EFFECTIVENESS OF SCHOOL BASED TEACHER PROFESSIONAL DEVELOPMENT PROGRAMMES

by

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DECLARATION

Statement by Author

I, Lalesh Ram Sharma, declare that this thesis is my own work and that, to the best of my knowledge, it contains no material previously published, or substantially overlapping with material submitted for the award of any degree at any institution, except where due acknowledgment is made in the text.

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Statement by Supervisor

The research in this thesis was performed under my supervision and to my knowledge is the sole work of Mr. Lalesh Ram Sharma.

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DEDICATION

This research project is dedicated to my family, foremost my parents, Jagdish Ram Sharma and Shanti Devi Sharma and to my wife, Runaaz Ali Sharma and my one and only son, Sahil Roshiv Sharma and all the practicing teachers in primary schools around the Republic of Fiji.

ACKNOWLEDGEMENTS

ABSTRACT

Effective professional development is considered the centre of educational reforms (Darling-Hammond, 1995; Sparks, 1995). The purpose of this study was to determine the effectiveness of school based teacher professional development using Guskey's (1986) models of teacher change process and by evaluating professional development activities planned and conducted by school heads in the case study schools.

A mixed method was used to collect data on school based teacher professional development in the two selected case study schools. Research instruments, such as questionnaire survey, semi structured interviews were designed based on the literature reviewed on the school based teacher professional development and the model of teacher change process suggested by Guskey (1986). To add validity to the data collected, document analysis was also carried out.

This research study included ten teachers, two school heads and an official each from professional development unit, curriculum development unit, teacher registration board and ministry of education's district education official. This study supports the findings of other international research studies and the school based professional development literature that school based teacher professional development is only effective if the professional development is well structured with all the quality features and promising strategies of professional development. The findings of this study also supports the research literature indicating the importance of setting clear goals and effective planning of professional development that aligns to the vision, mission of ministry of education and schools together with the needs of teachers based on the available curriculum and reforms initiated.

Overall, the findings of the study showed that school based professional development programmes planned and conducted in the two case study schools were ineffective. Some of the broad categories of factors contributing to this were for example, individual and school based factors.

On the basis of the findings, the study proposes a model for school based professional development and some other significant recommendations for all the educators involved in professional development in Fiji's education system. Also, suggestions for further research is advanced in order to address various issues concerning school based teacher professional development.

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LIST OF ACRONYMS

AusAID……………………………… Australian Agency for International Development

CDU………………………………… Curriculum Development Unit

CCSs………………………………… Case Study Schools

EU…………………………………… European Union

FESA………………………………… Fiji Electronic Staffing Appointment

FESP………………………………… Fiji Education Sector Programme

FESP-AusAID……………………… Fiji Education Sector Programme- Australia Agency for International Development.

FESP- EU…………………………… Fiji Education Sector Programme- Europea Union

FNU………………………………… Fiji National University

IST…………………………………… In-service Training

L&M………………………………… Leadership and Management

LTC…………………………………… Lautoka Teachers College

MOE………………………………… Ministry of Education

NCF.. National Curriculum Framework

NCTAF.. National Commission on Teaching and
America's Future

NSDC... National Staff Development Council

NTC... Nasinu Teachers College

OECD... Organization for Economic Cooperation ar
Development

PD... Professional Development

PDU... Professional Development Unit

TRB... Teacher Registration Board

UNESCO...................................... United Nations Educational Scientific and
Cultural Organization

CHAPTER ONE

Introduction to the Study

1.0 Introduction

This study explores the effectiveness of professional development (PD) programmes planned and conducted by school heads in selected primary schools of Fiji. Teacher improvement through PD programmes has been identified as the most important way of keeping teachers abreast with latest developments in education (Darling-Hammond, 2009; Fullan & Hargreaves, 1991). As such, a study on PD of teachers is obvious especially in developing contexts such in the small island states of the Pacific including Fiji in order to improve the delivery of education.

This is an introductory chapter and it presents a brief overview of the study. It provides the background of the study, statement of the problem, aim of the study and presents the research questions that guided the study. The key concepts and significance of the study are discussed next. The chapter also briefly discusses the theoretical and methodological orientation adopted for the study. This is followed by a discussion on some limitations associated with the present study. The chapter concludes with an outline of the remaining sections of the study.

1.1 Background

Among all the resources available for the development and improvement of an education system, teachers are said to be the most important input (Delors, 1996; Learning Together, 2000; Lingam, 2010). With reference to teachers, Darling-Hammond (2004) emphasized the need for on-going teacher development to enhance the delivery of high quality education to the children. Even though the education fraternity

comprises of ancillary staff, education officers, parents/guardians, learners and community members, teachers are considered the most important stakeholder as they contribute directly towards children's education (Ministry of Education (MoE), 2005).

In the last decade schooling in Fiji has been experiencing a period of rapid and multiple reforms (Lingam, 2005). One of the main areas that have undergone dramatic change is the implementation of outcome based teaching and continuous assessment replacing external examinations in the primary schools. Also, the formation of the National Curriculum Framework (NCF) which advocates outcome based education which has led to an overall review of the school curriculum. Work on this has already begun. Added to this, the Leadership and Management (L&M) training provided to the head teachers by the Fiji Education Sector Programme (FESP) to help them guide the teachers to effectively implement the new curriculum. Together with these, the new forms of teacher performance management system are some of the glaring reforms introduced in Fiji's education system (Lingam, 2006). However, educational reforms introduced will never lead to any success unless teachers are seen to be continuously developing their knowledge base and skills, critically reflecting and critiquing their own work and working collaboratively with their colleagues in order to provide the best possible education to the children (Fullan & Stiegelbauer, 1991).

As such without suitable PD activities all efforts to improve educational provision will be an exercise in futility. In this regard, Fullan and Stiegelbauer (1991) strongly recommend the need for on-going PD activities which would help bring about positive changes in the teachers and in turn improve their performance at school work. Conners (1991) and Fullan and Stiegelbauer (1991) suggest that in order for school based teacher PD to be effective, it must promote changes in:

- teachers' belief, attitudes, theories or pedagogical assumptions;
- changes in content knowledge;
- changes in teachers' practices, strategies or approaches'; and
- the possible use of new or revised materials, resources or technologies.

All of the above need to be considered when planning and conducting any PD programmes for teachers to achieve optimum outcomes from the programmes.

Teacher education is a continuum of PD with beginning teachers at one end of the continuum and experienced teachers at the other end (Hughes, 1991). Therefore, school based teacher PD is an integral part of teacher development and as such it deserves top priority in any country's education system. Scott (1987) has categorized a teacher's career into three phases; student teacher, neophyte and mature teacher. Scott (1987) further asserts that the latter phase in the teacher's life is the longest and may be dynamic or relatively static. Whatever, the category a teacher falls into, the need for teachers for ongoing school based PD during the course of their teaching career is vital. New knowledge and skills acquired through PD will create a balanced learning and teaching platform for practicing teachers to enhance their performance that will result in improving the students learning outcomes. The extent to which these PD needs is satisfied plays a significant role in the quality of their performance and in turn productivity in the range of duties and extended responsibilities expected of them (Lingam, 2010; Scott, 1987).

The initial training provided by the teacher training institutions is regarded as basic knowledge of teaching. The pre-service training is not enough for smooth transition into the teaching career as all schools differ in contexts, organization and processes of teaching, inter-staff relationship, relationships with wider community and assessment arrangements (Tickle, 1994). Thus, PD programmes could even incorporate teacher induction to help familiarize and adequately prepare new teachers with their work environment. According to Darling-Hammond (2004), PD is a tool that keeps teachers abreast with all the schools expectations, latest developments in pedagogical theories and practices. Thus, for the benefit of on-going improvement in teacher's knowledge and skills, it was important to determine the effectiveness of the school based teacher PD programmes in selected primary schools of Fiji.

1.2 Statement of the problem

According to the education summit 2005 report, PD programmes in the school have been in existence in the schools for many decades (MoE, 2005). The MoE through its PD programmes policy has tried to implement professional learning activities through workshops, district level training programmes, conferences and structured school based teacher PD programmes in schools (MoE, 2009). Despite this, it seems that the policy is not achieving its objective. It appears that the PD programmes are not taken up seriously by the school heads and also there appears to be no regular programme for staff development at the school level. Taken together, the factors could be contributing towards limited success in PDs organized at the school level. If this trend continues, it could create a knowledge gap in the practicing teachers and ultimately children's education will be affected. In light of this, an investigation into the effectiveness of PD programmes at the school level is warranted.

1.3 Aim of the study

The main objective of this study was to determine the effectiveness of PD programmes planned and conducted by school heads in primary schools. Specifically, this was researched through two case study schools in order to find out how effectively the school heads conducted the PD activities in their respective schools.

1.4 Specific research question

Given the aim of the study, the following key research question was posed to help steer the research:

Are the school leaders effectively planning and conducting the school based teacher PD programmes?

In addition, three further underlying questions were posed as underpinning to the principal research question. These questions are:

(i). How are the school based teacher PD programmes conducted and its current status?

(ii). What are the challenges faced by the school leaders in conducting teacher PD programmes in their schools?

(iii). What does the school leaders and MoE do to sustain the school based teacher PD programmes?

The key research question, together with the three underlying questions helped guide the study and in turn determine the effectiveness of teacher PD conducted by the school heads in the selected primary schools of Fiji.

1.5 Key concepts and terms

To help readers better comprehend the study, some of the common concepts and terms used in the context of this study are briefly explained on the basis of the supporting literature.

1.5.1 School based teacher PD
Gall, Renchler and associates (1985: 6) defined school based PD programme as "efforts to improve teachers' capacity to function as an effective classroom practitioner". This definition of school based PD is very simple and easy to understand. This definition is adopted for the purpose of this study.

1.5.2 PD programme
Joyce and his associates (1980: 379-380) define PD in terms of in-service education as "formal and informal provisions for the improvement of educators as people, educated

persons, and professionals, as well as in terms of the competence to carry out their assigned roles". The reason for adopting the definition for this study is because in any school situation, PD programmes are conducted both formally and informally for the purpose of improving teachers' performance at school work.

1.5.3 Staff development programme

Carlson (1994) points out the concept of staff development as those formal and informal activities undertaken by teachers to develop their professional knowledge, professional practice, and professional engagement. Similarly, in this study the concept is used in the same way as advanced by Carlson.

1.5.4 Professional learning

Cochran-Smith (2004) highlights that professional learning as any learning that results from a wide range of PD activities. In view of this, school based teacher PD programmes is one real example of professional learning.

What emerges from the key concepts and terms is that teachers need to keep on learning through various means to remain resourceful and relevant throughout their professional career in order to provide the best possible education to the children. This could be achieved through formal and informal means.

1.6 Significance of the study

This study is significant for several reasons. Foremost, there has not been any study carried out in this area so far in Fiji. It is hoped that this research would add to the dearth of literature available locally in the area of school based teacher PD. Also, on the basis of the findings of this study, educators and the principal stakeholder and in the case of Fiji, the MoE could strengthen all aspects of PD programmes such as school based PD by helping design and implement appropriate programmes for the benefit of practicing teachers. Thus any gaps arising in the effectiveness of PD programmes could be addressed.

In addition to that, this study could act as a catalyst for further research not only on school based PD programmes but also on other professional learning activities conducted by various agencies for the practicing teachers.

1.7 Research methodology

In brief, a mixed method using case study research design was employed for the determining the effectiveness of teacher PD programmes conducted in selected primary schools. A purposeful sampling technique was used involving a selection of two primary schools for the study. This enabled the researcher to discover, understand and gain deeper insights about the phenomenon under study (Burns, 1997; Merriam, 1998).

A mixed-method approach was employed involving questionnaires, interviews and. document analysis to gather data needed for the study. A more detailed discussion of the research methodology adopted for the study is presented in Chapter 4.

1.8 Limitation of the study

There was a dearth of local literature available on school based teacher PD. There is no local publication on this theme except for some information available in the Fiji Islands Education Commission Report 2000 and education gazettes published by the MoE. As a result literature associated with school based teacher PD programmes from overseas countries was reviewed to gain better insights about the effectiveness of school based teacher PD programmes.

In addition, accessibility to relevant documents was limited. There was a high level of bureaucracy to be followed and under the present political landscape it was extremely difficult to get the necessary materials from the MoE.

Furthermore, this study involved only two schools and limited time was available to conduct the research as such it is not feasible to generalize the findings to the entire primary schools in the Fiji context. A more in-depth research is needed involving most of the primary school to achieve a comprehensive picture about the effectiveness of school based PD programmes in Fiji's primary schools and this is beyond the scope of the present study.

1.10 Organization of the thesis

The study is organized into seven chapters. Chapter One has provided relevant information associated with the background, statement of the problem, aim and research questions, key concepts and terms, significance of the study and a brief outline of the methodological orientation adopted followed by some limitations of the study.

Chapter Two presents literature review related to the study. It looks at a number of international and a few available local publications pertinent to school based teacher PD. On the basis of the literature reviewed, a conceptual framework is developed and presented to guide the study.

Chapter Three discusses the historical perspective of education, the research setting, context, Teacher Registration Board (TRB) promulgation, Professional Development Unit (PDU) and PD policy in Fiji. It is important to look at the historical perspectives as it gives a holistic view to the reforms that has taken place in education system over the years and sheds some light on the status quo of teacher PD in Fiji. This chapter enables a better understanding of the education system and in particular the situation of school based teacher PD programmes in Fiji.

Chapter Four focuses on the research methodology adopted as well as the data gathering approaches used in conducting this study. Also, research sample and ethical procedures adopted are discussed.

Chapter Five presents the findings of the study. The results are analyzed and presented under suitable headings. Generally, the presentation here is guided by the research questions posed that is, the findings are presented under the headings derived from the research questions posed.

Chapter Six discusses the findings of the research. The final chapter, Chapter Seven provides a summary that draws conclusions based on the findings and looks at the recommendations and implications of the study in terms of research, policy and practice of PD.

1.11 Summary

This chapter has provided an overview of the study. It has provided relevant information associated with the background of the study, statement of the problem, aim and the research questions posed followed by a brief outline of the research design employed in conducting the study. Also discussed were some key concepts and terms, significance of the study, followed by some of the identified limitations of the study and the organization of the remaining sections of the study. This leads to the next chapter, Chapter Two which provides a review of literature on school based teacher PD.

CHAPTER TWO

Literature Review

2.0 Introduction

This chapter presents the review of literature on teacher professional development (PD) with particular attention to school based teacher PD. The review will be presented under the following headings:

- What is PD ;
- The process of teacher change;
- PD and teacher change;
- Involvement in school-based teacher PD;
- Factors affecting school based PD programmes;
- Features of quality PD;
- Teacher induction; and
- Promising strategies for school based teacher PD.

On the basis of the review of literature on the above aspects relating to PD, a conceptual framework for the study is derived and presented towards the end of the chapter.

2.1 What is PD?

Various definitions abound in the literature relating to the concept of PD. A review of a few definitions is undertaken to see what common thread binds them all.

As mentioned earlier, Joyce and his associates (1980: 379-385) cited in Gall, Renchler, Haisley, Baker & Perez, 1985) defined PD as "formal and informal provisions for the improvement of educators as people, educated persons, and professionals, as well as in terms of competence to carry out their assigned roles". Thus PD programmes could be both award and non-award based programmes with intention of improving teacher performance at school work. The Alberta Teachers' Association (2001: 2) policy document describes PD as "any planned activity that provides teachers with an

opportunity for growth in knowledge, skills and attitudes leading to improved teaching practice and enhanced student learning". According to this definition, the focus of any PD is to improve teacher performance and in turn, maximize children's learning outcomes.

Guskey (2000) defines teacher PD as ongoing, intentional, systemic educational and training opportunities available to educators in their schools or in their respective education districts. Guskey's definition is quite comprehensive in the sense that he emphasizes the need for ongoing development of teachers for the purpose of improving their knowledge, skills and attitudes. The definition indicates that teacher PD is more than attending formal peripheral organized programmes. Thus PD programmes can be even organized and carried out at the school level and the focus remains on the improvement of knowledge, skills or attitudes which are specifically job-related.

As defined by a professional association, school-focused PD is the "collective set of experiences involving the individuals [teachers] and the context in which they work" (Alberta Teachers' Association, 2001: 3). Thus it should not be a one off thing. Instead, PD should be embedded as part of the school culture. As mentioned by Guskey (cited in Todnem & Warner, 1994: 63) that staff development through PD programs is "increasingly seen as a process, not an event … that the process is *intentional* … and is a systematic effort to bring about … positive change or improvement". Thus PD should be focused in order to bring about any positive change in the teachers performance and in turn productivity at work.

Analysis of the definitions of PD tend to be based upon the idea that teachers were deficient and needed fixing or were falling short in their professional capacities and this needed to be rectified (Joyce, 1983). Some researchers have discussed PD programs that sought to address lack in teaching skills, as viewing teachers as empty vessels "to be filled" (Garmston, 1991: 64-65). In fact teachers are not empty vessels to be filled but have the potential to contribute positively towards improving educational provision provided they undergo quality PD programmes.

Hence, whatever the definition of PD, implicit in it is the notion that teachers need to undergo further PD activities to meet the latest developments and innovations in the ever changing field of education. In addition, the rising expectations from stakeholders for better and improved student learning outcomes now and in the future warrants on-going PD programmes for teachers in order for them to display a high standard of performance.

2.2 The process of teacher change

The literature here focuses on the process of teacher change specifically with reference to a model advanced by Guskey (1986). The literature illustrates that in the 1960s and 1970s, the primary focus of PD research was on teacher behavior and how PD could help teachers to positively change their behaviors and adopt innovations by implementing the training back into their school work (Elmore, 2002). In the 1980s, considerable interest was shown in how teachers changed as a result of school based PD activities. The focus shifted toward school improvement and the role of PD activities in supporting school reform or restructuring (Elmore, 2002). Later, in the early 1990s, the focus shifted toward student achievement and the role of school based PD in improving student learning, perhaps due to an increased emphasis on educational accountability together with pressure from all stakeholders (Elmore, 2002).

Finally, in the late 1990s, the focus further shifted to teacher quality (defined variously as teachers' years of experience, level of education/certification, and knowledge of subject matter), its importance as a key predictor of student achievement, and the role of PD in helping teachers develop into high-quality teachers (Wenglinsky, 2000).This shift then required teachers to adopt a change orientation, seeing themselves not as teachers who master and then duplicate instructional tasks stated from outside but as learners who must regularly grow from their own practice, through trialing, problem solving, and reflection on their professional work (Richardson, 1998).

PD approaches that focused on teacher knowledge and inquiry were preferred to those that delivered expert knowledge and expected teachers to adopt specific practices (Guskey, 2000). In this way, many new reforms phased into the school system were not sustained due to a lack of genuine participation from teachers as experts controlled the PD activities (Guskey, 2000). Even some school based PD programs were useless (Guskey, 2002). This may have been due to teachers' lack of motivation or simply lack of interest in the PD programmes or failure on the part of the experts to empower the teachers participating in the programmes.

Fullan and Hargreaves (1991: 63) observed that teachers undertake PD "because they want to become better teachers and PD is considered as the most promising and most readily available routes to growth on the job". Guskey (1986: 6) added that educational programs are not only a way to "overcome boredom and isolation" but also to provide a "pathway to increased capability and greater professional satisfaction." He found that the majority of teachers were concerned with "enhancing the learning outcomes of their students" and to do that they felt they needed to become a "better teacher" and this needed suitable PD activities at the school level (Guskey, 1986: 6).

From Guskey's (1986) research examining less than effective PD programs with those that had resulted in significant changes in teachers' attitudes and behaviors, he conceived a model that outlined the process of teacher change (Figure 1).

Figure 1: Model of the process of teacher change
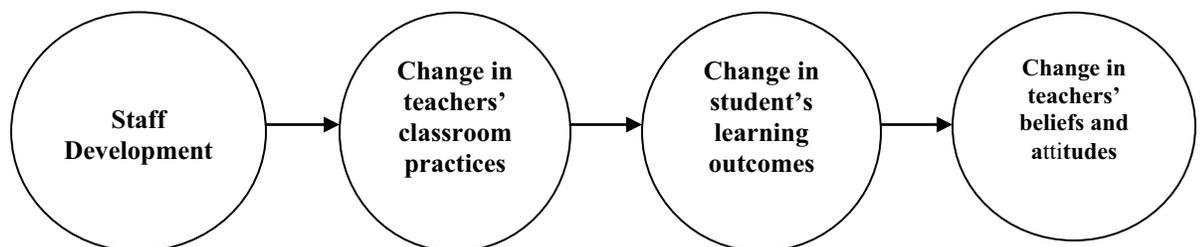
Source: Guskey, 1986: 7

Guskey's (1986) model (Figure 1) illustrates that the most significant factor in influencing teacher change was experiencing positive changes in their students'

learning outcomes as a result of the teacher's application of the new skills or strategies attempted from the school based teacher PD program. When this positive effect on students learning was observed it frequently resulted in positive changes in teachers' attitudes, beliefs and values towards the school work.

The above model provided an alternative perspective from those perspectives advocated from early change theorists, for example, Guskey and Peterson, (1996) who posited that attitudes and beliefs must first be affected before any resultant change in practices would occur. All teachers are individuals first and therefore based on their experiences, beliefs and their values and aspirations would greatly differ and designing PD activities solely based on every teacher's beliefs and attitudes may be not be feasible (Guskey, 1986).

The contention of all PD initiative is to leave an everlasting impact on the teacher in order to produce some form of positive change in his/her performance at professional work in school. Generally, PD strategies that succeed in improving teaching were those "connected to and resulting from teachers' work with their students as well as to examinations of subject matter and teaching methods" (Darling-Hammond, 1998: 11).

In terms of determining the effectiveness of school based PD programmes, researchers need to collect data not just about the teacher but also about the teacher's work context and this study considers that. This is especially true if researchers want to understand the connection between PD and student learning because, while the teacher is always the link between PD and student achievement, teacher practice is only one of many factors affecting student learning. This is known as the dilution effect of PD: the actual impact of the PD is diluted by all of the other factors that support or hinder teachers from making change. The dilution effect is the primary criticism behind arguments against judging PD according to the process of PD which does not always result in raising student achievement (Adey, 1995).

Whatever the educational change is, the process adopted in schools seem to follow three phases; initiation, implementation and continuation (Fullan, 2007). On the other hand, Greenberg and his colleagues (2005) describe the phases as pre-adoption, delivery and post-delivery. With respect to the last phase, Fullan (2007: 65) rather defines it in terms of "whether the change gets built in as an ongoing part of the system or disappears by way of a decision to remove or through attrition". The idea would be for the teachers to take on board the change in order for the change to become part and partial of their professional work and life.

According to Fullan (2007), the three phases described above are circular rather than linear process and are embedded into each other hence the final stage of continuation is not a separate stage and should not be regarded as an end in itself, rather it is linked to the decisions made during the beginning and achievement phases of the PD program (Fullan, 2007). The same could be said of the phases advocated by Greenberg and his colleagues.

Thus the process of teacher change is not easy and therefore, concerted effort is needed to achieve the desired result that is, to bring about positive change in the way teachers carry out their work. A way forward would be to continuously review each phase of PD programmes in order to improve the overall effectiveness of future PDs.

2.3 PD and teacher change

The review of literature in the previous section clearly illustrates that teacher change process encompasses a series of phases before any everlasting positive change can be manifested. The review of literature in this section covers a bit more in detail about how PD contributes to teacher change. To some extent the material may resemble the teacher change process as outlined above but for the purpose of review it was considered wise to discuss it separately.

Literature suggests that teacher change is a complex phenomenon that can only be gauged over an extended period of time (Smith, Hofer, Gillespie, Solomon & Rowe, 2003). Changing teachers practice is not a simple task either, as teachers have a mindset regarding certain areas which will require quality school based teacher PD to bring changes in teachers (Cohen & Hill, 2000; Desimone, Porter, Garet, Yoon & Birman, 2002; Hubbard, Mehan & Stein, 2006; Thompson & Zeuli, 1999), and the pressure on teachers can intensify significantly under new educational policies and reforms (Finnigan & Gross, 2007; Valli & Buese, 2007).

Implementing any change on a large scale is a big task and has implications on stakeholder preparation and willingness to the effective implementation of the innovation by the key implementers, teachers. Some educational reports spanning over a decade suggest that substantial change in instructional practice is difficult to achieve on a wide scale (Hubbard et al., 2006; Knapp, 1997; Spillane & Zeuli, 1999; Supovitz, 2006). Teacher's role in particular is critical as they are the most important players in determining the success of any innovation at the school level and their preparation deserves attention.

