review of the research literature, “notable improvements in education almost never take place in the absence of professional development” (p. 4). DiPaola and Hoy (2008) maintain school success is enhanced through the improvement of teachers’ practice. Guskey (2000) supports the need for professional development to “enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students” (p. 16). It is Guskey’s (2000) view that the main focus of professional development should be on student learning outcomes. Given professional development is undertaken so widely and with such a need to support teachers’ practice, it is necessary to judge its effectiveness and to find ways to improve. Desimone (2009) argues that because there is a strong link between professional development and reforms in both teaching and learning it is “essential that we use best practice to measure its effects” (p. 192). The New Zealand Education Review Office (2009) research in 317 primary schools in 2008 identified schools which effectively managed their professional development and had leaders who “knew their investment was having the desired effect on changing teacher practice or improving student achievement” (p. 35). Therefore the use of evaluation is essential to better ensure the link between professional development, teacher practice and student achievement.

Education is an environment which continually responds and reacts to change and development. Education, similar to other professions, contends with a “professional knowledge base [which] is expanding at an ever increasing rate” (Guskey, 1991, p. 239). Professional development needs to reflect the ever-changing advancements in research. Cardno (2005) suggests the educational profession is at a significant point where it is crucial to continue the development of the teaching profession.
Re-conceptualisation of professional learning and development

In response to the ever-changing educational environment, the area of professional development has been re-conceptualised to encompass a wider scope from professional development to professional learning and development. In 2000 the New Zealand Education Review Office identified that “the world in which teachers operate is changing rapidly” (p. 3). Subsequently in 2009, the Education Review Office indentified that the term professional development is now used less in education. Instead in New Zealand schools what was called professional development is now more commonly known as professional learning and development (Education Review Office, 2009).

Desimone (2009) maintains there has been a shift towards a broader understanding of professional development. This shift has arisen from a variety of factors, including a greater awareness of how to “define and conceptualize professional development” (Desimone, 2009, p. 187). The use of the term professional learning and development is in response to an increased understanding about the complexity of teaching and learning. Desimone (2009) argues that this recognition of the complexity of teaching and learning has complicated the evaluation of professional learning and development. The challenge now in the area of professional development evaluation is “reaching a consensus on which aspects of teacher knowledge are critical and how to measure them” (Desimone, 2009, p. 191).

The term professional learning and development continues to encompass the professional development indicated earlier in this chapter but acknowledges that “teachers also acquire knowledge and understanding in informal ways” (Education Review Office, 2009, p. 4), such as through professional discussions with colleagues and reflection. Various terms are used in the literature to describe professional learning and development, such as in-service teacher training (Education Review Office, 2000) and continuing professional development (CPD) (Goodall, et al., 2005). For the purposes of this research the term professional development will be used to refer to all areas of professional learning and development.
Evaluation

Evaluation is important in a variety of teaching contexts and occurs, for example, with students evaluating their own learning through to teachers evaluating their teaching practice. It is a reflective process which supports schools to review their teaching practices or programmes. Evaluation provides an “insight into what is working and what is not” (Killion, 2008, p. 1). Guskey (2000) suggests there is complexity when educators seek to understand the use of evaluation and he argues that it is easier for educators to determine a common definition of evaluation than to agree on “how or why evaluations are conducted” (p. 42).

Evaluation is an essential component of professional development. Guskey (2000) says the evaluation of programmes is primarily to “determine their quality and to gain direction on efforts to improve them” (p. 40). Lowden (2005) believes it is necessary to evaluate the impact of professional development because it is “important to the improvement of teacher performance and student learning” (p. 2). Guskey (2000) explains further that to be effective evaluation must be both well-designed and the results of an evaluation “based on evidence of success” (p. 8). Regular evaluation should be a feature of any school practice especially as schools are now seen as learning organisations that should be continually progressing and improving (Jason, 2003).

It is important to note that the literature indicates that not all professional development needs to be evaluated. Selected evaluation of only specific areas of professional development can provide valuable and quality insights into evaluation. Goodall et al. (2005) recommends that evaluation “should be appropriate to the events and experience(s)” (p. 8) and that it is not necessary to formally evaluate all professional development.
Professional development and performance appraisal

Professional development is not a stand-alone process and usually it is seen as being embedded in performance appraisal. Performance appraisal is an “evaluative activity that involves making qualitative judgements about performance, once competency is established. It is also concerned simultaneously with improving the quality of that performance” (Piggot-Irvine & Cardno, 2005, p. 15). The aim of performance appraisal is for leaders to establish the strengths and needs of their teaching staff. Leaders use the information from performance appraisal to help strategically plan for professional development. Through this process the professional development planned for in schools should be meaningful.

There have been a number of New Zealand Government policies which have established a close link between professional development and performance appraisal. Prior to 1986 performance appraisal was not utilised in a formative approach to developing teachers’ practice, instead it was used as a means of inspection (Fitzgerald, 2001). A key policy was introduced in 1996, where guidelines were gazetted (Ministry of Education, 1997) which Boards of Trustees had to consider when “assessing the performance of teachers” (Education Review Office, 2000, p. 6). This intervention ensured that schools were required to develop and implement a performance appraisal approach which had a specific element linked to professional development (Education Review Office, 2000). In 1998 professional standards were introduced. These are a New Zealand Government strategy for “developing and maintaining the quality of teaching and leadership, and improving learning outcomes for students” (Ministry of Education, 1998, p. 2). Professional development is evident in the interim professional standards because it aims to establish “procedures and practices to maintain and improve staff effectiveness through ... provision of professional development and encouragement of self-development” (Ministry of Education, 1998, p. 28).

Performance appraisal has a dual purpose, it both “provides a means of demonstrating accountability, and also a means of targeting development” (Piggot-
Irvine & Cardno, 2005, p. 12). This means schools are able to focus on teachers’ strengths whilst also identifying areas which will need further professional development (Fitzgerald, 2001). Lowden (2005) supports the close link between professional development and performance appraisal when suggesting that professional development “should align with the teacher evaluation process” (p. 13) which in New Zealand is known as performance appraisal.

The political context

There are a number of historical changes which have impacted on professional development evaluation. Significant changes in educational delivery in New Zealand arose from Tomorrow’s Schools (Parliament of New Zealand, 1988) and the Education Act (Government of New Zealand, 1989). Both of these reforms led to changes in the New Zealand education system associated with the establishment of Boards of Trustees, requirements for charter documents and funding through an annual operations grant (Ray, 2009). Piggot-Irvine and Cardno (2005) have identified that the main change linked to performance appraisal from these developments was “schools becoming accountable to the community and government for their performance” (p. 36). The implications of the introduction of tighter accountability are widespread in education.

Today there is a strong focus on accountability in education and this can be seen in the allocation of resources for professional development. The New Zealand Ministry of Education requires schools to provide evidence through their charters and financial accounts that money is being spent appropriately and the Education Review Office audits whether schools are working effectively. As Guskey (2000) points out “parents and taxpayers [also] want evidence that they are getting their money’s worth from schools” (p. 47). It is the leaders and teachers who are accountable for student achievement (Guskey, 2000) and they are directly responsible to parents. According to Cardno (2005) this increased focus on accountability over the last few decades has also provided “greater autonomy and new and exciting opportunities” (p. 297) for schools to allocate their professional development funding to support both teacher
practice and student achievement. It is now even more important for schools to be able to demonstrate that they have utilised resources effectively and “show that what they do really matters” (Guskey, 2000, p. 67). The increased accountability places greater emphasis on the importance of undertaking evaluation as a means to gather evidence to substantiate the allocation of resources to professional development.

How do leaders evaluate the effectiveness of professional development?

Leadership knowledge of professional development evaluation

The responsibility for evaluating professional development is usually assigned to leaders. In New Zealand primary schools evaluation is often led by the senior management team. Jason (2003) suggests it is not the responsibility of the principal to directly carry out professional development evaluation, but instead to be actively involved in “promoting, supporting, and facilitating the assessment process” (p. 3). In practice it is senior leaders, such as the deputy principal, who often lead the evaluation process.

Leaders have an important role in establishing which aspects of teacher practice and student achievement will be evaluated in determining the effectiveness of the professional development. It is important that leaders have the knowledge and expertise to ensure that evaluation is focused on the specific impact from professional development (Lowden, 2005). Guskey (2000) and Goodall et al. (2005) identify that there is a lack of such leadership knowledge and expertise in the area of evaluation. The concern is that leaders often lack the “time, skill, and expertise” (Guskey, 2000, p. 40) to carry out effective evaluation and this can lead to an inadequate use of evaluation in schools. In a two-year project carried out by the University of Warwick and the University of Nottingham to investigate the impact of CPD, Goodall et al. (2005) found that “schools are generally not skilled in the processes of evaluation and lack experience and tools to consider the impact of CPD at all of the 5 Guskey Levels” (p. 7). The Guskey levels are a model for evaluating professional development and will be discussed later in this chapter. The research
by Goodall et al. (2005) supports the idea that school leaders commonly lack the knowledge and expertise to effectively evaluate. Leaders often use evaluation in many areas of education not only to reflect on professional development. They may have the knowledge and skills to carry out evaluation but could have difficulty applying evaluation in the context of professional development. Guskey (2000) suggests that leaders often lack the confidence to approach evaluation because they “don’t know where or how to begin” (p. 250).

In some instances evaluation is left to “evaluation experts” (Guskey, 2000, p. 68), such as external providers, who make final evaluations and judgements about the impact of the professional development. While there may be some advantages, it is clear that some external providers may not, for example, see the wider impact professional development can have in a school or may be unable to continue long-term monitoring of students’ achievement and the progress of teachers involved in professional development. These experts are often an expensive investment in professional development. Guskey (2000) suggests that the involvement and expense of external evaluators can escalate if they are involved “from planning through the final reporting of results” (p. 258).

In the literature it is evident that there is a variety of available evaluation models for leaders to access (Porritt, 2009), such as Guskey’s (2000) model of evaluation. A number of models will be discussed later in this chapter. For professional development evaluation to be effective it needs to be a planned process, it cannot be just an “afterthought” (Killion, 2008, p. 137). When leaders specifically plan for professional development evaluation they have the opportunity to draw on established models of evaluation as the foundation to their work. Author Porritt (2009) suggests the effective use of models is yet to be widely adopted by leaders. The literature does not clearly identify whether this limited use of models for evaluation practice can be attributed to a lack of knowledge and expertise on the part of leaders, however Guskey (2000) points to leaders' lack of confidence which could contribute to the limited use of models. There could be numerous reasons why
leaders are not utilising available models, such as time constraints or a limited understanding about the link between models and evaluation practice.

Professional development evaluation needs to be used as a means to improve teacher practice and students’ achievement and learning. Leaders should be focused on attaining results both in teacher practice and students’ achievement. Therefore evaluation can be used as both a summative and formative approach to support school improvement. Leaders who use evaluation as an accepted “part of their work will become results-orientated leaders” (Killion, 2008, p. 3). These leaders use professional development evaluation as a way to improve both teacher practice and students’ achievement. Killion (2008) argues that leaders often fall into the trap of using their ‘gut instincts’ to establish whether professional development has been effective, such as “opinions, hunches, and guesses” (p. 136). This informal approach to evaluation lacks the results-driven evidence which Killion (2008) believes is essential: anything less than results-driven is inadequate.

Concerns about the quality of professional development evaluation

The literature emphasises the insufficiency of evaluation of professional development currently used in schools. A number of authors, such as Early and Bubb (2004) and Gaytan and McEwen (2010) highlight concerns about this insufficiency and question the quality of evaluation practices. As mentioned earlier, evaluation is important in improving teaching practice and students’ achievement and given the significant attention paid to evaluation by educational writers it is surprising that evaluation continues to get “marginalized or forgotten” (Earley & Bubb, 2004, p. 77) in schools. The quality of evaluation can be limited because often the focus is mistakenly on the professional development activity rather than the difference made to teacher practice and students’ achievement (Porritt, 2009). The literature indicates that evaluation is “rarely undertaken in a systematic and focused manner” (Muijs & Lindsay, 2008, p. 196). This idea is supported by other authors, such as Goodall et al. (2005) and Timperley et al. (2007), who agree the current practices are low-level and focused primarily on teachers’ practice. There is plenty of current literature concerning both
professional development and evaluation available, however Bolam (2002) argues there are a limited number of published studies about the evaluation of professional development and its impact on teacher practice and student achievement because “researchers in universities and elsewhere have simply not carried out enough robust studies” (p. 112).

Evaluation focused on teacher satisfaction is the most frequently discussed and written about approach in the literature, for example by authors such as Guskey (2000), Muijs and Lindsay (2008) and Lowden (2005). Teacher satisfaction is commonly gauged through the use of an evaluation form given to teachers at the end of a professional development session (Edmonds & Lee, 2002). Evaluation forms often include low-level questions to determine whether teachers enjoyed and benefitted from taking part in the professional development for example using questions such as ‘Did the professional development provide you with some useful resources?’ Goodall et al. (2005) confirms that evaluations usually gauge teachers’ satisfaction of their experience in the session and are carried out immediately following professional development. As discussed earlier, Timperley et al. (2007) has identified that teacher satisfaction is commonly seen in the form of ‘happy sheets’.

Current concerns about the quality and effectiveness of professional development evaluation can also stem from a lack of suitable systems in schools. The Education Review Office in 2000 identified there was an “absence of systems” (p. 71) for evaluation of professional development in New Zealand schools. In 2009 the Education Review Office went further when they identified the need for “guidelines to support schools” (p. 2) with their professional development programmes and specifically the evaluation component. In the 2009 review the Education Review Office found that schools which were effective in their evaluation of professional development had “self review systems to monitor and evaluate the impact of their PLD [professional learning and development] expenditure on improving the quality of teaching and student outcomes” (p. 35).
What types of evaluation is effective from the perspective of teachers?

**Teachers’ perspectives**

Despite research evidence in the literature on the link between leadership and the evaluation of professional development from authors such as Goodall et al. (2005) and Guskey (2000), there is limited literature from the perspective of teachers. As noted earlier, the responsibility for evaluation of professional development rests largely with leaders (Jason, 2003) yet there has been little attention paid towards what teachers identify as effective practices of professional development. Authors such as Edmonds and Lee (2002) and Goodall et al. (2005) to some extent discuss evaluation from the perspective of teachers. Edmonds and Lee (2002) noted that teachers felt it was easier for them “to identify impact on teaching rather than [student] learning” (p. 29). Whereas research carried out by Goodall et al. (2005) recognised that teachers felt professional development did improve both teaching and learning, “but [the teachers] were unable to provide hard evidence of impact” (p. 30). In the research from England and Wales discussed by Edmonds and Lee (2002) they also identify the difficulty teachers have in providing evidence of the impact of professional development for evaluation.

The complexity of professional development evaluation is evident in the inability of teachers to formally collect evidence as proof of improvements in teacher practice and students’ achievement. One way informal evaluation occurs is through teachers having discussions with their colleagues following professional development. Goodall’s et al. (2005) research identified that informal discussion between teachers which was subsequently apparent as a result of evaluation is an “integral part of the evaluation process” (p. 50). Research carried out by the National Foundation for Educational Research in England and Wales identified that “teachers more commonly indicated that they fed back relevant information to their colleagues, either formally or informally upon their return to school” (Edmonds & Lee, 2002, p. 29) following some form of professional development. Teachers can use their professional knowledge to ‘instinctively know’ if changes have been made following professional development and whether there has been an impact on their own
teaching practice and student achievement (Edmonds & Lee, 2002). Complexity arises when teachers are expected to support this ‘instinctive knowledge’ with evidence of their change in practice or student achievement data. Due to the complexity of teachers identifying tangible evidence to support whether professional development has impacted on teaching and learning, Edmonds and Lee (2002) question “how this impact could be systematically assessed or evaluated in the long-term” (p. 29).

Models of professional development evaluation

Three models will be discussed in this section which can be utilised by leaders in schools as a basis for evaluation of professional development practice. Two models that focus on teacher inquiry will be discussed and both of these feature in current New Zealand educational documents. These teacher inquiry models each have components of built in evaluation practice and are linked to teachers inquiring into their own teaching practice. The third model is Guskey’s (2000) model of evaluation of professional development. This model centres on leaders and their evaluation practice.

The first model ‘Teaching as Inquiry’ shown in Figure 2.1, is part of ‘Effective Pedagogy: Teacher Actions’ promoting student learning in the New Zealand Curriculum (Ministry of Education, 2007). This is based on the work of Graeme Aitken and Claire Sinnema of Auckland University. This model is used as a practical approach to professional development where a teacher inquires into an aspect of teaching and learning. The model focuses on teachers reflecting on their practice, next steps and changes as a result of their teaching. The second model of teacher inquiry is a ‘Teacher inquiry and knowledge-building cycle to promote valued student outcomes’ (see Figure 2.2) and is a part of the research by Timperley et al. (2007) in Teacher Professional Learning and Development: Best Evidence Synthesis (BES). This model is aligned to the work of Donovan, Bransford and Pellegrino (1999 as cited in Timperley et al., 2007). It includes an element of task and experience design, teaching actions and this leads into the impact of the teaching practice on the
students’ achievement. Teacher inquiry models are based on an action research approach. Teacher inquiry is developed from action research because, as with action research, teacher inquiry also aims to “narrow the gap between theory and practice” (Cardno & Piggot-Irvine, 1996, p.20). The link between the teacher inquiry and action research can been identified through the similarities that they are both “context-based, collaborative, translates theory into action, is improvement focused and has an in-built evaluation component” (Piggot-Irvine, 2006, p. 487).

Figure 2.1 Teaching as Inquiry model (Ministry of Education, 2007, p. 35).
The models in Figure 2.1 and Figure 2.2 present a cyclic process of teaching and learning where “effective pedagogy requires that teachers inquire into the impact of their teaching on their students” (Ministry of Education, 2007, p. 35). Each model has a focused approach for teachers to participate in effective professional development. Elements in each of the models are closely linked to areas discussed earlier in this chapter concerning gauging teacher practice and measuring students’ achievement. The models also present a cyclic process which supports teachers’ involvement in evaluation and improving students’ achievement. This fits well with Guskey’s (2000) idea that professional development should develop the “knowledge, skills, and attitudes” (p. 16) of teachers.
Both inquiry models in Figure 2.1 and Figure 2.2 are an approach to professional development which includes an element of reflection and evaluation within their cycles of inquiry. Evaluation is built into the models and closely linked to identifying evidence of effective teacher practice and improved students’ achievement. The models provide opportunities for teachers to reflect on student achievement and their own learning whilst being future focused in identifying the next steps to improve practice. The change in teacher practice is based on evidence. A strength of this evaluation approach is the use of evidence, such as achievement data and professional reading to inform teaching and learning. This is important because, as pointed out by Edmonds and Lee (2002), teachers can lack evidence to support changes in their own practice and students’ achievement. These models support teachers to easily identify the impact of professional development on both their teaching practice and also student achievement and learning.

