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**BEGINNING PRIMARY TEACHERS’
INDUCTION AND MENTORING
PRACTICES IN PAPUA NEW GUINEA**

A thesis

in partial fulfilment of the requirements

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by

Joseph Kua Deruage



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

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Abstract

Professional development of beginning teachers through induction and mentoring has been commonly viewed as important for teachers' success and continuation in the teaching profession. Induction and specifically mentoring programs focus attention on transitions from one stage of teacher development to another. The three phases of teacher development are initial teacher education, known as pre-service, the induction phase and the ongoing teacher in-service education. The move from student to teacher is the most demanding change in learning to teach. The beginning teacher in this change must adjust from thinking and acting as a student, absorbed with his or her own learning and performance, to thinking and acting as a teacher, accepting responsibility for the learning and performance of others. Beginning teachers are fully engaged in this essential development, and mentoring programs are purposely intended to support them through this period of change.

This study has established that beginning teachers in Papua New Guinea (PNG) do experience challenges in the first few months of teaching but these issues lapse over time with the support and assistance of mentors/supervisors. Mentoring has great potential for group effort and transformational teacher learning within schools as professional learning communities. In order for mentors to perform their tasks well and draw benefits from mentoring, appropriate support and training for mentors is recommended. As well as support and training, other incentives for mentors such as salary increments and reduced teaching loads would be a welcome step to enhancing induction and mentoring programs in PNG primary schools.

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1.0 Chapter overview

Chapter one begins with background information and the rationale for this study. The study on induction and mentoring of beginning primary teachers in Papua New Guinea (PNG) emerged from my personal interest and involvement with pre-service students of primary teacher education and practicing teachers in PNG. In order to provide a general overview and the framework within which this study is set, I start with my background, and then move on to the purpose and significance of this study. Key terms are explained followed by Papua New Guinea's education history and current changes that have some significance for this study.

1.1 My background as teacher and teacher educator

I come from the teacher education background with work experience in a primary teachers' college (PTC) in Papua New Guinea for the last three years. My initial teacher training was in secondary teaching and I taught at that level for 17 years before moving on to tertiary teaching. My research interest was also a culmination of my own experiences as an inductee. This happened twice, first as a beginning teacher in high school, and more recently as a neophyte primary teachers' college lecturer. In addition, my professional observations of student teachers during practical teaching and their anecdotal stories of their teaching experiences stimulated my interest in beginning primary teachers' induction experiences and mentoring practices in PNG. These experiences led me to believe that teacher induction occurs in these following situations:

1. when newly qualified teachers (NQT) transit from college as students of teaching to teachers of students;
2. when an experienced teacher gets promoted to a new job requiring new roles and responsibilities;
3. when experienced teachers move to new work environments, such as those on transfers or those who take up tertiary or university level teaching roles.

My interest in acquiring more knowledge in the field of teacher professional development stems from my teaching experiences in primary, secondary and tertiary levels. As a

primary teachers' college lecturer, gaining an insight into beginning teachers' professional learning and experiences would enhance my professional learning about novice teachers. Consequently, I could use this knowledge to assist beginning teachers to become conscious of the realities of first year teaching in primary schools in PNG. I will carry out this study using a qualitative research approach and my main data collection method will be semi-structured interviews with my research participants (n=15). The methodological aspect of the study is discussed in chapter 3.

1.2 Purpose of the study

Recurring problems of beginning teachers (BTs) have long been an area of interest to programs in education and schools generally, in terms of quality education and retention (for example, Battersby, 1981; Lang, 1996). This research study aims to explore beginning teachers' views on their experiences of induction and mentoring in PNG primary schools. In PNG, induction is mandatory for all beginning teachers as a professional development strategy to acculturate novice teachers and to help them become effective teachers. Induction is blended into the inspection system whereby both internal and external school assessors appraise the BTs' work performance. Research studies in other countries than PNG, such as United States, United Kingdom and New Zealand, indicate that beginning teachers experience many challenges in their first year of teaching. These studies suggest that school-based induction programmes and mentoring practices have been useful in supporting beginning teachers (Darling-Hammond, 1998; Lang, 1996; Newcombe, 1988; Renwick, 2001; Tickle, 1994). Literature also indicates that many new teachers leave the profession within their first three years of teaching, and many of those leaving cite poor working conditions, lack of mentoring support and work stress as their reasons (Darling-Hammond, 1998; Lang, 1996). The basic premise of this study is that an understanding of the many challenges of beginning teaching is an important step in devising ways to enhance teachers' preparation programs and provide induction support for novice teachers.