Short and Echevarria (1999) assert that even when school based PD programmes are available over several years, with numerous opportunities for learning, change can be slow. It is a process occurring over time that requires considerable support from all the stakeholders especially the school leader and the employing authority (Imel, 2000; Joyce, 1983). Stein, Smith and Silver (1999: 237-269) rightly pointed out that change requires much more intensive learning support than teachers generally receive in school based PD activities consisting of workshops, meetings and seminars to educate teachers on new developments.

Fullan (1990) argues that such forms of PD, creates an implementation dip as teachers try new actions, before they have fully integrated the new idea, which is a period of stress and anxiety for teachers in their daily professional work.

Bridges (1991) sees teacher change as a three-step psychological change process with an ending (for old ways), neutral zone (rethinking stage), and beginning (with a purpose and plan). Likewise, Scott (1987: 78) asserts that the professional life of a teacher passes through a number of developmental stages; *survival, consolidation, extension* and *refreshment*. Whatever, the stages that teachers go through change comes about through reflection, and the heart of reflection is first challenging teacher's attitudes, values and beliefs which is a difficult task to transform (Garmston, 1991).

This study has a similar argument that in order to bring positive changes in teachers attitudes, values and beliefs it will take time and can only be achieved through regular quality PD programmes. As such quality school based teacher PD programme can be an effective tool through which the expected change in teachers can be initiated which in turn will contribute towards improving students learning outcomes.

However, teacher change as a result of school based PD activities is not always guaranteed. Joyce, Wolf and Calhoun (1993) found that only ten percent of practices were adopted, even after ten to fifteen days of training. Mazzarella (1980) found only fifteen percent of the new practices were implemented after a one-shot training. A review of literature in this area indicates that unless followed by coaching or action research, implementation of new practices can be a failure over the long term if teacher excitement and momentum is not maintained (Porter, Garet, Desimone, Yoon & Birman, 2000). Evaluation and cycles of reviews are necessary component of change as it provides opportunities for learning from mistakes and from others success.

The role of school leaders and district education office is important to ensure that teachers are consistently given feedback from within the context of practice. Thus the school culture has an impact on the decisions made by individual teachers on acceptation or rejection of the new ideas learnt as a result of school based teacher PD experiences received. As far back as the 1970's, Lortie (1975) proposed that there is a culture of school teaching, directed by three norms, that makes it harder for teachers and schools to change: the norm of *conservatism* (teachers teach as they themselves

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were taught in school), the norm of *presentism* (teachers focus on the short term, uncertain of the future), and the norm *individualism* (reliance on self for knowledge and skills, practice driven by trial and error and personality). Elmore (1996:28) provides a good summary of the change process:

> Changing teaching practice even for committed teachers takes a longtime, and several cycles of trial and error; teachers have to feel that there is some compelling reason for them to practice differently, with the best direct evidence being that students learn better; and teachers need feedback from sources they trust about whether students are actually learning what they are taught.

In the same vein, Timperley (2008) affirms that teachers' engagement is not likely to make a difference for their students unless targeted outcomes for students are clear to the teachers engaging in professional learning experiences. This is possible if professional learning experiences focus on the links between particular teaching activities and valued student outcomes are explicitly associated with positive impacts on those outcomes (Timperley, 2008).

However, another perspective on teacher change is that teachers change all the time but they are just more resistant to externally driven change (as opposed to change that they initiate on their own) or change that goes against their existing beliefs and values (Richardson & Anders, 1994). If new ideas challenge the status quo, teachers tend to feel unbalanced and insecure but if it challenges their personal beliefs it may be rejected. Thus, all educational innovations and reforms need to be brought to teachers in the context of practice during the consultation phase to encourage involvement and ownership to the new idea or reform prior to implementation.

McLaughlin and Marsh (1990) argue that it is difficult to see the change if it is masked by the difference between a teachers' supported theory and actual practice. Most research on teacher change relies on teachers' self-reports of change, and the attitudes, beliefs, and knowledge that teachers express are not always played out in what they actually do in the classroom.

Some current research has also looked at whether the model of PD makes a difference in teacher change. Porter and his colleagues (2000) found that when change happened, it was more often the result of school based teacher PD that was regular and included collective participation (several teachers from the same school), active learning, and coherence with teachers' goals and district standards. Similarly this study calls for PD activities to become school centered and based within the school community.

2.4 Involvement in school based teacher PD

School based teacher PD programme is increasingly viewed as central to the advancement of present educational reform practices (Darling-Hammond & McLaughlin, 1995; Fullan, 1998; Leiberman, 1995; Little, 1993; Sparks, 1995; Wilson & Berne, 1999). Little (1993) outlined five major streams of educational reform:

- in subject matter teaching;
- on problems of equity in diverse student populations;
- in the nature, extent, and use of student assessment;
- in the social organization of schooling; and
- in the professionalization of teaching.

She argued that the traditional training-and-coaching model is no longer adequate for the demands of these reforms because many of these demands require teachers to grapple with what broad principles look like in daily practice rather than to simply adopt practices thought to be universally effective. This is not true as all countries are different in many respects especially those in developing contexts such as the ones in the Pacific region including Fiji.

Little (1993) asserts that the school workplace is the place in which the possibilities for teachers' PD activities can be carried out effectively. Smith and Gillespie add consensus that school based PD activities develops a learning community where PD is intricately "woven into the fabric" of the school community with occasional "cross fertilization of new ideas from outside the school" (Taylor, Pearson, Peterson,

Rodriguez, 2005 in Smith & Gillespie, 2007: 219). If such becomes the case than it complements the views of this study that individual schools can take the lead role in developing and designing school based teacher PD activities that is sensitive to the needs of the school and adds new reforms in subtle ways that does attempt to create effective teacher change which in turn could improve student learning outcomes.

On the basis of the review of the literature by Smith and his colleagues (2003), it became apparent that school based PD activities could be successful if it took place regularly, was integrated with the school context, and focused on helping teachers not just to acquire new behaviors but change attitudes, values and beliefs. The satisfaction of the demands of the above nature prompted PD experts to recommend PD activities, such as study circles, mentoring, collaborative problem-solving groups, practitioner inquiry, and so on, that can be organized as part of school based PD programme to help them acquire a reflective stance as much as to acquire new knowledge of content and practices (Ball & Cohen, 1999).

The current study also argues that the above approach to PD of teachers will happen within the context of the teacher's school and classroom and hence will be more meaningful for trying out new ideas for improvement. Reflection on action and reflection in action will become the norm of learning and teaching. In such a situation teachers will be involved in a productive cycle of learning. Learning will progress from the various realities of the individual teacher (known) and his or her appropriate realities based on the needs of the students, the school and the teacher.

In the same vein, Sparks (1995: 163) argued that constructivist teaching is best learned through a new model of PD in which teachers collaborate with peers "to make sense of the learning and teaching process in their own contexts". Darling-Hammond and McLaughlin (1995: 597) stated that teaching for understanding relies on teachers' abilities to see complex subject matter from the views of different students. Hence, Darling-Hammond and McLaughlin (1995: 597) rightly postulate that the focus of PD needs to shift from supporting teachers acquisition of new skills or knowledge" to

providing occasions for them "to reflect critically on their practice and to fashion new knowledge and beliefs about content, pedagogy, and learners".

Thus the major difference between traditional staff development and new school based PD is that in traditional forms of staff development outside experts did most of the thinking, talking and teachers do the listening. Furthermore, traditional forms of PD, as discussed earlier, have been criticized for being de-contextualized and other opportunities for learning and teaching together with teamwork are limited (Lord, Cress & Miller, 2008). In new approaches to school based teacher PD programme, teachers do the talking, thinking and learning (Smith & Gillespie, 2007).

What emerges from the literature is that with new approaches of school based PD appears to bring positive changes in the teachers' world of work. However, any change for that matter may not happen overnight due to numerous factors and the review on this aspect is taken up in the next section.

2.5 Factors affecting school based PD programmes

A review of literature reveals that school and individual teacher factors play a significant role in influencing the effectiveness of school based PD on teacher change (Smith et. al., 2003; Timperley, 2008). Several researchers have come up with categories of factors that mediate the influence of PD. For example, Gusky and Sparks (1996: 33) advocate three categories of factors:

(i). **Content characteristics**—"what" the PD covers; the credibility and scope of the practice or concept being conveyed;

(ii). **Process variables**—the "how" of PD, the models and type of follow-up and;

(iii). **Context characteristics**—the "who," "when," "where," and "why" of the PD; the organizational or system culture; and expectations and incentives for using new practices

These factors are pivotal to the success of PD initiative and must be given due consideration in any school based PD programme. For the purpose of this study, it was considered useful to separate the factors that influence the efficiency of school based teacher PD into individual factors and contextual factors and this is discussed in the section which follows.

2.5.1 Individual Factors

Literature illustrates that teachers' motivation to attend PD is a key factor in change. Stout (1996) espouse four motivations teachers have for participating in professional development: salary enhancement, certificate maintenance, career mobility (to move up the ladder into administration or pursue other careers), and gaining new skills/knowledge.

Motivation is critical to effectiveness of school based teacher PD; Jones and Lowe (1985) argue that teachers need individual plans for ongoing PD, built on self-evaluation of their own needs (including reflection questions, case studies of learners, and input from peers). Likewise, Joyce (1983) studied teachers' motivation to participate in school based teacher PD and categorized teachers as learners and consumers of PD.

Based on teachers' participation in formal systems (courses, workshops, coaching/supervision), informal systems (exchanges with other teachers and professionals), and personal activities (reading, leisure activities), Joyce (1983: 163) proposes five categories to describe teachers' position as learners:

(i). **Omnivores** are teachers who actively use every available aspect of the formal and informal systems available to them.

(ii). **Active consumers** are teachers who keep busy in one or more of the domains or systems.

(iii). **Passive consumers** are teachers who go along with professional development opportunities that arise but don't seek them out.

(iv). **Entrenched teachers** are suspicious of change and take courses only in areas where they already feel successful; they may actively or surreptitiously oppose new ideas.

(v). **Withdrawn teachers** are actively opposed to engaging in one or all three domains

Joyce (1983: 163) claims that omnivores generate energy for the system in which they are engaged, while entrenched and withdrawn teachers consume energy from the system. An entrenched or withdrawn teacher with influence within the school—even informal power—can act as a "gatekeeper," preventing any type of collective action, change, or improvement from occurring (Joyce, 1983: 163). Even the best PD will not have an impact if there is a poor culture in the school, one in which there is a poor fit between teachers' states of growth and the culture that could support growth and new ideas from PD. School culture should provide optimum support to teachers for experimenting and exploring new ideas learnt as a result of PD. In addition, school leader's role is critical in identifying teacher needs and characteristic that may hinder or that may have potential to enhance new initiatives.

Another individual factor in relation to teacher change is teachers' level of self-efficacy. Bandura (1995: 2) defined self-efficacy as "beliefs in one's capabilities to organize and

execute the courses of action required managing prospective situations" Stronger self-efficacy among teachers has been related to student achievement (Goddard, Hoy & Hoy, 2000; Tschannen-Moran, Hoy & Hoy, 1998). Thus, to test the hypothesis whether teachers' level of self-efficacy was related to teacher change researchers of PD have found that:

(i) Self-efficacy is related to individual factors

Teachers' perception of the importance of a PD project has been reported to be an important factor for their involvement than support from the principal or having an innovation culture in the school (Midthassel, 2004, in Ertesvag, Roland, Vaaland, Storksen & Veland, 2009).

Ross (1994: 382) found that "new teachers had high levels of general self-efficacy but low levels of personal self-efficacy" (that is, a strong belief in the power of education but a weak belief about whether they personally could be successful as teachers), whereas experienced teachers were the opposite. Teachers had a strong belief in their own competence as teachers but a weak belief in education's power to reach all students. Teachers believed that success was "limited by factors beyond school control". Hargreaves (2005) found older teachers to be pessimistic about innovations than their younger colleagues. One factor which affected their enthusiasm was previous experience of failed change efforts

Furthermore, Munthe (2001, in Ertesvag et. al., 2009: 323) found that teachers up to the age of 30 reported more uncertainty than teachers between 31 and 50 years old, but the teachers over 50 reported less certainty again. It appears that older teachers are more reluctant to change than younger teachers and are as uncertain as their youngest colleagues. Therefore, the age composition of the staff may affect the sustainability of a school based teacher PD program. However, the experience of positive mastery of their actions might encourage teachers, also older, to repeat those actions. Experience of mastery might contribute to strengthened self-efficacy beliefs.

(ii) Stronger self-efficacy going into professional development affected teacher change

Teachers were more likely to change as a result of school based teacher PD if they had high personal self-efficacy (Smylie, 1988). Teachers with high levels of self-efficacy were more likely to adopt new practices, but that high self-efficacy was also associated with effectiveness (although it is unclear how effectiveness was measured), so teachers with high self-efficacy least needed to adopt new practices (Guskey, 1987).

(iii) PD in turn affected self-efficacy

Stein and Wang (1988) found that those who implemented a new practice showed an increase in self-efficacy. Ross (1998) found that teachers who tried new strategies at the outset showed a decrease in self-efficacy but that self-efficacy increased when new strategies worked. Roberts, Henson, Tharp, and Moreno (2000) found that there was a significant increase in the sense of self-efficacy of teachers, who entered PD with low levels of self-efficacy which was proportional to the length of PD. Conversely, there was hardly any change in the feelings of self-efficacy in teachers who entered PD with high levels of self-efficacy, immaterial of the length of PD.

Moreover, cognitive style of teachers was yet another individual factor that related to teacher change. Joughin (1992) suggests that teachers have varied intellectual ability contributing to a vast difference in teacher's ability to understand and apply new ideas and strategies. Some teachers have fairly advance analytical ability of understanding a strategy and how to use it, whereas other teachers lack this ability and need more structure to grasp and then apply a new strategy

Theories of cognitive style or development have implications for the fit between individual teachers' ways of knowing and the style of the PD in which they participate; for example, teachers with an instrumental way of knowing may feel more comfortable in workshops lead by experts, whereas teachers with a self-authorising way of knowing may feel more comfortable in PD activities (such as practitioner research) that allows or

asks them to generate knowledge of their own. Thus, teachers' reflectiveness is one of the critical areas of professional development and teacher education concerns. Schon (1983) initiated discussion of how to help teachers develop a stand of looking at their own practice (reflection-on-action, reflection-in-action) by analyzing, adapting, and continuously challenging their assumptions, in a self-sustaining cycle of reflecting on their own theory and practice.

Timperley, (2008: 628) also emphasizes that teachers who are engaged in cycles of effective professional learning take greater responsibility for the learning of all students; they do not disregard learning difficulties as unavoidable effect of the home or on the contrary success in student improved learning outcomes boosts teachers' feeling of achievement which enables them to feel more effective as teachers. Teachers' observation of positive impacts of new teaching practices on students' enhances a teacher's sense of responsibility towards the students.

Based on the review of literature it is evident that teachers' demographic background, educational background, and years of teaching in the teaching profession, their level of motivation for attending the PD, and their level of PD consumption needs to be understood in order to gain better insights into how the teachers perceive themselves as learners and teachers. On the basis of the different individual teacher factors, suitable school based PD programmes can be developed and conducted for the good of all teachers which in turn will benefit the students in terms of their learning outcomes.

2.5.2 School Factors

Larsen (2005, in Ertesvag et.al, 2009: 323-344) found in a study of schools which were three years into conducting and implementing the social PD program, that the main feature of successful school based teacher PD implementation was a strong focus on leadership. Apart from leadership, teacher commitment, support from the school heads, formalization into policy, and sufficient resources and training have been found to be other vital ingredients for sustainable change (Elias, Zins, Graczyk & Weissberg, 2003;

Hargreaves, 2005; Larsen, 2005 in Ertesvag et. al., 2009). In sum, Villegas-Reimers (2003) concludes that in order for any school based teacher PD to be successful, a culture of support must be available at all times. In what follows is a brief discussion on the school factors identified by researchers as either hindering or supporting teacher change. In addition it can be stated that the literature on PD contains research on school factors that may also influence teacher change positively or negatively.

(i) Leadership

Standards for PD by the National Staff Development Council (NSDC), (2001) suggest that school based teacher PD needs to be guided by an effective leader. Consequently, school leadership plays a instrumental role in preparing teachers for change by creating positive ethos that allow teachers' attitudes to change naturally when they see how and whether a new practice helps students' learning (Sparks, 1995). Several studies (Bush, 1999; Clement, 2001; Fernandez, 2000; Moore, 2000; Marshall, Pritchard & Gunderson, 2001) report that leadership of school leaders is crucial in supporting PD activities in schools.

Timperley (2008) adds quite clearly that leaders in educational institution have the responsibility for promoting professional learning and knowledge and skill development opportunities for teachers. She emphasizes that the role of leaders in school based professional development in particular is critical as it requires leaders to be actively involved. Hence, Bush and Glover (2003: 8) define leadership as:

> …a process of influence leading to the achievement of desired purpose. It involves inspiring and supporting others towards the achievement of a vision for the school which is based on clear personal and professional values.

Leadership thus, is a process of an influence used to achieve an organizations vision and mission. As such leadership must guide organizations to achieve its vision rather than exist in isolation (Smylie, Conley & Marks, 2002). Ertesvag and his colleagues (2009), suggest that if school leaders do not confine to a rigid of control it will aid in a shared understanding and commitment among teachers. This may in turn facilitate

leadership among staff, students and parents which according to Bush (1999, in Villegas-Reimers, 2003:120) is an important factor in preparing teachers to become leaders of their own PD. He adds that;

> Knowing how to design, implement and assess PD opportunities is a learned process, and teachers need time and opportunity to learn the necessary skill and knowledge in order to become effective promoters of their own PD

The literature suggests that the school leaders play a crucial role for gaining and maintaining the interest of teachers and ensuring continuity and sustainability of their learning through effective and continous School based PD.

(ii) Developing a vision of new possibilities

Leaders in this role are expected to develop a practical vision focused on the betterment of student outcomes, more meaningful curriculum content, or different pedagogical approaches. Vision of such nature will work as a powerful catalyst to engage teachers in constructive dialogue and in the formulation of specific goals for their learning.

- **Leading learning:** Timperley (2008: 6-8) states that although at times due to school leader have limited understanding of the content of new knowledge, external expertise are used to conduct school based teacher PD, school leaders are still responsible in many ways for managing teacher engagement in the learning process. As such, they need to ensure that teachers understand new information, approach challenges and resulting difference constructively, have exposure to productive opportunities to learn, and are motivated to continue using the new learning ideas in practice.

- **Organizing learning opportunities**: The leader play a crucial role in creating professional learning opportunities through good management and organizational skills to create conditions that support their teachers' ongoing learning thus effective school based teacher PD programmes should be in place in all schools.

Despite the need for flexibility in school leadership, Midthassel and Bru (2001) cautions that one should not underestimate the need of support from the school head and other members of the school management as the way teachers perceived the willingness and ability of the head to give them practical support and to be involved in monitoring the project, affected the teachers' own involvement and planning. Leadership involvement

from the school leader also affected the quality of the planning and implementing process (Midthassel & Ertesvag, 2008).

Literature (Fullan, 2007; Gingiss, 1992; Green & Kreuter, 1999; Huberman & Miles, 1984; McLaughlin & Marsh, 1990; Reynolds, 1998) also says that support from leaders is important in terms of follow-up and monitoring in order to ensure that implementers of the programme continue to achieve its articulated goals. Although literature supports that flexibility in the planning of school based PD programmes actually facilitates implementation, a little too much of flexibility can significantly reduce the positive effects of well-developed school based teacher PD programmes.

(iii) Coherence

Coherence is explained as the close fit between school adoption of a particular reform and the PD activities in that school. The match can either be compulsory through the district education offices or is voluntary where the school/teachers seek PD with the aim of improving the teacher performance which in turn can improve students' learning outcomes (Villegas-Reimers, 2003). Recent research by Garet and his colleagues (2001) indicate that teachers gain more knowledge and change practices when school or MoE's vision and mission and goals are aligned.

 A similar view is presented by the MoE that the schools need to align their PD programme with the MoE requirement (MoE, 2009). However, Smylie (1988), stresses that the extent of consistency a program has is also dependent on teachers own beliefs pertaining to the relevance of the PD initiative. The role of the school leaders is to ensure that teachers understand that changes taking place in the school are theoretically coherent with the new demands of work (Timperley, 2008).

(iv) Collegiality within the school

Most PD researchers view collegiality as a necessary organizational support (Sparks & Loucks-Horsley, 1990). On the basis of those researchers view, it can be argued that teachers need a community of teachers within a school, to ensure they can learn about their work as they apply into practice the new ideas. Since literature strongly supports that one should not imagine teachers as 'robots' that is, it is impossible to pull an individual teacher out of school, 'train' them and 'change' them, and then expect this teacher to create a chain reaction of the same 'train and change syndrome' back into the school (Calderón, 1999; Grossman, Wineburg and Woolworth, 2001). This is an overly simplistic view of promoting student achievement through PD.

In a previous study about the relationship between the school culture and quality of PD, Olson and his colleagues (1991) found that collegiality was an important indicator of quality school based PD. Interactions with colleagues seem to help teachers develop a pool of knowledge and skills about what teaching practices are likely to be effective and a sense of their own competence (Smylie, 1988). Other research suggests that more teamwork, cooperation and discussion during school based teacher PD programme (Rosenholtz, 1986) could contribute towards building knowledge and practices that can enhance students learning outcomes.

When teachers do not have opportunity to talk to colleagues about strategies learned during PD, they are less likely to apply them (Gardner, 1995; Huberman & Miles, 1984; Adey, 1995). The presence of collegiality create greater opportunities to work with colleagues, allows them to share ideas and practices, make everyday curriculum decisions, and participate productively in any school reform efforts (Sato, Wei & Darling-Hammond, 2008).

Literature also supports that when teachers take time to interact, study together, discuss teaching, and help one another put into practice new skills and strategies learnt during the PD, they grow and their academic achievement improve accordingly. This is

because "social influence is a powerful means of changing beliefs", as has been suggested by a number of researchers (Bandura, 1995; Schunk, 1981; Zimmerman & Ringle, 1981 in Harwell, 2003: 4).

On the other hand, Joyce (1983) found that PD was less effective when there was an entrenched teacher who acted as gatekeeper to spoil/prevent other teachers from adopting new strategies:

> Teaching practice is unlikely to change as a result of exposure to training, unless that training also brings with it some kind of external normative structure, a network of social relationships that personalize that structure, and supports interaction around problems of practice (Elmore, 1996: 21).

The rationale for this contradiction in the literature according to Timperley appears to be that;

> If teachers are to change, they need to participate in a professional learning community that is focused on becoming responsive to students because such a community gives teachers opportunities to process new information while helping them keep their eyes on the goal. As an intervention on its own, a collegial community will often end up merely entrenching existing practice and the assumptions on which it is based (Timperley, 2008: 8).

An example from the review of literature substantiates the argument above which shows cases where teachers were given the time and resources to meet together to solve a problem or learn about new reforms however, the norm of politeness and lack of challenge defeated the purpose. Hence, Timperley (2008: 8) rightly suggests that as in all types of initiatives:

> The effectiveness of collegial interaction needs to be assessed in terms of its focus on the relationship between teaching practice and student outcomes. Samples of student work, student achievement profiles, and the results of student interviews are all resources that can be used to help maintain this focus.

When school leadership, school structures and working conditions favor privacy and isolation, than such cultural norms, become difficult to change and in turn defeats the purpose of school based PD programmes.

(v) Time

Time is another critical school factor in determining whether teachers make PD an ongoing part of their work on a daily basis (Bush, 1999) and be able to view the results of their efforts (Dorph & Holtz, 2000). As discussed earlier, experiencing positive changes in student learning outcome is equal to maintaining and enhancing teachers' motivation to sustain changes implemented by school heads through MoE initiative.

Much of the literature reported issues with time, in particular the influence time had on teachers' capability and willingness to participate in school based teacher PD and reform processors (Birman, Desimone, Porter & Garet, 2000; Guskey & Sparks, 1991; Hargreaves & Fink, 2000; Darling Hammond, 1996; Sato et. al., 2008; & Sherin, 2000).

According to Neufield and Roper (2003) the amount of time allocated to teachers for preparation is important factor that needs to be considered. For example, the NSDC board has determined that adequate time for teachers learning and collaborative work should be twenty percent of teachers working hours in a week. Teacher education has now come to the forefront of all education reforms, consequently, teacher educators, researchers and policy makers consistently indicate that lack of time as one of the biggest challenges to overcome for effective school based teacher PD programmes (Abdal-Haqq, 1998).

Literature also suggests that the allocation of time for school based teacher PD programme for teachers to participate in PD activities was one of the key structural support for teachers engaging in professional learning (Darling-Hammond et. al., 2009). There are a number of countries such as China, Denmark, Finland, Hungary, Italy, Norway, Japan and Switzerland where teachers are given a significant amount of time for their PD. In most of these countries instruction takes up less than half of a teacher's working time **(**National Commission on Teaching and America's Future **(**NCTAF**),** 1996); Organization for Economic Co-operation and Development (OECD), 2007).