The ‘Teaching as Inquiry’ model in Figure 2.1, used by the Ministry of Education (2007), specifically includes teachers inquiring into the students’ needs. It also has a strong focus on evidence based decisions where teachers are deciding what strategies could be used to improve students’ learning. The model in Figure 2.2 (Timperley et al., 2007) includes a “sequence of inquiries that combine the elements into a co- and self-regulatory learning cycle” (p. xlii). Timperley et al. (2007) suggest this model is effective because it links the teacher, student and organisation (or school). Similar to the Figure 2.2 model, the Figure 2.1 model also focuses on using evidence to establish the specific needs of the students and teacher. The model in Figure 2.2 does maintain that “teachers are unlikely to engage in these inquiry processes unless they have the organisational conditions and support to do so” (Timperley et al., 2007, p. xlii). The Timperley et al. (2007) model in Figure 2.2 clearly comes from a perspective where students’ learning is not just the responsibility of the individual teacher but the whole organisation is collectively responsible for student achievement. Within the organisation there needs to be appropriate support and conditions for not only the students to achieve with their learning but also for the teacher to improve their teaching practice.
The third model at the forefront of the literature is Guskey’s (2000) model which is comprehensive, specifically designed for educational practice and contains five levels of evaluation. It is Guskey (2002) who stresses the importance of leaders using all five levels in any professional development evaluation. Guskey (2002) points out the complexity increases as leaders’ progress through the evaluation framework to build an overall picture of effectiveness of evaluation. The Guskey (2000) model is referred to by numerous authors (Lowden, 2005; Goodall et al., 2005; Earley & Bubb, 2004) in the literature who have either used it as the basis to their research or referred to it in their own writing.

The first level is ‘participants’ reactions’ and this is focused on the low-level approach of teacher satisfaction. This level is used to gauge whether the participants enjoyed the professional development. This low-level of evaluation is an important component of the overall five levels and the information gathered by leaders should be “appropriate, meaningful, and useful” (Guskey, 2000, p.94). The benefit of the ‘participants’ reactions’ level is that this is not where the evaluation process finishes but instead it is the beginning stage of five levels of in-depth evaluation. One approach to viewing Guskey’s (2000) model is to align it to features of effective professional development, as identified by Piggot-Irvine (2006). Level one ‘participants’ reactions’ is closely linked to identifying the quality of the facilitation for the professional development in Piggot-Irvine’s (2006) terms. The reactions of the participants to professional development are often reflective of the quality and engaging nature of the facilitator in the session.

The second level of Guskey’s model is ‘participants’ learning’ and focuses on teacher performance, attitudes, knowledge and skills of the participants (Earley & Bubb, 2004). Guskey (2000) maintains that changes in teacher practice need to occur for professional development to impact on students’ achievement. This level is vital for ensuring the link between the learning of teachers involved in professional development and the resulting changes to both teacher practice and student achievement. There are features of adult learning which can be used as indicators when evaluating at level two. These features identified by Piggot-Irvine (2006)
include approaches such as active learning, “links between theory and practice” (p. 485) for teachers and a “focus on practical and relevant issues for the participants” (p. 485).

The third level in Guskey’s (2000) model is ‘organization support and change’. This level focuses on the “attributes and organizational features of the school that are necessary for success” (Earley & Bubb, 2004, p.81). ‘Organizational support and change’ can include school policies, resources, protection for the learning from intrusions, support from leadership and colleagues, time to implement and learn from the professional development and a school culture or risk taking (Guskey, 2000). Level three is closely linked to features of effective professional development which contribute to the organisational level support for teachers’ learning. These are “existing contextual issues” (Piggot-Irvine, 2006, p. 485) which include cultural norms, such as a learner centred environment, the role of the principal which is a valuable support in developing a context which is conducive to effective outcomes of professional development. As identified by Jason (2003) the principal’s role is inclusive of promoting and supporting the evaluation of professional development. It is intentional then that a principal is ‘seen’ to be actively involved in the whole process of professional development which supports the improvement of the organisation. Level three also includes organisational level features of effective professional development which are linked to planning, at both a teachers’ level and an organisational level, such as strategic plans and school-wide goals (Piggot-Irvine, 2006). These are useful indicators when evaluating whether level three has been catered for in professional development.

In Guskey’s model (2000), the fourth level is ‘participants’ support and change’. It is centred on the impact the professional development has had on student learning and teacher practice (Earley & Bubb, 2004; and Guskey, 2002). Guskey (2000) suggests this level cannot be evaluated straight after the completion of professional development. Instead it is beneficial that participants need “sufficient time to reflect on what they learned and to adapt the new ideas to their particular setting” (Guskey, 2000, p.178). Unfortunately for leaders this approach to evaluation is complex,
drawn out and potentially is time consuming. At this level effective professional development success can be identified by whether participants have adjusted their teaching practice as a result of their new learning and whether this change has been maintained over a period of time. It is at this level for example that teachers are able to be provided with opportunities to engage in inquiry, using the models in Figure 2.1 and Figure 2.2 as part of their teaching practice, and opportunities for collaboration and receiving of feedback (Piggot-Irvine, 2006) both with leaders and colleagues.

The final level in Guskey’s model (2000) is ‘pupil learning outcomes’ which is focused on student achievement. Guskey (2000) suggests limitations in the evaluation of student achievement have arisen from the difficulty in linking professional development directly to an impact on student achievement and learning. It is positive to see the inclusion of this level in a model due to the importance of professional developments link to student achievement. Level five aligns to the features of effective professional development which concern student achievement and learning. These include “learning based on analyses between actual and goals for student learning” (Piggot-Irvine, 2006, p. 485) and “using multiple sources of information on outcomes for students” (Piggot-Irvine, 2006, p. 485). Each of these features is important when identifying whether at level five students have made improvements in their achievement and learning as a result of the teachers’ professional development. One vital aspect is using the “multiple sources of information” (Piggot-Irvine, 2006, p. 485) when evaluating whether there is an impact for students. The triangulation of data collected helps to improve the validity of the evidence which may include a variety of sources of data such as achievement data, anecdotal data and student reflections of their goal setting.

Muijs and Lindsay (2008) argue it is often difficult to identify whether an improvement in student achievement is attributable to one specific professional development. They contest that especially in schools it is “difficult to disentangle the impact of any CPD [professional development] from other factors and programmes in the school” (Muijs & Lindsay, 2008, p. 199). By using Guskey’s level five the linking of professional development to student achievement is still complex but it is positive
that through the inclusion of level five Guskey (2000) has made a conscious attempt to address this issue. This level five of Guskey’s (2000) model has many complexities and can often be identified as the most difficult level of evaluation for leaders.

All of these models are espoused as approaches which can support effective professional development evaluation in schools. The teacher inquiry models in Figure 2.1 and Figure 2.2 provide a perspective in which teachers can be directly involved in the process of evaluation about their own learning and student achievement. The teacher inquiry model is able to provide information to support the evaluation using models such as Guskey’s (2000) model, whereas the Guskey (2000) model itself is a specific and thorough approach which leaders can use as the basis for their evaluation practice. Goodall et al. (2005) suggest it is best to remember that with evaluation it “should not become too burdensome a procedure on schools and teachers involved in the process” (p. 34). This may be a challenge for school leaders to manage because of the significant reporting and accountability requirements of the New Zealand Ministry of Education. The Guskey (2000) model is a thorough approach to evaluation whereas the teacher inquiry models provide only part of the information contributing to a well-rounded evaluation. All models require time to ensure evaluation is carried out effectively and have the potential to become burdensome.

**What challenges do leaders face in evaluating professional development?**

*Barriers to measuring the impact of professional development*

Due to the complexity of evaluation there are many barriers to considering the impact of professional development. Yoon, Duncan, Lee, Scarloss and Shapley (2007) suggest one barrier to evaluating both teacher practice and student achievement is in evaluating specifically the ‘gains’ which have been made as a result of the professional development. DiPaola and Hoy (2008) argue that student learning and ‘gains’ are difficult to measure because of “various factors contributing to student
behavior” (p. 141). The measuring of ‘gains’ is made even more difficult, as discussed earlier in Guskey’s (2000) level five, with the complexity of linking improvements in student achievement to teachers’ professional development. The ‘gains’ which Yoon et al. (2007) identify are a weakness of the current use of evaluation in schools. The literature recognises this issue and authors such as Desimone (2009) “acknowledged a need for more empirically valid methods of studying professional development” (p. 181) and this is where research is needed to support the future use of evaluation. The ‘gains’ as a result of professional development are difficult for leaders to evaluate especially in the area of teacher practice. Improvements in both teacher practice and student achievement are an essential aspect of evaluation through Guskey’s (2000) model in level four and level five. Edmonds and Lee (2002) propose that it is “easier for teachers to identify impact on teaching rather than learning” (p. 29). They suggest teachers are able to informally say whether or not they have improved their practice due to professional development, whereas teachers are less likely to be able to provide actual evidence of their improvement or ‘gains’ (Edmonds & Lee, 2002). Desimone (2009) points out that evidence should instead be formal and focused on the areas of “teacher knowledge and pedagogical content knowledge” (p. 191). There is complexity in obtaining consensus from leaders about specifically what part of teachers’ practice is to be evaluated and how this is to be done (Desimone, 2009). Goodall et al. (2005) use a practical approach to addressing this issue and recommend more training for leaders to increase the effectiveness of the evaluation practice used in schools.

Another barrier is the practical consideration associated with evaluation, such as time. Effective evaluation requires a skilful approach and often there are time constraints due to the demanding nature of schools. Kreider and Bouffard (2006) emphasise that evaluation needs to be delayed following professional development to ensure the data is meaningful. The research carried out by Goodall et al. (2005) identified that time is a barrier to both the practice of leaders and the time for teachers to participate in valuable evaluation of professional development. Time is therefore a constraint for leaders and teachers to be involved in the process especially when maintaining evaluation over a prolonged length of time following the completion of professional development. Goodall et al. (2005) identified that time is
“often made for dissemination of learning through CPD [professional development], the process often stops there, with no further investigation as to the effect of that learning” (p. 116).

As referred to earlier, leaders need to have knowledge and an understanding of evaluation practices in order to carry out effective evaluation of professional development. Goodall et al. (2005) found in their research that leaders often had an insufficient knowledge of available approaches to evaluation. The research identified that this led to leaders being “unequipped with the tools to perform” (Goodall et al., 2005, p. 6) effective evaluation. In New Zealand the Education Review Office (2000) supports the idea that leaders can have difficulty knowing what “evaluation tools and techniques to use” (p. 74) and suggest this is closely aligned to the confusion about how to measure the improvements in teacher practice and student achievement as a result of professional development.

Maintaining anonymity and confidentiality can be complex when evaluating professional development. Authors Guskey (2000) and Piggot-Irvine and Cardno (2005) agree that protecting confidentiality and anonymity is an important element of evaluation. Anonymity and confidentiality are especially important when collecting written feedback which is often the focus at level one of Guskey’s (2000) model of evaluation. Piggot-Irvine and Cardno (2005) recommend that participants must be made aware that the person directly connected to the evaluation “will not see their evaluation forms” (p. 166). Guskey (2000) suggests that by ensuring anonymity it “generally guarantees more honest responses” (p. 90). Honesty is difficult to elicit from participants if confidentiality and anonymity are not protected and this is crucial “if their responses are critical or negative in nature” (Guskey, 2000, p. 103). There are a number of ways to counter a lack of anonymity and confidentiality. Piggot-Irvine and Cardno (2005) and Guskey (2000) suggest that evaluations should be collected by someone other than the person who is connected to the evaluation. Bryman (2008) discusses the use of online or email surveys to collect responses from participants, each of these approaches have their own strengths and
weaknesses, however online surveys have a better likelihood of ensuring confidentiality and anonymity.

*Shifts in professional development evaluation practice*

The literature has identified the use of low-level evaluation approaches and a limited use of research and/or models by leaders however it also suggests that the use of higher-level evaluation is beginning to be adopted more widely in education. Desimone (2009) identifies that this is because educators are beginning to better understand professional development and therefore how evaluation measures the impact on teacher practice and student achievement. There is now an increased awareness about the importance of professional development evaluation. This can be attributed to a number of reasons, such as a greater understanding of “the dynamic nature of professional development” (Guskey, 2000, p. 7). This increased awareness is closely linked to schools responding to greater accountability pressures in education (Guskey, 2000). Schools are therefore able to use evaluation as a means to gather valuable information to support not only their schools’ future professional development direction but also to demonstrate the worth of their current practices (Guskey, 2000). Alongside an increased awareness is the changing ‘face’ of evaluation towards its consistent use as a “high quality learning tool” (Porritt, 2009, p. 9) for improving teacher practice and student achievement and learning.

The literature indicates that school leaders have become more focused on professional development and the importance of evaluating it. Though the growing trend is towards a higher-level of evaluation the literature suggests concerns about validity or a lack of “effective feedback mechanisms” (Muijs & Lindsay, 2008, p. 208) remain when evaluation is at a high-level. The improved understanding of leaders about evaluation and the impact on teacher practice and student achievement (Desimone, 2009) may not signify the evaluation practice is effective. The Education Review Office (2000) acknowledged the need for effective evaluation is not just a concern in New Zealand but worldwide. It is positive to note that “most countries,
however, recognise the need for change and are devoting considerable effort to improving their evaluation systems” (Education Review Office, 2000, p. 72).

In education there is now an acknowledgement that there is a need for more practical knowledge regarding evaluation practice and its use in schools. The Goodall et al. (2005) research noted that schools did identify “a need for focused professional development and training that could assist them in evaluating CPD [professional development] more effectively” (p. 7). An increase in knowledge and practical approaches to evaluation of professional development can be closely aligned to the models of evaluation from authors such as that of Guskey (2000), as discussed earlier in this chapter.

Shifts in the evaluation of professional development are positive moves towards more effective use of evaluation. In New Zealand in 2000, the Education Review Office made the recommendation that schools “are required to define in their strategic and annual plans the expected outcomes of the training to be provided and to identify the criteria they will use to evaluate the extent to which these outcomes have been met” (p. 77). This is one move towards ensuring the close link between the professional development and its subsequent impact on teacher practice and student achievement.

**Summary**

This chapter has reviewed the literature associated with the evaluation of professional development. It has identified a number of complexities and barriers which clearly impact on the effective use of professional development evaluation in schools. Many of these barriers are due to the complex nature of both professional development and evaluation. It is important to note that authors in the literature do commonly identify the need for professional development to impact on both teacher practice and student achievement and learning.
It is clear that there are models available for leaders to access to support their practice of professional development evaluation. The teacher inquiry models in Figure 2.1 and Figure 2.2 are espoused as a practical approach to professional development which can provide opportunities for teachers to gather evidence to support the impact of their learning on their own practice and student achievement. The Guskey (2000) model is complex and places high demands on both the leaders and teachers involved in the evaluation process. If carried out well, however, it could be a highly effective and thorough approach to evaluating professional development.

Desimone (2009) identifies a trend in education towards leaders having improved knowledge and understanding about the use of evaluation. By leaders having a greater knowledge and understanding this can positively impact on the quality and effectiveness of the professional development evaluation used in schools. Increased effectiveness of evaluation will support professional development to subsequently have a greater impact on both teacher practice and student achievement.

The following chapter describes the methodology and methods used in this research designed to study the effectiveness of evaluation of professional development in a sample of New Zealand primary schools.
CHAPTER THREE: METHODOLOGY

Introduction

This chapter begins with establishing my research position, methodology and the research methods of interviews and a questionnaire are then explained. The demographics and response rate are introduced for this research. Finally in this chapter, issues of reliability, validity and ethical considerations are addressed.

Research position

My epistemological position can be described as interpretivist. Interpretivism is research focused on the “understanding of the social world through an examination of the interpretation of that world by its participants” (Bryman, 2008, p. 366). Cohen, Manion and Morrison (2007) suggest interpretivism is where a researcher is concerned with individual participants and aims to interpret and understand the wider world around them.

Interpretivism can be contrasted with the epistemological position of positivism. Positivism is an “epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond” (Bryman, 2008, p. 13) and it is useful for large scale research and testing. Therefore, because positivism is concerned with imitating the natural sciences, it does not fit with this study as the research was focused on the views of the participants and it is therefore clearly linked to interpretative research. There are many criticisms of positivism. Positivism fails to allow for the complexity of human behaviour and it is viewed as “passive, essentially determined and controlled, thereby ignoring intention, individualism and freedom” (Cohen et al., 2007, p. 18).
There are also many issues and complexities associated with interpretivism. The main issue identified in the literature is centred on the validity of the information gathered and findings from research. According to Denzin and Lincoln (2005) positivists believe that interpretivist or qualitative “researchers have no way of verifying” (p. 8) their statements from their research. This issue is linked to reliability and validity which will be discussed later in this methodology chapter.

Qualitative research methodology

My research methodology was qualitative. There is a strong link between the methodology of qualitative research and the epistemology of interpretivism because, as Bryman (2008) suggests “qualitative researchers are more influenced by interpretivism” (p. 384). Qualitative research is focused on the collection and analysis of data in the form of words (Bryman, 2008). This can include a variety of different methods, such as interviews, surveys, observation and document analysis. Qualitative research supports the collection of “open-ended, emerging data with the primary intent of developing themes from the data” (Creswell, 2002b, p. 18). Alternatively the methodology of quantitative data is centred on “quantification in the collection and analysis of data” (Bryman, 2008, p. 366) and is usually associated with the epistemology of positivism as explained earlier. By using the methodology of qualitative research the opportunity for my study to identify new data and understandings in the field of evaluation of professional development was sought. As part of this qualitative research, simple numeric data was collected.

The methodology of qualitative research has many strengths and limitations associated with its use for educational research. A strength of qualitative research is flexibility. The flexibility in the use of methods is an advantage for qualitative researchers because they are able to “adapt [their] method as the subject changes” (Davidson & Tolich, 2003, p. 29). From the perspective of quantitative researchers such flexibility can also be a weakness because it can create a “lack of rigour” (Davidson & Tolich, 2003, p. 29) in the research methods and therefore impacts on
the validity and reliability of the data and subsequent conclusions. Bryman (2008) points to a further limitation of qualitative research as a lack of transparency. He suggests that at times it is unclear how the researcher reached the conclusions of the study “in other words, what the researcher was actually doing when the data were analysed” (Bryman, 2008, p. 392).