1.3 Significance of the study

This research may be important because the induction phase of teacher education has not been investigated in PNG before. However, a decade-old study by Maskoswitz and Stevens (1997) investigated induction and mentoring practices in eleven APEC countries, including PNG. The research findings from Maskoswitz and Stevens revealed that induction and mentoring practices were incorporated in the PNG national inspections systems. The inspections system requires that beginning teachers are supported by school-appointed supervisors to meet the criteria standards set by the Inspections and Guidance Branch within the National Department of Education (NDOE, 2000). All beginning teachers in their first year of teaching are required to undergo an induction program leading to full registration and certification to practice as teachers (Maskoswitz & Stevens, 1997).

The current education reform in PNG has changed the roles and responsibilities of teachers in primary schools, creating new demands and challenges for both the experienced and novice teachers. In order for the new curriculum reform to be effectively implemented to meet government goals, aims and aspirations, teacher professional development is crucial. This could mean that all the teachers, both experienced and novice, in PNG primary schools would need to continue learning to keep abreast of the new changes and challenges confronting them. Induction and mentoring could be one possibility where BTs and experienced teachers as mentors could learn together about their new roles and responsibilities in implementing the new curriculum to enhance students learning in schools. The mentors could be formally appointed or informally established through work relationships fostered over time and space.

The present study may therefore contribute to the knowledge base on teacher education and beginning teacher induction in PNG. It is anticipated that the findings of this investigation will be useful for policy developments and to suggest improvements to induction practices at both the school and system levels in PNG. Given that PNG is introducing a new curriculum, it is possible that beginning teachers may be in great demand regarding their knowledge of the new documents and its implementation strategies. I hope that this study can shed light on what this might mean for beginning teachers.

1.4 Definitions: beginning teacher, induction and mentoring

BTs are those teachers within their first full year of teaching after graduating from a college or university and are usually on provisional teacher registration (Cameron & Baker, 2004; Gordon & Maxey, 2000). The term can also include those teachers who have taken up teaching again after leaving to start families or to have other careers, for example, in the world of business (Carter, 1997). For the purpose of this study, beginning primary teachers are the new teachers that have graduated from any of the seven primary teachers' colleges in PNG and are in their first three years of teaching (NDOE, 2000). Through induction and mentoring, BTs are provided the necessary support and assistance to meet their personal and professional needs (Bubb, 2000; Feiman-Nemser, et al. 1999). The words 'induction' and 'mentoring' are often used interchangeably but do not mean the same thing.

Induction is the programme of support and assistance provided to beginning teachers to learn the ropes of teaching and to be socialised into the school culture and teaching profession (Lieberman & Mills, 1998). According to Feiman-Nemser (1991), induction is central to three main ideas and these ideas suggest that induction is a:

1. unique teacher development phase where an individual makes the transition from being a student to becoming a teacher of students,
2. period of socialisation into the norms of the teaching profession, and
3. formal program of sustained support and professional development for teachers in their first few years.

Throughout the later sections of this report, I will discuss the above ideas to explain how each of these induction concepts fits into the big picture on induction and mentoring of BTs.

Mentoring, on the other hand, is one of the common induction programs, which pairs the BT with an experienced teacher and is focused on supporting the novice's professional development. The word 'mentor' originated in Greek mythology (Brock & Grady, 1997). According to the ancient mythology, when Odysseus became aware that his departure to fight in the Trojan War would mean a long separation from his son, he summoned his friend Mentor to provide nurturing, guidance, friendship, and counselling to his son in his absence. Within the educational context, a mentor is usually a person with experience and

expertise, who is given the responsibility to provide support and guidance to a beginning teacher (Brock & Grady, 1997).

Literature search revealed that a universal definition of mentoring is lacking even though mentoring programmes became a widespread national phenomenon throughout the United States in the 1980s and spread across other nations, for example, Australia, New Zealand, and United Kingdom (Gold, 1996). Different people give various definitions. One operational definition of mentoring offered by O'Mahony and Mathews (2005) as, “ a personal enhancement strategy through which one person facilitates the development of another by sharing skills, expertise, values and knowledge. It is a long-term, developing relationship which allows the learner to build skills and knowledge while attaining goals for career development” (p. 22). The mentor can be a principal, deputy principal or senior teacher and in the context of this study, the mentee is the beginning teacher.

The goal for mentors is to provide ongoing support to help BTs accomplish all they can on their own; BTs should not become dependent on the mentor. However, the significant actions taken by a mentor can vary and is dependent on many factors during the mentoring relationship (O'Mahony & Mathews, 2005). It is acknowledged that the phenomenon of mentoring is not clearly conceptualised and a universal definition is not available, suggesting a growing interest among researchers to add new knowledge base to it (Gold, 1996).

Both mentoring and induction programs more generally focus attention on transitions from one stage of teacher development to another (Carter, 1997). The transition from student to teacher is the most dramatic transition in learning to teach. The individual in this transition must change from thinking and acting as a student, absorbed with his or her own learning and performance, to thinking and acting as a teacher, accepting responsibility for the learning and performance of others (Carter, 1997; Feiman-Nemser, 1991).