Hence about fifteen to twenty hours per week is spent on tasks related to teaching, such as preparing lessons, marking papers, meeting with students and parents, and working with colleagues. Most planning is done in collegial settings and during meetings of subject-matter (Kang & Hong, 2008). In contrast the NSDC (Darling-Hammond et. al., 2009: 16) found that American teachers spend much more time teaching students and have significantly less time to plan and learn together than teachers in other nations. U.S. teachers spend about 80 percent of their total working time engaged in classroom instruction, as compared to about 60 percent for other nations' teachers. Research lends support that when time for PD is built into teachers schedules, then their learning activities can be ongoing and sustained (Darling-Hammond et. al., 2009).

(vi) Financial resources

Funding for teachers' PD is another major challenge faced by educators worldwide (Villegas-Reimers, 2003). One cannot deny the crucial role that finance plays in any effective reform or effective PD. However, Bush (1999) cautions that money is not the only variable that can influence the nature of PD opportunities for teachers.

Smith and Gillespie (2007) indicate that if policy makers and educators are to achieve effective PD that changes teachers practice and finally students' learning outcomes, than school based PD programme needs to be well resourced and teachers need to be paid to attend PD for a longer period of time. In addition, teachers need to be able to get access to benefits and funding for teacher preparation and support. This monetary influence works well with teachers' motivation to attend PD session with more strength and determination. Research shows that resourcefulness creates a working condition that assists in the sustainability of the program for a longer period of time which finally results in improvement in teacher practice which in turn results improvement in students learning outcomes.

(vii) Stages in PD

Teachers experience different stages of development at different times in their career. In order for PD initiatives to be effective these stages must be taken into consideration as teacher needs and disposition vary from stage to stage (Villegas- Reimers, 2003).

Huberman (1989: 31-57) identifies and defines a model with five of these stages in teachers' career which emphasizes:

- Career entry for beginner teachers which is a time of both survival and discovery. It ranges from one to three years in the profession.

- Stabilization: In this stage teachers usually make a commitment to teaching as a career and achieve a sense of instructional mastery. This period is between four to six years in the profession.

- Divergent period which is between seven to eighteen years of experience. In this stage, experimentation and activism is the norm as teachers develop own courses, experiment with new approaches and confront barriers. On the contrary, some teachers perceive it as a period of self- doubt and reassessment and many at this stage leave the profession as their frustration with the system reaches its pinnacle.

- Second divergent period is between nineteen to thirty years and is for some teachers a time of self- assessment, relaxation and a new awareness of a 'greater relational distance' from their students. Other teachers, however, enter a stage where they criticize the system, the administration and their colleagues and even the profession.

- Disengagement is a period of gradual separation from the profession but for some it is a period of reflection and serenity, for others it is a time of bitterness. This stage surfaces between forty one to fifty years.

Although the model, shows a good understanding of teachers' PD in progression, Bullough and his colleagues (1997) stresses that it is important to understand that all new teachers progress through these stages at different paces as every individual enters the profession with different characteristics and may experience different learning environment in the first few years of their teaching career which has a significant impact on the rate at which each teacher moves from the different stages in their career from novice to expert. These would account for individual differences in teachers which are

common reality in schools especially when planning and conducting school based teacher PD activities.

Thus both the individual and the school factors play a significant role in the effectiveness of PD practices in particular school based practices which is common approach for teacher education globally (Darling-Hammond et. al., 2009; Smith et. al., 2003, and Smith and Gillespie, 2007). Larsen (2005) argues that the mere presence of these factors is insufficient for success. It is the way these factors interplay, and are mediated through the school leadership and management strategies that provide an understanding of how to succeed in implementation and continuation of PD activities.

2.6 Features of quality PD

Literature illustrates that there are several qualities of school based PD programmes that are deemed necessary for its success. Fullan and Stiegelbauer (1991: 326) state:

> Educational reform will never amount to anything until teachers become simultaneously and seamlessly inquiry oriented, skilled, reflective, and collaborative professionals.

Consequently, they suggest that successful school based PD programmes intend to bring about change on a multidimensional level.

Conners, (1991) and Fullan and Stiegelbauer (1991) postulate that to be multi-dimensional, school based PD programmes must promote changes in:

- teachers' beliefs, attitudes, theories or pedagogical assumptions;
- changes in content knowledge;
- changes in teachers' practices, strategies or approaches; and
- the possible use of new or revised materials, resources or technologies.

Similarly, international research literature and writing on effective PD concur that:

> Development should be theory based; target needs identified through sound research that includes listening to students voices, be school- wide and be on-going. It must involve teachers having opportunities to observe, practice, reflect and engage in professional discussions about what helps their students to learn (Hargreaves & Fink, 2000: 30)

Carlson (1994) identifies teachers' beliefs as the most important influence on what teachers do in the classroom. He suggests that linking beliefs about students, teaching, and the knowledge they create together is one of the most critical aspects of school based teacher PD.

He recommends that professional learning programmes should:

- assist teachers to uncover their personal beliefs about teaching;
- encourage teachers to describe their experiences and the assumptions they have;
- allow time for reflections;
- probe for deeper understanding;
- encourage teachers to go beyond 'fitting in to the curriculum' when they design activities; and
- help teachers to identify persistent difficulties within the curriculum, topics with which students consistently have problems.
(Cited in Meredyth, Russell, Blackwood, Thomas, & Wise, 1999: 284).

This indicates that the best context for school based teacher PD programmes is the classroom in which teachers continuously integrate new ideas and identify challenges and opportunities and contribute constructively towards improving practice for improved student learning outcomes. In this teachers do not lose sight of the purpose for professional development activities; the students.

Peters, Dobbins and Johnson (1996: 59) provide a useful précis of what they perceive as effective school based teacher PD, which leads to a "culture of collective inquiry"

They state that it is necessary to address:

> • the knowledge, skills and attitudes needed to effectively implement
> change in ways that improve learning programs;
> • strategies for coping with the change process;
> • strategies for democratic decision making;
> • the interpersonal skills needed to work collaboratively ; and
> • skills of critical reflection and collective inquiry
> (Peters, Dobbins & Johnson 1996: 64).

All of the above are useful in terms of teacher growth and development. In a survey sponsored under the Eisenhower programme for mathematics and science PD, 1,027 teachers who had participated in a range of activities showed self reports of changes in knowledge and practices. Researchers specifically looked at three "structural features" of quality PD (Loucks-Horsley, Hewson, Love & Stiles (1998) in Smith et .al., (2003): the *form* of the activity (reform or traditional), the *duration* of the activity (contact hours and span), and degree of *collective participation* (how much it involved teachers from the same school or grade).

Other independent variables included "core features" of the PD activity: the *content* of the activity (how much it focused on content knowledge), how much the activity included *active learning*, and how much the activity was in *coherence* with other activities the teachers had participated in, or with state or district standards. School (percent of minority enrollment, percent of students' eligible for free lunch) and teacher characteristics (gender, subject, grade level, certification, and years of teaching experience) were also considered (Garet et. al., 2001: 935).

Overall, researchers (Desimone et. al, 2002; Garet et. al., 2001; Smith & Gillespie, 2007) seem to agree that, for teacher change to happen in particular in a school based PD should:

(i) Be of longer duration

PD is more effective in changing teachers' practice when it is of longer period (Porter, et. al., 2000). This provides teachers with more opportunities to learn about their own practice, this is further enhanced if it includes a follow-up (Joyce & Showers, 1995; Stein et. al., 1999).

(ii) Make a strong connection between what is learned in the PD and the teacher's own work context

Fullan (2007) found that the effectiveness of any given PD activity depended upon how well a teacher could link what they learned in PD back to their own work context. PD needs to help teachers "plan for application and to identify and strategize barriers to application that they will face once back in their programmes". Ottoson (1997: 92-107) further states that:

> Devoting no time or little time for synthesis, integration, and planning beyond the professional development program is inadequate preparation for application. Helping participants anticipate and plan for barriers may facilitate practice changes.

School based PD programme extend far beyond short term training and awareness. Programmes must allow teachers the space to plan and practice the new ideas in their classrooms with their students followed by reflection opportunities with colleagues and other expert leaders. This will not only provide opportunities for teachers to engage in professional dialogue but will also enable teachers to make useful contribution for the enhancement of the programme.

(iii) Focus on subject matter knowledge

Committee on Science and Mathematics Teacher preparation (2000), articulate that a strong link exists between student achievement and the level of content knowledge in Mathematics and Science (Smith & Gillespie, 2007). Teachers themselves report that PD of such nature contributes significantly to changes in instructional practice (Garet et. al., 2001).

From the teachers perspective, school based teacher PD is considered most valuable when it provides opportunities to do hands-on work that builds their knowledge of academic content and how to teach it to their students, and is sensitive to the realities of their local context in terms of availability of school resources, coherence to curriculum guidelines, accountability systems and so on (Garet et. al., 2001) and for teacher change to happen a school based PD should:

(iv) Include a strong emphasis on analysis and reflection, rather than just demonstrating techniques

When teachers have the ability to explain and defend their current thoughts and actions it contributes to reflectiveness and change in teaching practice (Bollough, Koachak, Crow, Hobbs, & Stoke, 1997).

However, Darling-Hammond (1996: 4-5) argues that PD cannot, in and of itself, help teachers become wise, unless it has a focus not just on external knowledge (new practices and techniques) but on helping teachers acquire the internal knowledge of a wise teacher, factual knowledge of teaching and their subject matter;

- procedural knowledge of teaching strategies and when to use them;
- a sense of context for instruction;
- an awareness of relative values of and priorities of their peers and students; and
- an uncertainty about teaching decisions and a willingness to take risks when participating with students.

Darling-Hammond (1996) claims that the final three of these internal knowledge which helps teachers make constructive decisions, is what differentiates the wise teacher from the expert teacher.

(v) Focus on helping teachers to study their students' thinking

Teacher inquiry into students work and learning is an influential tool for changing teacher practice (Ancess, 2000). Teacher change in this study: school based teacher PD activities is more than just trying new techniques; it is listening more to the students

also. One study found that change was sustained over longer periods of time when mathematics teachers were trained and supported to really understand what their students were thinking, and teachers had a base from which to generalize practices to other situations and continue learning (Carlson, 1994). In another study, teacher inquiry about student learning, student work, and the conditions that support better performance was a powerful tool for changing teacher practice and ultimately changing school structure (Ancess, 2000).

This study also considered the effective strategies; PD to be of longer durations, making connections between teachers knowledge and their work context, focus on subject matter knowledge, emphasis on analysis and reflection, focus on helping teachers to study their students thinking patterns as a lead to effective school based teacher PD programmes.

2.7 Teacher induction

Teacher induction is another area of PD that is critical to teacher education for the role it plays in initiating beginning teachers into the teaching fraternity. Beginning teachers should not be taken for granted that they are fully prepared for learning and teaching for the rest of their career on the graduation day (Hargreaves, 1994). On the contrary, they are just beginning their development as they enter classrooms as teachers of record and need significant support to grow (Fielder & Haselkorn, 1999; Stansbury & Zimmerman, 2000; Whisnant, Elliot & Pynchon, 2005 in Solomon, 2009: 485).

As apparent from the review of literature, the way teachers are socialized at the initial stages of their career determines the pace at which teacher's progress on the continuum of move from novice to expert. In many countries, plunging teachers into the classroom without a proper process of professional induction has been counterproductive (UNESCO, 1990). As a result induction programs are mandatory in many countries and they tend to emphasize the building of strong professional relationships among beginning and experienced teachers, as well as the development of teaching practice. In China, for example, both new and experienced teachers engage in widespread peer observation, lesson preparation, and teaching research

groups. In France, beginning teachers participate in teacher institutes at the local university and are inaugurated into a community of same-subject teachers. In Switzerland, beginning teachers work in practice groups of about six teachers from across different schools and together they participate in peer observation, observation of more experienced colleagues, and self/peer evaluation within the practice group (NCTAF, 1996).

Interestingly, in New Zealand the Ministry of Education funds 20 percent release time for new teachers and 10 percent release time for second-year teachers, and requires schools to have a locally developed program to develop new teachers' abilities (Britton, 2006). This is considered professionally sound as it allows the new teachers to develop their skills and knowledge on the job site.

2.8 Promising strategies for school based teacher PD

Through the review of the literature, there emerged some promising strategies for school based teacher PD programme. These strategies are discussed in what follows.

(i) Peer Coaching

An area of teacher PD that is critical to effective PD (also referred to in the literature as technical coaching, team coaching, collegial coaching, cognitive coaching, and challenge coaching) (Edmondson, 2005). In peer coaching, teachers work together in self-directed, collaborative teams to plan instruction, observe each others' teaching practices, and provide feedback to each other.

Since the early 1980's Joyce and Showers have been conducting meta-analyses of the PD literature in an attempt to identify the characteristics of effective PD and have found that peer coaching is among the most important of these characteristics (Joyce & Showers, 1981; Showers, Joyce & Bennett, 1987).

School-based peer coaching programs are one of the fastest growing forms of school based teacher PD today (Darling-Hammond et. al., 2009). Several comparison-group studies have found that teachers who receive coaching are more likely to enact the desired teaching practices and apply them more appropriately than are teachers receiving more traditional PD (Joyce & Showers, 1996; Knight, 2004; Neufeld & Roper, 2003;).

(ii) Mentoring and Induction programme

Mentoring and Induction programs for new teachers may support teacher effectiveness. It is defined as a form of coaching that tends to be short term and could be for a beginning teacher or for someone new to the school or to the system (Villegas-Reimers, 2003).

Ross (1994: 381-394) suggests that a mentor provides the beginner teacher with support, guidance, feedback, problem-solving guidance, and a network of colleagues who share resources, insights, practices and materials. Mentoring serves dual purpose as it affects both the new teachers who are mentored, and the experienced teachers who serve as mentors (Shaw, 1992). The roles of the mentors include; sharing information, providing access to resources, role modeling, and counseling, coaching, encouraging reflection, advising in career moves and supporting new teachers (Ballantyne & Hansford, 1995).

On the basis of Ballantyne and Hansford (1995) research, it can be said that new teachers did not only need effective mentoring (having companion teacher) but they also needed to have access to other mentoring resources, such as specialist consultant teacher or school heads.

(iii) Observations of Excellent Practice

Villegas-Reimers (2003) reports that school based teacher PD programmes offer opportunities for teachers to observe colleagues who have been identified and

recognized as expert in that particular teaching area. This type of PD gives opportunities to teachers to reflect on the knowledge, skills and attitudes that excellent teachers implement in the classroom. One example of such as model is Japan's lesson study approach to PD.

In Japan, research lessons are a key part of the learning culture (NCTAF, 1996). Every teacher periodically prepares a best possible lesson that demonstrates strategies to achieve a specific goal in collaboration with colleagues. A group of teachers observe while the lesson is taught and usually record the lesson in a number of ways. The presentation is followed by a critical analysis of lesson's strengths and weaknesses, questions, and suggestions to improve modeled lesson by teachers and sometimes outside educators.

Hence, the research lessons allow teachers to refine individual lessons, consult with other teachers and receive feedback based on colleagues' observations of their classroom practice, reflect on their own practice, learn new content and approaches, and build a culture that emphasizes continuous improvement and collaboration (Fernandez, 2002).

(iv) Teachers' Networks

Teacher networks aim to bring teachers' together to address common problems which occur in their work and thus promote personal school based teacher PD as well as groups (Villegas-Reimers, 2003). There are many examples of effective teacher networks in many parts of the world. One example worth mentioning is the networking in Singapore where a group of teachers and a facilitator collaboratively identify and solve common problems chosen by the participating teachers using discussions and action research. With support from the national university, Teacher's Network PD officers ran an initial whole-school training program on the key processes of reflection, dialogue, and action research followed by an extended program to train teachers as learning circle facilitators and mentor facilitators in the field. The facilitator's played the role of encouraging the teachers to act as associate learners and critical friends so that

they felt safe in taking the risks of sharing their assumptions and personal theories, experimenting with new ideas and practices, and sharing their successes and problems. Teacher networks foster a sense of collegiality among teachers and encourage them to be reflective practitioners. Learning circles allow teachers to feel that they are producing knowledge, not just disseminating received knowledge (Todnem & Warner, 1994).

This study considers the promising strategies; peer-coaching, mentoring and induction programme, observation of excellent practice and teachers networks as a pathway to effective school based teacher PD which in turn will enhance students learning outcomes.

2.9 Conceptual framework of school based PD

The conceptual framework illustrates a number salient issues relating to effective school based PD (Figure 2). At the outset, the framework provides a clear picture about the importance of PD which is for the purpose of positively transforming teachers in terms of knowledge, skills, values and beliefs in order to improve children's learning outcomes. Added to that, the conceptual framework illustrates the existence of various factors (individual and school) which could facilitate or hinder in achieving the aims of school based teacher PD. However, with suitable strategies such as through good leadership a lot can be achieved in the area of school based PD and in turn contribute towards improving children' learning outcomes.

Figure 2: Conceptual framework of school based PD.

EFFECTIVE SCHOOL BASED TEACHER PROFESSIONAL DEVELOPMENT PROGRAMME

INDIVIDUAL FACTORS
- Self- efficacy
- Gaining new knowledge and skills
- Career Mobility
- Certificate Maintenance
- Salary enhancement

SCHOOL FACTORS
- Leadership
- Coherence
- Collegiality within the school
- Time
- Financial resources
- Stages in PD

FEATURES OF QUALITY SCHOOL BASED PD PROGRAMME
- Be of longer duration
- Makes connection between PD and teachers work
- Focus on subject matter
- Emphasizes on analysis and reflection
- Helps teachers focus on students learning
- Includes variety of activities

STRATEGIES OF EFFECTIVE SCHOOL BASED PD PROGRAMME
- Peer coaching
- Mentoring and Induction
- Observation of Excellent Practice
- Teachers Networks

TEACHER CHANGE PROCESS

CHANGE IN TEACHERS:
Values, Beliefs, Attitude, Knowledge and Skills

IMPROVED TEACHER PERFORMANCE

IMPROVED STUDENTS LEARNING OUTCOMES

2.10 Summary

This chapter focused on the review of literature related to school based teacher PD. It has provided relevant information associated with the definition of the concept of PD, the process of teacher change, PD and teacher change and involvement in school based PD. Also discussed in the chapter were some factors that posed challenges in terms of achieving quality and effective PD programmes and also the application of some suitable strategies which could overcome the challenges. Finally, the chapter presented a conceptual framework which was derived from the literature and was adopted for the purpose of the present study. This leads to the next chapter, Chapter Three which provides an overview of the Fiji context with specific reference to school based PD

CHAPTER THREE

Fiji Context

3.0 Introduction

This chapter will outline the historical context of teacher professional development (PD) and will conclude with an analysis of how this historical context affected the teacher professional development in Fiji. The information presented here was derived from relevant documents obtained from the Ministry of Education (MoE). It will be suggested that the challenges that globalizing discourses of education raise are further compounded by the whole history of education such as how education has developed, and the socio economic political climate the country has experienced over the years. The following key issues were considered important in relation to the study and as such they are discussed in this chapter:

- Geographical context;
- Location of schools;
- Teacher education history;
- Teacher education policy;
- Teacher PD policy;
- PD for practicing teachers;
- Teacher Registration Board (TRB); and
- Professional Development Unit (PDU).

3.1 Geographical context

Fiji is an archipelago in the Pacific Ocean, comprising about 300 islands, of which only about one third are inhabited. The land mass totals 18,272 square kilometers spread across 1,127 kilometers from North to South and 789 kilometers from East to West. The total population in 2007 was 837,271 (Fiji Bureau of Statistics, 2007). The majority of the population lives on the two largest islands, namely, Viti Levu and Vanua Levu. Viti Levu is the largest of the 300 islands and has about 57 per cent of the country's total land area with about 76 per cent of its population. Vanua Levu, the second largest, has

about 39 per cent of the land area and about 18 per cent of the total population (Figure 3). The remaining six percent of the population is distributed in the other islands (Fiji Islands Education Commission, 2000). The limited size and scattered nature of the population pose problems in terms of access and equity to certain basic educational services such as in the provision of education facilities and quality teachers.

The population predominately comprises of Indigenous Fijians and Indo-Fijians who constitute 50.78 per cent and 43.71 per cent respectively (Fiji Islands Education Commission, 2000). About 39 per cent of Fiji's population lives in urban areas. The rural areas and small islands are mainly inhabited by Fijians. The pattern of population distribution and in turn the location of schools especially those in remote rural areas have an impact on teacher PD.

Figure 3: Map of Republic of Fiji Islands
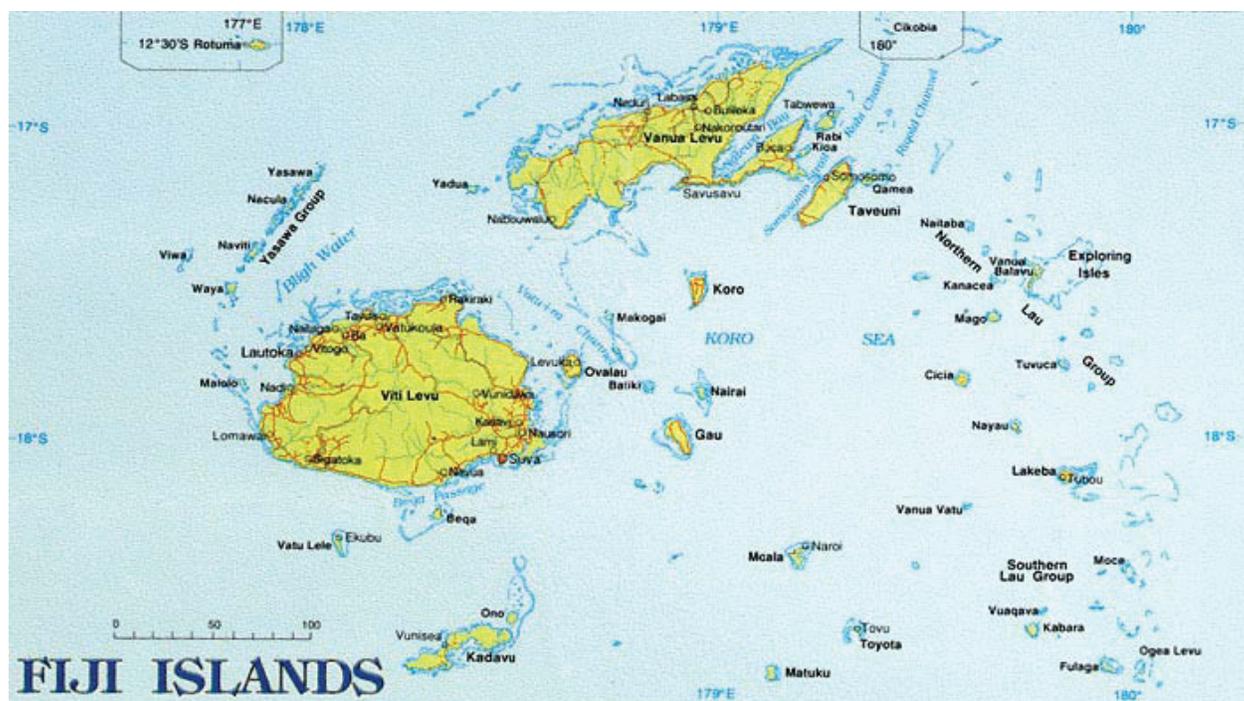
Source: Ministry of Education, 2004: 2

3.2 Location of schools

Primary schools are not only located on the main islands but scattered all over the Fiji group including the remote areas of the highlands of Viti Levu and Vanua Levu. Nearly eighty percent (80%) of primary schools are classified as rural schools with about thirty eight (38%) as being very remote that is equal to twenty (20%) or more from a town boundary (Coxon, 2000a). Even in the remotest settlements one will find a school and the teachers are the only public servants to be found in such locations (Lingam, 1996).

Serving in such remote areas does not provide many teachers with opportunities to upgrade themselves through courses provided by the tertiary institutions (Tavola, 2000). Most of the workshops conducted by the MoE were mainly for the school heads. The classroom teachers who are regarded as the key implementers of the curriculum have to rely on PD programmes conducted by school heads in their respective schools.

3.3 Teacher education history

Earliest records of local teacher education show that the Methodist district institutions were responsible for the preparation of pastors-teachers (Coxon, 2000a). The primary purpose of these institutions was to produce local pastors who would promote Christianity in Fijian village communities and in 1856 a central Methodist teacher-training institution was set up on the main island of Viti Levu.