**Research methods**

*Introduction*

The first data collection method employed in my study was semi-structured, face to face, interviews. Semi-structured interviews involve asking an individual a series of questions focused on a topic (Bryman, 2008). The second method was a questionnaire (refer Appendix 1). Questionnaires are a collection of questions used to collect data from individual participants (Bryman, 2008). Each of these two methods will be discussed in detail in the following section.

*Interview*

Bryman (2008) suggests the method of interviewing is a well used qualitative research tool. I chose this method because my research questions were focused around exploring the understandings and practice of leaders. Bryman (2008) suggests an advantage of qualitative interviewing is the ability for the interviewer to “depart significantly from any schedule or guide that is being used” (p. 437). There are two main types of interviews, unstructured and semi-structured. Unstructured interviews are able to provide qualitative researchers with an extensive and almost free approach to interviewing based on a chosen research topic or focus (Fontana & Frey, 2005) whereas semi-structured interviews are more precise and have a “list of questions or fairly specific topics to be covered” (Bryman, 2008, p. 438). Semi-structured interviews were the most appropriate to my study because I had a specific focus and questions framing my research. This frame therefore provided an outline of areas to be investigated.
Semi-structured interviews involve many elements to make the interviewing process successful, including planning, using an interview guide and piloting the interview. It is important when interviewing to be prepared and organised. The main components of an interview guide include specific questions which aid in answering the research questions, language appropriate to the interviewees and the avoidance of leading questions (Bryman, 2008). Leading questions are questions which make “assumptions about interviewees or ‘puts words into their mouths’, where the question influences the answer, perhaps illegitimately” (Cohen et al., 2007, p. 151). Authors Fontana and Frey (2005) point out that “the spoken or written word always has a residue of ambiguity” (p. 697) no matter how hard we try to guard against ambiguity in our interviewing. The reliability and validity of the interview as a research method will be discussed later in this chapter. The interview guide assists the interviews to be organised and partially structured through a series of questions which allow the participants flexibility in their responses (Bryman, 2008). Having a semi-structured interview approach allowed for deviation from my questions when necessary while ensuring similar questions were in each interview. Piloting is an important element to use when preparing for interviews. The strength of piloting an interview is in ensuring questions in the interview guide are concise and sequential. Piloting can add rigour to the interview and for first time interviewers is a good opportunity to practice interviewing skills (Bryman, 2008; Hinds, 2000). The interview guide used in my study was piloted with a leader in my school who was not a participant in this study. This built my own confidence as a first time interviewer. For my interviews I was prepared so the interviewee knew the “location of the interview, the recording of the interview, its subsequent write-up or transcription and analysis” (Hinds, 2000, p. 48).

For my interviews I provided an information sheet (refer Appendix 2) to participants and gained written consent (refer Appendix 3) for their participation in the research. The interviewees were initially contacted via email or a phone call to request their involvement in the research. If there was more than one voluntary respondent from each school further purposive sampling occurred to ensure a range of leaders was selected to maintain a spread across experience and gender. In brief, purposive sampling means selecting participants who are strategically appropriate for the
research (Bryman, 2008). I chose to carry out four face-to-face interviews because, as the literature suggests, qualitative interviewing is “not counting opinions or people but rather exploring the range of opinions, the different representations of the issue” (Gaskell, 2000, p. 41). Prior to beginning my interviews I was in contact with the principal of each school to find out whether any of the research participants are Maori. Further explanation of cultural considerations is discussed later in this chapter.

Transcription is an important element of interviewing and includes recording of the interview. It is important for transcriptions to be offered to participants to provide them with the opportunity to check the accuracy of the transcription (Hinds, 2000). A limitation of the transcription process is the time-consuming nature of transcription (Bryman, 2008). Bryman (2008) suggests that “you must allow sufficient time for transcription, be realistic about how many interviews you are going to be able to transcribe in the time available” (p. 453) and he indicates that an hour of interview will take “five – six hours for transcription” (p. 453). Taking this into consideration, this influenced the number of participants involved in the interview process for my research. In establishing my sample size I took into consideration the length of the transcription process and that “more interviews do not necessarily imply better quality or more detailed understanding” (Gaskell, 2000, p. 43). For my interviews I gained written consent from participants so that the interviewee was aware that they were recorded and that I used a digital recording device. Following the interview, participants were offered the opportunity to read their transcription once completed and the recordings were then transcribed.

Finally it is important to acknowledge my personal approach to the interviews. The way I conducted my interviews was underpinned by a number of principles, including creating atmosphere and responding to the participants’ needs (Kvale, 1996). These principles supported the interview process and facilitated making the interview participants comfortable in the environment of the interview. Kvale (1996) suggests this involves principles such as the interviewer creating an “atmosphere in which the subject feels safe enough to talk freely about his or her experiences and feelings” (p.
125) and open to letting the interview process respond to the needs of the participant. Alongside these principles, Bryman (2008) has identified that the interview needs to be balanced between the contributions of the participants and the interviewer’s questions while also being ethically sensitive which includes ensuring confidentiality for the research participants.

**Questionnaire**

The second method used in my study was the questionnaire. Questionnaires are a common method of collecting both qualitative and quantitative data (Clarke & Dawson, 1999). A strength of the use of questionnaires is that they are able to be distributed to large numbers of participants at the same time while collecting a large quantity of data (Walker, 1985 as cited in Wellington, 2000). Questionnaires are a reliable method of collecting data because they have a consistent order of questions and structure that is not influenced by the presence of a researcher (Bryman, 2008). Questionnaires have many complexities for a researcher to consider. Complexities can arise and researchers need to think carefully about the design of the questionnaire, pilot testing and administering of the questionnaire. Complexity is especially evident in questionnaire design, language, ambiguity and repetition. These complexities are important to regard because questionnaires are a valuable research tool which is “capable of producing large quantities of highly structured, standardized data” (Clarke & Dawson, 1999, p. 69). The process of creating my questionnaire involved writing and editing the content. The questionnaire was pilot tested to reduce any unnecessary or ambiguous questions.

The effective design of a questionnaire is essential to collecting valid data. Clarke and Dawson (1999) say if a questionnaire is poorly designed the data generated can be both inadequate and impact on the validity of the research. The complexities of questionnaire design can include the layout of the questionnaire, type of questions, use of language within questions and scale used. I used an introduction and clear instructions to guide the participants through the questionnaire for my research.
Questions asked in a questionnaire should be directly linked to the aims and research questions (Clarke & Dawson, 1999). A limitation of questionnaires can be if open questions are used which may require participants to write detailed answers. A further limitation on the quality of the data collected can be questions or statements which are not sequential and easy to follow (Clarke and Dawson, 1999). My questionnaire included a combination of ranked questions in likert scales and open questions which allowed participants to provide a written response. The questionnaire used a six point likert scale with two different scale descriptors. For example one scale included words ranging from ‘strongly agree’ to ‘strongly disagree’ where the other scale ranged from ‘always’ to ‘not at all’. My scales changed descriptors because they reflected the content of the statements they were linked to. The data from my questionnaire was largely qualitative with basic interpretation of numeric data as a form of simple quantitative analysis. A strength of my questionnaire was that the questions asked and statements used were directly linked to the aim and research questions of my study.

Pilot testing is important to ensure a questionnaire is easy to follow and includes questions and statements which can be understood by the participants (Clarke & Dawson, 1999). My questionnaire was pilot tested prior to administering it in schools. The pilot test was conducted with a non-participant who approached the questionnaire from their own perspective. From the pilot testing I was able to reflect on the inclusion of one particular open question ‘What does professional development look like in your school?’ . The reviewing of this question aimed to reduce the time taken for participants to complete the questionnaire. Based on the pilot testing it was clear that this question made an impact on the overall information gathered from the questionnaire and I selected to retain the question.

Response rates can be an issue with the use of questionnaires, especially postal questionnaires (Bryman, 2008). To encourage a high response rate, questionnaires can be administered in a group setting which can also allow participants the opportunity for clarification if they do not understand a question (Trochim, 2001). Questionnaires should be accompanied by an information sheet or letter “explaining
the purpose of the research” (Clarke & Dawson, 1999, p.69). The reliability of questionnaires can be strengthened through their replication; this process should generate similar results (Davidson & Tolich, 2003). Clarke and Dawson (1999) recommend questionnaires should not be too long for participants to complete.

The questionnaire for this research was distributed in person to participants at a pre-arranged time in a staff meeting at each school. My questionnaire was administered to 56 teachers for them to individually complete at the beginning of a staff meeting for both convenience and to improve the response rate for the return of questionnaires. Presenting the questionnaire at the meeting allowed me to introduce myself to all participants and explain the purpose of my research and their involvement in my study prior to them receiving the individual copies of the questionnaire. Each questionnaire was supported with an information sheet (refer Appendix 4) explaining the research and participants involvement. The participants were able to clarify any questions they needed further explanation on whilst they completed the questionnaire. The questionnaire was replicated in each of the four schools, which strengthened the reliability of the data collected. There was no sampling process involved as all the teachers within the school were invited to be research participants. All teachers from each school were asked to voluntarily complete the questionnaire at the beginning of a staff meeting and if any teachers’ selected not be involved in the research they were able to leave the meeting for ten minutes while their colleagues completed the questionnaire. All teachers in each of the four staff meetings selected to complete the questionnaire. My questionnaire was intended to take approximately ten minutes for participants to complete as was established in my piloting. Though for some participants it took 15 to 20 minutes while others were able to complete the questionnaire in less than ten minutes.

Research sampling

Purposive and convenience sampling are both forms of sampling used in qualitative research. Purposive sampling is the selection of research participants through a strategic approach. It does not use random sampling (Bryman, 2008). Purposive sampling can be used to ensure participants are “people who are relevant to the
research questions” (Bryman, 2008, p. 458). Convenience sampling is where “the researcher selects participants because they are willing and available to be studied” (Creswell, 2002a, p. 167). Schools involved in my research were selected using purposive and convenience sampling from the wider population of Auckland primary schools. Purposive sampling was used to ensure the senior leaders selected had the appropriate responsibility and experience to be involved in the study. Involvement in both the interviews and questionnaires was sought from the four Auckland primary schools. To determine my sample size, I needed to consider the quantity of data to be collected using the questionnaire, so that schools selected would have enough teachers willing to take part in the research.

In the first instance, schools were selected based on purposive sampling. The Ministry of Education website was used to identify primary schools within a size range of U4 (school roll numbers between 151-300) and U5 (school roll numbers between 301-500). My own school is a U4 therefore this sample range meant my findings related well to my own school context in size only. Secondly, a convenience sampling approach was used to reduce the list to include only schools within central Auckland and the North Shore to limit time spent on travelling to the schools. Schools were initially approached through an email to the principal, followed by a meeting with each principal to further discuss my research. The first four school respondents were used in the research. All participants were current practising primary school teachers and the four leaders interviewed were selected because they were responsible for professional development in their school.

Demographics and response rate
There were four primary schools involved in this research. Two of the schools were from Central Auckland and two from the North Shore. Three of the schools were within the U5 range (school roll numbers between 301-500 students) and one school was within the U4 range (school roll numbers between 151-300 students).
Each of the interviews involved leaders. Of the four leaders, three were deputy principals, one of which was in an acting deputy principal position. One leader was the school Special Education/al Needs Co-ordinator (SENCO) with additional leadership responsibilities. In the four schools, senior management teams ranged in size from three to seven senior leaders. In three schools the senior management teams were inclusive of their senior teachers. Only two leaders had been in their current position for five years. One leader had been in their role for three years and one leader was in their first year of a leadership role.

There were 56 participants who completed the questionnaire. Participant numbers varied across each of the four schools, ranging from 11 participants through to 18 participants. There was a 100% response rate to the questionnaire. The participants were asked three questions in this section of the questionnaire focused on their length of teaching practice, whether they were full time or part time teachers and their teaching position.

Table 3.1 Length of teaching practice

<table>
<thead>
<tr>
<th>Length of teaching practice</th>
<th>Less than 2 years</th>
<th>Between 2 and 5 years</th>
<th>Between 5 and 10 years</th>
<th>More than 10 years</th>
<th>Total responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of responses</td>
<td>0</td>
<td>9</td>
<td>13</td>
<td>34</td>
<td>56</td>
</tr>
</tbody>
</table>

Table 3.2 Full time or part time teachers

<table>
<thead>
<tr>
<th></th>
<th>Full time teacher</th>
<th>Part time teacher</th>
<th>Total responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of responses</td>
<td>51</td>
<td>5</td>
<td>56</td>
</tr>
</tbody>
</table>

Table 3.3 Teaching position

<table>
<thead>
<tr>
<th></th>
<th>Classroom teacher</th>
<th>Syndicate/team or senior leader</th>
<th>Both classroom teacher and syndicate/team or senior leader</th>
<th>Total responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of responses</td>
<td>37</td>
<td>8</td>
<td>11</td>
<td>56</td>
</tr>
</tbody>
</table>

Most participants had been teaching for more than ten years and no beginning teachers (less than two years teaching) were involved in this questionnaire. The majority of participants, 51 out of 56, were full time teachers and only a small
number, five out of 56, were part time teachers. Classroom teachers were the main participants and 11 participants had the dual roles of classroom teacher and syndicate/team leader or senior leader.

*Ensuring validity and reliability*

Validity will be discussed in relation to the two methods in my study, interviews and questionnaires. Validity is the “degree to which a method, a test or a research tool actually measures what it is supposed to measure” (Wellington, 2000, p. 30). Bryman (2008) extends the idea of validity when suggesting it is linked to the integrity of the findings of a study. There are two main kinds of validity: internal and external. Internal validity is concerned with the “design of the research project (specifically, that there are no errors in the research design)” (Davidson & Tolich, 2003, p. 32) whereas external validity is focused on the generalising of the research findings to people beyond the initial study (Bryman, 2008; Keeves, 1997; Cohen et al., 2007). With external validity, Davidson and Tolich (2003) suggest that “although the results [of qualitative research] may not be generalisable to other locations, the results presented accurately reflect the opinions or actions of the people in the study” (p. 34).

I aimed to strengthen validity through triangulation. Triangulation is the “use of more than one method or source of data in the study of social phenomenon so that findings may be cross-checked” (Bryman, 2008, p. 700). The triangulation in my research involved using both interviews of leaders and questionnaires with teachers. The themes identified in the questionnaires with teachers were compared to the themes that emerged from the interviews with leaders and therefore, I combined two methods of research to inform my findings.

To help improve validity I used qualitative research methodology to answer my research questions (Cohen et al., 2007). Authors Cohen et al. (2007) identify that bias is often introduced by an interviewer. Cohen et al. (2007) suggest bias is
reduced through avoiding seeking “answers that support the preconceived notions” (p. 150), “misperceptions on the part of the interviewer of what the respondent is saying” (p. 150) and “misunderstandings on the part of the respondent of what is being asked” (p. 150). My study aimed to avoid the many downfalls which could have introduced bias in my interviews and questionnaire. In the interviews I tried to reduce bias by following the interview guide (refer Appendix 5) closely and not trying to lead the participants’ when questioning. In the questionnaire I tried to not include leading questions and used a clear and easy to follow format for participants to follow. The interview and questionnaire were both piloted in an attempt to reduce bias.

Reliability is an area which is a strength of some quantitative research because “if a data collection exercise were to be replicated, the procedures should generate the same results” (Davidson & Tolich, 2003, p. 33). Qualitative research is less likely to be able to have its analysis and findings replicated due to the interpretative approach used by individual researchers, although Cohen et al. (2007) argue the importance of qualitative researchers striving for reliability through “replication in generating, refining, comparing and validating constructs” (p. 148). In my study, I clearly explained my procedures for the research to support the reliability of my research design. The interviews in my study were semi-structured and followed an interview guide and this meant that each interview had the majority of questions replicated with each of the four participants. This also helped to support the reliability of the data I collected, as did using a digital recording device to accurately record participants’ contributions. My transcriptions were offered to participants for review in order to improve the reliability and validity of their responses and to enhance their involvement in the study. The questionnaire is a method which is structured and therefore can be replicated. In my study the questionnaire, the method of administering the questionnaire and the content were replicated in each of the four schools. When the questionnaire was administered in each school the data collected was different for each participant because each participant approached the questionnaire from a different perspective. The reliability of this method was therefore enhanced via the administration and content of the questionnaire.
Data analysis methods

Analysis is the process which follows on from the collection of data gathered in a study. Analysis changes raw data into a clear collection of findings or outcomes (Loftland, Snow, Anderson & Loftland, 2006). There are different approaches to analysis and in this study thematic analysis was used. Thematic analysis is common approach used to analyse qualitative data (Bryman, 2008). Identifying common themes and connections is useful so that researchers have data to compare through similarities and differences (Ryan & Bernard, 2003). Loftland et al. (2006) identify the importance for a researcher to analyse data both “persistently and methodically” (p. 199). A useful strategy is for researchers to begin analysing data once it has been collected, not leaving large amount of time between the collection of data and analysis (Loftland et al., 2006) making the process of analysis less overwhelming for the researcher. In my study I identified common themes and connections, such as topics which were repetitive and had similarities and differences. It was useful that I began analysing data once it had been collected, not leaving large amounts of time between the collection of data and analysis and this made the process of analysis of transcripts less overwhelming.

Coding can be used as a tool to identify themes from the data. It is the “process of sorting your data into various categories that organize it and render it meaningful” (Loftland et al., 2006, p. 200). Coding is usually closely associated with grounded theory, but as Bryman (2008) suggests, thematic analysis can be “built up out of groups of codes” (p. 554). A limitation of coding is the possibility the overall understanding of the data may be lost in context, as data tends to be looked at systematically and in smaller chunks (Bryman, 2008). Interviews and focus groups both produce large amount of data for analysis. Bryman (2008) says it is difficult to develop analysis strategies which include both generating themes and takes into consideration the interaction of the people involved in the study. As my study progressed it was essential that I responded to the data I collected and adjusted my analysis to reflect the content. This started with using coding to identify a collection of themes and led to identifying new themes while coding the data. In the
questionnaires I quantified data from closed-questions by deriving means as a form of simple quantitative analysis.

**Ethical considerations**

Ethical considerations are a significant aspect of research because many studies involve people. Bryman (2008) suggests the ethics in social research introduces concerns about the role values play in research. There are often conflicts about ethical issues and what “is and is not ethically acceptable” (Bryman, 2008, p. 113). The main reason that researchers seek ethical approval is because research can cause harm to participants if it is not properly considered (Bryman, 2008). Research can impact on participants; it is important the benefits to some participants do “not justify burdens on others” (Wilkinson, 2001, p. 15).