As a teacher and teacher educator working in Papua New Guinea during a period when education reform is progressing slowly but steadily, I am keen to explore BTs' experiences of induction and mentoring. Mentors' views will also be used to compare with what BTs say about their experiences.

I now move on to the background to this study. The study background following on next is provided to set the context for my study in terms of the country's history and education developments.

1.5 Study background: PNG in brief

Papua New Guinea is a Melanesian Island nation, just north of Australia and east of Indonesia, thus sharing land borders with the Indonesian province of Irian Jaya to the west (refer to appendix 1 for PNG map). It gained political independence from Australia in September 1975. Prior to that, it was a divided protectorate of Great Britain and Germany in the 19th century until the outbreak of World War II (Waiko, 1993). Papua New Guinea is a developing nation and the developed countries in close proximity to PNG are Australia and New Zealand. Culturally and geographically, it is very diverse with 700 plus languages, and has some of the most difficult terrain, making accessibility to certain parts of the country hard. The total population count after the 2000 Population Census was a little more than 5 million and 85 % of these live in rural villages (Development Bulletin, 2001). There are twenty (20) provinces clustered into four distinct regions, namely: Highlands, Papuan, Momase and New Guinea Islands region. Most of the indigenous people identify themselves in one of the four regional groupings. This geographical diversity is important for the way in which I choose schools for this study.

1.6 Teacher Development

Education can be categorized as informal, non-formal and formal education (Farrant, 1980). This project concerns an aspect of formal education whereby trained personnel called teachers in schools facilitate the teaching and learning process. Teachers can become very important links to implementing government policies and programmes, for example, the new reformed curriculum in PNG. A recurrent theme in the plethora of reports on education in PNG, especially primary teacher education, is the relative youth and underdeveloped skills of the student intake (McNamara, 1989). In the early 1980s, trainee teachers may enter primary teachers college at a minimum age of 16 years and a grade 10 pass in English and mathematics. At least two upper passes in two other subjects was required. The college principal may exercise some discretion in approving applications. However, Matane (1986) sees the intake as immature, and both he and

McNamara recommended that only successful Year 12 (grade 12) students be accepted for teacher training. This has now become an official policy requirement in PNG that entry to primary teachers college will be grade 12 (Year 12) commencing in 1994 (Josephs, 2000). Intake to primary teachers' colleges comprises trainees who have grade 12 qualifications and are mature at point of entry and the justification is that these BTs will be able to meet the new challenges of the primary education services in PNG.

A society's goals, visions and ideals are manifested in curriculum policy statements and teachers use the formally approved curriculum to teach the future citizens of a nation. Teachers continue to be important change agents in providing basic education services for children in PNG (NDOE, 2002). Teachers' learning and ongoing professional development are just as important as the learning of children and need to be synchronized in schools through learning communities (DuFour & Eaker, 1998). Hargreaves (1994) contended that teacher professional development is vital for any reform agenda and asserts that:

...the restructuring of schools, the composition of national and provincial curricula, and the development of benchmark assessments—all of these things are of little value if they do not take the teacher into account. (p. vii)

In the same vein, the Governor General of PNG, Sir Paulias Matane¹ in his keynote address to the National Curriculum Conference participants in 2005, resonates with what Hargreaves contends above:

In my view, the single most important factor in the successful implementation of the reform curriculum is the teacher...Teachers need appropriate, timely and regular training and related forms of support to be able to implement the curriculum. Unless the teacher feels confident about the new curriculum and outcomes-based education, implementation will still be problematic. (Matane, 2005, p.1)

Considerable professional learning is required by teachers at times of reform and they need considerable support to achieve this learning (Spillane, 1999). Beginning teachers also need to be supported to carry out their work alongside their experienced counterparts.

¹ Sir Paulias Matane was the Chairperson of the Ministerial Committee (1986) tasked to review the education sector in PNG that culminated in the Philosophy of Education (also called the Matane Report). This has been the basis of the Education reform in PNG.

Programmed support such as beginning teacher induction and mentoring has the potential to improve teacher retention and efficacy (Feiman-Nemser, 1991).

This statement is significant for this study in PNG because of the current education reform undertaken and the new roles teachers have for implementing the reform. Both the experienced and novice teachers are required to know the new curriculum and teach the subjects within the new curriculum framework. This can have a lot of bearing on the new teacher induction in primary schools and I wonder how the experienced teachers, who may themselves be unfamiliar with the new document, advise new teachers to teach from it to enhance students' learning.

1.7 Beginning teacher induction in Papua New Guinea

In Papua New Guinea, there are both formal and informal structures that help new teachers to adapt to the school and classroom environments. The main structure is the Inspection Programme, which is the national system that licenses teachers. Induction activities vary among schools but tend to include various in-service courses, consultations, and visits. Teacher induction programmes are implemented in Papua New Guinea for several reasons:

1. to increase the supply of teachers at a particular level;
2. to increase the retention rate of teachers by reducing their first-year frustrations and displaying the incentives of teaching; and
3. to open avenues for professional development.