The 1926 Education Commission recommended the setting up of a government teacher-training facility to train Indo-Fijian teachers, and this was established in 1929 at Natabua on the Western side of Viti Levu. Apparently, the curriculum and teaching methods were deemed inadequate Coxon (2000a) quotes Fiji island education commission report (2000a: 69-92) observation of teacher training at this facility:

> Teacher training tends to be formal and stereotyped...There is far too much copying by the students of long disquisitions on methods and principle, instead of ample talk and better still, ample demonstrations and practice.

Fiji islands education commission report (2000) thus recommended the replacement of the Methodist institution and the Natabua institution with one large government college and in 1947 the Nasinu Teachers' College (NTC) on the outskirts of the capital, Suva, was opened. In 1958 the Catholic community set up a 3 year primary teacher education institution, Corpus Christi Teachers' College in Suva. In 1977 the government opened up another teacher training institution, Lautoka Teachers' College (LTC) and the then NTC was subsequently closed in 1983 after it was felt that staffing supply for primary school was adequate. More recently, that is, in 2008 the LTC amalgamated with the new university, The Fiji National University (FNU). FNU has now taken up the responsibility of providing pre-service primary teacher training.

In terms of the quality of teachers in the country, the previous Education for Modern Fiji report and the Fiji Islands Education Commission report 2000 point out inadequacies in teacher preparation and calls for better teacher preparation. For example, the report of the 1969 Fiji Education Commission allocated an entire chapter to teacher education. It indicated its concern that the teachers were, in the main, inadequately prepared:

> It became very evident to the Commission that in many schools, inadequately prepared teachers are providing a low quality of education in Fiji. Even though many of these teachers are conscientious, their limited knowledge makes it impossible for them to be effective (Fiji Islands Education Commission, 2000: 397).

The quality of teachers teaching in schools has not significantly changed since then. The recent Education Commission concluded that the need for the government to assign very high priority to the importance of teacher education. Furthermore, the Commission emphasized the need for teachers to be provided with a strong academic background in their subject areas, saying that "few teachers in Fiji seem to have this background" (Education Commission, 2000: 398). This is essential as primary teachers are generalists. The need to have a strong background in subject matter knowledge will help teachers provide better service to the children. In a more recent study about the preparation of primary teachers, Lingam (2004) highlights lacunae in their pre-service preparation.

Though brief the history of teacher education in Fiji shows that teachers were not well prepared and the need for on-going training was obvious to ensure children's learning outcomes are not adversely affected.

3.4 Teacher education policy

On the basis of the need for better quality teachers in the primary education system, the most recent Fiji Education Commission Report 2000 suggested the need for long range plans in teacher education. In the early days of the post-independence period, there was a continued emphasis on the numbers of teachers rather than the quality of teachers. The report identified a number of challenges that faced teacher education policy development in the country (Coxon (2000b). Foremost amongst these was the need for a clearer articulation of a teacher education policy. The report noted that many submissions to the Commission/Panel raised the need for holistic and systematic policy and planning in teacher education. The report suggests that:

> Present arrangements for holistic policy and planning in teacher education indicate ad hoc responses to immediate needs...The present administrative systems of the government institutions constrain the development of teacher education programmes under the control of the teacher educators (Coxon, 2000b: 401).

The report saw the lack of government initiative and the need for an external, independent body to oversee teacher education in the country as of urgent need, recommending the immediate establishment of a PDU and a TRB. According to the report, such bodies would provide autonomy and require accountability from teacher training institutions in terms of supplying the best quality teachers to the nation's primary schools.

3.5 PD policy

A professional development policy is covered in the Objective 4 of the document 'Education 2020'. During the course of fieldwork for the current study, the MoE provided some documents that were seen to be pertinent to a teacher PD policy.

These were:

- MoE, National heritage, Culture & Arts Policy in PD

- TRB Promulgation No: 25 of 2008, Legal Notice No: 19 Commencement Notice and Legal Notice No: 33 of Fiji Teachers Registration Regulations 2009.

- A document produced by the Human Recourse section of the MoE entitled: 'Building a Strategic Direction for Education in Fiji'. This document contains the way forward for Fiji's education system. This document however, had very little information on teacher PD and its importance in upgrading practicing teachers' knowledge and skills.

In a draft working paper arising out of discussions and consultations on the 2000 Education Review Report, recommendations for reform in teacher education are listed under Objective 10. This objective is headed: "Developing and Supporting a Professional Teaching Force."

- The first section looks at human resources and the planning of numbers in terms of teacher demand and supply. The MoE emphasis on numbers and human resource development is again quite evident here. According to ministry officials, the human resource element is very important as it is concerned with supplying the system with qualified teachers.

- The second section is on "Incentives for Rural Teaching" This reflects the nation's concern with the particular problems faced by rural schools in Fiji.

- The third section looks at the "In Service Training". According to the MoE this was an area that needed major attention. They considered in-service training to be an outdated segment of the work of the ministry.

- The fourth objective considers "Teachers Training Skills for Teachers". This includes an examination of multi grade teaching and other specialized teaching situation.

- The Fifth section looks at what was termed "Professional standards", linked in with professional competencies. There was a suggestion for rewarding teachers who had reached certain personal professional standards. This approach was also said to raise the public recognition of the teachers. (MoE, 2005: 28)

Generally, the documents show the need for quality teachers in Fiji's primary education system to build a better foundation for subsequent learning.

3.5.1 Policy background

Over the years the systematic development of staff has been a significant contributing factor in improving outcomes for students. MoE identified this as a key area to produce a highly skilled workforce and provision of quality service. The notion of an in-service centre was a priority that MoE listed every year in its strategic plan. This was to recognize and empower its workforce in the provision of equitable and quality service to all its stakeholders.

However, the In Service Training (IST) Unit which existed in the MoE headquarters for some time had a very limited function. There was very little central coordination of PD all across MoE and as a result there was a lot of duplication of activities and contradiction in the messages that were taken out to schools. Different sections of MoE have their own PD procedures and processes and discrepancies also abound in financial management. In absence of a PD policy there was no standard of evaluation and monitoring of most PD activities hence there was no quality assurance of the effectiveness of these activities. Returns for its investments to MoE cannot be adequately ascertained.

In late 2009 the MoE on the basis of the recommendation of the Report of the Fiji Islands Education Commission (2000) and research paper presented by FESP formulated a policy on PD. Under this policy the newly created PDU which presently has no overall strategic planning assumed some of the roles of IST Unit, in a more coordinated and systematic manner across all of MoE's employees. There was some rationalization of remaining duties and the former IST ceased to exist. The policy commits a significant portion of MoE's budget to PD.

3.5.2 Policy objectives

The PD policy formulated by the MoE has three major objectives:

- Committed to provide a supportive and rewarding environment for its employees and recognizes that the quality, responsiveness and professionalism of its workforce are inextricably linked to the achievement of its mission and strategic directions;

- Encourage and support employees in their professional and career development. MoE acknowledges that PD is integral to personal job satisfaction, workplace productivity, reward and recognition, and is critical to the achievement of MoE's mission and continuous improvement in the quality of its services; and

- Applies to all employees of MoE, teaching staff, non-teaching staff, school committees and managements. It sets out the principles that underpin PD in MoE, and the provision of various PD activities that are available for employees (MoE, PD policy, 2009: 2).

The above objectives provide the MoE's vision to provide PD to its employees mainly practicing teachers in order to improve their performance and in turn productivity at work.

3.5.3 Policy: PD

The following are the PD policy guidelines formulated by the MoE:

- PD supported or endorsed by MoE will be aligned to the organization's needs and support its strategic direction;

- MoE will provide an ongoing programme of PD designed to address the needs of MoE requirement of its school leaders;

- All paid leave for study purposes will be aligned to MoE's needs and established criteria;

- All officers granted leave to attend PD/study shall contribute back to MoE as required and appropriate;

- PD conducted at district, divisional or MoE level will be registered with participants recorded in a consistent manner and will be required to conduct evaluation of effectiveness and adhere to quality assurance process and data collection as co-ordinated by one central unit;

- Trainers acting for and on behalf of MoE will be registered through one central unit; and

- MoE will acknowledge those who have successfully undertaken significant additional training/study (MoE, PD policy, 2009: 2).

The policy basically presents details of when, why, how and for whom PD will be available. In this study "whom" is mainly referred to the practicing teachers.

3.5.4 Principles underpinning PD policy

The principles that underpin the provision of PD at MoE comprise:

- Quality provision of PD within MoE would lead to improved learning outcomes for children;

- Decisions made on PD would consider the affordability and longer term sustainability of activities;

- All PD activities are aligned to MoE needs and planned targets in workforce development and delivery of education at schools;

- PD activities should be accessible to all relevant people and allowance made to ensure equitable distribution;

- MoE would acknowledge and recognize PD activities within ministry of education and from recognized training institutions for qualifications upgrade; and

- MoE would ensure the provision of mandatory programmes to cover the core requirements of employees' roles and responsibilities
(MoE, PD policy, 2009: 3).

The above principles lay a path for the policy users; mainly the head teachers and practicing teachers about their expectations in relation to school based PD issues.

3.6 PD for practicing teachers

Coxon (2000b) highlighted that teachers must have the opportunities to acquire new skills, new ways of managing the classroom environment, new ways of using learning technologies and of catering to the diverse learning needs and interest of the students in Fiji' schools. This will result in effective implementation of educational reforms and in turn help improve quality to educational provisions.

At the school level, all school heads are required to prepare a PD plan and to be responsible for ongoing school based teacher PD programmes of their staff. At the same time they are to work closely with the MoE to ensure that new curriculum and

assessment initiatives are well understood and implemented in their respective schools (MoE PD policy, 2009).

Apart from school based PDs, further courses and workshops were to be prepared and presented by PDU, CDU and examination and assessment unit. These workshops are normally attended by selected teachers from selected schools from each education district. Most of the workshops are one way process as the presenters mostly rush through the sessions and there is very little time for participants' interaction (Fiji Islands Education Commission, 2000). The presenters take for granted that these teachers now fully understand the new changes and will filter the message to other teachers and implement the new change effectively. Coxon (2000b) stated that the education advisors should provide support to teachers, and adequate training and resources and allow them to develop their own professional development networks to create greater and effective awareness on new reforms rather than to rely on centrally organized programmes.

3.7 Teacher registration board

The TRB enhances and supports the recognition of teachers as a distinct group of appropriately qualified and experienced education professionals, working according to a well-founded professional ethos and for whom there is some degree of academic and institutional autonomy (Coxon, 2000b). As such the MoE under the teacher registration promulgation No. 25 of 2008 has established TRB in the year 2008. Fiji Islands Education Commission Report (2000) made this recommendation to establish a teachers' registration board.

The functions of the board are:

- to be responsible to the Minister for the registration of persons qualified to be registered as teacher's under this promulgation;

- to keep teacher registration in Fiji under continuous review and to make reports and recommendations to the Ministers thereon;

- to confer and collaborate with employing authorities, teacher education institutions, the teaching profession, teacher organizations and the general community in relation to standards of courses of teacher education acceptable for the purpose of teacher registration and to advise the Minister accordingly;

- to undertake relevant review and research projects for the purpose of this promulgation, given to it in writing by the Minister from time to time;

- to promote the teaching profession;

- to develop, formulate and improve professional teaching standards attuned to the needs of students and of a professional work force;

- to develop, formulate and maintain a code of professional ethics for the teaching profession; and

- to make recommendations to the Minister with respect to special projects not inconsistent with its other functions, including funding required to undertake such projects. (TRB promulgation, 2008: 7)

In addition to the powers conferred upon it under this promulgation or any other written law, the board has the following additional powers:

- to collect prescribed fees for the purpose of this promulgation;

- to investigate complaints and institute disciplinary actions;

- to produce materials in the performance of its functions; and

- to exercise other powers conferred upon it under this promulgation or any other written law. (TRB promulgation, 2008: 8)

This board ensures that all practicing and new teachers, language teachers, trainee teachers and religious and sports teachers meet a standard requirement and register to get a certificate of registration before they enter a classroom to teach.

> No personal shall be permitted to teach at a school in Fiji unless the person is a holder of a certificate of registration under section 16 or authorization under section 24 permitting the person to teach or practice teaching at a school in Fiji (TRB promulgation, 2008: 9)

Any person who contravenes this promulgation commits an offence and is liable on conviction for first offence to a fine not exceeding Five thousand dollars and for subsequent offence to a fine not exceeding Twenty Thousand dollars (TRB promulgation, 2008).

Interestingly, for the purpose of on-going registration for teaching, registration requirements include a set minimum for participation in PD programmes. All teachers are required to undertake PD on one objective for at least five hours per term which should be certified (TRB Promulgation, 2008). For this to happen successfully, adequate time is needed to organize suitable PD programmes at the school level. A special course evaluation is supposed to be done by the school head and forwarded to the PDU which updates teacher's personal records in Fiji Electronic Staffing Appointment (FESA).

3.8 Professional development unit

As part of FESP initiative, a special unit known as 'Professional Development Unit' (PDU) was established by the MoE. This unit is tasked with facilitating all PD programmes. It was set up with financial assistance from aid donors who provided vehicles, technology and equipment together with expatriate consultants. Qualified local teachers and other ministry officials were also recruited and trained. Both local and overseas personnel worked for PDU until year 2009 when the overseas expatriates handed over the operation and leadership of the PDU and other programmes to the local counterparts.

The focus for FESP Australian Aid (AusAID) has been in terms of building leadership and management capacity; building policy and planning capacity at the central office; improving curriculum relevance and flexibility and enhancing primary teacher education at then LTC (Lingam, 2005). Under FESP-AusAID a number of policies have been developed, handbooks for school heads prepared and three cycles of L&M and Future Leaders Training has been conducted for school heads, teachers and management in the hope to improve the quality of education delivery and to achieve improved learning outcomes in the children

The focus of FESP-European Union (EU) has been in the five focus areas and assistance given to primary schools were:

- Improving of schools infrastructure and facilities where a formula called "School Disadvantaged Index" was used to identify 300 most disadvantaged schools and were assisted; Increasing the capacity of teachers, principals and Ministry officials by providing vehicles and finance and resource materials;

- To provide schools with resource materials for library, physical education and science equipments;

- To strengthen the ministry's processes and mechanisms by providing vehicles to visit schools specially in rural and remote areas; and

- Community building through education and partnerships by developing non-formal education and community building projects (FESP Report, 2009: 32).

The efforts of FESP-EU and MoE also got support by People's Charter for Change Document (2009: 32) which reiterated that:

Key measures and action must be taken with due priority and urgency to ensure improved overall quality of teaching and learning through better trained educators.

TRB and PDU are now working in partnership to monitor teacher PD in Fiji schools. Only registered educational organizations and professional leaders can conduct these PD programmes for teachers in schools.

3.9 Summary

This chapter has provided relevant background information relating to the study context, namely Republic of Fiji. In particular it has discussed pertinent issues such as teacher education policy, TRB and PD policy. These aspects have a bearing on PD programmes, such as those conducted at the school level. The next chapter, Chapter Four provides the details of the research methodology adopted for the study which is set out to determine the effectiveness of PD programmes conducted and implemented by the school heads in the case study schools.

CHAPTER FOUR

Research Methodology

4.0 Introduction

As mentioned earlier, the prime focus of this study was to examine the effectiveness of school based teacher PD planned and implemented by the school heads. In the previous chapter, the Fiji context together with issues relating to teacher professional development were discussed. This chapter sets out to discuss the research methodology that was adopted for the study such as to collect and analyze the data in order to address the central research question posed. In doing so, this chapter presents the justification for the methodological orientation adopted for the study. In particular, the chapter provides the rationale for the use of case study research design and other key issues associated with the research process.

4.1 Research paradigm

Education research, like research in other similar fields of inquiry, is typically conducted within a number of competing paradigms (Collins, 1991). A paradigm is a worldview or a set of beliefs shared by a community of researchers. According to Creswell (2008) a paradigm is conceptual model of a person's worldview, complete with the assumptions that are associated with that view.

Some of the competing or alternative paradigms are positivism, post-positivism, critical theory, and constructivism. According to Grey (2004), Lincoln and Guba (1985) and Merriam (1998) a qualitative research approach is typically considered to be based within an interpretative paradigm, but can have a number of different areas of inquiry

under its research umbrella. Interpretive research focuses on the revelation of the participants' views of reality, rather than external true reality (Lather, 1992).

Furthermore, an interpretivist approach considers that what is inquired into and the investigator are interlocked, and asserts that the findings of an inquiry are literally constructed by the inquirer; hence, the methodologies selected involve interaction between the researchers and the participants (Guba & Lincoln, 1989). On the basis of the suggestions advanced by researchers (Guba & Lincoln, 1989; Lather, 1992; Merriam, 1998) the current study was conducted from an interpretive paradigm as the participants' views provided the details about the reality of school based professional development.

4.1.1 The interpretivist paradigm

Choosing a research methodology requires understanding of the philosophical foundations underpinning the research. As stated previously, this study falls within the interpretive paradigm as the key concern is understanding the phenomenon under study from the participant's perspective (Merriam, 1998). According to Clark and Creswell (2008: 73):

> The interpretive paradigm is associated with many qualitative approaches to research such as ethnography, case studies and phenomenological investigations.

Since methodology is a way of thinking about and studying social reality a largely qualitative approach will be adopted because it will be most appropriate for an in depth study of the underlying issues associated with the effectiveness school based teacher professional programme (Strauss & Corbin, 1998). However, aspects of quantitative research method will also be implemented while analysing and discussing the findings of the research.

While the positivist forms of research are more concerned with testing theories and setting up experiments, interpretive paradigm allows one to be really interested in understanding the experience from the participants point of view (Merriam, 1998). The interpretive paradigm is more about interviewing and reviewing of documents in addressing and is process oriented (Merriam, 1998). An interpretive paradigm allows a researcher to gather as "much information about the problem as possible with the intent of analysing, interpreting, or theorising about the phenomenon" (Merriam, 1998: 38).

The interpretative paradigm is characterised by a concern for the individual and a focus on action. Cohen and Manion (1994) argue that the main focus of the interpretative paradigm is to understand the world of human experience and how individuals are actively or directly involved in this world. Hence, the methodologies selected must include and respect the role of interpretation in creating understanding. The interpretivist paradigm considers the researcher as an integral component of the inquiry; therefore, the real issue lies with finding ways in which the inquiry can be enhanced with the researcher's presence taken into account. Cohen and Manion (1994) suggest that an interpretivist worldview is useful in understanding and comparing of data gathered at different times or places within similar contexts. Miles and Huberman (1994) point out that the interpretivist approach is that which is concerned with providing a practical understanding of meanings and actions of a given phenomenon.

Guba and Lincoln (1989) note that the terms interpretivist and qualitative are used interchangeably in the literature and some authors also use the term constructivism in an equivalent manner. In this research, the term interpretivist refers to the paradigm, and the term qualitative to the research methodology based on that paradigm.

Study on professional development issues conducted elsewhere such as by Guskey (2000) used an interpretivist paradigm and as such in this study which is similar in

nature also employed the interpretivist and in turn will add to reliability and validity of the study.

4.1.2 Research design and justification

On the basis of the forgoing discussion, this is an interpretive study that it is aimed to investigate the effectiveness of the school based teacher professional development implemented by the school heads.

In this case, a case study research design enabled the researcher to interpret and understand the practicing teachers' experiences because it enables in-depth study of the situation and meaning for those involved. Merriam (1998) states that case studies can be identified by their disciplinary orientation or by means of a combination. According to Yin (2003) one of the conditions to choose a research design is on what the researcher wants to find out. It depends upon the nature of the research questions. In this study, the "what" and "how" questions are best addressed by using a case study as a research design (Yin, 2003).

4.1.3 Qualitative research

A qualitative research approach is based on an intepretivist paradigm examines people's views and ideas in a narrative or descriptive way that represents the situation experienced by the participants. Maykut and Morehouse (1994) argued that qualitative research is descriptive with an objective to identify and define a situation, and thus seeking to understand the participants' situation through an interpretivist paradigm in terms of intentions, motives, and reasons.

In other words, qualitative research, through an interpretivist paradigm, allows for a deeper understanding on the part of the investigator about the issues relating to the phenomenon under investigation.

According to Merriam (1998: 44):

> Qualitative case study research usually begins with a problem identified from practice…the unit of analysis, or "the case" can be an individual, a program, an institution, a group, an event, a concept .

Qualitative research is a research that focuses on a phenomenon in a natural setting and employs a number of research tools. Phenomenology is a theoretical perspective that:

- Emphasizes inductive logic;
- Seeks the opinion and subjective accounts and interpretations
  of   participants;
- Relies on qualitative analysis of data;
- Is not so much concerned with generalization to larger; and
- population, but with contextual description and analysis
  (Grey, 2004: 28)

In the present study, the phenomenon under study is the teacher professional development programme and determines how effectively it was implemented by the school heads and measure PD programmes impact on practicing teachers in accepting change to address the new reforms in delivering primary education.

Banister, Burman, Parker, Taylor and Tindall (1994: 11) suggest that, rather than attempting to derive a specific definition, the term qualitative research can be broadly viewed as:

> An attempt to capture the sense that lies within, and that structures what we say about what we do, (b) an exploration, elaboration and systematisation of the significance of an identified phenomenon, (c) the illuminative representation of the meaning of a delimited issue or problem.

The above ideas were adopted for this study to address the research questions posed.

In a qualitative approach it is assumed that

> People actively construct their social world events and individuals are unique and not generalizable people interpret events and situations and act upon these interpretations there are multiple interpretations of single events and situation (Cohen, Manion & Morrison, 2001: 1-35).

On the basis of the above discussion the present study is a qualitative research approach and is deemed to be an appropriate way forward to answer the research questions posed in this study. This leads to a brief discussion of the quantitative method of research.

4.1.4 Quantitative research

Quantitative research assumes that the world exists beyond the consciousness of the individual and that this world can be objectively described. The advantages of the quantitative approach include the potential to identify conditions or relationships that permit a (social) situation to exist (Cohen et. al., 2001). Another useful aspect of the quantitative approach is the capacity for enquiry to yield large sample data that can be numerically analysed and compared and that can be more representative of a wider population. This approach has been widely used in environmental education research (Hart & Nolan, 1999).

However, quantitative research also has disadvantages. The main disadvantage of using a quantitative approach is that it is impersonal, with research being conducted from outside the situation being studied. As such, it would be unable to produce an image of the understandings and meanings that constitute the reality of the individual (Cohen et. al., 2001).

In view of the above suggestions a mixed method was considered to be useful as it offered the best potential solution to answer the research questions posed for this study.

4.1.5 Mixed methods

As mentioned previously, the research was mainly qualitative but had some aspects of quantitative research as it employed a questionnaire survey which had open and closed-ended questions. Thus a mixed method approach was used. Creswell (2003: 22) suggested that:

> A mixed method design is useful to capture the best of both quantitative and qualitative approaches…the advantages of collecting both closed - ended quantitative data and open – ended qualitative prove advantageous to best understand a research problem.

Mixed method is simply a method that can be used to discuss the same phenomenon using different approaches as explained by Krathwohl (1993: 740):

> Qualitative research: research that describes phenomena in words instead of numbers or measures…Quantitative research: research that describes phenomena in numbers and measures instead of words.

In a mixed method approach the researcher bases the inquiry on the assumption that collecting diverse types of data best provides an in-depth as well comprehensive understanding of a research problem (Creswell, 2003).

On the same note there are many reasons why researchers use mixed methods for example:

> Qualitative data can be used to supplement, validate, explain, illuminate, or interpret quantitative data gathered from the same subjects or site
> (Bogden & Biklen, 1998: 37).

Mixed methods enhance the clarification of the findings as they have been gathered using different methods and thus increases the breadth and depth of the results by

interpreting and analysing them from different perspectives (Clark & Creswell, 2008: 33). While each method is recognised for its uniqueness:

> We want to make the point that to build dense, well developed, integrated and comprehensive theory; a researcher should make use of any or every method at his or her disposal, keeping in mind that a true interplay of methods is necessary.

Creswell (1994) has further stated that there are four mixed method designs that can be adopted depending upon the aim of the research. Sequential studies follow in phases while parallel/simultaneous studies are where both the qualitative as well as quantitative phases are conducted at the same time. Equivalent status designs when both the approaches are used equally while in dominant-less dominant studies, the researcher conducts the study "within a single dominant paradigm with a small component of the overall study drawn from an alternative design" (Creswell, 1994: 177).

Using mixed methods also increases the validity and realibity of the findings as the data from different sources are triangulated (Bogden & Biklen, 1998, Grey, 2004; Miles & Huberman, 1994; Silverman, 2005). As such the suggestions advanced by these great researchers were considered and as such the study employed qualitative and quantitative approaches to gather the data needed for the study.

4.2 Justifications for using case study

While there are limitations of using case study as a research design such as "case studies can oversimplify or exaggerate a situation leading the reader to erroneous conclusions", yet it is seen as the best method for addressing the research questions (Merriam, 1998: 42). She further clarifies and argues that:

> Case study is the best plan for answering the research questions; its strengths outweigh its limitations. The case study results in a rich and holistic account of a phenomenon. It offers insights and illuminates meanings that expand its readers' experiences. Because of its strengths, case study is a particularly appealing design for applied fields of study such as education.