A key aspect of undertaking research ethically is gaining informed consent (Bryman, 2008). Wilkinson (2001) highlights the importance of informed consent being given voluntarily and “obtained neither by coercion nor by force” (p.16). Seeking permission is only part of this process. It is also important that participants are provided with research information and therefore fully informed about the research they will be involved in (Bryman, 2008; Wilkinson, 2001). Unfortunately when seeking consent and requiring participants to sign off on a form this can “prompt rather than alleviate concerns on the part of prospective participants” (Bryman, 2008, p. 123) which could reduce the number of voluntary participants. Researchers will always have more knowledge and a greater understanding about their study than participants (Wilkinson, 2001). This can be addressed by providing participants with relevant information to ensure they understand the research as much as is possible (Wilkinson, 2001). An information sheet positively provides participants with “the opportunity to be fully informed of the nature of the research and the implications of their participation at the outset” (Bryman, 2008, p. 123). Firstly my study involved gaining written organisational consent from each of the schools for their participation in this research. My study gained informed consent by asking individual participants to sign a consent form prior to engaging in the interviews. Completion of the questionnaire itself implied consent from participants to be involved. Asking
participants to sign a consent form allowed them to consider whether they had understood the research aims and how the research was to be used. In my research if participants chose not to sign a consent form they were not required to take part in the research. As explained earlier each participant in my study was provided with an information sheet outlining the background to the study prior to participating in an interview or answering a questionnaire.

Confidentiality and anonymity are important ethical issues for consideration in research. Anonymity means the “participant will remain anonymous throughout the study” (Trochim, 2001, p. 24). As Bryman (2008) says “care needs to be taken when findings are being published to ensure that individuals are not identified or identifiable” (p. 118). The main concerns for these issues are the recording, transcription and long-term storage of records from the study (Bryman, 2008). Deception is when “researchers represent their work as something other than what it is” (Bryman, 2008, p. 124). In this study anonymity was preserved for participants by the exclusion of names of participants and other identifiable characteristics of schools from transcripts used in the study. Confidentiality was maintained in my research through the safe storage of hard copy records and transcripts (in a locked cabinet) and electronic files, such as voice files (in password protected files). My study aimed to prevent deception by initially providing a concise and clear research proposal and ethics application. Participants were given information sheets about the study and these were written clearly with no intent to deceive the participants.

My study was not centrally focused around Maori participants, but there was the possibility Maori participants were within the sample used for the study. Prior to meeting with staff to carry out the questionnaire and interviews I was in contact with the principal of the school to find out whether any of the participants were likely to be Maori. I sought guidance from the Maori academic staff from the Maia Maori Development Centre who have expertise in this area and they were able to provide me with feedback on my research.
The Treaty of Waitangi principles of **participation**, **partnership** and **protection** were adhered to in my research. **Participation:** If it was required I was prepared to seek guidance and participation from kaumatua at each school. **Partnership:** I acted in good faith when carrying out my research. **Protection:** Participants were assured their anonymity when participating and the confidentiality of their contributions in my research. Although this study did not use a Kaupapa Maori framework I sought to draw on Kaupapa Maori practices and my research specifically addressed the:

1. “Aroha ki te tangata (a respect for people)” (Tuhiwai Smith, 1999, p. 120): I demonstrated respect for all participants in my research. This was through the way I presented myself, the way I interacted with participants and wider school and by providing participants with plenty of information about both myself and my research so they were informed.

2. “Kanohi kitea (the seen face, that is present yourself to the people face to face)” (Tuhiwai Smith, 1999, p. 120): I presented myself in person to the participants in the questionnaire and leaders for the interview. I met and interacted with the participants, introducing myself and provided them with some background about myself and my journey to this point in my life.

3. “Titiro, whakarongo… korero (look, listen… speak)” (Tuhiwai Smith, 1999, p. 120): when meeting the participants I ensured I was able to both listen to their concerns, thoughts or queries about my research either within the group setting or individually and speak about the research, myself and my involvement in education.

When I met or contacted principals for each of the schools I established if any of the participants from each school were Maori. Contact with the school principals did not identify any Maori participants involved in this research. If there were Maori participants I was prepared to seek support of the school principal and approach the local kaumatua for guidance concerning protocol specific to the school. The results from my research were then to be offered to both the school and the local kaumatua.
Summary

This chapter sought to explain the methodology used in this research on effective evaluation of professional development. The research used a qualitative research methodology to collect data and the findings will be examined and analysed in the next chapter. Data was collected using the qualitative methods of interviews and questionnaires and these methods provided an opportunity to gather data from different perspectives using participants who were classroom teachers, team leaders and leaders. The chapter discussed sampling and steps to ensure reliability and validity and it concluded with a discussion of ethical considerations relevant to the research.

Chapter Four will present the research findings. The findings have been organised under each of the research tools, of questionnaires and interviews, used to collect the data.
CHAPTER FOUR: FINDINGS

Introduction

This chapter includes an analysis of the data gathered through research in four New Zealand primary schools. The analysis includes the data collected through questionnaires with teachers and interviews with leaders. The questionnaire included a combination of likert scale statements and written comments.

Questionnaire results

The process of professional development evaluation

This question asked participants about their understanding of the process of professional development evaluation. Qualitative answers were given by 55 participants.

The response from 15 participants was that this process included reflection on the professional development to determine the worth, strengths and weaknesses. Another common response (11 participants) was that evaluation was used to establish if professional development made a difference to both teachers practice and student achievement and learning. One participant indicated it was a:

"critique of P.D. to ascertain if P.D is effective, worthwhile and transferred to all parts of school life e.g. knowledge and practice of teacher..."

Nine participants commented that the process of evaluating included identifying how effective professional development has been. Five participants identified that the process of evaluating is focused on supporting teachers with changing their teaching practice as a result of the professional development. One participant stated the process is about:

"whether or not it is carried through to your teaching and how confident you feel implementing it."
Two participants identified that the process of evaluation used assessment sheets at the end of the session to rate the effectiveness of the professional development. One participant commented that these sheets:

*rate or state our understanding of the PD using a number (1-10 rating), smiley faces, sad faces.*

Five participants responded that the evaluation of professional development is carried out through feedback and feed forward. Four participants identified that this process helps to identify areas or next steps for future professional development. One participant noted evaluation is used to “...determine whether teachers have benefitted from it and if further PD is needed”. Two participants commented that evaluation was used to determine whether the presenter or teaching of the professional development has been effective. A participant responded that evaluation:

*depends largely on the provider whether they are seeking feedback on the effectiveness of the course.*

Only two participants noted that they had no understanding of the process of evaluating professional development.

**Professional development evaluation in schools**

All 56 participants responded to this question about what professional development evaluation looks like in their school. The most common reply (16 participants responding) was that they evaluated through discussions, both formal and informal. Commonly 15 participants indicated the use of a variety of evaluation tools. These tools included a Plus/Minus/Interesting (PMI) chart, a KWL (what we know/what we want to learn/what we learnt) chart and think/pair/share. One participant commented that they have evaluated professional development by:

*standing on a line 1-10 how valuable did you think that training was or where do you feel you are in regards to a set question.*
Another participant responded that their judgement when evaluating is:

...usually based on anecdotal evidence, have not as yet used, say, testing or other tool to provide formal data.

Commonly 11 participants identified reflection and the identification of next steps as part of evaluation. Sharing as a form of evaluation was discussed by 11 participants, for example in team or staff meetings. One participant commented that they “share good practice – for others to learn from; discussions on what is going well”. Eight participants commented that the evaluation of professional development has been through different forms of written feedback, including evaluation forms, surveys and questionnaires. One participant indicated that they had used an online survey for evaluating their professional development. Of the respondents only four participants were uncertain as to whether they evaluated professional development in their school. One participant commented:

we don’t really evaluate professional development. We chit chat about it but don’t unpack it.

Another participant commented that:

at school there may be opportunities to evaluate the PD in team or as staff. Very ad hoc though.

Three participants said their school used professional development folders, including appraisal and professional development information, as a way to evaluate their professional development. Two participants identified that evaluation included the analysis of student achievement data.

**Professional development in schools**

Responses to this question were made by 55 out of the 56 participants. There was a multitude of responses using varied terms and descriptions for the professional development in their schools. Most participants indicated more than one form of professional development when describing what it looks like in their school. One participant identified “PD is very mixed here”. Another participant said it is “varied
and cross curricular...”. Responses included 27 participants who stated that professional development in their school was evident in staff meetings. A common type of professional development identified by 24 participants was that of attending conferences or courses. Three participants responded that professional development was a mixture of on and off site development.

The use of outside ‘experts’ coming into the school was identified by 12 participants whereas four participants indicated the use of internal expertise. Responses included 12 participants who stated that professional development was through observations and modelling. Nine participants commonly identified syndicate meetings, although similarly seven participants responded learning communities were used for professional development.

Seven participants identified discussion was a form of professional development. Five participants responded that coaching was part of their professional development and five participants commented that professional development was linked to their whole school focus for the year. One participant commented that professional development “depends on the focus/area of need as can be school wide or individual”. Another participant noted it was “choosing where we want development and giving the opportunities to develop”. Professional readings were indicated by four participants as part of their professional development. A participant responded that their professional development is “very busy – almost too much and no time for consolidation”.


**Professional development in schools**

This section used a likert scale with the indicators identified in Table 4.1 as well as qualitative responses associated with the type of professional development and its evaluation.

Table 4.1 Likert scale

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Somewhat disagree</td>
<td>Somewhat agree</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

Table 4.2 Professional development in schools

<table>
<thead>
<tr>
<th>Questionnaire statements</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional development in my school is focused on my areas of need</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>16</td>
<td>25</td>
<td>6</td>
<td>3.51</td>
<td>55</td>
</tr>
<tr>
<td>All professional development should impact on my teaching practice</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>19</td>
<td>17</td>
<td>3.82</td>
<td>56</td>
</tr>
<tr>
<td>Evaluation of professional development is important to help improve my teaching practice</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>27</td>
<td>17</td>
<td>4.04</td>
<td>54</td>
</tr>
<tr>
<td>All professional development should impact on student achievement</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>8</td>
<td>16</td>
<td>26</td>
<td>4.11</td>
<td>56</td>
</tr>
<tr>
<td>Professional development should be evaluated</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>4</td>
<td>26</td>
<td>18</td>
<td>4.04</td>
<td>54</td>
</tr>
</tbody>
</table>

**Professional development focus**

The mean of 3.51 fell between the ‘somewhat agree’ and ‘agree’ responses. This was the lowest mean out of the statements in Table 4.2. The majority of participants, 47 out of 55, agreed to some degree that professional development in their schools is focused on their areas of need. A small proportion, eight out of 55 participants, disagreed or somewhat disagreed that professional development focused on their needs.
Impact on teaching practice and student achievement

The mean for this statement focused on teaching practice was 3.82 and is between the ‘somewhat agree’ and ‘agree’ responses. An overwhelming majority of participants, 51 out of 56, agreed to some degree that all professional development should impact on their teaching practice. Most participants, 44 out of 54, agreed or strongly agreed that evaluation is important to help improve their teaching practice. The mean response was 4.04 for the statement in Table 4.2 about the importance of evaluation to help improve teaching practice. The mean fell between ‘agree’ and ‘strongly agree’, however it was closer to the ‘agree’ response.

Similarly, the majority of participants, 50 out of 56, agreed to some degree that all professional development should impact on student achievement and learning. The mean for this statement was 4.11. Out of the statements in Table 4.2 this was the highest mean. Of these responses a large proportion, 26 out of 56, strongly agreed that professional development should impact on student achievement and learning.

Evaluation of professional development

Most participants, 44 out of 54, agreed or strongly agreed that professional development should be evaluated. For this statement in Table 4.2 the mean response was 4.04. The mean response was closer to ‘agree’ than ‘strongly agree’.
Teachers’ involvement in evaluation

Table 4.3 Teachers’ involvement in evaluation

<table>
<thead>
<tr>
<th>Questionnaire statements</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am directly involved in the evaluation of professional development in my school</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>13</td>
<td>13</td>
<td>12</td>
<td>3.09</td>
<td>54</td>
</tr>
<tr>
<td>I would like to be directly involved in the evaluation of professional development</td>
<td>1</td>
<td>4</td>
<td>13</td>
<td>7</td>
<td>17</td>
<td>11</td>
<td>3.28</td>
<td>53</td>
</tr>
<tr>
<td>I am encouraged by our leadership to discuss how professional development has impacted on my teaching practice</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>10</td>
<td>27</td>
<td>12</td>
<td>3.77</td>
<td>56</td>
</tr>
<tr>
<td>I am encouraged by our leadership to discuss how professional development has impacted on my students’ achievement and learning</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>8</td>
<td>30</td>
<td>11</td>
<td>3.79</td>
<td>56</td>
</tr>
</tbody>
</table>

Teachers’ involvement in professional development evaluation

The mean response for the first statement in Table 4.3 was 3.09 and closest to the ‘somewhat agree’ response. This mean is lowest out of the statements in Table 4.3. The majority of participants, 36 out of 54, agreed to some degree that they had direct involvement in the evaluation of professional development in their school. Four participants strongly disagreed that they had direct involvement in the evaluation of professional development. The majority of participants, 35 out of 53, agreed to some degree that they would like to be directly involved in the evaluation of professional development, whereas 13 participants somewhat disagreed regarding their want to be directly involved. These findings are similar to the mean response of 3.28 for this statement. This mean is within the responses of ‘somewhat agree’ and ‘agree’.
Teacher involvement in discussion on teaching practice and student achievement

Participants mostly, 49 out of 56, agreed to some degree that their leadership encourages them to discuss the impact professional development has made on their teaching practice and students’ achievement and learning. The mean was 3.77 for discussions on teaching practice. This is similar but slightly lower than the mean of 3.79 for discussions about student achievement. Both the means were within the responses of ‘somewhat agree’ and ‘agree’. A small proportion, seven participants, disagreed or somewhat disagreed that they were encouraged by their leadership to discuss the impact of their professional development on their teaching practice and students’ achievement and learning, as shown in Table 4.3.

Leaders’ role in professional development evaluation

Table 4.4 Leaders’ involvement in evaluation

<table>
<thead>
<tr>
<th>Questionnaire statements</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of professional development is carried out by leaders in my school</td>
<td>0</td>
<td>3</td>
<td>8</td>
<td>15</td>
<td>21</td>
<td>8</td>
<td>3.42</td>
<td>55</td>
</tr>
</tbody>
</table>

The majority of participants, 44 out of 55, agreed to some degree that in their school the evaluation of professional development is carried out by leaders. The mean was 3.42 for the statement in Table 4.4. This mean fell between the ‘somewhat agree’ and ‘agree’ responses. A small group of participants, 11 out of 55, disagreed or somewhat disagreed with this statement.
Evidence of the impact on teaching practice

Table 4.5 Impact of professional development

<table>
<thead>
<tr>
<th>Questionnaire statements</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can show evidence of how professional development has impacted on my teaching practice</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>31</td>
<td>14</td>
<td>4.05</td>
<td>55</td>
</tr>
</tbody>
</table>

Nearly all participants, 54 out of 55, responded they agreed to some degree that they could show evidence of how professional development has impacted on their teaching practice. The mean was 4.05 for the statement in Table 4.5 and was closest to the ‘agree’ response. This mean focused on teaching practice is higher than the mean response for the statement in Table 4.6 about student achievement.

Examples were offered by 52 participants of how they can show evidence that professional development has impacted on their teaching practice. Common examples included 15 participants suggesting change that will be evident in their teaching practice, 13 participants responded it will be reflective in their student achievement data, 13 suggested changes will be in their own long-term or short-term planning and ten participants responded the evidence will be in their students’ class work.

Evidence of the impact on students’ achievement

Table 4.6 Impact of professional development

<table>
<thead>
<tr>
<th>Questionnaire statements</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can show evidence of how professional development has impacted on my students’ achievement and learning</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>31</td>
<td>5</td>
<td>3.69</td>
<td>52</td>
</tr>
</tbody>
</table>
Similar to the statement in Table 4.5, most of participants agreed to some degree, 48 out of 52, that they could show evidence of how professional development has impacted on their students’ achievement and learning. The mean was 3.69 for the statement in Table 4.6 and fell between the ‘somewhat agree’ and ‘agree’ responses. This mean is lower than the mean of 4.05 in Table 4.5.

Examples were offered by 53 participants of how they can show evidence that professional development has impacted on their students’ achievement and learning. Common examples included 33 participants responding that the evidence will be seen in student achievement data and 19 participants identified student work as a source of evidence of learning and achievement. Nine participants responded that evidence will be seen in modelling books used with students. Only one participant suggested it was difficult to differentiate between evidence of the impact of professional development on teaching practice and student achievement.

**Evidence of professional development**

This section used a likert scale with the indicators identified in Table 4.7 as well as qualitative responses.

<table>
<thead>
<tr>
<th>Table 4.7 Likert scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>Not at all</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4.8 Evidence of professional development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire statements</td>
</tr>
<tr>
<td>I have been asked by the leadership team to provide evidence of how professional development has impacted on my teaching practice</td>
</tr>
<tr>
<td>I have been asked by the leadership team to provide evidence of how professional development has impacted on my students' achievement and learning</td>
</tr>
</tbody>
</table>
Leaders’ requests for evidence of the impact on teaching practice

The mean was 3 for the first statement in Table 4.8. The mean for these responses is ‘often’. This mean is the highest for the statements in Table 4.8. Only 36 out of 55 participants have been asked ‘often’, ‘frequently’ or ‘always’, about the impact of professional development whereas 17 participants responded that they ‘sometimes’ or ‘seldom’ had been asked by their leaders to provide evidence of how professional development has impacted on their teaching practice. Two participants have never been asked to provide evidence to leaders in their school.

Examples of evidence were provided by 47 participants. Common approaches included 13 participants responding that they have shared their planning, 10 participants responded they have shared student achievement data. Six participants suggested observations of their teaching practice were one form of evidence they have shared and six participants wrote they have shared samples of student work.

Leaders’ requests for evidence of the impact on students’ achievement

The mean was 2.85 for the statement in Table 4.8 about the impact on students’ achievement. This mean falls between the responses of ‘sometimes’ and ‘often’. The mean of 2.85 is only slightly lower than the mean of 3 for the statement about the impact on teaching practice. Many of the participants, 32 out of 54, have been asked ‘often’, ‘frequently’ or ‘always’, for evidence of the impact on students’ achievement whereas 19 participants responded they have ‘sometimes’ or ‘seldom’ been asked to provide evidence. Three participants have never been asked to provide evidence to leaders, as shown in Table 4.8.