According to a number of writers such as Bell (1999); Bogden and Biklen (1998); Williamson (2000) listening, observing, and forming a rapport with research informants are seen as important skills for undertaking qualitative research. The data collected give a sound reflection of the reality and are derived right from the source. As such these ideas were considered important for this research as the phenomenon under taken needed the above skills to collect useful data relating to the effectiveness of professional development programmes.

Case study research methods not only involve a description of a phenomenon but also provide in-depth understanding of all the factors and events associated with the phenomenon under study; teacher professional development programmes. Moreover, Burns (1997) states that case studies allow investigations to retain the holistic and meaningful characteristics of real life events.

Burns (1997: 365) further states that:

> Case study is used to gain in-depth understanding replete with meaning with the subject, focusing on process rather than outcome, on discovery rather than confirmation.

The strength of the case study approach to research is its contribution to practical knowledge for educators and others to understand issues of concern to them that could be modified accordingly within the complexities of their respective environments. Stake (1995: 11) states that:

> A case study is expected to catch the complexity of a single case…we study a case when it is of very special interest. We look for the detail interaction with its contexts. Case study is the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances.

An important characteristic of a qualitative case study design is that the researcher spends a lot of time gathering data in the research settings. Stake (1995) states that the researcher is able to get in contact with the people and the various activities and operations during the research. Bell (1999) goes on to describe a case study as an

umbrella term for a family of research methods focusing on the enquiry around an incident or an organization. Creswell (2003: 15) states that in a case study:

> The researcher explores in depth a program, an event, an activity, a process or one or more individuals.

Case studies provide insights into other similar situations and cases thus assisting in the interpretation of other similar cases. However, "the results may not be generalizable except where other readers/researchers see their application" (Cohen, Manion & Morrison, 2003:184). Results from case studies are easily understood by a wide audience and case studies can be easily undertaken by a single researcher without having a team of researchers (Cohen et al., 2003). Similarly this research considers the above views and what Stake (1995: 8) suggests that "the real business of a case is particularisation, not generalisation" and as such does not intend to generalise the findings of the study. This leads to the discussion of research tools and their justification for use in this study.

4.3 Research tools and justification

Research instruments are an important part in the process of research. These are ways and means by which researchers are able to gather information relevant to the research problem to be investigated. There are a number of different types of research instruments that researchers employ in gathering information to address the specific research problems.

According to Vaus (1995), researchers can use a variety of research tools to collect relevant data needed for their study. Questionnaire surveys, interviews, observations and documentary analysis provide a rich information data base for qualitative study.

Accordingly Patton (2002: 4) states that:

> The data for qualitative analysis typically come from fieldwork. During the fieldwork, the researcher spends time in the setting under study - a program, an organisation, a community, or whatever situations of importance to a study can be observed, people interviewed and documents analysed.

The tools selected in the study are based on their relevance in getting the best possible responses from the participants in order to address the key research question and the three underlying questions. Bell's (2005: 120) comments further justify the selection of the research tools for a study. He states that:

> Your aim is to obtain as representative a range of responses as possible to enable you to fulfil the objectives of your study and to provide answers to key questions. Research instruments are selected and devised to enable you to obtain these answers.

Moreover, seeking documentary information and observation are commonly used in case studies (Yin, 2003). Observation and interviews have been widely used by qualitative researchers as they provide a genuine look into the soul of another (Denzin and Lincoln, 2003).

In regards to questionnaire survey, Nardi (2006: 68) states that:

> Designing questionnaires for respondents to complete on their own is one of the most common methods…it is less likely that researchers would affect the outcome of a self administered survey when respondents read the items on their own.

Although there are certain shortfalls of the tools used in the research such as, not all interviewees may be equally clear or the researcher's presence may be disturbing it is hoped that the data collected from the different methods will be triangulated to increase the reliability and the validity of the findings of the research (Kervin, Vialle, Herrington & Okely, 2006). Selecting a number of research tools, as in the present study is supported by (Yin, 2003: 97) who categorically states that:

> A major strength of case study data collection is the opportunity to use many different sources of evidence…thus, any finding or conclusion in a case study is likely to be much more convincing and accurate if it is based on several different sources of information.

For the purpose of this study, ideas of Nardi (2006), (Yin, 2003), Patton (2002), Vaus (1995), and the nature of the research questions posed and the phenomenon under study were considered and the following research tools were considered appropriate for

this study were: questionnaire survey, semi- structured interviews and document analysis. The above research tools have been previously used by other researchers in similar studies regarding teacher professional development (Darling-Hammond, 1994). This leads to the discussion of each research tool employed to gather the data.

4.3.1 Questionnaire

The questionnaire survey was one of the data gathering tools employed in this study (Appendix 4 & 8). The questionnaire consisted of closed as well as open-ended items. The questionnaire for the present research was designed to address the three questions posed that underpinned the central research question of this study.

With the support of a staff member from the selected case study schools s(CSSs) a pilot testing of the questionnaire was done and the responses revealed that the participants had a good understanding of the questions as suggested by Nardi (2006: 96).

He advises that to:

> Give the questionnaire to people similar to those who will make up the sample you want to study…when questionnaires are returned, read over the responses to the items to see if there is any confusion by looking for incorrect answers...constantly answered incorrectly or skipped.

Also, pilot testing was done to find out if the instructions were clear and the time it took them to complete the questionnaire. This provided a preliminary analysis to see whether the issues addressed the research question.

> The purpose of a pilot exercise is to get the bugs out of the instrument so that respondents in your main study will experience no difficulties in completing it (Bell, 2005: 147).

The responses of the participants revealed that the instructions and questions were very clearly laid out. However, there are certain drawbacks for using a questionnaire survey, for example:

> A common drawback of survey data is that they are often left to speak for themselves with little or no informed interpretation about what the findings signify…another hazard of survey research concerns limiting possible answers/responses by using close ended questions and x point scales (Lankshear & Knobel, 2004: 167).

Lack of response and time constraints are some of other difficulties often faced by researchers using questionnaire surveys. At times the questionnaires do not reach the participants or arrive late for the data to be analysed.

In the present study the researcher was able to address all of the above concerns and as such it did not pose any major problems regarding gathering of data through the use of questionnaire survey. This leads to the discussion of the second research tool; semi-structured interview employed in this study.

4.3.2 Semi-structured interviews

Interviewing is used widely as a data collection method by qualitative researchers. Punch (2001) also suggested that the use of semi-structured interviews provide better access to informants' ideas, thoughts and memories. Similarly, Silverman, (1993) consider that semi-structured interviews help obtain in-depth information about the informants perception of their environment and their experiences. The underlying principle behind semi-structured interviewing is that the only people who understand the social reality in which they live are the people themselves.

The purpose of interviewing was to find out what was in someone else's mind or what was his or hers views about certain issues (Patton, 2002). Interviewing is used widely as a data collection method by qualitative researchers. Stake (1995: 64) argues that:

> Qualitative researchers take pride in discovering and portraying the multiple views of the case. The interview is the main road to multiple realities.

As a result semi-structured interviewing was chosen for the purpose of this research as it was easier to get the views of the respondents (Burns, 2000). The school heads and teachers were interviewed in order to obtain data that addressed the three underlying questions (Appendix 9 & 10). The head teacher and five teachers from each CSS were interviewed. One of the most important aspects of interviewing "is knowing when to stop.... you do not need to drag it out until the allotted time if you have actually finished discussing the matters of interest" was considered while interviewing the research participants. It may the lead repetitions in the participants feedback (Minichiello, Aroni & Hays, 2008: 115).

Apart from the teachers of the CSSs, a MoE official from each section: CDU, PDU, TRB and district office were interviewed during the research to get a more holistic view about PDs and it was hoped that the use of interview would contribute towards establishing trustworthiness of the findings (Lincoln & Guba, 1985).

To make the interviews more relevant and authentic, suggestions from previous researchers had been taken into consideration when designing the semi structured interview questionnaire (Merriam, 1998; Nardi, 2006; Patton, 2002; and Stake, 1995). Moreover, interviews were used as a research tool by Vu and Pridmore (2006) in a study conducted to find the quality and effectiveness of teacher output as a result of professional development in the Victoria University. Researchers "use this strategy when it helps to answer their research questions" (Minichiello, Aroni, Timewell & Alexander, 1996: 65). As such the present study also used semi-structured interviews as an effective research tool to gather the data needed to address the key research question. This leads to the discussion of the third research tool employed in this study, document analysis.

4.3.3 Document analysis

Documents are a ready-made source of data easily accessible to the researcher (Hargreaves & Fullan, 1992). According to Ross (1994), public records, personal documents and physical materials are three major types of documents available to researchers for analysis. Similarly, Krathwohl (1993) states that all literate societies produce a variety of materials intended to inform the general public. Personal documents are seen as a reliable source of information concerning a person's attitudes, beliefs, and views of the world. Although personal documents may not be representative or necessarily reliable, they reflect the participant's perspective, which is what one seems to be seeking and such was the case for the present study.

Documents provide an objective source of data where the information is not affected by the presence of the researcher.

According to Merriam (1998: 126):

> One of the greatest advantages in using documentary material is its stability. Unlike interviewing and observation, the presence of the investigator does not alter what is being studied…documentary data are particularly good sources for qualitative case studies.

Documents provide important information that may be difficult to observe due to time limitations and can be used to corroborate information from other sources (Yin, 2003). This was the case in this study as data from other sources were used to corroborate with data obtained from document analysis. When documentary data is collected in conjunction with interviews the findings can be triangulated and this would in turn enhance validity of the research (Punch, 2005). Document analysis has been used previously by academics to complement their data collected from other sources such as interviews in similar researches regarding teacher PD programme this idea was considered for this study. Document analysis was also used as a research tools by Vu and Pridmore (2006) in a study conducted to find the quality and effectiveness of teacher output in the Victoria University.

However, there may be certain limitations associated with the use of documents as a data gathering tool. One of them is the over reliance on documents when adopting case study as a research design. At times researchers take things for granted and believe everything in the documents to be the truth. However one needs to understand that documents are written for specific purposes and specific audiences. Researchers need to take these things into consideration when reviewing documents as part of their research. At times researchers do not have unfettered access to the required documents due to confidential nature of the documents. In this study context, many of the above concerns were considered. Also, the researcher as a head teacher and with experience of working in the MoE headquarters as a research officer was able to identify the relevance of various documents.

For the purpose of this study, considering the document analysis involved all the major types of documents available on teacher PD. These documents were PD policy, MoEs Corporate and business plans, PDU's annual plan, MoEs ten year strategic plan and Teacher Registration Decree.

4.4 Research sample

Selecting a research sample is an important issue frequently raised by researchers and students (Minichiello et. al., 2008). According to Fraenkel and Wallen (2006: 104) researchers are always concerned with what can be labelled as an adequate size for a sample especially in qualitative research. Some researchers suggest that:

> A sample should be as large as the researcher can obtain with a reasonable expenditure of time and energy. This, of course, is not as much help as one would like, but it suggests that researchers should try to obtain as large a sample as they reasonably can.

Thus for the purpose of this study, the researcher used purposive stratified sampling to get the suitable sample size for the different data gathering instruments.

4.4.1 Stratified Purposeful Sampling

The sample selection method is an aspect of interpretive paradigm which "relies upon purposeful rather than representative sampling" (Lincoln & Guba, 1985: 102). Moreover, purposive sampling is:

> Very different from conventional sampling. It is based on information, not statistical considerations. Its purpose is to maximise information, not facilitate generalizations….Finally, the criterion invoked to determine when to stop sampling is information redundancy, not a statistical confidence level.

Purposeful sampling had been used previously in qualitative research and is often used by researchers who have a focus and if they want the findings to purposefully inform the phenomenon under study (Creswell, 2007; Punch ,2005).

According to Patton (2002: 46) one has to take into consideration:

> The logic and power of purposeful sampling derive from the emphasis on in-depth understanding. This leads to selecting information rich cases for study in depth. Information rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research.

It was not be possible to interview all head teachers and teachers as the research design adopted for this research was a case study. As a result, stratified purposeful sampling was implemented during the interviews. This model has been widely used because:

> This sampling strategy requires identification of a particular criterion that applies to the sample group and then the researcher samples for specific instances of that criterion (Minichiello et. al., 2008: 172).

Stratified purposeful sampling was done and this also conformed with the notion of criterion sampling where all participants meet a particular criteria. In this case the participants were selected taking into consideration that there was a balance of gender as well as ethnicity to get a better interpretation of the findings. At times critics may question the reason behind selecting a certain sample population when the actual

population that could have been targeted is far more. A lot of factors help the researcher in deciding upon the sample size, such as, manageability, time constraints, cost, accessibility and willingness of the people to participate (Vaus, 1995: 71).

He further argues that:

> The size of the population from which we draw the sample is largely irrelevant for the accuracy of the sample. It is the absolute size of the sample that is important.

The sample selected for the research through stratified purposeful sampling depicts a fair representation of the total population.

The researcher in this case was not interested in the sample size because:

> In purposeful sampling the size of the sample is determined by informational considerations. If the purpose is to maximise information, than sampling is terminated when no new information is forthcoming form newly sampled units, thus redundancy is the primary criterion (Lincoln & Guba, 1985: 202).

Researchers generally are known to select a sample group based on the nature of the research and its aims, which could very well include factors such as convenience and viability. The selection of the population sample size as suggested by Anderson and Arsenault (1998: 123) is dependent largely on the researcher:

> As there are no rules for sample size in qualitative inquiry. Sample size depends on what you want to know, the purpose of the inquiry, whats at stake, what will be useful, what will have credibility, and what can be done with available time and resources.

The focus in mind was to use a variety of methods to collect as much data as possible in relation to the research questions. Creswell's advice was taken into consideration when choosing the subjects for the present study. For any research project it is important to find people who are eager or prepared to cooperate and also it is important to establish a good rapport so that the participants are able to provide the data freely. As suggested by Creswell (1998: 111) when choosing the sample:

> One needs to find an individual to study, an individual who is accessible, willing to provide information and distinctive for her or his accomplishments and ordinariness or who sheds light on a specific phenomenon or issue being explored.

Considering the above suggestions for this research, the head teacher and five teachers from each CSS were selected for the purpose of this research. The sample included: head teachers and teachers from both rural and urban CSSs of some who had attended and not attended PD programmes conducted by MoE

It was also impracticable to interview all the MoE, CDU, PDU and TRB officials as they are scattered and situated in other education districts. Thus a small sample was selected because:

> Interviewing is time – extensive research. Unless there is a research team engaged in the project, it is very difficult for a single researcher to be involved in more than 100 long and complex social interactions (Minichiello et. al., 1996: 174).

4.4.2 Selection of Schools

The two selected primary schools were from Lautoka/ Yasawa/ Nadi Education Disrtict (Figure 4). Case study school A (CSS A) is located in the urban area and Case study school B (CSS B) is located in a rural area. Due the limited time given by the MoE for the research, these two schools were located in the Lautoka/Yasawa/Nadi education district and provided a good platform for the study. According to the Fiji's Primary School's classification system the CSS A school falls in ED2C- large school and CSS B school falls in ED5E category which is a medium school. The main criteria for selecting these schools were: location (rural and urban); familiarity to the researcher; and accessibility. Fictitious names were given to these two selected school: CSS A and CSS B to maintain confidentiality of their names as part of research ethics.

Figure 4: Map of Lautoka/ Yasawa/ Nadi Education District

4.4.3 Research Participants

As mentioned earlier, participants in this research included the head teacher and five teachers from each CSS, a CDU officer, a PDU officer, a MoE officer and an official from TPB. A summary of research participants are provided (Table 1).

Table 1: Summary of research participants

Research Participant No.	Code used for this research	Gender	Experience	Qualification
1	Teacher 1A	Female	15 years teaching experience	Teachers certificate, Bachelor of Education (Primary)
2	Teacher 2A	Male	18 years teaching experience	Teachers certificate
3	Teacher 3A	Male	5 years teaching experience	Teachers certificate, Bachelor of Education (Primary) in progress
4	Teacher 4A	Female	6 years teaching experience	Teachers certificate
5	Teacher 5A	Female	3 years teaching experience	Diploma in Primary Teaching
6	Head Teacher Primary A School	Male	28 years experience (19 years as a teacher and 9 years as an administrator and teacher)	Certificate in teaching, Leadership and Management Training.
7	Teacher 1B	Female	16 yea Teaching experience	Teachers Certificate, Bachelor of education (Primary)
8	Teacher 2B	Male	14 years teaching experience	Teachers certificate
9	Teacher 3B	Female	9 years teaching experience	Teachers' certificate, Certificate in Computing.
10	Teacher 4B	Male	7 years teaching experience	Teachers certificate
11	Teacher 5B	Female	3 years teaching experience	Diploma in Primary Teaching
12	Head Teacher Primary B School.	Male	26 years of experience (23 years experience of teaching and 3 years experience as an administrator and teacher)	Teachers certificate, Bachelor of Education
13	PDU Official	Male	20 years teaching experience and 3 years as PDU officer)	Teachers certificate, Bachelor of Education, Postgraduate Diploma in Education and Master in Education
14	CDU Official	Male	14 years teaching experience (11 teaching years as CDU officer)	Teachers certificate, Bachelor in Language Studies.
15	TRB Official	Male	23 years experience (20 years teaching experience and 3 years as a TRB official)	Teachers certificate, Bachelor of Education
16	MoE Official	Male	18 years teaching experience and 10 years experience as district education official	Teachers Certificate, Post Graduate Diploma in Education Master in Education.

4.5 Data Recording and Analysis

Proper recording of data was very important as the whole research depended on its analysis and interpretations. Data collecting, recording and analysing was seen as an ongoing activity. This was because just after giving the questionnaire, an interview could be conducted followed by review of a certain document (Merriam, 1998). Thus, all care was be taken to see that the data collected were thoroughly scrutinised, synthesised and organised into manageable units so that it was easy to record and report the findings (Bogden & Biklen, 1998)

Field notes were kept where interviews were carried out and recorded. Shorthand was used to record information gathered in the field which was transcribed later. A journal was kept where documentary observations were recorded. The data collected from the questionnaire surveys were recorded accordingly to make the analysis process becomes more effective and valid.

Creswell (2007: 144) states that:

> Researchers, regardless of approach, need approval from review boards, engage in similar data collection of interviews and observations, and use similar recording protocols and forms for storing data.

All care was taken to ensure that appropriate analysis and interpretation of the data were done. Yin (2003: 137) has very strongly recommended that:

> No matter what specific analytic strategy or techniques have been chosen, you must do everything to make sure that your analysis is of the highest quality.

The results were analysed according to the data collecting methods. While synthesizing all the data collected, survey data was analysed, each recorded interview were transcribed in its entirety. The recorded interviews were played a number of times to understand the interviewee's explanations clearly and meaningfully. The transcripts were taken back to the teachers for validation and comments. This is called member checking and is used for purposes of validity.

Merriam (1998: 204) states that member checks allows:

> Taking data and tentative interpretations back to the people from whom they were derived and asking them if the results are plausible.

Going over the same data a number of times also increased the validity of the research. The documentary data derived from the various sources were viewed, analysed and sorted accordingly under respective research questions. The data collected from respected tools were analysed as follows:

4.5.1 Questionnaire Survey

The questionnaire that was developed had both open ended as well as closed ended questions. Thus the responses were analysed separately using different methods. The open ended questions were analysed by first putting the comments into categories or themes before coding them. Coding according to relevant themes (Bell, 2005) is also known as developing a coding frame (Cohen, Manion & Morrison, 2003). Manual method was used to tabulate the data.

4.5.2 Semi Structured Interview

The data collected from interviews were analysed using the traditional method as suggested by qualitative researchers (Cohen, Manion & Morrison, 2003). Interviews were fully transcribed and were organised. Relevant quotations were noted "using as much as possible the literal words of the participants" (Cohen, Manion & Morrison, 2003: 285). The information was then verified and sorted according to the research questions posed.

4.5.3 Document Analysis

Document analysis involves mediation between the expectations of the researcher and the purpose of the texts (Wellington, 2000). Bearing this in mind the documents in this CS were analysed by sorting out the data from the three types of documents. The

checklists was organised and the information were categorized for using appropriate themes. Descriptive analysis took place before the information from the various documents were synthesized and aligned with research questions. Suggestions of Caracelli and Greene (2008) were also taken on board when analysing the data as shown in the following table:

Table 2: Analytical strategies for the integration of qualitative and quantitative data

Analytical Strategies	Example
1. Data Transformation- Data collected from both the methods are integrated.	Qualitative data are numerically coded and included with quantitative data in statistical analysis Quantitative data are transformed into narrative and included with qualitative data in thematic or pattern analysis
2. Typology Development- Data is divided into different categories	The data from both the sources are categorized and coded
3. Extreme Case Analysis- this is when the from one source is matched with data from another source	Extreme cases identified by one source are further examined in comparison with another source to refine the original interpretation.
4. Data Consolidation/Merging- Data from the sources are reviewed and consolidated	Data from both the sources are jointly reviewed and consolidated into themes and statistical forms.

Source: (Caracelli & Greene, 2008: 235).

This leads to the discussion of ethical consideration followed in this study.

4.6 Ethical Considerations

Ethical issues were taken into consideration throughout the course of this study. A number of commentators of educational research have stressed the importance of adopting a set of ethical procedures and principles. According to Blaxter, Hughes and Tight (1996: 146) ethical research:

> Involves getting the informed consent of those you are going to interview, question, observe or take materials from. It involves reaching agreements about the uses of this data and how its analysis will be reported and disseminated. And it is about keeping to such agreements when they have been reached.

Apart from consent from the participants, (Appendix 3) approval from the University of the South Pacific's Research Ethics Committee as well as MoE had been received to conduct this research (Appendix 11). The purpose of the research was clearly communicated so that there was a willingness on the part of the practicing teachers to cooperate fully in this research. Although visits were made to schools, no direct contacts were made with the teachers or any kind of interference was done with their teaching and learning process. Fontana and Frey's (1994) views were considered for this research that research should not exploit informants but enhance their confidence by voluntarily sharing worthwhile information with the researcher.

Overall, the application of each research instrument such as questionnaire surveys, interviews and document analysis were all bounded by ethical consideration. Added to that, the confidentiality of the respondents and the institution were ensured at all times.

4.7 Summary

This chapter has provided pertinent information about the research methodology that was adopted for this study. In particular, the chapter has discussed major issues relevant to the methodology adopted for the study, such as the interpretivist paradigm and qualitative case study research design. Also, the chapter has provided details on the research instruments and the justification for using each instrument for the purpose of collecting data needed for this study. The chapter concluded by providing information on the research samples and ethical procedures and principles followed throughout the course of this study. The next chapter, Chapter Five provides the details of the findings of the study.

CHAPTER FIVE

Research Findings

5.0 Introduction

This chapter presents the findings of the study. The data for the study were gathered by means of questionnaire survey, interviews and document analysis. The findings of the study are presented under suitable headings derived from the research questions posed. They include:

- Explanation of teacher PD programme;
- Teachers involvement in school based PD programmes;
- School based structured PD programme;
- Importance of teacher participation in school based PD programmes;
- School based teacher programme and teacher change;
- Factors affecting school based teacher PD;
- Features of quality school based teacher PD programme; and
- PD and its sustainability;
- Teacher induction programme;
- Assessing school based teacher PD through self efficacy.

5.1 Underlying research question 1: How is the school based teacher PD programme conducted and its current status?

This section presents the findings under the following headings. These include

- Explanation of teacher PD programme;
- Teachers involvement in school based PD programmes;
- School based structured PD programme;
- Importance of teacher participation in school based PD programmes;
- School based teacher programme and teacher change;

5.1.1 Explanation of teacher PD programme.

From the analysis of the data it was found that the participants had a wide ranging of views about school based teacher PD (Table 3).

Table 3: Common words and phrases used by six participants from each CSS to explain teacher PD.

Common words and phrases Used in the definition	(Primary A School) Urban N=6	(Primary B School) Rural N=6
Curriculum matters	4	2
Teaching strategies	5	3
Change process	4	2
Classroom challenges	5	2
Discussion	3	2
Adopt and adapt	3	2
Teacher skills and knowledge	5	1
Students learning outcomes	4	3
Empowering teachers	4	4
Effective lesson delivery	4	2
Reflection of performance	3	3
Teacher quality	4	3
Learning environment	4	2
Teamwork and cooperation	4	2
Addressing reforms	4	2
Upgrading knowledge	4	2

The table shows that most of the teachers of CSS A (urban school) held favorable views about school based PD. For example, Teacher 1A explained school based teacher PD as:

> PD's are conducted in schools to educate teachers with new developments in the education system.

The teachers from CSS B as mentioned earlier were situated in rural area, and held a different set of views about school based teacher PD programmes when compared to their counterparts from the urban school (CSS A). The data obtained from the interview sessions reveal that the teachers from rural school (CSS B) view PD sessions as any presentation by their school head or any other teacher. For example, Teacher 3B emphasized that "PD addresses change however we teachers are not able to spell out the meaning of this change". Another teacher, Teacher 5B made a comment in relation to school based PD programmes at their school:

> Whenever we sit down with a cup of tea, our head teacher picks an issue and talks. At times the issue does not concern our education process however he thanks us for PD session.

Teacher 5B expressed a similar view:

> I think PD's are sessions conducted by the head teachers while having a cup of tea whenever head teachers attend a PD conducted by the MoE.

Teachers from the urban school (CSS A) viewed PD as an effective tool used to address issues and changes. Some of the examples of issues and changes quoted by these participants are for instance, moving away from the examination culture to continuous assessment, preparation of class based assessment tasks and documentation of the student's assessment and progress. The Head Teacher from the CSS A explained that school based teacher PD is the development of teaching knowledge on how to administer school activities.

The following were the other common explanation of school based teacher PD programmes provided by the research respondents from both the CSSs:

- Programmes that uplifts teachers knowledge and skills;
- a development session where teachers take turn to present on issues;
- a way of helping each other through sharing knowledge and skills in a particular area;
- enhancing and aligning with new developments in current curriculum and teaching strategies;
- a process through which teachers review and empower their knowledge and skills to better their teaching and learning process;
- sessions organized in schools for teachers to discuss and overcome difficulties faced in classrooms; and
- allows teachers to present their views, discuss, reflect and plan on challenges encountered teaching.

Apart from the teachers of the CSS, a CDU official explained that school based teacher PD was a programme where teachers meet to discuss the subject matter, learning and teaching strategies and find means and ways to adopt and adapt changes to provide and enhance the quality of education. The CDU official also explained that school based teacher PD as any formal or informal session organized by the school heads or other teachers to discuss matters such as curriculum, students' performance, and school community at large and draw up plans to overcome challenges faced in these areas.

For example, the comment from CDU official:

School based PD programmes should address and create awareness on effective teaching strategies, curriculum contents, assessment procedures and improvement of students academic performances.

A similar view was expressed by a MoE Teacher Registration Board official that PD programmes were conducted for teacher's capacity building on matters relating to new developments in the education system. He further explained that PD is now mandatory for teacher registration as it is stated in the teacher registration promulgation.

Analysis of the MoE policy document on teacher PD showed that PD is defined as many forms of learning activities conducted by MoE sections, outside agencies (including NGO's and donors) and teachers colleges which includes workshops, and other professional meetings with the primary objectives of improving teachers' skills, knowledge in order for them to better understanding of various aspects of school work.

5.1.2 Teachers Involvement in School Based PD Programmes

The analysis of the data showed that all the CSSs conducted school based PD sessions in their schools. However, the intervals of PD sessions, the allocated time for these PD sessions, and the resource person used to conduct the sessions varied in the each CSS (Table 4).

Table 4: The intervals of PD sessions, time allocation and the resource person used to conduct the PD sessions in CSSs.

CSSs	Intervals of PD sessions	Time allocation	No of Hours in an year	Resource person
CSS A	Fortnightly	1 hr per session	21 hrs	Head Teacher, Assistant Head Teacher, Teachers.
CSS B	Monthly	1 hr per session	10 hrs	Head Teacher, Assistant Head Teacher.

The above findings show that the CSS A conducted PDs on a fortnightly basis. Overall, the school spent at least twenty one (21) hours for their PD sessions in a year. For the CSS A the PD sessions were mostly presented by the school head teacher, the assistant head teacher and the assistant teachers. On the other hand, CSS B hosted their PD sessions once a month and spent at least ten (10) hours for the school based

PD sessions in a year. These PD sessions were mostly conducted by the head teacher and assistant head teacher.

Teachers from both the CSSs expressed their concern during the interview about the school heads not giving much priority to the PD. Also, they commented on the lack of leadership quality to positively influence the teachers for PD activities. The teachers also stated that inadequate time was allocated for the PD programmes and this has demoralized the teachers interest from the PD activities. For example, Teacher 4A mentioned that:

> Not enough time and importance is given to PD activities in our school and this has led towards the lack of interest amongst teachers to share ideas and views.

A similar comment was made by Teacher 3B:

> The organization part of PD activities in our school is poor because of leadership. PD sessions are not planned and carried out meaningfully.

5.1.3 School Based Structured PD Programme

The analysis of the data from the questionnaire survey showed that both the CSSs have a structured PD plan in their schools (Table 5). However, the programme was not strictly followed.

Table 5: Teacher's response on whether PD plans are followed.

CSSs	Structure Plan in Place	Followed Accordingly	Partially Followed	Not Followed
CSS A	Yes	Yes	No	No
CSS B	Yes	No	Yes	No

For example, Teacher 1B stated that her school had a PD plan in place but was hardly followed. She further explained that the school normally had PD's when there was a need:

> Our school has a termly PD plan and every teacher is scheduled to present in respective areas. At the beginning the plan is followed rigidly and as weeks go by PD sessions stops until it becomes necessary.

Another similar response came from Teacher 5B who stated that:

> During our staff meeting, we discuss the areas of concern and list the topics to to be presented in the PD. The teachers than volunteer to present on these topics according to the term planner, However the actual presentation hardly ever takes place.

However, the Head Teacher from the CSS B made contradicting statements by saying that his school had a proper PD schedule which was strictly followed. On the other hand, the teachers of the CSS A reported that PD plan was followed closely in their schools and each teacher was assigned to conduct PD programmes. The Head Teacher from CSS A stated that PD programmes was a must in his school and this has benefitted the teachers a lot. However, Teacher 4A from CSS A stated that the school replicates PD programmes conducted by the MoE.

A PDU unit official expressed that all school heads should see that they develop a suitable school based PD programme in consultation with their teachers and to see that regular PD programmes are conducted.

However, the findings showed that the CSSs prepared plans for PD but they were not strictly followed.

5.1.4 Importance of teacher participation in school based PD programmes

The analysis of the data collected from the questionnaire survey on the importance of active participation in the school based PD programmes suggested that the Head Teachers and teachers regard school based PD programmers as an important part of teaching and learning process. Participants from both the CSSs agreed that active participation of teachers was essential in school based teacher PD.

During the interview sessions it was noted that the Head Teachers from both the CSSs expressed their concerns about the need for schools to organize PD programmes through which many current challenges faced by the teachers relating to learning and

teaching could be addressed. Their comments further suggests that PD programmes are an effective means through which teachers can be well equipped for the successful implementation of any new developments in education such as new policies, outcome based education, new forms of assessments and documentation of students learning records. For example, the Head Teacher of CSS A mentioned that:

> School based PD programmes should be well organized and actively participated in as this gives all the teachers an opportunity to discuss the challenges they encounter and work out possible solutions.

A similar view was expressed by a CDU official on the importance of active teacher participation in school based PD programmes. The officer pointed out that:

> It's very important for the school heads to organize school based PD programmes encourage his/her teachers to enhance their knowledge on changes taking place in our education system.

Analysis of the MoE's strategic plan document also stressed the need for PD:

> A more vigorous and regular programme for professional development at the school level is long overdue. Which limited funding available to have teachers given full time study leave with pay, school based teacher professional development is the best option for all teachers to upgrade themselves in the modern techniques of teaching and curriculum delivery (MoE, 2005:26).

Further to that, the MoE strategic plan document also stressed that:

> In order to develop a professional teaching force there is a need to increase the number of school based PD programmes for teachers in the rural areas, there is a need to introduce teacher training models that can effectively reach out to the rural schools and continuously upgrade the skills and professionalism of teachers in these inaccessible areas (MoE, 2005: 34).

Both the beginning teachers and experienced practicing teachers from the CSSs agreed that they should be actively participating with genuine interest in the school based PD programmes. Experienced teachers raised their concern that the school should plan and organize regular PD for the teachers.

The following were the other reasons provided by teachers from both the CSSs during the interview:

- Improves teachers knowledge in a subject area and teaching strategies;
- enhances teachers self-esteem to encounter challengers;
- creates awareness on new policies and prepares teachers to effectively implement these policies;
- provides opportunity for teachers to present, discuss and critique their work;
- allows teachers to share their knowledge, skills with their colleagues; and
- enhances teacher output which leads to improvement in students learning outcomes

The findings showed that the Head Teachers and teachers of both the CSSs were aware of the significance of school based PD programmes but failed to give any priority to conducting regular PD sessions.

5.1.5 School Based PD Programmes and Teacher Change

The analysis of the data showed that PD programmes do have positive impact on teaching and learning process in the CSSs. Teachers from the CSSs agreed that PD programme led to positive teacher change. Some suggested areas of teacher change provided by the participants were for example, better classroom management, knowledge of effective teaching and learning strategies and pedagogical skills, enhancement of teacher knowledge on policies and practices and new changes and reforms initiated by the MoE.

On the same note the Head Teacher of CSS A highlighted that teachers of his school were aware of all new developments initiated by the MoE because they were disseminated during the PD sessions. Regular PD sessions have resulted in better awareness on educational development with teachers and as a result a lot of improvement in teachers work performance has been noted. For example, Teacher 5A pointed out that some observations she carried out with her fellow teachers showed positive change in the teachers:

> PD programmes has changed my colleagues attitude towards accepting change. I have noted that teachers now are genuinely committed towards their work as this has resulted in improvement of my students work attitude.

Another similar positive comment was made by the PDU official as a result of PD sessions in schools. He stated that regular PD programmes will definitely have a positive impact on teacher's attitude. This happened because PDs sessions gave teachers the opportunity to interact with their colleagues and the knowledge acquired through this process helped changed their mindset towards their school work.

However, the teachers from the CSS B reported the need for better organized PD programmes in order to bring about positive changes in the teachers and in turn school work. For example, Teacher 1B stated that:

> I am a graduate teacher and I understand that PD programme is very important however, it should be conducted regularly on the issues which concerns us teachers but our school lacks this process and teachers lose interest.

The analysis of the data collected by means of the questionnaire survey showed that the teachers' views on some specific areas of teacher change as a result of PD programmes conducted in the CSSs (Table 6). The findings generally show that PD programmes were not effectively carried out in the CSSs as the majority of the teachers disagreed regarding teacher change through school based PD programmes.

Table 6: Ten research participants views on suggested teacher change areas as a result of school based PD programmes

(N=10)

Suggested Teacher Change Areas	Agree	Strongly Agree	Disagree	Strongly Disagree
Teacher attitude and belief	3	1	5	1
Teacher knowledge in subject area	2	1	4	3
Teacher knowledge in teaching strategies	2	2	5	1
Teachers approach to students and parents	2	1	6	1
Teachers peer coordination and community relationship		-	4	3
Teachers moral ethic on teamwork and cooperation	3	2	5	-
Teachers understanding on their students thinking and learning patterns		2	3	3
Teachers decision making skills	2	1	6	1
Total Percentage	23.75	12.5	47.5	16.25

5.2 Underlying research question 2: What are the challenges faced by the school leaders in conducting teacher PD in their schools?

This section presents the findings under the following headings. These include

- Factors affecting school based teacher PD programmes; and
- Features of quality school based teacher PD programme;

5.2.1 Factors Affecting Teacher PD Programmes

The analysis of the interview data showed that the school based teacher PD programmes were underpinned by many factors. Some of these factors as shared by the teachers of both the CSSs include:

- teachers classroom workloads;
- lack of time for preparation;
- time and number of sessions allocated for PD programmes;
- non availability of necessary resources;
- poor leadership skills;
- other school related activities; and
- teachers experience and perception

Teacher 2A expressed his disappointment in the following way:

> We have so much work to do in our classroom since the continuous assessment was introduced and this makes us difficult to prepare for the PD sessions.

Other teachers also expressed similar views, such as too much classroom work as a major hindrance to PD programmes in their school. Another participant, Teacher 5B expressed that:

> PD sessions in our school are for only half an hour. Many at times we experience that we need more time to present but the travelling teachers find it difficult to stay behind. However, I feel that the head teacher should intervene to solve this issue. Teachers who presents has to rush through and this defeats the whole purpose of having PD programmes

A similar comment was made by Teacher 4A who stated:

> Teachers always run out of time during the PD sessions. In the end we are asked to read on our own. I strongly feel that more time should be allocated especially when teachers do so much preparation. Two sessions can be allowed for lengthy presentation so learning can take place.

The Head Teachers of both the CSSs had a different view altogether on the factors affecting the PD sessions. They tried to focus their attention towards the unavailability of proper technology as a barrier to conduct PD programmes.

The Head Teacher of CSS A stated that,

> Schools should have proper facilities such as multimedia and laptops to conduct power point presentations.

He further explained that when they attend PD programmes conducted by the MoE, they were allowed to save the power point presentation in their pen drives but then this becomes useless as there were no proper facilities available in the school to use the gadget. Similar comments were made by another participant, Teacher 3A who commented that proper technology can save time and make the presentation more lively and at the same time effective.

The Head Teacher of CSS B shared similar views and stated that technology can save time but he stressed that teachers could be innovative and design their presentations in such a way that they were effective. He claimed that with whatever resources available, the presentation should be interesting and lively for the participants. Effective strategies would result in quality delivery and better understanding on the area presented. For example, the Head Teacher from CSS B said that:

> Use of technology to present the PD sessions will save time but we teachers should be prepared to make effective and lively presentations with the available resources if we do not have proper technology.

Thus resources, such as multi-media technology was a barrier to conducting PD sessions.

5.2.2 Features of School Based Teacher PD

Analysis of the responses from the teachers of both the CSSs showed that they were not well versed with the term 'features of quality PD' even though they suggested some features (Table 7). Some common features suggested by the teachers of both the CSSs include:

- PD programmes are based on four focus areas (students and learning, Leadership and management, Community partnership and physical environment);
- group work is incorporated at time;
- discussion time is given;
- hard copy of presentation notes are distributed;
- PD's conducted by the MoE to school heads are at times presented; and
- major focus is on the new reforms initiated by the MoE.

The analysis of data gathered showed that a very traditional approach to school based teacher PD was still common and teachers were not well versed with the features of quality PD programmes. For example, Teacher 2A emphasized that the only quality feature of his school's PD programme was presentation part.

A similar sentiment was echoed by Teacher 4B who said that:

> As reported earlier that PD programmes in our schools are for decorative purposes only. At least PD is conducted in our schools at times.

However, the Head Teachers of both the CSs made contradicting statements by saying that PD programmes in their schools were very effective and had lots of quality features. However, they were not able to clearly emphasize any particular feature of the PD.

Table 7: The responses of ten teacher participants from CSSs on features of quality PD

(N=10)

Suggested features	Strongly disagree	disagree	agree	Strongly agree
Is organized as soon as any staff attends PD's conducted by the MoE	2	5	3	-
Is regarded and used as an effective tool to create awareness to adopt/adapt changes	2	5	3	-
Presenter always comes prepared for his/her PD sessions with resources for participants	3	5	2	-
Quality of presentation shows that the presenter possess high level of knowledge in the area	2	6	2	-
Able to relate what he/she presents to school and classroom context	3	5	2	-
Implementation process is monitored and necessary feedback are provided	3	5	2	-
PD sessions are evaluated	5	3	2	-
Ample sessions and time is allocated and used effectively	4	4	2	-
Teachers are given time to discuss strengths and weaknesses of the topic with their colleagues	3	5	2	-
Allows teachers to discuss their personal about teaching and learning process	4	4	2	-
Is based on teaching of curriculum contents	2	4	4	-
Is based on teaching techniques and demonstration of teaching skills	2	4	4	-
Is activity based, allows teachers to discuss about their students learning needs	3	5	2	-
Encourages teachers to work together as a team, cooperate and learn from their peers.	2	6	2	-
Total Percentage	28.58	47.14	24.28	0.0

The results indicate that the majority of the suggested features as cited in the literature of school based PD programme were not present in both the CSSs. A large percentage (75.72%) of teachers disagreed that the suggested features of quality school based PD programme were available in their school based PD programme.

5.3 Underlying research question 3: What does the school leaders and the MoE do to sustain the school based teacher PD programme?

 The findings in this section are presented under the following headings:

- PD and its sustainability;
- Teacher induction programme;
- Assessing school based teacher PD through self efficacy.

5.3.1 PD and its sustainability

Analysis of data the collected through the questionnaire survey and interviews revealed the role of the CSSs together with MoE in sustaining the school based PD programmes. Data obtained reveals that PD programmes in the CSSs were either conducted fortnightly or monthly. The results obtained also showed that teachers were required to keep a record of all PD programmes they attended. Teachers kept special folders in which they filed all the information they received during PD sessions. A school based PD is conducted soon after any teacher attended a PD programme organized by the MoE in order to share the information amongst all the staff.

In terms of monitoring, Teacher 3A reported that

> His school has a special strategy through which the Head Teacher and the Assistant Head Teacher monitor the application of various aspects discussed in PD programmes.

On the same note, Teacher 2B said that:

> Our school does not have any procedure in place to monitor the   sustainability of the school based PD programmes.

The teachers from the CSS B explained that there was no follow-up on the PDs conducted in their school. For example, Teacher 3B expressed her sentiments that once a topic or area is covered in the PD in her school, the discussion stops there. Other teachers from the CSS B also echoed similar sentiments that PD programmes were not given much importance in their schools.

For example, Teacher 5B stated that:

> PD sessions are conducted in my school to keep a record. Many at times the school head do not conduct a PD to present the knowledge he had acquired from the PD's conducted by the MoE.

However, contradicting results regarding the sustainability of PD programmes were obtained from the Head Teachers of both the CSSs. They stated that PD programmes conducted in their schools were closely monitored and teachers were asked to provide feedback on the programmes conducted. The Head Teacher of CSS A made a contradicting statement:

> PD programmes are organized in my school as soon as a teacher or I have attended a PD organized by MoE. Teachers are provided with all the notes received on the area presented by the MoE. During my class visits I always access teachers performance keeping in mind the impact of PDs sessions conducted in the school.

The Head Teacher of CSS B expressed similar views by saying that effective strategies are in place to sustain the school based PD programmes.

Furthermore, the analysis of the data gathered on the role of the MoE in sustaining the PD programmes in both the CSSs showed that seminars and workshops organized by the MoE and District Education Office tended to be held irregularly. In general, the teachers from both the CSSs did not participate in any seminars and workshops on the contemporary educational issues organized by the MoE.

For example, Teacher 4A stated that in most cases the MoE only invited the head teachers for PD programmes and as reported earlier the teachers do not get much feedback from their head teachers on these PD programmes. Another participant, Teacher 2B mentioned that:

> MoE did not initiated or organize any PD programmes for us teachers even though we are asked to attend a required number of PD sessions on objective for continuous Five hours. Just to have the required number of hours PD we had to attend a PD which we had already attended in previous years.

Other teachers expressed similar views that only a few teachers were at an advantage because they were selected to attend PD sessions together with the head teachers and as a result they have gained the number of PD hours as required by the PDU. The Head Teacher of CSS B lamented that the workshops were usually held in urban centers and rural schools were left out. In this regard, the Head Teacher of CSS B suggested that:

> The MoE and District Education Office should organize PD programmes in rural schools also. This will enable the teachers from rural areas to be on the par with teachers from urban areas.

In terms of selecting participants for workshop, the Head Teacher of CSS A stated that:

> The MoE at times is not considerate in terms of selecting participants for PD programmes. At times only selected school heads are called and we are left out.

Thus rural teachers were at a disadvantage compared to their urban counterparts in terms of PD opportunities.

5.3.2 Teacher induction programme

Teacher induction programme forms part of teacher PD although the findings of this study did not find any formal induction programme carried out for teachers in both the CSs. Teachers agreed that through teacher induction programmes a school head can explain to the new graduates and even a new teacher posted to the school about the school cultural, physical, social ethos and its expectations from the parents, school management and the community as a whole.

Teachers from both the CSSs expressed their concern about the absence of induction programmes for the new teachers entering the profession. Teacher 4B suggested that a special programme should be in place in schools and the head teachers should conduct an induction proper before teachers are assigned a class to teach. This will help the teacher to plan, make suitable decisions and adapt to the school system.

Another respondent, Teacher 3A expressed his concern about the lack of induction programmes:

> When I was posted to this school, the head teacher did not organize any orientation with me, so I have to look around and ask from other teachers about the school, parents and students background.

This compliments with the comments made by the District Education Official who stated that:

> All school heads should take the initiative to prepare special teacher induction programmes for their teachers and execute it accordingly.

5.3.3 Assessing school based teacher PD through self efficacy

It was noted that all teachers agreed that school based PD programmes were an important vehicle through which teachers acquire knowledge and skills to encounter challenges in their daily work. For example, Teacher 1A who stated that:

PD programmes in my view is a bridge that connects practicing teachers knowledge and skills with new knowledge and skills to encounter challenges faced in the education system initiated through new reforms.

Additional comments from teachers from both the CSSs on the role of PD in educating the practicing teachers. Some of their views were for example:

- PD enhances teachers knowledge to improve their students learning habits;
- creates awareness on new developments changes in the education system;
- builds teachers confidence to address parents and community of new reforms;
- knowledge acquired helps teachers to make amicable decisions;
- enhances teacher creativity level in employing interesting and meaningful teaching strategies; and
- prepares teachers in documenting and reporting of students learning records.

The findings showed that teachers were well aware of the role PD plays in preparing practicing teachers to address any changes in their professional work.

Further to this, varying responses were gathered on the ways and means of improving school based teacher PD programmes. The Head Teacher of CSS A stated that more PD programmes should be organized by the MoE and these programmes should be designed and conducted in such a way that all practicing teachers can take active part in it. He further stated that the MoE should provide necessary resources to schools for conducting PD programmes. He pointed out that the MoE should liaise with other professional institutions and personnel's to organize suitable PD's for the teachers in the field. He also suggested that:

> When MoE or CDU officials conduct PD sessions, trained officials do the presentation. However, how can it be justified that the head teachers are ready to present after one days presentation. I believe that head teachers need more training before they present the same workshop to their teachers.

On the same issue, the Head Teacher of CSS B suggested that the MoE should also select rural schools as venues for PD programmes. Rural teachers should be given equal opportunities as these schools are located in remote areas and are normally left out. He also stated that the MoE and District Education Officials should invite not only selected but all head teachers to participate in PD programmes they organize.

Furthermore, the teachers from the CSSs identified ways to improve PD programmes in schools and their suggestions included:

- All teachers should be consulted when preparing PD Schedule in school;
- all teachers including the assistant head teacher and head teacher should take turn to present;
- the head teacher should provide equal opportunity to all teachers to attend PD conducted;
- PD's to be conducted as per schedule prepared in school and maintained;
- ample time should be allocated for PD programmes;
- more group work should be organized with healthy discussion and critique entertained;
- the theme drawn from the PD's presented should be implemented and school heads to monitor this process and feedback provided for improvement;
- schools should improve on technologies used in presenting PD sessions; and
- all PD's conducted by MoE should be presented by the teachers attending.

Further to this, Teacher 2A suggested that the MoE should provide a special designed PD programme which should be followed by all schools. Through this programme all schools will equally conduct school based PD sessions on suggested themes by the MoE. He further suggested that all schools will be unison in hosting the number of PD programmes and at the same time utilizing the allocated time. Another teacher, Teacher 4B emphasized that the district education officials and head teachers should form cluster groups for schools and PD programmes can be organized in the afternoons. The findings clearly indicated that PD programmes in both the CSSs were not conducted as desired by the teachers. Teachers views also indicated that they were very much concerned about attending PDs but there was no regular school based PD programmes organized for them. The teachers rating of PD programmes conducted in the CSSs is shown (Table 8).

Table 8: Ten research respondents rating of their school based PD programme

(N=10)

Rating	Number of participants view	Percentage
Highly Effective	0	0.0
Effective	2	20.0
Ineffective	6	60.0
Highly ineffective	2	20.0

The result clearly indicates that school based PD programmes in the CSSs were rated ineffective by sixty (60%) and highly ineffective by further twenty (20%) of the teachers.

5.4 Summary

As may be recalled, the present study focused on the effectiveness of school based teacher PD programmes of the two case study schools. This chapter has provided details of the findings of the present study gathered from questionnaire survey, interviews and document analysis. The findings of the study were presented under suitable headings derived from the research questions posed for the study. The next chapter, Chapter Six discusses the research findings.

CHAPTER SIX

Discussion of the Findings

6.0 Introduction

As stated earlier, the study focused on the effectiveness of school based teacher PD and was guided by this central research question.

- Are the school heads effectively planning and conducting the school based teacher PD programmes?