Examples of evidence were provided by 48 participants. Common approaches included that 24 participants had shared evidence of student achievement data and 11 participants responded they had shared examples of student work. Eight participants had shared planning as evidence of how professional development has impacted on their students’ achievement and seven participants have shared target student/group data.
**Professional development discussions**

Table 4.9 Professional development discussions

<table>
<thead>
<tr>
<th>Questionnaire statements</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional development is followed-up on and extended and discussed at a team or individual level</td>
<td>0</td>
<td>2</td>
<td>15</td>
<td>13</td>
<td>18</td>
<td>8</td>
<td>3.27</td>
<td>56</td>
</tr>
<tr>
<td>My teaching practice is discussed with my leaders following professional development</td>
<td>2</td>
<td>9</td>
<td>23</td>
<td>11</td>
<td>7</td>
<td>3</td>
<td>2.36</td>
<td>55</td>
</tr>
</tbody>
</table>

**Following-up professional development**

Participants mostly, 39 out of 56, responded they have had professional development followed-up at a team or individual level ‘often’, ‘frequently’ or ‘always’, whereas 15 participants only have ‘sometimes’ been asked to discuss their professional development. Two participants responded this has ‘seldom’ occurred for them in their school. The mean was 3.27 for the first statement in Table 4.9. This mean is close to the ‘often’ response from participants.

Examples of how professional development has been followed up on were provided by 51 participants. Common approaches included 30 participants identifying they feedback following professional development through team or staff meetings, including learning communities. Sharing or discussion, including on-on-one discussions, was how fifteen participants indicated they fed back. One participant responded “...however if [a] course [is] attended individually then often there is no feedback”. Other suggestions included that follow-up occurred through appraisal (six participants) and five responded through class observations and modelling.

**Discussions with leaders following professional development**

For the statement focused on discussions in Table 4.9 the mean was 2.36. The mean of participants’ responses fell between ‘sometimes’ and ‘often’. As shown in Table 4.9, 23 out of 55 participants responded that they ‘sometimes’ have their teaching practice discussed following professional development, whereas 21
participants responded that these discussions happen for them ‘often’, ‘frequently’ or ‘always’. Two participants responded they have never been asked to discuss their teaching practice following professional development.

Examples of how professional development has been followed up on were provided by 40 participants. Ten participants had discussions with leaders and nine participants identified they have discussed how they have lifted student achievement as a result of the professional development. Six participants have discussed with their leader how the professional development can improve their teaching and learning practice.

**Barriers to evaluation**

Table 4.10 Barriers to evaluation

<table>
<thead>
<tr>
<th>Questionnaire statements</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are barriers to the evaluation of my teaching practice following professional development</td>
<td>5</td>
<td>14</td>
<td>16</td>
<td>10</td>
<td>6</td>
<td>0</td>
<td>1.96</td>
<td>51</td>
</tr>
<tr>
<td>There are barriers to the evaluation of my students’ achievement and learning following professional development</td>
<td>7</td>
<td>12</td>
<td>13</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>1.80</td>
<td>44</td>
</tr>
</tbody>
</table>

**Barriers to the evaluation of teaching practice**

The mean was 1.96 for the first statement in Table 4.10. It fell within the responses of ‘seldom’ and ‘sometimes’. Only 14 participants responded that there are ‘seldom’ barriers, whereas 16 participants responded there are ‘sometimes’ barriers to the evaluation of their teaching following professional development. Ten responded there are ‘often’ barriers and five participants identified there are no barriers to the evaluation of their teaching following professional development, as shown in Table 4.10.

Examples of barriers were provided by 37 participants. The majority of participants, 27 out of 37, responded that time was the main barrier to evaluating their teaching practice following professional development. Only two participants indicated it was
hard to show the effect of professional development on their teaching practice. One participant responded:

*often the understanding of some of the ‘more experienced’ members of [the] leadership team do not reflect a progressive view.*

Another participant responded that professional development opportunities are often forgotten about. A participant suggested evaluation of their teaching practice “can feel like ticking just ticking the box. Getting the job done. Not that personal”.

**Barriers to the evaluation of students’ achievement**

Many of the participants, 25 out of 44, responded that there are ‘seldom’ or ‘sometimes’ barriers to the evaluation of their students’ achievement and learning following professional development. Only one participant responded that there are ‘always’ barriers, whereas seven responded there are no barriers at all. The mean was 1.80 for this statement in Table 4.10. This was the lowest mean for responses in the questionnaire. Similarly to the first statement in Table 4.10 this mean of 1.80 also fell within the responses of ‘seldom’ and ‘sometimes’.

Examples of barriers were provided by 32 participants. The most common barrier identified by 14 of the participants was time. One participant responded a barrier is making the time to reflect on the professional development a week, a month and a term later. A barrier is the full curriculum in their school was suggested by one participant. Another participant responded that professional development is hard to measure “…as often improvements are the result of several things, not one specific thing”.
**Impact of evaluation**

This section used a likert scale with the indicators identified in Table 4.11 and qualitative responses.

Table 4.11 Likert scale

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Somewhat disagree</td>
<td>Somewhat agree</td>
<td>Agree</td>
<td>Strongly agree</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.12 Impact of evaluation

<table>
<thead>
<tr>
<th>Questionnaire statements</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation supports the impact professional development has on my teaching practice</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>8</td>
<td>29</td>
<td>8</td>
<td>3.70</td>
<td>53</td>
</tr>
<tr>
<td>Evaluation supports the impact professional development has on my students’ achievement and learning</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>24</td>
<td>11</td>
<td>3.76</td>
<td>54</td>
</tr>
</tbody>
</table>

**Evaluation and the impact on teaching practice**

The majority of participants, 45 out of 53, responded that they agreed to some degree that evaluation supports the impact professional development has on their teaching practice. Only eight participants somewhat disagreed with this impact, as shown in Table 4.12. The mean was 3.70 for this first statement and it fell between the responses of ‘somewhat agree’ and ‘agree’. This mean is the lower of the two means shown in Table 4.12.

Examples were provided by 46 participants. The most common response was from 24 participants who suggested evaluation encouraged reflection. The participants indicated reflection includes identifying strengths and weaknesses and next steps in their teaching practice. A participant responded that evaluation “ensures changes are continued and followed up”. One participant said:

*if it [professional development] is not impacting on teaching practice then it hasn’t been worthwhile.*
Another participant suggested evaluation helps to see whether the professional development has been effective but “…it doesn’t have to be evaluated to be effective”.

**Evaluation and the impact on students’ achievement**

Similar to the above statement, 50 out of 54 participants agreed to some degree that evaluation supports the impact professional development has on their students’ achievement and learning. Only four participants disagreed or somewhat disagreed with this statement. For this statement the mean was 3.76 and is within the ‘somewhat agree’ and ‘agree’ responses. The mean is about the impact on students’ achievement (3.76) and is higher than the mean about the impact on teaching practice (3.70).

Examples of the impact of the evaluation of professional development on students’ achievement and learning were provided by 44 participants. Common examples included 17 participants responding that evaluation has an impact on students’ achievement. Evaluation helps to support the sustainability of professional development was a response from one participant.

One participant suggested any improvements in teacher practice “…you would hope, would have a positive impact on student achievement”. Another participant commented evaluation “makes you strive to improve the achievement levels of pupils”. Responses from 12 participants suggested that evaluation helped changes to their teaching practice, through reflection and using new ideas. A participant recommended:

> if you don’t evaluate, it becomes a bit of a guessing game. Consistent, formal evaluation is needed.

**Effective approaches to evaluation**

Examples of approaches or forms of evaluation were provided by 53 participants. There were many approaches suggested by participants for effective approaches or
forms of evaluation. Discussion and sharing was suggested by 19 participants, including sharing at team or staff meetings or individually discussing the professional development. One participant responded that individual conferences would generate “...honest feedback about how it has been implemented”.

Other approaches suggested included 11 participants recommending the use of PMI or KWL chart. Seven participants also recommended the use or questionnaires or surveys. Five participants identified observation of teaching practice or of other teachers is an effective approach. One participant suggested:

observations of teaching practice and observing others using specific aspects of PD, has this changed my planning? If not, why not?...

Two participants responded that the reviewing of student achievement data and specific teaching strategies and whether they have been effective or not is one form of evaluation. Another two participants identified the use of long-term evaluation, one participant recommended this can be just following the completion of the professional development and also “...3-6 months down the track”.

**Evaluation that would help improve teaching practice**

Examples of how evidence can help improve teaching practice were provided by 51 participants. A common approach suggested by 14 participants was discussion. This included sharing at team or staff meetings or individually discussing the professional development. A participant recommended discussion would be effective if they are directly involved at “...an informal level, [through] discussion, informal talk”.

Observation of teaching practice or observation of other teachers was identified by 12 participants. Five participants suggested interaction and meetings with coaches and five participants responded that reflection was an approach which would help to improve the impact of professional development on their teaching. One participant recommended reflection should happen “...in robust detail on [a] regular basis to get accurate information – not once off”.

Two participants identified a need for anonymity and confidentiality when evaluating the professional development. One of these participants suggested “people are too
easily identified...”. Another participant responded that evaluation by outside professionals would help to improve the impact of professional development on their teaching practice. A participant recommended that the evaluation of professional development will impact on teaching practice if it is “timely, simple, informative, done straight after PD...”

**Evaluation that would help improve students’ achievement**

Examples of types of evaluation that would help improve students’ achievement were provided by 48 participants. Eight participants suggested reviewing and analysing student achievement data and seven participants recommended the collection and listening to student voice. A participant responded “any evaluation involving the children DIRECTLY...”.

Discussion was recommended by seven participants, including sharing at team or staff meetings or individually discussing the professional development. Six participants were unsure about how they would use evaluation to help improve the impact professional development has on students’ achievement and learning. Observations were recommended by five participants of their own teaching practice or of other teachers and the students.

**Interview results**

**Understanding evaluation**

Both leaders B and D discussed that evaluation is about using reflection to look at what has and has not worked and the next steps forward. Similarly leader C identified that evaluation is about looking back at the effectiveness of something which has been put into place in the school. Leader A discussed evaluation from the school perspective using the child as the centre and suggested evaluation concerns the progress of students specifically with an academic focus.
Leaders B and C commented that part of their professional development in their schools is whole-staff focused. All four of the leaders said a lot of their professional development is in-house, run either by leaders or using teachers as experts. Leader B commented that their professional development is “...very much in-house now, in a way that it never used to be”. Three leaders, B, C and D discussed the variety of their professional development. Leader B suggested:

...what it looks like in our school is usually juggling a lot of balls with PD.

All four leaders referred to their schools’ use of professional development courses outside of their school. Leaders A and C commented that this is usually needs based for individual teachers.

A variety of other forms of professional development were discussed by the leaders. Leader A suggested that their professional development is also through team meetings and the use of target children. Leader B commented their professional development also happens through learning communities, goal setting with teachers and coaching. Leader B also discussed how they establish the needs or focus for professional development from the reflections and evaluations of teachers at the end of the year. Leader C included the use of an outside consultant for some of their professional development and also said that their senior leadership team had additional separate professional development. Leader D indicated their professional development also includes a lot of modelling and observing.

Each leader had their own perspective about the link between professional development, teacher practice and student achievement and learning. Two leaders, A and B, suggested the link needs to be focused on what are the students’ needs. Leader A said the link is through the whole cycle of “...assessing, teaching and planning or assessing, planning and teaching”. Leader B commented:

we always ask ourselves at the beginning of professional development, what is it the students need to know? It’s always our big question...
Leader B linked the above question to what teachers need to know and also commented that professional development and teacher practice always link back to student achievement. Leader C discussed that professional development, teacher practice and student achievement hinge on the embedding of what teachers have learnt from professional development. Leader C commented:

...if the goals of the professional development become embedded it should result/impact on teacher practice which also impacts on student achievement.

Leader D identified that in their school professional development, teacher practice and student achievement are directly linked. Leader D commented that the reason for professional development with teachers is that they are:

...constantly looking at what are the best ways and strategies we can use to raise student achievement...

**Teachers’ enjoyment of professional development**

A common response from leaders A and B was about the honesty of their staff. These leaders commented their school culture encouraged teachers to respond honestly about how they found the professional development. Leader B suggested:

the culture here is really open, I think it might be different in other schools, but my staff, my team are really open and honest about it...

Leader A also indicated they provided many opportunities for teachers to reflect following professional development. Leader C commented that enjoyment can be seen through the body language of the teachers when they discuss the professional development and also identified an informal perspective for knowing whether teachers enjoyed taking part through corridor talk. The leader said:

...the corridor talk is always quite interesting after PD what people actually, you hear people saying, you know away from the evaluation sheets...

Both leaders B and C discussed whether it is necessary for teachers to actually ‘enjoy’ professional development and they both questioned whether it should always be an enjoyable experience. Leader B suggested that on evaluation or reflection forms following professional development “...we never ask if they enjoy it” whereas
leader D discussed the feedback opportunities for teachers following professional development. The leader commented that teachers had opportunities to discuss the professional development in team meetings and the leader saw this as an opportunity for teachers to have a voice.

**Facilitation of professional development**

Two leaders, B and D, commented that measuring the effectiveness of a facilitator for professional development was an area they have not yet addressed through evaluation. Leader D indicated there was no formal structure they use to collect:

> ...evidence to say that person is a dynamic speaker or that the content that that person delivered was great.

Leader B did comment as a facilitator:

> ...I would love to know how I am doing, there is huge room for improvement...

The schools’ use of feedback sheets provided by an external facilitator was discussed by leader C. The feedback gained from these sheets is also used by the school as the basis to one-on-one discussions with the teachers and the school then uses this information to inform the future professional development focus with the external facilitator. Leader C also discussed the importance of actually being honest and identifying whether the facilitator has been effective and not, instead of teachers approaching evaluation from a negative perspective and thinking:

> ...tick that box, that’s what they wanted me to say. It’s not going to affect me anymore...

Informal ways to measure how teachers feel about the facilitator of professional development were discussed by leaders A and D. Leader A suggested this can be seen through teachers’ engagement in the professional development whereas leader D indicated it can be heard informally through word of mouth when teachers comment, such as:

> ...that was fantastic, that was great, at the end of it all when they leave.
The impact of professional development on teacher learning and knowledge

All leaders commented that they know professional development has impacted on a teachers learning or knowledge through either formal or informal discussions. Two leaders, A and C, suggested it is evident that teachers are using their new knowledge or skills in the conversations they have in classrooms and in team meetings. Leader B identified professional discussions and talk as one approach used in their school to gauge the impact of professional development on teacher learning or knowledge, however leader D also linked the discussion to formal appraisal meetings.

All leaders discussed using information collected from observations of teachers as one approach to know whether teachers are using new knowledge or skills gained from professional development. Leader B explained the observations at their school are a way to collect comparative data about teachers’ practice, whereas leader C indicated the use of observations through a four minute walk through and suggested this is “...the most powerful way to see it...”.

Other approaches identified by leaders include leader B commenting that the impact is evident in teachers’ planning. Leader C indicated the impact can be seen in teachers’ learning journals. Professional coaching and the tracking or monitoring by teachers of their individual goals was discussed by leader D. Two leaders, B and C, identified the use of shifts in student achievement data as evidence to show teachers are using new knowledge or skills gained from their professional development.

Leader B was keen to find out other approaches to support their current practice. Three leaders, B, C and D, discussed written feedback as part of their evaluation of professional development. Leader B also commented on their schools’ use of a questionnaire about professional development at the end of each year. Leader C also mentioned written feedback that “…if there has been the chance they’ve done written feedback we’ll collate that in” and leader D identified their schools’ use of a PMI chart on professional development. The leader commented that:

we probably do it each term we will look at all the PD, cause sometimes you might just have one kind of PD happening for the whole school or other times it might be two or three.
Support for teachers following professional development

Leaders A, C and D commonly referred to the use of observations to identify whether additional support/on-going support or development is needed following professional development. Leader D indicated they used observations at the beginning of the year to establish the strengths and weaknesses of teachers which was then addressed through a professional development timetable. Multiple approaches, including observation, teachers reflecting and evaluating themselves against their own goals to identify further needs following professional development were referred to by leader A. Leader C discussed observation is used to identify the:

...gaps in their planning, gaps in their student achievement, you see the gaps in their environments...

Three leaders, A, B and C, commented on the use of formal or informal discussion with or by teachers which helps them to identify if they have further needs following professional development. Leader A suggested that teachers:

...often can acknowledge that themselves, maybe there are some things that maybe they will say, there are things they are not clear or not sure about...

Leader B indicated that the use of honest informal discussion by their teachers happens in the staffroom due to the open culture in the staffroom where teachers will talk about their needs following professional development. Leader C mentioned the use of informal discussions with teachers when it is not possible to observe any gaps in their practice following professional development whereas leader B identified discussion and also mentioned evaluation and reflection at the end of the year which asks teachers:

...what do you feel you need support in? What do you think your next step is?...

Professional development and the schools’ strategic goals

All leaders were able to describe the link at their school between professional development and the schools’ strategic goals. Both leaders A and D noted that professional development and the strategic goals are directly and always linked. Leader B commented the schools’ strategic goals are guided by the teachers
“...reflection and evaluation from the previous year...”. The leader explained that their professional development and strategic goal decisions are based on student data and where they have identified an area of need in their school. Leaders C and D discussed the link between the charter/strategic plan, the annual plan and their goals. Leader C also commented on how, at their school, they tailor their professional development to the annual plan.

**Professional development and individual teacher appraisal**

Each leader had an individual way of explaining the link between professional development and individual teacher appraisal. Leader A noted that professional development can be identified in teachers’ self appraisal and appraisals with a leader. The close relationship between their individual teacher goal setting and appraisal was commented on by leader B who also discussed the evidence they use to identify if professional development is making an impact on teacher practice. Leader C indicated the close link between professional development and individual teacher appraisal. The leader commented:

> ...if you’re giving them the right professional development then they’re able to achieve their appraisal goals...

Leader D remarked that professional development forms a huge part of the appraisal process and commented that once all the evidence has been collected for appraisal, such as coaches reports, it forms a wider picture. This information supports the leaders to “…determine how that PD has impacted that teacher and appraisal”.

**Sharing following professional development**

All leaders indicated that they provide opportunities for teachers to share following professional development and commonly mentioned sharing at either team or staff meetings. Leader B discussed trying to allocate time in every learning community meeting but struggles to maintain this as the agenda is often very full and commented “sustaining is the challenge”. Leader C described regular sharing at team meetings is where teachers have the opportunity to:

> ...take us for five minutes into their classroom or take us somewhere and show us and talk about something they have learnt that’s new...
In leader D’s school teachers are additionally required to share what they have learnt from a specific professional development, usually off-site, at a senior management meeting. Sharing at meetings was discussed by leader A, who also mentioned their leadership teams’ open-door policy.

*Measuring student learning following professional development*

All leaders discussed the use of student achievement data as their approach to measuring that students have made gains in their learning as a result of professional development. Two leaders, A and D indicated they use target groups of students as the focus for the collection of achievement data. Leader A discussed student achievement data relating to their board reports. This leader said they include:

> ...information about specific strategies that would have been implemented that may have had an impact on student learning that may have been linked to the professional development.

Alongside achievement data leader C identified they listen to student ‘speak’ in the classroom when they are doing their four minute walk through. All four leaders mentioned they collect the achievement data primarily in the curriculum areas of literacy and numeracy. Leader A commented that:

> the tricky thing is when it comes to curriculum areas outside of reading and maths it’s harder to measure.

*The effectiveness of evaluation*

Leaders A and B both agreed that their current evaluation of professional development practice in their schools was effective. Leader A thought that “...it probably is” and clarified their response by suggesting the effectiveness of their evaluation is dependent upon what type of professional development has been done. Leader B indicated it is effective because of the honesty of the staff in their school:

> ...people are upfront here and honest, whether they have found it to be effective or a waste of time.

Both leaders C and D commented that there is room for learning and growth in their evaluation practice. Leader C discussed that their current evaluation practice is a
start and suggested “I don’t think it is an exact science, we probably need to pin it down a bit better...”. Leader D explained their current evaluation practice is a learning curve but they have made progress in finding out how effective professional development is in their school. The leader commented:

*I think before we used to do PD and used to have a lot of discussion about it and not formally and structurally assess the PD and evaluate the PD but I think we are getting there...*

This leader also pointed out that they do see this as an area for improvement and learning because:

*...we are going to be doing this every year so we want to get on top of it and say we have evaluated the PD, what are the pros? What are the cons? Where can we improve?*

**Quantity and selection of evaluation**

Each leader had their own approach to deciding what parts or aspects of professional development to evaluate. Leader A commented that they evaluated the most important professional development and the ones “...which are going to be most sustainable are the whole school [professional development]...”. Leader B indicated they evaluate the core areas and “there wouldn’t be much we wouldn’t do...”. The areas they do not evaluate are professional development which has come in from outside of the school, such as in sport. Leader C discussed that not all professional development is evaluated, only the big areas. This leader explained they usually decide on what to evaluate based on the:

*...amount of resources that has gone into it, so if we have particularly spent a lot of money or time or energy we would expect to do a thorough evaluation of it.*

Leader D indicated they evaluate areas directly related to their target achievement, especially in the curriculum areas of literacy and numeracy.
**Information gained from professional development evaluation**

Leader A indicated that the information gathered through the evaluation of professional development is used by everybody in their school, whereas leaders B, C and D commonly identified the information from evaluation is used by the senior management/leadership teams. Leader D commented that their senior management team used the information from evaluation but they include team leaders and believe the team leaders will:

...**get a clearer picture of where the school is at with regards to professional development.**

Board of Trustees involvement in using the evaluation information was discussed by leader C. The Board of Trustees uses the information from evaluation because to have:

...**an understanding of our professional development and whether it’s been effective or not. Cause obviously with PD it’s a huge expense for the school.**

**Possible evaluation approaches**

Two leaders, B and C, identified using online evaluations as an approach which could be effective. Leader B commented that they collect handwritten evaluations and had participated in an online evaluation process recently which was anonymous. The leader then considered that maybe teachers could:

...**be more honest on the computer where it was totally anonymous than in handwriting on a form. So that could be something in the future that we could look at.**

The use of an online survey was recommended by leader C who had participated in an online survey recently. The leader suggested this would provide the opportunity for teachers to be honest because it is not linked directly back to them. Leader C commented that by providing confidentiality in evaluation it ensures people have the opportunity to:

...**actually talk about the positives as well as the negatives, we can’t always say what was great about it.**
Two leaders, B and D, both identified that they would like to learn more about evaluation practice and could seek ideas from other schools. Leader B indicated that they would be interested in looking at any available research models for the evaluation of professional development. This leader discussed that in their school they have tried in the past to make the evaluation process interesting because:

...it does get boring just filling in paperwork, so we have trialled the odd thing but you know what I would be open to new ideas.

The value of using a mixture of responses was commented on by leader C when evaluating professional development and not just relying on written evaluations. This leader said:

I think sometimes when it’s top heavy and top down is the time you don’t get the responses you want. I think an effective way of doing it would be taking bits of everything...

Leader D mentioned that in their school it would be valuable following individual teachers professional development, through a course or workshop, to complete a reflective worksheet. When a group of teachers have participated in professional development, leader A commented, it would be worthwhile to meet and follow-up more regularly than is current practice in their school.

**Leaders’ learning about professional development evaluation**

Two leaders, A and D, discussed that it was important that they were reflective. Leader D also commented that learning to evaluate was closely linked to communication especially with their team leaders in order to know what is happening in the school. Leader B indicated their learning had come from “…going to courses myself and seeing how they do it”. Leader C commented about not learning how to evaluate but cited a need to learn more; that the evaluation of professional development is something they should be doing better. This leader identified the current practice they use is through following models of other people and giving it a go.
Research and/or models informing leaders’ practice

Leaders, B and C, indicated they do not use any research and/or models to inform their evaluation practice. Leader B explained that their “…professional development itself is based on research but no, not the evaluation”. Leader A cited their evaluation practice is probably informed by the ‘Teaching as Inquiry’ model (see Figure 2.1) in the New Zealand Curriculum document (2007). Professional development linked to performance management and appraisal which has informed evaluation practice was discussed by leader D, including professional development on appraisal and about using a four minute walk through approach.

Challenges in professional development evaluation

Two leaders, C and D, commented on time being a challenge when evaluating professional development. Leader B commented that time is never a challenge for their school rather they are concerned with the quality of the feedback. The challenge of finding time to evaluate was discussed by leader D and explained “…it’s just a matter of where do we fit it in...”. Leader C mentioned the challenge lies in taking the time to evaluate professional development properly but also the impact on teaching time. The leader suggested this is linked to balancing time because:

...teachers are employed obviously to do their core business which is to teach children so you’ve got to be careful about how much you load onto them externally...

Leaders B and C discussed a lack of anonymity in evaluations as one challenge in their practice. Leader B commented that they want people to be really honest when evaluating professional development. This leader does believe their teachers are honest but is concerned about the degree of the honesty, possibly due to a lack of anonymity in the evaluation of professional development. This same challenge was identified by leader C when evaluating professional development and suggested:

...I don’t think people are reflective in their responses in an anonymous way for whatever reason.

Leader C commented that it is important to be very specific about what the evaluation is used for because “…there has to be a level of trust about it to get people to be
honest", whereas leader D explained in their school the teachers have a voice and are:

...honest and open about it [evaluation] because we’ve got a professional relationship. It’s not personal but it’s big picture stuff, we raise student achievement to the best of our ability.

Leader A identified the challenge of ensuring that the understandings from professional development are shared by everyone and if the evaluation is not well managed it could become a challenge. This leader suggested that by using evaluation it was a means to provide teachers with:

...informal or formal discussion I think you bring those understandings together and they are clearer.

The challenge of change management was identified by leader D who explained:

...it’s just trying to get teachers to understand that we have change but it’s not for the sake of change but to improve or raise student achievement.

**Barriers to the use of evaluation information**

Three leaders, A, C and D, indicated there are no barriers to prevent them acting on the information gained from the professional development evaluation. Each leader did discuss barriers but remained positive about there being no barriers to using the information. Leader A explained the positivity of their schools approach in saying:

I don’t think that there is anything that would stop that, if it is going to help student learning then you just do it. If there are any barriers you just have to dismiss if there are any there, be creative.

Leader B commented that they were not aware of any barriers. Leader D discussed being well supported by the senior management team with regards to professional development and this leader commented that their senior management will do:

...anything and everything to make sure that we are supporting our staff in which every way it is.
A variety of barriers were discussed by each leader. The resistance of teachers to make changes and maintain changes to their practice following professional development was commented on by leader A. Leader B indicated that the type of feedback they receive sometimes is not necessarily directed specifically at the professional development but instead focused on the teacher being busy and stressed. Potential constraints associated with funding were mentioned by leaders C and D as a barrier to acting on the information gained from the evaluation of professional development. Leader D also cited constraints with resources and commented that in their school if something is:

...in the budget and we are able to do it and the resources are in place as I said senior management is on-board to try and help and support as far as possible as they can.

Summary

This chapter included the analysis of data collected through questionnaires with 56 teachers and interviews with four leaders. The questionnaire focused on the teachers’ perspective of the effective use of evaluation of professional development in their primary school. The interviews approached the issue of effective evaluation from the perspective of leaders.

Many notable findings were identified from participants through the questionnaire. An important finding was that the majority of participants identified that professional development in their school is focused on their areas of need. Many questionnaire participants also indicated that all professional development should impact and does impact on both their teaching practice and student achievement. The majority of questionnaire participants believed they were able to show the impact of professional development on both their teaching practice and students’ achievement. Most participants identified that professional development evaluation in their school is carried out by leaders however they are also involved in the process. Participants were able to recommend some possible approaches for evaluating professional
development. The participants identified the common barrier of time which impacts on professional development evaluation.

There were many important findings from the interviews with leaders. It is evident from the interviews that the leaders had an individual perspective when describing the link between professional development, teacher practice and students’ achievement. The leaders also had their own perspective about the link between professional development and teacher appraisal. All the leaders in the study identified that they made focused decisions about what aspects or areas of professional development to evaluate. It was interesting to note that all of the leaders used a variety of evaluative approaches, all follow-up on professional development and they were able to discuss how they shared the information gained from evaluation. The leaders linked effectiveness of professional development directly to changes in teacher practice and students’ achievement. Innovative and new approaches for evaluating professional development were offered by leaders. A common theme was the willingness of leaders to improve their evaluation practice. The leaders wanted to learn more about research and/or models and learn from other leaders about how to improve the effectiveness of their practice. Most of the leaders were positive when faced with barriers to acting on the information gained from professional development evaluation.

This analysis of questionnaire and interview data has provided the basis for the following discussion chapter. In Chapter Five the findings will be discussed in relation to the literature on the evaluation of professional development.
CHAPTER FIVE: DISCUSSION

Introduction

This discussion chapter is set out under each of the four research questions. Each research question includes a thematic discussion with the literature focused on professional development evaluation. This chapter examines the most important findings that have come out of the collection and analysis of research data.

Why is it important to evaluate professional development?

The findings indicate that in the sample of New Zealand schools, professional development was undertaken in a variety of different ways. Professional development was seen by one leader as managing many aspects at once. All four leaders discussed their schools’ use of courses outside of their school as well as in-house professional development run through using leaders and teachers as experts. This approach is supported by the Education Review Office (2009) who identify that professional development includes a range of “formal and informal processes used to improve the knowledge and practice of teachers” (p.1).

It was notable in the findings that the majority of participants, 47 out of 55, agreed to some degree that professional development in their schools was focused on their areas of need. In other words this result indicates that teachers believed professional development is helping them to do their job with an enhanced effectiveness. In the sample of primary schools it appears that because the professional development is focused on needs, it supports teachers’ development as a professional. This is keeping with Guskey’s (2000) claim that professional development aims to “enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students” (p. 16). The findings from this study confirm that schools were taking note of the National
Administration Guidelines (NAGs) Part 3 Personnel section which includes provision to promote staff performance through professional development (Ministry of Education, 1989). The findings also support thinking by DiPaola and Hoy (2008) who recommend that school success is enhanced through the improvement of teachers’ practice.

An overwhelming majority of participants in my research, 51 out of 56, agreed to some degree that all professional development should impact on their teaching practice. It was valuable to note that comparably, the majority of participants, 50 out of 56, agreed to some degree that all professional development should also impact on student achievement. The findings could indicate that the majority of questionnaire participants understand the close link between professional development and the impact it can have on teacher practice and students’ achievement and learning. A further noteworthy finding from my research was that each leader had their own perspective on the link between professional development, teacher practice and students’ achievement. Each leader described their view about this link with a strong focus on students’ achievement. This was an important recognition as many authors highlight the close link between professional development and continued improvement in both teacher practice and student outcomes (Bolam, 2002; Goodall et al., 2005). These research findings are also consistent with Guskey’s (2000) view that professional development should primarily impact on students’ achievement and learning.

Each leader had a unique way of explaining the link between professional development and individual teacher appraisal. Leaders B and D both emphasised the importance of the impact of professional development on teachers’ practice. Certainly the findings suggest that in each school the performance appraisal processes were focused on improving teacher development alongside meeting accountability requirements. The findings also imply that the sample schools’ performance appraisal systems were focused on teachers’ strengths and areas which require further professional development. Each leader was able to confidently discuss the link between professional development and individual teacher appraisal.
and identified examples of how this was achieved. This indicates that the leaders in the sample schools had developed and implemented performance appraisal approaches which had a specific element linked to professional development. These findings fit well with the literature which highlights the significance of schools using appraisal for the dual purposes of showing accountability and supporting focused development for teachers (Piggot-Irvine & Cardno, 2005). Fitzgerald (2001) suggests appraisal is important for both identifying teachers’ strengths and areas of need for further professional development. The findings also indicate that the schools are adhering to the 1996 gazetted guidelines (Ministry of Education, 1997) maintaining the close link between performance appraisal systems and professional development (Education Review Office, 2000).

Evaluation of professional development was an important area discussed with leaders and questionnaire participants. Each leader was able to comment on their understanding of evaluation. Leaders B, C and D commonly spoke about reflection, whereas leader A discussed evaluation specifically from the perspective of students’ achievement. Questionnaire participants were asked about the process of professional development evaluation. Reflection was also a common response from 15 out of 55 participants and 11 participants linked evaluation to whether professional development had made a difference to teacher practice and students’ achievement and learning. These findings confirm Killion’s (2008) view that evaluation is reflective as it provides an “insight into what is working and what is not” (p. 1). Guskey (2000) agrees that leaders can determine a common definition of evaluation, but he questions their ability to agree on “how or why evaluations are conducted” (p. 42). The reflective practice identified by leaders and teachers is significant because engagement in reflection is likely to also benefit other areas of teaching practice not only those linked to professional development.

In my research findings, each leader espoused that they shared the information gained from professional development evaluation. Leaders B, C and D commonly share their evaluative information with the senior management or leadership teams in their schools. Examples included leader A discussed that they shared the
information with everybody in their school. Interestingly leader C explained the importance of sharing the evaluative information with the Board of Trustees in their school. This sharing of information is one approach which can help to ensure leaders and teachers are able to see both the strengths and weaknesses of the professional development they have been involved in through the evaluation results. This could also potentially enhance the motivation for teachers to be involved in further professional development because they have had the opportunity to see its value. It was interesting to note that the sharing of information about professional development evaluation was not an area highlighted in the literature located for this study.

A further noteworthy finding from this research was that the majority of questionnaire participants, 44 out of 54, agreed or strongly agreed that evaluation is important to help improve their teaching practice. It appears from the participants responses that they were able to make the link between professional development evaluation and an impact on their teaching practice. Furthermore, 45 out of 53 questionnaire participants appeared to understand the value of evaluation and they believed evaluation supports the impact of professional development on their teaching practice. A further 50 out of 54 participants agreed that evaluation supports the impact on their students’ achievement and learning. These findings indicate that the questionnaire participants were clearly linking the impact of professional development to improvements in their teaching practice and students’ achievement. This is highlighted in the literature by Lowden (2005) who believes it is necessary to evaluate the impact of professional development because it is “important to the improvement of teacher performance and student learning” (p. 2). Bolam (2002) identified there are a limited number of robust and published studies about professional development evaluation and the impact on teacher practice and students’ achievement. These findings from my study discussed so far could add to the limited knowledge currently available
How do leaders evaluate the effectiveness of professional development in the sample of New Zealand primary schools?

This study shows that most questionnaire participants, 44 out of 55, believed that in their schools professional development evaluation was carried out by leaders. It was interesting to note that alongside the leaderships’ role in professional development evaluation the majority of participants, 36 out of 54, indicated they also took part in evaluating professional development. This suggests that leaders work alongside the teachers through the process of professional development evaluation. These findings were interesting because the teachers felt involved in the evaluation process however in the literature there is little focus on the perspective of teachers. Only some authors, such as Goodall et al. (2005) and Edmonds and Lee (2002), have discussed evaluation from the perspective of teachers. They discussed a teachers’ ability to provide evidence of the impact of professional development on their teaching practice and students’ achievement. Goodall et al. (2005) and Edmonds and Lee (2002) also identified evaluation approaches, such as discussion, used by teachers following professional development.

The research findings show that all leaders in the study made a focused decision about which areas of professional development to evaluate. The leaders appeared to stop at evaluating ‘for no reason’ but instead selected areas of professional development to evaluate based on the best interest of their teachers’ practice and student achievement data. The areas which were evaluated in each school centred on the sustainability of professional development, direct links to measurable student achievement and usually covered the core curriculum areas of literacy and numeracy. The leaders in this research espoused that they selected professional development areas to evaluate which would have the most impact on both teaching practice and student achievement. It also seems that there is a perception that professional development evaluation is complex outside of the easily measurable curriculum areas of literacy and numeracy. This could suggest that leaders thought evaluation of other areas of professional development, for example in physical education, may be complex in terms of measuring changes in teacher practice and
student achievement and learning. In these findings leader A offered a possible reason for the focus on literacy and numeracy and the limited focus on evaluation outside of these curriculum areas as being due to the complexity in measuring areas other than literacy and numeracy. The focus on the curriculum areas of literacy and numeracy are confirming of Goodall’s et al. (2005) view that evaluation “should be appropriate to the events and experience(s)” (p. 8) and that it is not necessary to formally evaluate all professional development.

The effectiveness of professional development evaluation was discussed with leaders. Both leaders A and B described their current professional development evaluation in their schools as effective, whereas leaders C and D both identified there is always room for further learning. Leader D made a key point when they said the need for improvement and learning in the area of professional development evaluation is essential because it is a process which is carried out annually. Most leaders in this research gave the impression they had confidence in their evaluation practice. The findings also suggest that those leaders who see room for improvement in their professional development evaluation appeared to have the confidence to be open and reflective about improving their practice. These specific findings contrast with the literature from authors such as Guskey (2000), who maintained that leaders often lack the confidence to approach evaluation. The findings from this portion of the study, however, concur with Goodall’s et al. (2005) research which identified the need for learning and development to further improve the effectiveness of professional development evaluation in schools.

All the leaders commonly determined the effectiveness of professional development in their schools based on changes in teacher practice and improvements in students’ achievement. These findings emphasise each leaders’ knowledge and expertise to centre their evaluation practice on the impact of professional development. The leaders in this study explained that their focus is on teacher practice and students’ achievement where evidence from the impact from professional development can be identified. These findings validate Lowden’s (2005) view that leaders need to have the knowledge and expertise to focus on the specific impact of professional
development. Authors such as Killion (2008) identify the importance of leaders being “results-orientated” (p. 3). It is affirming to see that the leaders involved in this research espoused that they had the knowledge and expertise to be ‘results-orientated’ and were not just using their ‘gut instincts’ to establish whether or not professional development has been effective.