In addition, three underlying questions were derived from the central question to define the scope and the parameters of the study and they are restated here:

(i)   How are the school based teacher PD programmes conducted and its current status?

(ii)   What are the challenges faced by the school leader in conducting teacher PD programme in their school?

(iii)   What does the school leader and MoE do to sustain the school based teacher PD programme?

On the basis of these underlying questions, the findings of this study are discussed in this chapter.

6.1 Underlying research question 1

How are the school based teacher PD programmes conducted and its current status?

As mentioned earlier in this study, quality, meaningful and holistic education are buzz words in almost all educational contexts in the Pacific region including Fiji. While the focus of the educational system in the past seemed to be access to basic education, the current trend shows a shift towards accessing quality, and holistic education and this warrants productive teachers in the nations teaching service (Fullan, 2007). This is because educational service delivery depends on the quality of teachers available at any point in time in the teaching service. As acknowledged, the performance and in turn productivity of teachers comes from not only pre-service training but also continuous school based PD programmes (Smith et. al., 2003).

The findings show that most participants regarded accommodating changes in the education system as the most important thing in their explanation of the need for school based teacher PD (Guskey, 2000). The view for instance, from the TRB official closely resembled Gall and his colleagues (1985) view of school based PD programmes as those activities conducted for the purpose of teacher's capacity building on matters relating to new developments and reforms in the education system.

The respondents especially those at the administrative level provided explanations which were very broad and general. Their focus was mainly on the upgrading of practicing teachers knowledge and skills through workshops and seminars. Similarly, the analysis of MoE policy document on teacher PD revealed that PD was explained as many forms of learning activities conducted by the different sections of the MoE, outside agencies (including NGO's and donors) and teachers colleges which includes workshops, meetings with primary objectives of improving skills, knowledge and understanding. However, it appeared that the MoE did not make the school leaders know about school based PD programmes. This contributed to a lack of understanding on what encompassed school based teacher PD programmes. The partial explanation

of teacher PD provided by the school heads suggested that they lacked knowledge and awareness on MoE's teacher PD policy and subsequently they failed to disseminate any useful information on the matter in their respective schools. The school heads in the case study schools did not display an overt awareness of PD programmes as suggested in the literature (Guskey, 1986).

All of the teachers in both the CSSs have appeared to have the perception that teacher PD programme were the means to solve all their teaching problems, and their professional growth (Alberta Teachers' Association, 2001). The introduction of reforms by the MoE, teachers were placed into challenging positions outside their knowledge areas at times. Some experienced teachers in the CSSs appeared to be developing a relevant views regarding PD as their explanation related to a clearer understanding of the relationship PD programme has with improved teacher performance.

Generally, the explanations on the school based teacher PD from the rural teachers differed from the once provided by the urban teachers (Table 3). Majority of the teachers from the rural CSS showed lack of knowledge and awareness about PD. As such the notion of one-size fits all in terms of teacher PD (Smith et. al., 2003) does not apply in the CSSs as their contexts vary. Rural teachers' explanations of their PD activities showed difference in their perception to that of urban teachers in this study and this is consistent with the findings of other studies conducted in overseas countries (Alberta Teachers' Association, 2001; Joyce, 1983).

Furthermore, the MoE and TRB officials said that PD of teachers was mandatory hence, by virtue teachers would need to attend 15 hours of PD for the renewal of their teacher registration. However without any intrinsic motivation and understanding teachers feelings teachers' participation in PD programmes would be minimal (Porter et. al., 2000).

On the basis of the responses from the research participants it can be said that for them school based teacher PD programmes in both the CSSs largely meant upgrading of

teachers knowledge and skills and there was no mention of how it linked to improvement in students learning outcomes which is the crux of the matter (Guskey, 2000).

The findings showed that teachers in this study were not genuinely committed to PD programmes even though literature suggests that school workplace is the most effective place to carry out PD programmes (Guskey, 2000). The majority of the practicing teachers voiced their concerns related to their school heads contribution and leadership style towards organizing the school based PD programmes. The findings also revealed that leaders of the CSSs did not show responsibility for promoting professional learning and knowledge and skill development as expected of them (Sparks, 1995). This lends support the findings of the several studies (Bush, 1999; Clement, 2001; Fernandez, 2000; Moore, 2000; Marshall, Pritchard & Gunderson, 2001) that leadership of school leaders is crucial in supporting PD programmes in school.

Moreover, the findings supports the views of Darling-Hammond and McLaughlin (1995) that traditional training using low hours is no longer adequate especially when considering the contemporary demands of work expected of teachers (Table 4).

The low hours of school based PD conducted showed that the school heads did not give any serious attention to PD (Bush, 1999). The amount of time devoted for school based PD activities in both CSSs allows commenting that PD was not embedded as an ongoing part of teachers' world of work (Smith et. al., 2003).

This shows that the school heads were not ensuring adequate time or exposure for teachers to learn and understand the new information let alone ensuring that these new ideas inform classroom practice and in turn positively impact on the students learning outcomes (Abdul-Haqq, 1998). Maybe the age of both the Head Teachers in the CSSs could be a contributing factor in their lax attitude towards PD as suggested in the literature (Munthe, 2001 in Ertesvag et. al., 2009). On the basis of the findings, it can be

said that the school heads were nearing disengagement period and they needed to self asses rather than criticize the system and changes as suggested by Huberman (1989).

Thus the school heads failed to view the importance of PD programmes and as such did not consider PDs as central to the advancement of educational reform (Darling-Hammond & McLaughlin, 1995; Fullan, 1990; Lieberman, 1995; Little, 1993; Sparks, 1995; Wilson & Berne, 1999; Little, 1993).

Even though the literature suggests that the best way for teachers to learn is through their own involvement in defining and shaping the problems of practice in the school based teacher PD programme, the findings showed that there was a lack of active participation of teachers in the school based PD programmes (Lieberman, 1995). It was noted that the majority of the time teachers attended traditional PD programmes as audience only (Lord, Cress & Miller, 2008). This suggested that the CSSs still practiced the traditional approach to conducting PD programmes as findings in the literature in studies shown (Darling-Hammond, 1996; Lord et. al., 2008).

The findings showed that the CSSs did prepare the structured PD programmes. However they were not implemented as planned (Table 5). The study also showed that teachers demonstrated a concern on the absence of continuous school based PD programme. One reason for not implementing could be that the school heads did not design the plans for PD with the teachers and as such the plans may not have been sensitive to the needs of the teachers and the school (Guskey, 1986).

One of the crucial roles of the school heads is to organize learning opportunity to support teachers ongoing learning but the findings in this study showed that there were a lot of inconsistencies in terms of planning and the commitment to adhere to the plan of school based PD activities (Timperely, 2008). Thus it can be said that the school heads in the CSSs were not practicing the notion of leading to learn as suggested in the literature (Timperely, 2008).

Thus the poor leadership quality of the school heads is a hindrance to conducting PD programmes which in turn appeared not to be helpful to the teachers (Timperely, 2008).

The findings showed that most of the participants regarded school based PD programme as an important part of learning and teaching process. Also the findings of the study showed that participants agreed that PD programmes were an effective means through which teachers can be equipped for the successful implementation of the new developments in education, such as new policies, outcome based education, new forms of assessments and documentation of students learning records (Fullan, 1990).

The findings further revealed that teachers attended PD because they wanted to become better teachers, improve learning and teaching in subject areas, enhance their self esteem, on problems of equity in diverse student populations, in the nature, extent, and use of student assessment, in the social organization of schooling, and in the professionalization of teaching (Fullan, 1990; Guskey, 1986). However, only a few teachers were concerned with enhancing the learning outcomes of their students but the majority of the teachers felt they needed to become a better teacher as previous studies have also shown (Guskey, 1986).

Beginning teachers, which is a time of both survival and discovery, showed very little importance to attending school based PD sessions as they were only concerned about learning more on policies and new reforms implemented by the MoE which is consistent with the findings of Huberman's (1989) study. However, the experienced teachers were on the stabilization stage and were more concerned about improving their knowledge in subject areas, new teaching strategies and about new educational policies which supports the (Huberman (1989) study.

As suggested in the literature that teachers with many years of teaching experience are in need of quality school based PD programmes however this was not the situation in the CSSs (Villegas-Reimers, 2003). Thus the stages of practicing teachers' career phases must be considered in order for the school based PD programmes to be useful and in turn rewarding to the teachers (Villegas-Reimers, 2003).

Literature illustrates that school based PD programmes contribute to positive teacher change (Guskey, 1987). For this to happen, attitudes and beliefs must first be affected before any resultant positive change in practices would occur (Guskey & Peterson, 1996).

In this study, the findings showed that there were very little or no teacher changes even though PD programmes were available in both the CSSs. Also, teacher changes were not seen which may be due to irregular and ineffective PD programmes conducted by the school heads as suggested in the literature (Guskey, 1987).

According to Darling- Hammond (1995) all PD initiative must leave a positive impact on the teacher in order to produce some form of change in the students learning outcomes but, the findings of this study noted no changes in teachers of both CSSs and this may also have led to no change in students learning outcomes (Table 6).

6.2 Underlying research question 2

What are the challenges faced by the school heads in conducting teacher PD in their school?

School based PD activities are underpinned by teachers' individual factors and school based factors which plays a significant role in influencing the effectiveness of PD (Smith et al., 2003, Timperley, 2008). The findings of this study showed that the school heads faced multiple challenges in conducting an ongoing quality school based PD programme in their respective schools.

Time was one of the major school based factors that impinged on the school based PD activities in the CSSs. Comments expressed by the teachers showed that lack of time allocated for presentation of PD programmes made it useless and unworthy (Guskey, 1986). Unlike in other countries, such as China, Denmark, Finland and Japan schools were given twenty percent of their working hours (NCTAF, 1996). Also, the findings showed that teachers had very less time to consult their colleagues to prepare their presentation due to work load (Gardner, 1995; Huberman & Miles, 1984; Adey, 1995) The idea of PD should not be limited to presentation only as shown in the CSSs but genuine PD would also focus on reflection and discussion of the content as reflection on action and reflection in action plays a critical role in the sustainability of future programmes (Bollough et. al., 1997). School based PD programmes should also cater for teachers to gain more knowledge and facts on subject matters rather than just teaching skills (Darling-Hammond, 1996).

The other school based challenging factor for the school based PD was poor leadership. The school heads failed to deliver a quality and continuous school based PD programmes for their teachers. The school heads should ensure that teachers were provided with quality and meaningful PD activities which will prepare them to adopt and adapt change process initiated by MoE and foster improvement in students learning outcomes (Sparks, 1995). However, the findings of this study showed that school heads of the CSSs were not visionary leaders as they were not able to focus on the betterment

of their teachers which would have enabled better students learning outcomes. The school heads also did not act as powerful catalyst to engage their teachers in meaningful school based PD activities (Timperly, 2008).

Thus, the schools heads were not leading learners as the views provided by the teachers showed that the school heads did not posses ample knowledge on areas of educational change. However, with whatever knowledge the school heads had, they failed to manage their teachers' engagement in the professional learning through school based PD programme (Timperly, 2008).

The third school based factor revealed by this study was coherence. The finding suggested that there were very little similarities between the schools PD programmes and the schools adoption of a particular reform (Villegas-Reimers, 2003). The case study schools were not able to match or align their school based PD programme with the requirements of MoE initiatives. This is in consistent with the views of Villegas-Reimers (2003).

The fourth school based factor revealed in the findings of this study was the lack of resources. The school heads from both the CSSs stated that one of the major challenges they faced was the lack of resource availability (Villegas-Reimers, 2003). The literature showed that in order to create an environment that promotes and motivates teachers to actively participate in the PD activities, modern technological resources play a crucial role as it saves time and makes presentations lively (Guskey, 1986).However this resource was not available in the CSSs.

The last school based factor that acted as a challenge to the school heads in the CSSs was the career stages of teachers. Participants ranged in terms of their age and teaching experience and findings showed that this was one challenge the school heads faced (Huberman, 1989). The findings also showed that school based PD activities were affected by the teachers' career stages where the beginning teachers who were at the survival and discovery stage were very much concerned about the PD activities

(Huberman, 1989). The other participants with four to six years experience in teaching who were at stabilization stage showed signs of low commitment and teachers with more than eight to fifteen years of teaching who were at divergent stage has developed their own norm of teaching and showed signs learning through discovery (Huberman, 1989).

Apart form the school based factors that acted as challenges to the school heads in conducting the school based PD programmes, the findings revealed that there were some individual factors that also affected PD activities. The findings of this study showed that lack of teachers' motivation hindered the PD activities in the schools. The school head together with some experience teachers comments revealed that they acted as either entrenched and withdrawn or acted as gate keepers who in turn were a negative influence on other teachers (Stout, 1996).

Further to this, the findings showed that teachers self-efficacy was also an individual factor that impinged the school based PD activities in the CSSs (Bandura, 1995) The findings of this study showed that new teachers in the CSSs had a very high self-esteem as compared to the experienced teachers who had a low self-esteem (Ross, 1994). It appeared that the experienced teachers had a strong belief in their own competence as teachers. Experienced teachers also were more reluctant to educational change than new teachers (Munthe, 2001 in Ertesvag et al, 2009). Therefore, on the basis of the research's findings it can be said that age composition of teachers can have an impact on effectiveness of the school based PD activities. Thus from the findings, it can be stated that school based factors such as time, leadership quality, coherence, availability of resources and career phases of teachers together with the individual factors such as teacher motivation and teachers self-efficacy are the major challenges faced by the school heads of the CSSs in conducting the school based PD programmes effectively.

Literature demonstrates that there are several features of a quality school based PD programme and when present they could lead to success stories (Fullan & Stiegelbauer, 1991).

The findings showed that the CSS adopted a very traditional approach in conducting PD activities in the school. As reported earlier, the contact hour of the PD and the teacher involvement was not as expected. Also, the findings showed that there was a very little focus on the content knowledge and lack of coherence with other activities the teachers had participated (Garet et al., 2001). Despite the uncertainty about the quality features of a school based PD programme, the findings showed that there were some quality features available in the PD programmes at the CSSs. This shows that the teachers did not benefit much from the school based PD programmes.

The findings regarding the suggested features (Table 7) of PD showed that more than fifty percent of the participants revealed that the suggested features did not exist in their school based PD proper. Research literature also showed that due to the lack of understanding about the features of PD by school heads and teachers, the teachers' belief about the positive impact of school based PD activities basically remained unchanged (Fullan 2007). This was because teachers did not know about the features of a quality PD and utilizing those features in professional learning in which teachers could have continuously integrated new ideas and identified challenges and opportunities and contributed meaningfully towards students learning outcomes (Ottoson, 1997).

Furthermore, the findings of this study showed that the CSSs PD programmes lacked features, such as, PD for longer duration (Porter et. al., 2000). This suggested that teachers viewed their concern on not having PDs in their schools and in most cases they did not have enough time for their PD's (Joyce & Showers, 1995; Stein et al., 1999). Other features such as making a strong connection between what was learned in the PD and the teachers own work context was also not practiced in both the CSSs.

The findings did not show any evidence of teachers using what was learnt in the PD to link their own work in the classroom context (Fullan, 2007).

However, the findings did show that some participants agreed that their school based PD activities focused on the subject matter knowledge and this helped the teachers to build their knowledge on academic contents and how to teach it to their students (Garet at al., 2001). Furthermore, the findings showed that there was very little emphasis on the analysis and reflection and their school based PD programmes may be because they mainly dealt with demonstrating techniques only which did not allow the teachers to defend their preconceived ideas and thoughts against the new knowledge acquired (Bollough et al., 1997).

Moreover, the findings of study showed features such as focus on helping teachers to study their students thinking and learning pattern and including variety of activities in which teachers make use of students performance data was not available as teachers response suggested that their school based PD activities did not cater for these areas (Ancess, 2000).

On the basis of the findings, it can be stated that, firstly, CSSs were not aware of features of PD's even though some features were present in their school based PD proper. This shows that proper and effective PD activities were not planned and conducted in the schools.

The literature illustrates that teachers were aware of teacher induction/orientation programme and also knew that teacher induction is part of school based PD programme which is crucial to teacher education for the role it plays in guiding the new graduates and assisting the teachers who are transferred to a new school (Hargreaves, 1994).

 The findings revealed that teacher induction programme did not exist in both the CSSs. This suggested that new teachers were not guided and assisted and as such could never lead to greater performance (UNESCO, 1990). Even though literature clearly

illustrates that teacher induction programme should be part of the school based teacher PD activities, the findings of this study did not show any evidence of teacher induction programme in both the CSSs.

6.3 Underlying research question 3

What does the head teacher and MoE do to sustain the school based teacher PD programmes?

The findings of this study suggested that currently apart from oral suggestion and two school inspectoral visits by the MoE there were no other programme in place to look into the sustainability of the school based PD activities. The school inspectoral visit also does not have any assessment in place to gauge the effectiveness of school based teacher PD programmes. The findings also showed that the workshops and seminars conducted by the MoE at times were only for selected schools and many at times these seminars and workshops were organized in urban centers which disadvantaged the rural schools.

The findings also showed that in many cases the schools heads did not share the knowledge acquired through the PD programmes which they have attended and were organized by the MoE and other professional organizations. Apart from this, the findings showed that despite the MoE and TRB's mandatory for the teachers to attend five hours of PD programmes on one objective per each school term (MoE, 2009), there was no evidence that the MoE organized any PD sessions for all the teachers of CSSs. This showed a lack of communication between the district education office and the schools in terms of ongoing teachers' PD and its sustainability.

However, the findings of the study showed that the school heads have articulated some rules and regulations that helped the school in sustaining the school based PD programmes. The findings showed that to sustain the school based PD programmes the head teachers issued special PD folders to each teacher to file the PD documents and these folders were collected with the schools inventory and passed on to the next

teacher the following year. This showed that schools have opted to save the hard copies of the PD materials only.

Overall, the findings did not show any promising strategies such as peer coaching (Edmondson, 2005), mentoring and induction programme, observation of excellence practice and teacher networks (Villegas –Reimers, 2003) which were implemented to sustain the school based teacher PD activities.

6.4 Key research question.

Are the school leaders effectively planning and conducting the school based teacher PD programmes?

The findings of this study showed that both the CSSs were generally not committed to conduct school based PD programmes. As a result, teachers in both the CSSs were denied the opportunities to expand their knowledge and skills through school based PD programmes. The allocation of limited time for the school based PD activities, the lack of resources and poor leadership practices were significant contributing factors towards ineffective PD programmes in both the CSSs. As a result, the teachers in both the CSSs were neither involved nor committed to their ongoing professional learning.

The findings showed that the school leaders of both the CSSs failed to commit themselves for the professional growth of their teachers. The availability of inadequate resources appeared to be a challenge faced by the school heads in conducting effective school based PD in both the CSSs. As a result, school based PD was given a low priority in both the CSSs.

The findings also showed that the school based PD programmes were not well structured as the school heads and teachers were not aware of the quality features and promising strategies of school based PD activities and as a result were not incorporated in the PD programmes and this contributed towards ineffective programmes.

Overall, the findings of the study showed that the school based teacher PD programmes planned and conducted by the two CSSs were ineffective (Table 8).

6.5 Summary

This chapter provided the discussion of the findings of the study which focused on school based PD programmes. It has provided relevant discussion associated with the three underlying questions that underpinned the study. The discussion of these questions in turn helped addressed the major research question of this study. Overall, the findings showed that school based programmes were ineffective as the programmes did not bring about any significant change in teachers work. This was mainly because of the challenges faced by the school heads in planning and conducting school based PD programmes. The final chapter, Chapter Seven concludes the study with key research findings followed by suitable recommendations.

CHAPTER SEVEN

Recommendation and Conclusion

7.0 Introduction

The previous chapter presented the discussion of the findings of the study which focused on school based teacher professional development (PD). In this final chapter the key research findings of the study are briefly discussed and summarized. This is followed by the recommendations and concluding remarks. On the basis of the findings of the study suitable recommendations are made to help address issues relating to school based teacher PD. The discussion in this final chapter is presented under the following headings:

- Summary of key findings of the study;
- Recommendations;
- Implications for further research; and
- Conclusion.

7.1 Summary of key findings of the study

The two CSSs were generally not committed to conduct school based PD programmes. As a result, limited opportunities were available to the teachers in both the study schools for teachers to take advantage of the school based PD programmes. An unexpectedly low number of hours were allocated for school based teacher PD programmes in both the CSSs. As a sequel, teacher commitment was low. The majority of teachers in both the CSSs were neither involved nor committed to their ongoing PD. This is unfortunate as teachers are expected to improve their knowledge and skills through school based PD programmes because in contemporary times teachers have to cope with the myriad demands of school work.

Apart from the limited time for PD activities, the majority of the teachers voiced strong concern to factors, such as the lack of resources and poor leadership practices as

significantly contributing towards ineffective PD programmes in the CSSs. As such, whatever school based PD activities were planned and conducted it appeared to have a little positive impact on teachers' behaviors, attitude and beliefs. The heads of the two CSSs faced challenges in conducting school based teacher PD programmes. As a result they conducted the PD programmes on ad hoc basis. In so doing, school based teacher PD had a low status in both the CSSs. The findings also showed that the heads of the schools and the MoE have no mechanism in place to sustain the school based teacher PD programmes.

Added to that, the school based PD programmes were not well structured and they lacked all the features of quality and promising strategies and these further contributed towards ineffective programmes. The findings showed that both the individual and school factors in the CSSs were unfavorable and in turn contributed towards ineffective school based teacher PD programmes.

Overall, the findings of the study showed that the school based teacher PD programmes planned and conducted by the two case study schools were ineffective (Table 8).

7.2 Recommendations

On the basis of the key findings of the study, this section suggests some suitable recommendations in order to address issues concerning school based teacher PD programmes so that teachers continue to benefit from such programmes and in turn improve their knowledge and skills. As a result of teacher improvement, schools would be able to maximize students learning outcomes.

7.2.1 Improve the current status quo of school based PD activities

Taking into consideration the key findings of this study, school based PD programmes need to be given top priority by the stakeholders such as by the school heads and the MoE. In this regard, the study recommends that the PD programmes organized by the MoE and the school based PD programmes need to be re-examined and re-structured

to ensure it is relevant, ongoing, interactive and reflective and inculcates the features of quality school based teacher PD (Guskey & Sparks, 1991).

7.2.2 Adequate resourcing of school based PD activities

Based on the findings of this study, resource was identified as one of the major challenges faced by the two CSSs in planning and conducting school based teacher PD activities. Providing adequate resources to all schools will be a real concern in terms of finance to the MoE. The MoE together with the donor agencies could provide proper technological and other PD related resources to all the district education offices and the school cluster groups. This will allow the district education offices to conduct quality PD's for the school heads and teachers and in turn will allow the schools to use the cluster group school resources to either conduct their school based PD activities or to organize PD for the teachers in the cluster groups.

7.2.3 Need for sustainability of school based PD programme

For the benefit of teachers PD programmes need to be on-going. From the school heads perspectives they were only exercising a self developed method of organizing a file for all the teachers. This helped them to retain all the PD materials in the school at least.

Thus it is recommended that, through the use of proposed model of school based PD, the MoE should ensure its sustainability. All the PDs organized whether it be planned and conducted by PDU, CDU, district education offices or the schools must be sustained. This can be formulated in the MoE PD strategic plan. As suggested earlier, after designing the cluster and school based PD plan, it should be taken to district education offices for critiquing purposes. The schools could submit a half termly report on their school based PD activities to their cluster group who should compile a cluster report and submit to the district education offices.

On the same note this study recommends that the district education office together with the cluster school groups should plan and publish newsletters to share their districts PD

ideas and results with all schools in their districts together with other education districts. The education districts should also submit a half termly report to PDU who then can report to the MoE on the development and implementation of school based or cluster group PD programmes.

7.2.4 Improvement in teacher and MoE communication

There is a need for more and better communication between schools and the MoE. The goals of the PDU and the district education office's PD plan as well as the vision and mission for academic achievement must be communicated on an on-going basis to all the school, especially to the school heads and teachers. PD should be aligned with the expectation of the MoE together with the needs of the schools and teachers. School leaders must be clear about their school based PD goals and must remain focused to address the teachers' needs and new reforms in order to improve their teachers' performance which in turn can enhance students' learning outcomes. The findings from this study suggest that the PDU together with the district education office need to guide the school heads in planning their school based teacher PD programmes.