An interesting finding from the research is that leaders B and C questioned whether or not it was necessary for teachers to ‘enjoy’ all professional development. It appears that because professional development is an important element of a learning organisation, such as a school, it was expected that teachers take part in professional development whether they ‘enjoyed’ it or not. It was not surprising to hear that one school which sometimes used evaluation or reflection forms, did not intentionally ask teachers if they enjoyed the professional development. Leaders A, B, C and D all discussed ways in which you can observe whether a teacher enjoyed taking part in professional development without directly asking them, such as through body language and informal discussions. Leader B mentioned sometimes including written feedback linked to teacher satisfaction in their school when the evaluation form was presented to staff from an external facilitator. Three of the leaders mentioned occasionally using teacher satisfaction in the form of written evaluation following professional development but not relying on this as their only form of evaluative evidence. This finding contrasts with the literature which frequently discusses the use of evaluation in the form of teacher satisfaction (Guskey, 2000; Muijs & Lindsay, 2008; Lowden, 2005) because the findings in this study have shown it is not a common form of evaluation used by the leaders involved in this research.

It was significant to find out in this research that leaders A, B, C and D all used a variety of approaches when evaluating professional development. In other words none of the leaders relied upon one source as evidence to ascertain the effectiveness of their professional development. All the leaders signalled they knew professional development had impacted on a teachers’ learning or knowledge through either a combination of formal or informal discussions, observations of teachers and approaches, such as using a PMI chart. Three leaders, B, C and D,
remarked they used written feedback as a component of their professional development evaluation, either for example in questionnaires or PMI charts, but they did not rely on this as the main source of evaluative evidence. The literature discusses evaluation practice in schools as low-level and focused on teacher practice (Goodall et al., 2005; Timperley et al., 2007) but this is not consistent with the findings from this research. The leaders in this study used a variety of approaches across all five levels of Guskey’s (2000) model when evaluating professional development. It appears the leaders are unaware of Guskey’s (2000) model but are able to use evaluative evidence to some degree linked to each of the levels presented in the model. A key feature of effective professional development evaluation was evident in these findings, as Piggot-Irvine (2006) described the use of “multiple sources of information on outcomes for students” (p. 485).

Leaders in all of the sample schools appear to take a considerable role in following up on professional development with teachers as part of their evaluation process. From the perspective of questionnaire participants, 49 out of 56 agreed that their leaders discussed with them their teaching practice and students’ achievement following professional development. The participants identified that their leaders ‘often’, ‘frequently’ or ‘always’ requested they share evidence on the impact of professional development on their teaching practice (36 out of 55 participants) and students’ achievement (32 out of 54 participants) whereas the mean for the request for evidence of the impact on students’ achievement was 2.85 and fell between the responses of ‘sometimes’ and ‘often’. These results indicate that leaders were focused on the impact rather than the actual activity of the professional development. The majority of questionnaire participants provided evidence that leaders in their schools focused on the impact professional development had made on teacher practice and learning rather than the activity itself. These findings differ from the view of Porritt (2009) who pointed out that the quality of evaluation can be limited because often the focus is mistakenly on the professional development activity rather than the difference made to teacher practice and students’ achievement. The findings from this study suggest that only a limited degree of Guskey’s (2000) level three ‘organization support and change’ is being addressed by the leaders in the sample schools. This could be attributed to these
leaders focusing primarily on the impact of professional development on teacher practice and student achievement. With this narrow focus, leaders could easily fail to address the ‘big picture’ and evaluate all aspects of professional development, such as elements in Guskey’s (2000) level 3 ‘organization support and change’.

What types of evaluation are effective from the perspective of teachers?

An important finding from this study is that most questionnaire participants agreed to some extent that they can show evidence of how professional development had impacted on their teaching practice (54 out of 55 participants) and similarly on their students’ achievement and learning (48 out of 52 participants). It is interesting to note that only one questionnaire participant suggested that it was difficult to differentiate between evidence of the impact of professional development on teaching practice and students’ achievement. These findings indicate that teachers espouse that they can show improvements and changes in their practice, however the findings do not provide evidence that teachers could determine ‘gains’ in their practice. The data suggests that teachers believed they were capable of providing evidence of an impact on teaching and student learning in contrast to Goodall’s et al. (2005) research which maintains teachers were “unable to provide hard evidence of impact” (p. 30) on their teaching and students’ achievement and learning. Edmonds and Lee’s (2002) view also contrasted with these findings when they discuss that teachers are less likely to be able to provide actual evidence of ‘gains’ and improvements in their teaching practice.

Further to the earlier findings, questionnaire participants were asked to describe what professional development evaluation looks like in their schools. The participants identified varied approaches. A small number of participants, 16 out of 56, said evaluation occurred through discussions, both formal and informal, 15 out of 56 participants listed tools they believed to be part of the evaluative approach in their schools, for example think/pair/share, PMI and KWL charts. Edmonds and Lee (2002) support the approach of discussion, informal or formal, as an appropriate
evaluation tool. These findings are similar to the evaluation approaches discussed by their leaders. The leaders and teachers similarly identified evaluative approaches which were linked to teacher practice and student achievement, such as observations. These results suggest the participants have an awareness of what professional development evaluation is occurring in their school and what it looks like. The findings show that evaluation practice is evident in the research schools and this supports Jason (2003) who maintains schools are seen as learning organisations that should be continually progressing and improving. This is where effective evaluation can contribute to progress through the identification of areas that are working well and areas for improvement.

The questionnaire participants offered examples of what they thought could be effective evaluation approaches. Many of the responses from participants were repetitive of earlier findings on current evaluation practice in their schools. This suggests the questionnaire participants might either be happy with their current school evaluation practices or have not had opportunities to experience or learn about alternative approaches to evaluation. Repetitions included the use of observation of their teaching practice or other teachers, review and analysis of student achievement data, the use of PMI or KWL charts and discussion. Discussion was recommended by one questionnaire participant because they believed it would be effective if they were directly involved. Goodall et al. (2005) maintains the evaluative approach of discussion, whether it is formal or informal, is an integral part in the process of evaluation.

It was valuable to note that only seven participants did recommend the previously little mentioned evaluative approaches of using student voice and questionnaires or surveys as effective approaches to evaluation. This research found that only two participants were aware of the value of long-term evaluation. It was confirming that participants and leaders both recommended alternative approaches and ideas for the evaluation of professional development in their schools. Unlike the questionnaire participants, the leaders recommended approaches which they currently did not use in their schools. Online surveys were recommended by leaders B and C. The use of
these surveys was recommended by these leaders because they could counter the possible lack of anonymity and confidentiality in their current school evaluation approaches. Anonymity and confidentiality will be discussed later in this chapter. Leader A suggested the approach of increased regularity when meeting with teachers to follow-up from professional development. Leader C identified using a mixture of responses when evaluating professional development. The idea of using a mixture of responses or approaches is closely linked to Guskey’s (2000) model which uses a range of information over the five levels as discussed in the literature review. Guskey (2000) also recommends using a variety of evaluative approaches because it supports leaders to build an overall picture of the effectiveness of the professional development. Bryman (2008) confirms the use of online surveys as an approach to counter a lack of anonymity and confidentiality.

The findings show that only some leaders used research and/or models to support the evaluation of professional development in their school. Leader D referred to a workshop attended which focused on performance management and appraisal, whereas Leader A commented on the use of the ‘Teaching as Inquiry’ model (Figure 2.1) from the New Zealand Curriculum (Ministry of Education, 2007). The findings show that leaders B and D had an interest in learning more about the practice of evaluation, including available research and/or models and approaches used by other schools. Leader A’s reference to the ‘Teaching as Inquiry’ model in Figure 2.1 suggested the school was using the information gained through the inquiry process to support their evaluation practice. This model requires evidence to determine changes in both teaching practice and students’ achievement data. Evidence to support the evaluation of professional development through improvements in teacher practice and students’ achievement data can therefore be clearly identified using this model. The inquiry models are closely linked to action research, which is also used widely in New Zealand schools. Similarly both inquiry models and action research include elements which are “context-based, collaborative, translates theory into action, is improvement focused and has an in-built evaluation component” (Piggot-Irvine, 2006, p. 487).
What challenges do leaders face in evaluating professional development?

The interview and the questionnaires participants were asked to discuss barriers and challenges to professional development evaluation. In the findings, time was identified as a challenge by two leaders and also many questionnaire participants. Leaders C and D commented on the challenge of finding time to evaluate professional development and Leader C also identified the impact of evaluation when it intrudes on teaching time. However many questionnaire participants, 27 out of 37, also indicated time was a barrier to the evaluation of their teaching practice following professional development. Time to evaluate was also a common response from participants when discussing the impact on their students’ achievement and learning as a result of professional development. This suggests that the questionnaire participants are well aware of the time pressures of working in a busy school environment and balancing the many professional expectations. These findings concur with earlier literature that identified time as a barrier to both leaders and teachers’ participation in professional development evaluation (Goodall et al., 2005). Time can also impede the delaying of evaluation following professional development to ensure data is meaningful (Kreider & Bouffard, 2006).

A further noteworthy finding was that only three participants in the questionnaire identified the challenge of making time to reflect on their students’ achievement and learning as a result of professional development over a prolonged period of time. It is concerning that so few participants identified the use of longitudinal evaluation. These findings are supportive of those of Goodall et al. (2005) who discuss that evaluation often finishes at the time of the professional development and the long-term impact is not considered. The literature strongly emphasises the need for evaluation to be delayed following professional development to ensure meaningful data is collected (Kreider & Bouffard, 2006).

In contrast to the challenges identified in both the interviews and questionnaire responses, three of the leaders, A, C and D in this research had remarkable
positivity. The perspective of these leaders was that there were no barriers which stopped them acting on the information gained from professional development evaluation. The leaders did identify barriers but instead remained positive about their ability to use the information gained from the evaluation of professional development in their school. It appears that the leaders in these schools have a strong commitment to their teachers’ practice and students’ achievement as a result of professional development. Although leaders recognise time as a barrier to evaluation, they saw it as being important and worked hard to make the time to evaluate. This is a clear reflection of their professional approach to their role as a leader. The findings indicate the leaders involved in this study have a strong commitment and ability to carry out professional development evaluation in the sample schools. These findings are in contrast to comment by Guskey (2000) who identified that many leaders lack the “time, skill, and expertise” (Guskey, 2000, p. 40) to carry out effective evaluation.

As mentioned earlier in this chapter, leaders B and C identified the challenge of a possible lack of anonymity when evaluating professional development. Two questionnaire participants also noted that increased anonymity and confidentiality would help to improve professional development evaluation in their school. Leaders B and C discussed that their approach to evaluating professional development lacked anonymity which may inhibit honest responses from teachers. Both leaders B and C believed their teachers were honest when evaluating professional development but were concerned about the degree of the honesty in their responses. These findings suggest leaders B and C were reflective of their current evaluative practice and were attempting to minimise a lack of validity and reliability in the evaluative evidence they collect. These findings resonate with Guskey (2000) who suggests that a lack of anonymity can inhibit the honesty of responses in evaluation and recommends that by protecting anonymity it “generally guarantees more honest responses” (p. 90).

Further to the earlier discussion of measuring the impact of professional development, two questionnaire participants indicated it was hard to show the impact of professional development on their teaching practice. These findings suggest very
few participants were aware of changes to their teaching practice but actually the challenge in evaluation was in measuring the ‘gains’ as a result of professional development. The findings indicate that the two questionnaire participants were aware of the complexity of measuring ‘gains’ in students’ achievement data. There are many contributing factors which can impact on ‘gains’ made by students and as DiPaola and Hoy (2008) discussed the difficulty can be attributed to “various factors contributing to student behavior” (p. 141). These findings confirm the literature from Yoon et al. (2007) which identifies complexity in measuring ‘gains’ in teacher practice and students’ achievement as a result of professional development.

Summary

The findings of this research show that in this sample of New Zealand primary schools evaluation of professional development is certainly an area which is not “marginalized or forgotten” (Earley & Bubb, 2004, p. 77). The main focus espoused from the perspective of leaders and questionnaire participants appears to be on the impact of professional development on both teacher practice and students’ achievement. All leaders appeared to be clear about their decisions on what areas of professional development to evaluate. It was notable there was a common focus on the curriculum areas of literacy and numeracy. This reflects the current focus of educational policy on the importance of literacy and numeracy in New Zealand primary education. Furthermore it seems both leaders and questionnaire participants were actively involved in the evaluation of professional development in the sample of New Zealand primary schools.

The leaders in this research were not largely influenced by research and/or models of evaluation but are able to clearly explain their evaluative practice. Although some leaders in this research have indicated they were keen to learn more and further develop their evaluation practice this can be seen as a reflection on the professionalism of their leadership. Barriers and challenges to the evaluation of
professional development were discussed by both leaders and questionnaire participants.

Chapter Six will draw conclusions from this study. It will discuss the limitations of my research, recommendations from this study and for further research in the area of professional development evaluation.
CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter draws final conclusions from the findings relating to this study into the effective evaluation of professional development. Conclusions are presented relating to each of the four key research questions followed by recommendations for practice. Finally, the limitations of the study will be discussed and recommendations for further research will be identified.

Conclusions

Why is it important to evaluate professional development?

This research identified that it is important for leaders to evaluate professional development because of its extensive use in schools. The professional development identified in the sample schools was carried out both externally and internally and was varied and mixed in the approaches used. The wide range of approaches used in the sample schools meant that evaluation was necessary to identify if the resource investment, such as time, has made an impact on teacher practice and students’ achievement. This is important because the Education Review Office (2009) identified in their research in New Zealand schools that those leaders who “knew their investment was having the desired effect on changing teacher practice or improving student achievement” (p. 35) were seen to be effectively managing their professional development. The New Zealand Education Review Office (2009) supports the need for evaluation to substantiate the resources allocated to professional development and similarly Guskey (2000) maintains that evaluation not only supports a schools’ future direction but also validates the worth of their current practices.
An important conclusion from this study is that evaluation is necessary to maintain the close link between professional development and teacher performance. The leaders in this study were easily able to identify the link between professional development and their schools' performance appraisal process. This is significant because this research also indicated that teachers believed professional development in their schools supports their areas of development or need. Fitzgerald (2001) and Lowden (2005) both discuss the importance of the close link and need for alignment between professional development and teacher performance appraisal process. Lowden (2005) supports this conclusion when maintaining the need for professional development evaluation because she believes it is crucial to improvements in teacher practice and student achievement.

This study found that teachers were aware of evaluation in their school and committed to their own professional development. It also identified that teachers believed professional development should impact on their teaching practice and students' achievement. It is valuable to note that the teachers also thought that evaluation helped to improve their teaching practice and subsequently their students’ achievement and learning. The literature aligns with this response. Desimone (2009) suggests that teachers and leaders are starting to better understand professional development and how evaluation is used to measure the impact on teacher practice and student achievement. These findings concur with Lowden (2005) who agrees that evaluation supports the impact professional development has on improving “teacher performance and student learning” (p. 2) whereas Guskey (2000) challenges that the main focus of professional development should be on the impact on students’ achievement.

The findings from this study show that leaders were evaluating professional development in their schools and sharing the information. The leaders and teachers involved in this research explained they knew the value and importance of professional development evaluation. In Chapter One I discussed professional development being supported by limited evaluation, however this research has shown that this sample of schools was significantly focused on professional
development evaluation. These findings are in contrast to Earley and Bubb’s (2004) comment which said that professional development evaluation continues to get “marginalized or forgotten” (p. 77). Jason (2003) also supports the active and regular use evaluation in schools because they are now seen as learning organisations and therefore should be continually progressing and improving.

**How do leaders evaluate the effectiveness of professional development in the sample of New Zealand primary schools?**

This study found that leaders were selective about which areas of professional development they evaluated. A strength of the evaluation practice in the sample schools was that it was carried out for a purpose and based on the measureable areas of the *New Zealand curriculum* (Ministry of Education, 2007). All schools focused their evaluation on the curriculum areas of literacy and numeracy. Authors Goodall et al. (2005) agreed that evaluation should be selective and that it is not necessary to evaluate all professional development.

The leaders involved in this study used a wide variety of approaches and to a varying degree used all five levels of Guskey’s (2000) model when evaluating professional development. These findings are in contrast to research by Lowden (2005) who suggests that in American schools they would prefer to see a change in practice towards higher level evaluation which is closely focused on teacher practice and students’ achievement. Goodall’s et al. (2005) research is also contrary to the conclusions of this study because it identified that in general schools are “not skilled in the processes of evaluation and lack experience and tools to consider the impact of CPD at all of the 5 Guskey Levels” (p. 7). Guskey (2002) stressed the importance of professional development evaluation using all five levels of his model to build an overall picture of the effectiveness of the professional development. This section will be organised utilising Guskey’s (2000) levels to show that the sample schools were able to use a range of evaluation approaches.
Level one ‘participants’ reactions’ was surprisingly the most underused approach in the sample schools. This research concludes that the leaders in this study were not primarily focused on whether teachers enjoyed professional development, but were instead focused on the impact on teacher practice and student achievement. Some leaders in this study questioned whether it was necessary for teachers to ‘enjoy’ professional development and these findings were reflected in the limited use of evaluation focused on teacher satisfaction. Low-level evaluation at Guskey’s (2000) level one was commonly discussed in the literature and contrary to authors, Timperley et al. (2007) and Goodall et al. (2005), in this study teacher satisfaction was not reported as the most commonly used approach.

Level two ‘participants’ learning’ and level four ‘participants support and change’ were both evaluated by leaders using similar approaches. This research found that the leaders collected a range of evidence about teachers’ knowledge, understanding and classroom practice to support their understanding of the impact of professional development. The leaders used a wide variety of approaches, such as formal and informal discussions and observations, to discover whether professional development had made an impact on teachers’ knowledge and practice. By working alongside the teachers it provided the leaders with opportunities to evaluate whether changes to teachers’ knowledge and practice had been made as a direct result of the professional development. Edmonds and Lee (2002) agree that teachers are able informally to say whether or not their practice has improved as a result of professional development whereas Desimone (2009) challenges that evidence of improvements in “teacher knowledge and pedagogical content knowledge” (p. 191) should be formal.

Level three ‘organization and support’ was identified through a few approaches used by the leaders in this study. The findings support the conclusion that leaders were considering the area of ‘organisation and support’ but the emphasis continues to be placed on Guskey’s (2000) levels two, four and five. One approach evident at this level was support from leadership. The leaders in this study played a considerable role in following-up professional development. This showed that the leaders were
focused on the impact of the professional development instead of the actual activity. These findings concur with authors Lowden (2005) and Porritt (2009) who agree the focus of evaluation should be on the impact on teacher practice and students’ achievement rather than the professional development activity itself.