7.2.5 Policy and Practice

The MoE and PDU should guide and monitor the district education office and the schools PD plan to ensure that they are aligned with the needs of teachers and new educational reforms initiated. The evaluation should include both formative and summative methods. Data should be gathered at all critical levels of PD evaluation. Student learning is directly influenced by teacher PD. The instructional practices of teachers have an impact on the performance of students. It is, therefore, imperative that schools and district education office plan to evaluate their PD efforts. PD planning and effective implementation requires the support of the organization. The community, parents, and education office, PDU and MoE need to be supportive of the PD initiatives in the schools in order for systemic and long-term transformational change to occur. The MoE may consider extending the school day, approving more time and extra pay for professional learning in the teachers' contract, and allowing additional time in the school

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calendar for school based PD activities. All of these policy considerations will have financial implications for the schools. Parents and school committee members should be informed of teacher professional growth efforts of the school and the effect this could have on the school budget as well as on the academic achievement of the students. Evaluating the impact of PD is both a necessary and worthy endeavor. This study has revealed some important issues for the two CSSs. However, further research is needed to confirm the findings of this study as the findings of a case study cannot be generalized. A similar study needs to be conducted throughout the country in order to obtain a comprehensive picture about the effectiveness of school based teacher PD programmes.

7.2.6 Proposed Model for School Based PD

On the basis of the key findings of the study, there is a need to develop an effective school based teacher PD model which can be followed by the school heads and at the same time for the MoE to promote effective school based PD programmes. On the basis of the key findings of the study a model for quality and sustainable school based PD programme is proposed (Figure 5). The figure illustrates that through appropriate strategies PD programmes can become effective.

The hub of this proposed model is the MoE not only as the principal stakeholder and policy maker but also as a central body of this proposed model that can liaise with various other educational institutions and professionals to obtain expert advice on issues relating to PD activities for teachers. In this model the MoE plays a key role as it is the provider of clear vision and mission, finance and required resources and expertise. Thus, this study recommends the MoE to use its authority to channel all these support towards PD activities. A similar suggestion was made by Sparks and Louks-Horsley (1990) to help improve the effectiveness of school based PD programmes. In this way some clear and coherent plans for PD can be formulated for schools. At the same time the new reforms initiated by the MoE can be incorporated into the PD

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programmes of the schools in order to improve teachers' knowledge and skills and in turn, improve children's learning outcomes.

Figure 5: Proposed model of school based PD
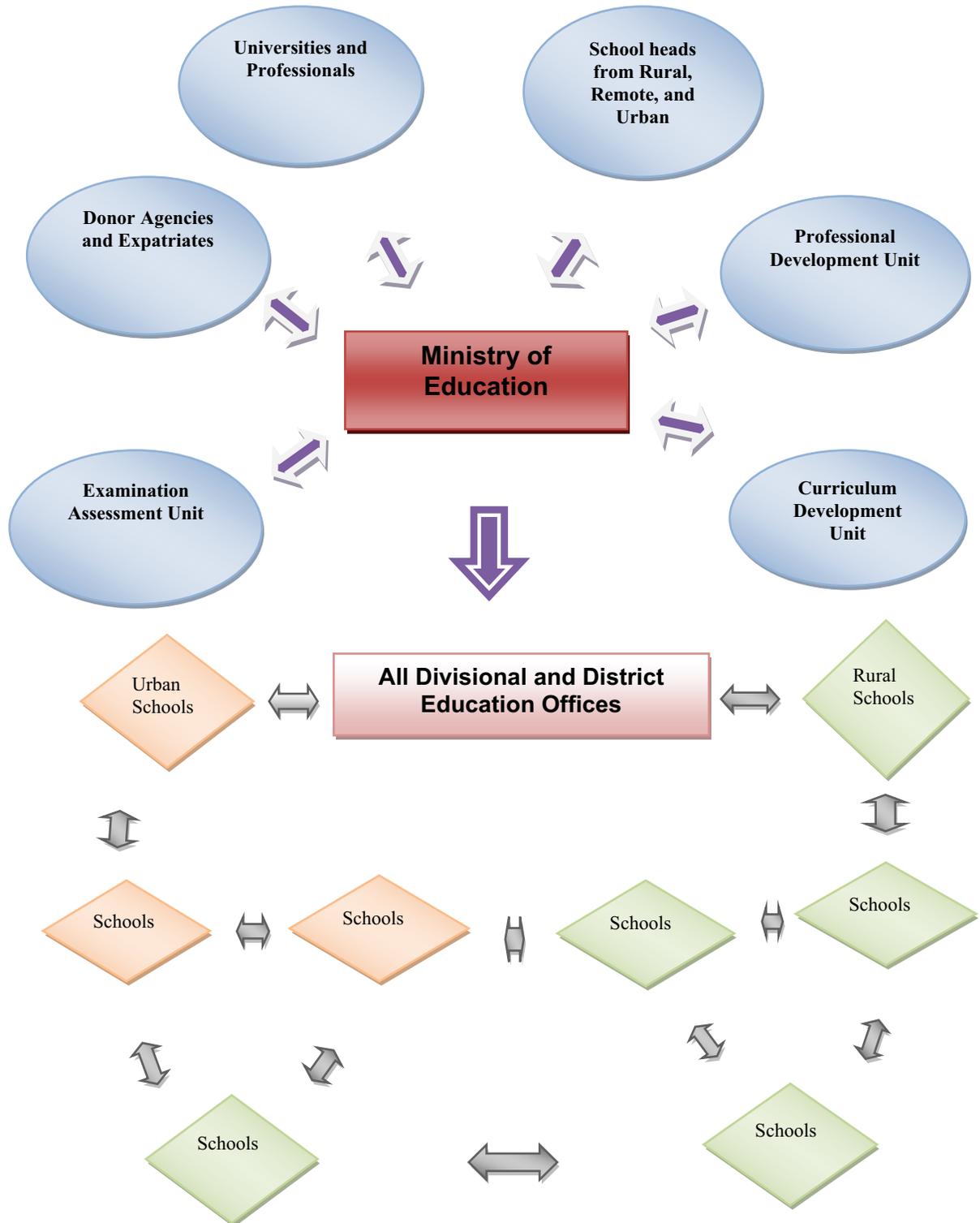
The proposed model of school based PD (Figure 5) indicates the important role of the MoE, divisional and education districts and all schools in terms of planning and conducting PD programmes. As can be seen (Figure 5), the role of the MoE will be to develop close and effective professional ties to a range of organizations in order to source high quality school and cluster based PD provisions for teachers and create a conducive environment to ongoing, contextualized PD activities.

7.3 Implications for further research

This study focused on determining the effectiveness of school based teacher PD programmes in two selected primary schools. The analysis of the data showed that the PD programmes planned and conducted were ineffective in improving teacher performance. The findings also provided some insights into the school ethos within which the teachers were working. The findings showed that school heads leadership practices appeared to be contributing factor towards ineffective school based teacher PD programmes. The majority of the teachers offered adverse views on leadership practices in their schools. Literature demonstrates that leadership styles and the prevailing educational culture were important influencing factors on the school based teacher PD and in turn students learning outcomes (Guskey & Sparks, 1991). Thus, this study suggests an investigation on leadership style and its impact on school based PD programmes.

Also, Scout (1987) identified teacher' self-efficacy as being linked with their capability and the development of their teaching repertoire through school based PD programmes. In this study, teachers, particularly those with more teaching experience showed signs that school based PD was not that important because they knew what and how to teach from their experience. Thus this study suggests that, teachers' level of self-efficacy and teacher efficacy in relation with their career phases as another area worthy of investigation as far as school based PD is concerned.

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7.4 Conclusion

Based upon the participants responses in this study it was clear that they considered school based teacher PD as an important aspect of improving their performance at work. In general, teachers in this study viewed participation in ongoing learning as crucial to their teaching career and participation in school based PD activities as and when it was available. However, teachers also reported that lack of time, teacher workload, lack of quality resources and poor leadership were contributing factors towards ineffective school based PD in their schools. The findings of the study showed that the school based PD programmes were not given priority as expected and in turn the teachers described the PD programmes as relatively ineffective. As such the stakeholders especially the principal stakeholder and in this case the MoE needs to review and reform school based teacher PD programmes in line with the literature on effective school based PD and also based on the findings of this study. This will then enable the teachers to accrue optimum benefit from school based PD programmes and at the same time maximize the students learning outcomes. The proposed model (Figure 5) is a way forward and its application could contribute towards effective school based teacher PD programmes in order to upgrade teachers with knowledge and skills for effective delivery of quality primary education in a developing context like Fiji.

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APPENDICES

Appendix 1 Request for approval from MOE.

P.O Box 10458,

Nadi Airport,

Nadi.

The Permanent Secretary,

Ministry of Education,

Senikau House,

Suva.

RE: Request for Approval to Research.

I had just been granted approval for research by the School of Education Research and Postgraduate Committee at the University of the South Pacific (USP) and would like to request your permission to carry out the study with a selected group of schools in the country. The research is a requirement for the Masters of Education programme, which I am currently pursuing at USP. Under the professional guidance of the Senior Lecturer of Education Dr. Lingam who is my supervisor, I am currently studying on part – time basis.

The topic of my research is titled, "Effectiveness of school based teacher Professional Development Programmes" For the purpose of my research, I will be selecting two primary schools from Nadi education district.

In addition to the above, I would also request for an approval from your office to collate information from the respective officers and departments within the Ministry concerning the relevant policies in my topic of study. This would ensure that I have a validated and reliable data for my study.

Some of the subjects mentioned above that I would like to visit are:

- Curriculum Development Unit
- Teacher Registration Board
- Professional Development Unit
- Lautoka/Yasawa/Nadi Education District Office
- Two selected primary schools (Urban and Rural).

Please find attached a copy of proposal approval of study from the School of Education at the University of the South Pacific.

Anticipating for a favorable response from your highly dignified office. Thanking your organization for the service rendered so far.

Sincerely,

_____

Lalesh Ram Sharma
[Research Student]
(TPF: 65939)

Appendix 2   Request for approval from case study schools.

P.O.Box 10458
Nadi Airport,
Nadi.

_____

_____

_____

Dear Sir/Madam,

I am currently conducting research for my Masters research titled "Effectiveness of school based teacher Professional Development" at the University of the South Pacific. I would like to seek your approval to carry out the research in your school.

The research would initially consists of questionnaires being given to the teachers in your school and then carrying out interviews with individuals to elicit out what they have been trying to suggest in their responded questionnaires.

You are assured that complete confidentiality of the data gathered in this investigation. Only my supervisor (Dr. Lingam) and I will see the raw data. Identity of teachers will not be made public.

I will be happy to discuss any concerns you may have about your teachers' participating in the project. I can be contacted by telephone on either of the following numbers: (Business) 9267907 or 9910057(Cellular).

Your acceptance to my request is very much appreciated. I am looking forward to your favorable response and consideration in taking part in this project.

Thank you.

Yours faithfully,

_____

Lalesh Ram Sharma

Please indicate with a tick in the box provided below whether or not you accept my request to conduct my field study at your school during my visit. Tear off this part, place it in the envelope provided and give it your head teacher.

☐   I accept your field research to be conducted at my school.

☐   I do not accept your field study to be conducted at my school.

Thank you.

Name: _____

Signature: _____

Date: _____

Appendix 3   Consent Forms.

After Mr. Sharma explained the project to me, I understand what his study was about. On the basis, I agree to participate in the project.

I agree that:

He can observe me in my carrying out of normal duties and responsibilities.

Yes/ No

He can interview me during the course of the study.

Yes/ No

My interview will be audio recorded.

Yes/ No

I understand that I am free to stop participating in his project for any reason at any time. I also understand that I will be given the chance to listen to my interview replay. At that time, I can change or withdraw any comments I might have made during my interview.

I consent to the result of the project being written up by Mr. Sharma with the understanding that the data collected will be confidential and anonymity will be preserved.

Name: _____

Signed: _____

Date:_____

Contact Address: _____

Signed by Researcher: _____

Date: _____

Appendix 4   Questionnaire- Teachers

A. Background information

1. Gender   Male ☐   Female ☐
2. Ethnic Group: Fijian ☐   Indo-Fijian ☐   Others ☐
3. Number of years teaching experience   ☐ Yrs
4. Number of years in present school   ☐ yrs
5. Number of hours of P.D. attended last year   ☐ hrs
6. Number of hours of P.D. attended so far this year   ☐ hrs

B. Explanation

7. How would you explain the term "School based teacher professional development"?
_____
_____
\
C. Involvement in school based teacher professional development programmes.

8. Do you have PD programmes in your school?   Yes ☐   No ☐

9. Who conducts P.D. programmes in your school?
            H.T. ☐   AHT ☐   teachers ☐   Guest speakers ☐

10. How often does your HT conducts PD sessions?
Weekly. ☐   Fortnightly ☐   Termly ☐   Monthly ☐

11. Is there any special PD programme scheduled prepared and followed in your school?
Yes ☐   No ☐

12. As a practicing teacher do you think it is important for you to actively participate in school based teacher professional development? Yes ☐   No ☐

13. If yes/no why? Please explain.
_____
_____
_____

D. School based PD programmes and teacher change

15. Does the knowledge gained from the PD's conducted in your school has any positive change on your teaching and learning process? Yes [   ]   No [   ]

16. If yes please list these changes.

_____
_____
_____

17. The following list includes some possible impacts of school based teacher professional development programmes in teaching and learning process. For each please tick in the box which applies to you.

(Improvement in .....)	Strongly disagree	Disagree	Agree	strongly agree
• Teacher attitude and belief.				
• teachers knowledge in subject area				
• teachers knowledge in teaching strategies				
• teachers approach in consulting parents				
• Documentation of students learning records.				
• teachers reflection skills on their classroom work				
• teachers understanding about their students thinking and learning patterns				

E. Professional development and its sustainability

18. Is there any special procedure in place to monitor the implementation of PD topics, ideas and knowledge by the teachers in your school?

Yes [   ]   No [   ]

19. If yes/no please explain.

_____
_____
_____

F. Teacher induction programmes

20. Is there any teacher induction programmes in place in your school?
Yes ☐　　　　No　　☐

21. If yes/no please explain about this teacher induction programme in your school?
_____
_____
_____
_____

G. Factors affecting PD programmes

22. What are some factors that affect Pd programmes in your school?
_____
_____

23. Who is responsible for organizing the PD programme in your school?
_____
_____

24. How much time is allocated for PD sessions in your school?
_____
_____

25. Do you think the allocated time is enough for the PD sessions in your school? Please explain.
_____
_____

26. Do you have enough resources available to conduct PD programmes in your school? Please explain.
_____
_____

H. Features of school based teacher professional development

30. List some feature(s) of your school's PD programme?
_____
_____
_____
_____
_____

31. Please consider the following statements and tick in the appropriate boxes to show how much you agree or disagree with each one of them.

School based PD programmes in school.

	Strongly disagree	disagree	agree	Strongly agree
• Is organized as a soon as attending all PD's conducted by MOE.				
• Is regarded and used as an effective tool to create awareness to adopt/ adapt changes?				
• Presenter always comes prepared for his/her PD session with resources for participants.				
• Quality of presentation shows that he/she possess high level of knowledge in the area.				
• Able to relate what he/she presents to the school and classroom context.				
• Monitors implementation process of change and provides feedback.				
• Evaluates the PD sessions.				
• Ample time is allocated and used.				
• Teachers are given time to discuss strengths and weakness of the topic with their colleagues.				
• Allows teachers to discuss their potential beliefs about their teaching.				
• Is based on curriculum contents of subject's example math only.				
• Is based on teaching techniques and demonstration of teaching skills only.				
• Is activity based, allows teachers to discuss about their students learning patterns.				
• Encourages teachers to work together as a team, co-operate and learn from each other.				

I. Self efficacy

32. Is school based teacher professional development important? If yes/no why?
_____
_____
_____
_____

33. How can we improve our school based teacher professional development programmes? Give your view.

_____
_____
_____
_____
_____

34. How will you rate the PD's conducted in your school? Please place a tick .

	Highly Effective
	Effective
	Ineffective
	Highly Ineffective.

.....Thank you very much.

Appendix 5 Questionnaire- Head Teachers

A. Background information

1. Gender   Male [   ]   Female [   ]
2. Ethnic Group: Fijian [ ]   Indo-Fijian [ ]   Others [ ]
3. Number of years teaching experience [   ] Yrs
4. Number of years in present school [   ] yrs
5. Number of hours of P.D. attended last year [   ] hrs
6. Number of hours of P.D. attended so far this year [   ] hrs

B. Explanation

7. How would you explain the term "School based teacher professional development"?
_____
_____
_____

C. Involvement in school based teacher professional development programmes.

8. Do you have PD programmes in your school? Yes [   ] No [   ]

9. Who conducts P.D. programmes in your school?
    H.T. [   ] AHT [   ] teachers [   ] Guest speakers [   ]

10. How often do you conducts PD sessions in your school?
    Weekly. [   ] Fortnightly [   ] Termly [   ] Monthly [   ]

11. Is there any special PD programme scheduled prepared and followed in your school?
Yes [   ] No [   ]

12. As the head teacher do you think it is important for you to actively participate in school based teacher professional development? Yes [   ] No [   ]

13. If yes/no why? Please explain.

_____
_____
_____
_____

D. School based PD programmes and teacher change

14. Does the knowledge gained from the PD's conducted in your school has any positive change on your teachers teaching and learning process? Yes [＿＿＿] No [＿＿＿]

16. If yes please list these changes.

_____
_____
_____

17. The following list includes some possible impacts of school based teacher professional development programmes in teaching and learning process. For each item please tick in the box which applies to you.

(Improvement in .....)	Strongly disagree	Disagree	Agree	strongly agree
• Teacher attitude and belief.				
• teachers knowledge in subject area				
• teachers knowledge in teaching strategies				
• teachers approach in consulting parents				
• Documentation of students learning records.				
• teachers reflection skills on their classroom work				
• teachers understanding about their students thinking and learning patterns				

E. Professional development and its sustainability

18. Is there any special procedure in place to monitor the implementation of PD topics, ideas and knowledge by the teachers in your school?

Yes [＿＿＿]   No [＿＿＿]

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19. If yes/no please explain.

_____
_____
_____
_____

F. Teacher induction programmes

20. Is there any teacher induction programmes in place in your school?
Yes ☐ No ☐

21. If yes/no please explain about this teacher induction programme in your school?

_____
_____

G. Factors affecting PD programmes

22. What are some factors that affect PD programme in your school?

_____
_____

23. Who is responsible for organizing the PD programme in your school?

_____

24. How much time is allocated for PD sessions in your school?

_____

25. Do you have enough resources available to conduct PD programmes in your school? Please explain.

_____
_____

H. Features of school based teacher professional development

26. List some feature(s) of your school's PD programme?

_____
_____
_____

27. Please consider the following statements and tick in the appropriate boxes to show how much you agree or disagree with each one of them.

School Based PD Programmes in school.

	Strongly disagree	disagree	agree	Strongly agree
• Is organized as a soon as attending all PD's conducted by MOE.				
• Is regarded and used as an effective tool to create awareness to adopt/ adapt changes?				
• Presenter always comes prepared for his/her PD session with resources for participants.				
• Quality of presentation shows that he/she possess high level of knowledge in the area.				
• Able to relate what he/she presents to the school and classroom context.				
• Monitors implementation process of change and provides feedback.				
• Evaluates the PD sessions.				
• Ample time is allocated and used.				
• Teachers are given time to discuss strengths and weakness of the topic with their colleagues.				
• Allows teachers to discuss their potential beliefs about their teaching.				
• Is based on curriculum contents of subject's example math only.				
• Is based on teaching techniques and demonstration of teaching skills only.				
• Is activity based, allows teachers to discuss about their students learning patterns.				
• Encourages teachers to work together as a team, co-operate and learn from each other.				

I. Self Efficacy

28. Is school based teacher professional development important? If yes/no why?

_____
_____
_____

29. How can we improve our school based teacher professional development programmes? Give your view.

_____
_____
_____
_____

30. How will you rate the PD's conducted in your school? Please place a tick .

	Highly Effective
	Effective
	Ineffective
	Highly Ineffective.

.....Thank you very much.

Appendix 6 Questionnaire – Teacher Registration Board

1. What is TRB's explanation of school based teacher professional development programme?
_____
_____

2. What are the TRB's requirements for teacher registration in Fiji?
_____
_____
_____
_____

3. Is professional development of teachers mandatory for teacher registration?
_____
_____

4. What type of professional development programme does TRB prefers for its teachers and why?
_____
_____
_____

5. What is TRB's view on the school based teacher professional development programmes?
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Appendix 7 Questionnaire – Professional Development Unit

1. What is PDU's explanation of school based teacher professional development programme?

_____
_____
_____

2. What is PDU's view on the school based teacher professional development programmes?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

3. When does the PDU conduct s the professional development for head teachers and teachers?

_____
_____
_____

4. How many hours of professional development are recommended for a practicing teacher by the PDU?

_____
_____
_____

......Thank you very much

Appendix 8 Questionnaire – Curriculum Development Unit

 1. What is CDU's explanation of school based teacher professional development?
_____
_____
_____
_____

2. What is CDU's view on the school based teacher professional development programmes?
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

5. What type of teacher professional development programmes does CDU organize for head teachers and teachers?
_____
_____
_____
_____

......Thank you very much

Appendix 9 Field Notes- Teacher Interview

Explanation

1. How would you explain the term "School Based Teacher Professional Development"?
_____
_____
_____

Involvement in school based PD programmes

2. Do you have professional development programmes in your school? If yes/no who conducts it and what type of PD's do you have?

_____
_____
_____
_____
_____.

3. Why do you think is important for the practicing teacher to be actively involved in PD session?
_____
_____
_____

3b. How often do you have PD's in your school?
_____
_____
_____

PD and teacher change

4. What change have you noted in yourself as a teacher after attending PD sessions in your school?
_____
_____

5. How has the children benefitted from the PD's conducted for teachers in your school?
_____
_____

Features of school based PD

6. What is the focus of the PD sessions in your school?

_____
_____
_____

Sustainability of school based Pd sessions

7. What are some measures taken to sustain the PD's conducted in your school?

_____
_____
_____

Factors affecting school based PD sessions

8. List some factors which affect PD sessions in your school?

_____
_____
_____

b. How have the above mentioned factors affect PD sessions in your school?

_____
_____
_____

Teacher induction

9. Is there any teacher induction programme for the beginner teachers in your school? If yes/no please explain.

_____
_____
_____

Self- efficacy

10. Why do you think school based teacher professional development programmes are important?

_____
_____
_____

11. How do you rate the PD programmes conducted in your school?

_____
_____
_____

Appendix 10 Field Notes- Head Teachers Interview

Explanation

1. How would you explain the term "School Based Teacher Professional Development"?
_____
_____
_____

Involvement in school based PD programmes

2. Do you have professional development programmes in your school? If yes/no who conducts it and what type of PD's do you have?
_____
_____
_____

3. Why do you think is important for the practicing teacher to be actively involved in PD session?
_____
_____
_____

3b. How often do you have PD's in your school?
_____
_____
_____

PD and teacher change

4. What change have you noted in your teachers after attending PD sessions in your school?
_____
_____
_____

5. How has the children benefitted from the PD's conducted for teachers in your school?
_____
_____
_____

Features of school based PD

6. What is the focus of the PD sessions in your school?

_____
_____
_____

Sustainability of School Based Pd Sessions

7. What are some measures taken to sustain the PD's conducted in your school?

_____
_____
_____

Factors affecting School Based PD Sessions

8. List some factors which affect PD sessions in your school?

_____
_____
_____

b. How have the above mentioned factors affect PD sessions in your school?

_____
_____

Teacher Induction

9. Is there any teacher induction programme for the beginner teachers in your school? If yes/no please explain.

_____
_____
_____

Self Efficacy

10. Why do you think school based teacher professional development programmes are important?

_____
_____

11. How can we make our school based teacher professional development programmes an effective one?

_____
_____
_____

Appendix 11- Ministry of Education's Research Approval

MINISTRY OF EDUCATION

EDUCATING THE CHILD HOLISTICALLY FOR A PEACEFUL AND PROSPEROUS FIJI

Marela House, 19 Thurston Street, Suva, Fiji Islands   Ph: (679) 3314477   Fax: (679) 3303511
Private Mail Bag, Government Buildings, Suva

Our Reference: Your Reference: Date:24/05/10

Mr.Lalesh Sharma
P.O.Box 1050
Nadi.

Dear Sir,

Re: **Approval of Research Studies**

I am pleased to inform you regarding the above on the topic "The Impact of School Based Teacher Professional Development- The Case Study of Fiji Primary School."

This approval is for 1 year from September 2010 to September 2011.

As a condition for all research approvals, a copy of the research final report should be submitted to this office as soon as it is ready. In addition to this,there should not be any release made regarding the findings or results unless the Ministry of Education has authorize it.

Please ensure that your study does not intervene to your teaching responsibilities.

Also note that the Ministry reserves the sole right to publish the final report or an edited summary of it.

All the best and good luck to your research work.

Isoa Naulumatua (Mr.)
for **Permanent Secretary for Education,National and Heritage, Culture and Arts, Youth and Sports**

ALL COMMUNICATIONS TO BE ADDRESSED TO THE CHIEF EXECUTIVE OFFICER FOR EDUCATION