Level five ‘pupil learning outcomes’ was an area of high priority for the leaders in this study. From this research it can be concluded that leaders espoused that they were focused on evaluating the impact professional development has made on students’ achievement. The leaders reported that they were ‘results-orientated’ and focused on gaining evidence of the impact professional development has made to students’ achievement. This study has concurred with Guskey’s (2000) view that the main focus of professional development should be on student achievement. The complexity of measuring students’ achievement in relation to teachers’ professional development is discussed by authors Edmonds and Lee (2002) who argue it is “easier for teachers to identify impact on teaching rather than learning” (p. 29). This argument was supported by DiPaola and Hoy (2008) who discuss the difficulty of measuring ‘gains’ in student achievement because the multitude of “factors contributing to student behavior” (p. 141).

What types of evaluation are effective from the perspective of teachers?

In this study the teachers espoused they were able to show evidence of changes or improvements in their teaching practice and students’ achievement as a result of professional development. The espoused practice of the teachers revealed they were confident to share and discuss their teaching practice and students’ achievement as part of the evaluation process in their schools. Actual evidence of the impact of professional development on teacher practice and student achievement was not collected for this research. The literature from authors Edmonds and Lee (2002) questioned the ability of teachers to provide evidence of the impact of professional development on their teaching practice and students’ achievement.
Further research is required to investigate whether teachers’ espoused views on providing evidence on the impact on teaching practice and student achievement would be able to be substantiated by evidence. Goodall et al. (2005) argues that teachers are in fact “unable to provide hard evidence of impact” (p. 30) of professional development on their own practice and students’ achievement.

This research found that teachers were aware of and took part in evaluation. The teachers in this study were able to provide examples of evaluation practice in their schools. In the findings teachers commonly identified a number of approaches, such as PMI and KWL charts and offered only a limited number of alternative approaches to evaluation practice. The perspective of teachers is only minimally addressed in the literature although authors such as Edmonds and Lee (2002) and Goodall et al. (2005) do briefly discuss professional development evaluation in relation to their research with teachers. These findings identified that teachers were involved in evaluating professional development however they were not necessarily involved or consulted about the effectiveness of the evaluative process or strategies used in their schools.

A small number of teachers did recommend alternative approaches for evaluation practice. This shows that some teachers believed there was room for improvement in the current evaluation practice in their schools. The approaches offered from the teachers were student voice, questionnaires or surveys and long-term evaluation. These suggestions offered by the teachers are useful approaches to the evaluation of professional development. Although some of these approaches were mentioned by one or two leaders earlier in the research, it would be worthwhile for other leaders to consider their use. The suggestion of long-term evaluation was supported by authors Kreider and Bouffard (2006) and Guskey (2000) who place emphasis on the use of delaying evaluation following professional development to gain more meaningful data.
An important conclusion from this study is that reflection helped leaders and teachers to improve the effectiveness of their evaluation practice. The leaders in this study also offered alternative approaches to evaluation. This shows that the leaders, as well as a small number of teachers, were reflective about their schools evaluation practice as well as the professional development learning opportunities. The leaders’ approaches to evaluation can be described as more ‘innovative’ and specifically linked to their earlier concerns, such as a lack of anonymity. This also indicated that the leaders were considering approaches which would improve the effectiveness of their evaluation practice. Killion (2008) and Guskey (2000) both agree that evaluation involves significant reflection which can improve professional development evaluation practice.

The findings from this study indicate that only some leaders were utilising the multitude of research and/or models available as a foundation to their professional development evaluation. The limited use of research and/or models in the sample schools did not necessarily impact on the effectiveness of their current evaluation practice. It did however signify a gap in the evaluation practice of the sample schools. Models which are available in the literature, such as Guskey’s (2000) levels, are complex and use academic language. These models require leaders to adapt them for practical application in a school setting. One school linked their use of the ‘Teaching as Inquiry’ (see Figure 2.1) model (Ministry of Education, 2007) to their evaluation practice, whereas some other leaders did earlier discuss inquiry models as part of their professional development. These leaders did not however make connection between the model and its use as an approach to support evaluation. These findings were supported by Porritt (2009) who argues that the effective use of models has not yet been adopted by leaders. The lack of published studies about the impact of professional development on teacher practice and students’ achievement as identified by Bolam (2002) could contribute to the limited evidence in the literature about how evaluation models are practically used in schools.
What challenges do leaders face in evaluating professional development?

In this study the most common challenge identified was time. This was an expected response from the research participants. Time is always considered a challenge in any organisation, such as a school. When teachers are asked to evaluate the impact of professional development on their teaching practice and students' achievement it will inevitably be seen as adding to their current workload. Leaders in each of the schools did attempt to counter the challenge of time by incorporating aspects of evaluation into already established routines of team and staff meetings thus possibly trying to reduce the workload of teachers. In response to this, time is never going to be an easy challenge to solve because of the complex nature of school environments. Goodall et al. (2005) also identified this challenge when cautioning that evaluation should not be “too burdensome a procedure on schools and teachers involved in the process” (p. 34).

It can be concluded that although a lack of anonymity was identified as a challenge by research participants, it is an area which can be addressed through adjustments to current evaluation practices. Alternative approaches, such as online surveys, can be used to counter a lack of anonymity. This is consistent with Guskey (2000) who suggests that by protecting the anonymity of respondents will help to improve the quality of the evaluation through allowing participants to be more honest in their responses.

An important finding was that most of the leaders were able to remain positive and overcome challenges. The leaders’ appeared to be positive and showed their commitment to professional development evaluation. The positivity of leaders, as discussed in Chapter Five, was a surprising outcome from this study. Most leaders in this study were positive about using information gained from professional development evaluation, although they also identified some challenges. The leaders involved in this study remained positive and professional in the face of adversity.
Guskey (2000) challenges this conclusion when suggesting that leaders often lack the confidence to approach evaluation.

**Recommendations for practice**

As a result of this research, areas for further development have been identified. Four recommendations in evaluation practice for the schools involved in this study are outlined below.

I recommend the leaders are provided with the opportunity to visit schools and learn about alternative approaches to professional development evaluation. My own evaluation practice has been influenced by this study and the opportunity to visit and learn from other schools. Leaders in each of the four schools in this study would benefit from this valuable learning opportunity.

I also suggest that leaders investigate approaches and strategies for evaluating professional development outside of the core curriculum areas of literacy and numeracy. Each of the schools involved in this research had a focused approach to their evaluation of literacy and numeracy professional development however they commonly avoided formally or informally evaluating other curriculum areas. This recommendation for addressing a wider number of curriculum areas is focused on ensuring areas, such as science professional development, are not excluded from the positive impact they can contribute to teaching practice and students’ achievement.

Furthermore, I suggest that schools carry out a self review of their current evaluation practices. This will support the formalisation of their professional development evaluation practice. Each of the schools involved in this research used a wide range of evaluation tools through both formal and informal approaches. A self review could
support the schools to identify any gaps in their current evaluation practice, whilst also acknowledging the value of what is currently used. The process of a self review may also identify areas for further development in evaluation practice, such as models of evaluation.

Another recommendation is that leaders should investigate the use of online tools to support their evaluation practice. Online survey tools are one approach schools can use to protect anonymity for their teachers when carrying out written evaluations. Earlier discussions of anonymity and confidentiality are a significant area which leaders need to address. Tools, such as online surveys, are not a necessity every time professional development evaluation is carried out but they can provide another approach additional to the practices currently used in the sample schools.

**Limitations of the study**

There are a number of limitations relevant to this study. The findings in this study are limited due to the small number of schools involved in the research. The results therefore are not able to be generalised to all New Zealand primary schools. The findings and conclusions in this study are representative of the leaders interviewed and the 56 questionnaire participants from the four schools. While it was a small scale study it was strengthened by triangulating the views of leaders and questionnaire participants.

Further, a potential limitation in this research is not carrying out a second pilot interview. This study would have been enhanced with a second opportunity to pilot the interview guide. Although the interview guide was piloted with one leader prior to the interviews, further piloting opportunities would have both supported my skills as an interviewer and also confirmed the questions included in the guide.
Another possible limitation arose from not specifically seeking the perspective of the principals in each school. Principals have their own views which from a leadership perspective could have added a unique layer to this research. The principals in each school were approached prior to the study but were not individually interviewed for this study.

**Recommendations for further research**

This research has highlighted the potential for further research that is focused on the views of principals. Principals have a unique role in the leadership and decision making on professional development in their schools. Further research on the evaluation of professional development would be valuable from the perspective of principals. This could be used to compare and contrast against the findings from the leaders involved in this study.

As mentioned earlier, further research is necessary to investigate whether the espoused views of teachers can be substantiated by evidence. Teachers involved in this research espoused that they were able to show evidence of the impact of professional development on their teaching practice and student achievement. The focus of this research was on the leaders practice, further research into teachers practice would confirm the views of the teachers involved in this study.

Further development in the area of employment by schools of research and/or models of evaluation of professional development would be valuable. There are models available, such as Guskey’s (2000) model and ‘Teacher inquiry and knowledge-building cycle to promote valued student outcomes’ (Timperley et al., 2007) model for leaders to use in schools as the basis to their evaluation practice but they are often not easily applied to the primary school setting. Often the models use complex terminology and are directed at a theoretical level than at a useable school based approach. Research into the simplification of models, such as that of Guskey
(2000), and how these can be transferred into schools in an accessible approach would be beneficial for evaluation practice.

**Concluding comments**

This research has shown that the sample schools used multiple approaches to inform their evaluation practice. Leaders reported they were using to some degree each level of Guskey’s (2000) model, although levels two, four and five were more commonly covered. The focus of the leaders appeared to be on levels which were directly linked to the impact of professional development on teacher practice and students’ achievement. Level one and three were marginally used and addressed in less depth by each leader contrasting with earlier literature which identified that this is where most evaluation practice is focused. A strength in the findings was that the leaders were not reliant upon one source of information to support their evaluation of professional development. A variety of evidence was gathered by the leaders to identify the impact professional development had on teacher practice and students’ achievement.

The leaders were strongly reflective in their evaluation practice and some were prepared to improve their practice through new learning. This research has also shown that complex models, such as Guskey’s (2000) levels, are presented in an inaccessible form. For schools to use these types of complex models, they require adaptation and tailoring to suit the specific needs of a school environment. Finally an important finding from this research was that all schools espoused that they were considerably focused on the impact of professional development on teacher practice and students’ achievement.
REFERENCE LIST


APPENDICES

Appendix 1: questionnaire

Effective evaluation of professional development in New Zealand primary schools

Introduction

The aim of my research and this questionnaire is to examine the effectiveness of professional development evaluation in a sample of New Zealand primary schools. This questionnaire should take no longer than 10 minutes for you to complete. Completion of this questionnaire is voluntary. By completing this questionnaire you are giving your consent to participate in this research. Once returned, the information you provide cannot be linked to you or identified and therefore cannot be retracted except at an institutional level.

Instructions

The following sections consist of rating scales and some written responses. For the rating scale statements please place an X on any place along the scale to show your position on each of the statements.

Demographic Information

How long have you been teaching:  
- a) less than 2 years?  
- b) between 2 years and 5 years?  
- c) between 5 years and 10 years?  
- d) more than 10 years?

Are you a:  
- a) full time teacher?  
- b) part time teacher?

Are you a:  
- a) classroom teacher?  
- b) syndicate/team/senior leader?
Section 1

<table>
<thead>
<tr>
<th>What is your understanding of the process of evaluation of professional development?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What does professional development evaluation look like at your school?</td>
</tr>
<tr>
<td>What does professional development look like at your school?</td>
</tr>
</tbody>
</table>
**Section 2**

Scale: 0 = strongly disagree  
1 = disagree  
2 = somewhat disagree  
3 = somewhat agree  
4 = agree  
5 = strongly agree

Please place an ‘X’ on each scale below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional development in my school is focused on my areas of need.</td>
<td>5</td>
</tr>
<tr>
<td>All professional development should impact on my teaching practice.</td>
<td>5</td>
</tr>
<tr>
<td>All professional development should impact on student achievement.</td>
<td>5</td>
</tr>
<tr>
<td>Professional development should be evaluated.</td>
<td>5</td>
</tr>
<tr>
<td>Evaluation of professional development is carried out by leaders in my school.</td>
<td>5</td>
</tr>
<tr>
<td>I am directly involved in the evaluation of professional development in my school.</td>
<td>5</td>
</tr>
<tr>
<td>Evaluation is important to help improve my teaching practice.</td>
<td>5</td>
</tr>
<tr>
<td>I am encouraged by our leadership to discuss how professional development has impacted on my teaching practice.</td>
<td>5</td>
</tr>
<tr>
<td>I am encouraged by our leadership to discuss how professional development has impacted on my students’ achievement and learning.</td>
<td>5</td>
</tr>
<tr>
<td>I can show evidence of how professional development has impacted on my teaching practice.</td>
<td>5</td>
</tr>
<tr>
<td>What kind of evidence would you show?</td>
<td></td>
</tr>
<tr>
<td>I can show evidence of how professional development has impacted on my students’ achievement and learning.</td>
<td>5</td>
</tr>
<tr>
<td>What kind of evidence would you show?</td>
<td></td>
</tr>
</tbody>
</table>
Section 3

Scale: 0= not at all
    1= seldom
    2= sometimes
    3= often
    4= frequently
    5= always

Please place an ‘X’ on each scale below.

I have been asked by the leadership team to provide evidence of how professional development has impacted on my teaching practice.

What have you been asked to show?

Professional development is followed-up on and extended and discussed at a team or individual level.

Please explain how:

My teaching practice is discussed with my leaders following professional development.

What is discussed?

There are barriers to evaluation of my teaching practice following professional development.

Comment on those barriers:
There are barriers to evaluation of my students’ achievement and learning following professional development.

Comment on those barriers:

<table>
<thead>
<tr>
<th>Section 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale: 0=strongly disagree</td>
</tr>
<tr>
<td>1= disagree</td>
</tr>
<tr>
<td>2= somewhat disagree</td>
</tr>
<tr>
<td>3= somewhat agree</td>
</tr>
<tr>
<td>4= agree</td>
</tr>
<tr>
<td>5= strongly agree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I would like to be directly involved in the evaluation of professional development.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation supports the impact professional development has on my teaching practice.</td>
</tr>
<tr>
<td>How does it impact?</td>
</tr>
<tr>
<td>Evaluation supports the impact professional development has on student achievement and learning.</td>
</tr>
<tr>
<td>How does it impact?</td>
</tr>
</tbody>
</table>

What effective approaches/forms of evaluation do you consider could be used to evaluate professional development?

What types of evaluation would help improve the impact professional development has on your teaching practice?

What types of evaluation would help improve the impact professional development has on your students’ achievement and learning?

Thank you for taking the time to complete this questionnaire.
Appendix 2: information sheet: interview

Title of Thesis: Effective evaluation of professional development in New Zealand primary schools.

My name is Claire Edwards. I am currently enrolled in the Master of Educational Leadership and Management degree in the Department of Education at Unitec Institute of Technology and request your participation 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 examine the effectiveness of professional development evaluation in a sample of New Zealand primary schools. My research is investigating the importance of evaluation of professional development, types and effectiveness of evaluation from the perspectives of teachers and leaders, current evaluation practice and barriers to the evaluation of professional development.

I request your participation in the following way:

- I will be collecting data using an interview schedule and would appreciate being able to interview you at a time that is mutually suitable. I will also be asking you to sign a consent form regarding this event.

Neither you nor your organisation will be identified in the Thesis. I will be recording your contribution and will provide a transcript (or summary of findings if appropriate) for you to check before data analysis is undertaken. 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 Eileen Piggot-Irvine and may be contacted by email or phone.

Phone: (09) 815 4321 ext 8936 or Email epiggotirvine@unitec.ac.nz

Yours sincerely

Claire Edwards

UREC REGISTRATION NUMBER: (2011-1172)

This study has been approved by the Unitec Research Ethics Committee from (25.5.2011) to (25.5.2012). 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.
Appendix 3: consent form – leaders

DATE

TO: [participant’s name]

FROM: Claire Edwards

RE: Master of Educational Leadership and Management

THESIS TITLE: Effective evaluation of professional development in New Zealand primary schools.

I have been given and have understood an explanation of this research and I have had an opportunity to ask questions and have had them answered. I understand that neither my name nor the name of my organisation will be used in any public reports. I also understand that I will be provided with a transcript (or summary of findings if appropriate) for checking before data analysis is started and that I may withdraw myself or any information that has been provided for this project up to the stage when analysis of data has started.

I agree to take part in this project.

Signed: __________________________________________

Name: __________________________________________

Date: __________________________________________

UREC REGISTRATION NUMBER: (2011-1172)

This study has been approved by the Unitec Research Ethics Committee from (25.5.11) to (25.5.2012). 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.
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I request your participation in the following way:

- I will be collecting data using a questionnaire;

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 Eileen Piggot-Irvine and may be contacted by email or phone.

Phone: (09) 815 4321 ext 8936 or Email epiggotirvine@unitec.ac.nz

Yours sincerely

Claire Edwards

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Appendix 5: interview guide

Effective evaluation of professional development in New Zealand primary schools

Outline of possible questions for the interviews with senior leaders:

Demographic Information

What is your role within the senior management team?

How many leaders make up the senior management team at your school?

How many years have you been in your current position?

How many years have you been in senior management roles in your career?

Section 1

Explain what is evaluation?

What does professional development look like at your school?

Explain the link between professional development, teacher practice and student achievement and learning.

Section 2

How do you know if teachers enjoyed taking part in professional development?

What do you use to measure the quality or effectiveness of the facilitation of professional development in your school?

How do you know if professional development has impacted on a teacher learning or knowledge?

How do you know if additional support/on-going support or development is needed for teachers following the professional development?

Explain the link between your professional development and the schools strategic goals.
Explain the link between professional development and individual teacher appraisal.

How do you know teachers are using their new knowledge or skills gained from professional development?

What opportunities do teachers have to share what they have learnt from professional development? Provide examples.

How do you know/measure that students have made gains in their learning as a result of professional development?

**Section 3**

How do you know professional development has been effective in your school?

How do you evaluate professional development?

How do you decide what parts or aspects of professional development to evaluate?

Who uses the information from the evaluation of professional development?

Do you think the evaluation of professional development used in your school is effective? Why/why not

What types of evaluation/approaches do you think would be effective to use when evaluating professional development?

How have you learnt to evaluate professional development?

Is your practice informed by any research/models etc?

Is all professional development evaluated? Informal/formal professional development or just some areas, how do you choose what to evaluate?

What challenges do you encounter when evaluating professional development?

Are there any barriers to acting on the information gained from the evaluation of professional development? If yes, what are they?