BTs are inducted and evaluated in a variety of ways during the first year of teaching. First, BTs work under subject masters or senior teachers who monitor new teachers' progress by reviewing lesson plans, observing classroom teaching, and offering general assistance in the areas of planning, curriculum content, teaching strategies, and professional conduct. These senior teachers who serve as mentors/supervisors help determine the needs of the particular new teacher, and adapt their advice, emphasis, and monitoring to the new teacher's requirements. Second, the BT works in association with senior teachers and staff in extracurricular activities, such as sports and special events. Third, the BT attends in-service training at the school, department, and provincial levels. There also is a nationally funded "Provincial In-Service Week," during which schools and provincial-level education authorities offer special classes for new teachers through workshops and seminars.

The induction activities of BTs in PNG are closely linked to the inspection system, which is the reason I had to explain the inspection systems in PNG in the subsequent section. All new teachers must participate in induction activities to:

- 1) be inducted into their new areas of responsibility, and
- 2) to meet the requirements of the inspection system (NDOE, 1994).

As the year progresses, senior staff and mentors compile an inspection report based on their interaction with and observation of the new teacher. The schools Inspector (a national figure) also observes the new teacher and writes a report recommending the teacher for full registration into the teaching force. The induction period is terminated when, at the end of the first year of teaching, the individual is fully registered although regular professional development continues to take place for the next two years.

Induction activities occur mostly after school hours and during term breaks. BTs do not receive release-time or lighter workloads for induction activities as the BTs do in New Zealand and United Kingdom. However, the senior staff involved in induction receives several benefits or incentives: training for involvement in the inspection system and points toward promotion and consequent salary increase. In most cases, the mentors are senior teachers within the school's hierarchy. However, some mentoring support comes informally from other experienced teachers within the school and the head teacher. In Papua New Guinea, the National Department of Education (NDOE) funds teachers' salaries and also finances the inspection programme. Schools and provinces, however, bear the costs of the induction activities.

1.8 The Inspectorate Functions

BT induction in PNG is associated with inspection and registration of teachers in their first three years. The school inspectors appraise the performance of the BTs after a year of independent work as a teacher with close guidance and supervision from a school assigned supervisor/mentor. It is with this in mind that I explain the work of the school inspectors and the inspection system following on.

The inspectorial functions which are performed by the Inspection and Guidance Division include the:

1. maintenance and improvement of national education standards and requirements in elementary, primary and secondary schools, provision of quality control in the areas of curriculum implementation and teacher performance,
2. facilitation, monitoring and improvement of professional development and growth of teachers,
3. provision and facilitation of guidance and counselling services to schools, and
4. improvement of the school supervision and management systems (NDOE, 2004, p.5).

The decreasing level of resources caused by the constraints in the PNG economy has also affected the work of inspectors drastically over the last ten years (NDOE, 2002). The lack of funding for inspection visits would mean that some of the beginning teachers do not get the chance to be inspected by the schools inspector. In order to rectify this dilemma, the NDOE has proposed changes to devolve inspector roles and duties to individual school head teachers in PNG (National Newspaper, 26.06.06; Personal communication with district school inspector, 29/08/06).

The BTs get a compulsory inspections report in the first year of teaching and the role of the supervisors/mentors entail guiding and supporting the BTs to meet the standards set by the Inspection and Guidance Branch. In order for the mentor/supervisor to assess needs of BTs, it is required that supervisors/mentors do a formative assessment through lesson observations and scrutiny of lesson plans and term teaching programme. Basing on the observation and checking of such documents, the supervisors offer advice and guidance where and when needed.

1.9 The study Context

The context of BTs' probation time frame is as follows. There are seven primary teachers' colleges in PNG, offering the primary teaching diploma over a period of two years using the trimester system. Prior to graduation, the student teachers are encouraged to apply for any vacant primary school position within the country that they prefer to teach in. Upon securing a teaching post in a province, notification letters of acceptance are sent and they begin teaching the year after graduation. The probation period begins at the commencement of duties at the new location and it ends at the end of the third year. It is

during this three-year grace period that they learn to practise their 'trade' and get registered as teachers following successful inspections rating. If the inspections ratings are unsuccessful in the first year, subsequent inspections of their work are done for the second and third year. However, if the third attempt is futile, then automatic termination from teaching becomes effective. The designated supervisors, head teachers and primary school inspectors are responsible for the evaluations and appraisal of BTs' work. The induction and inspection system is discussed earlier as an important component of BTs' induction.

The head teacher and supervisors/mentors work out an individualised school-based induction program for each BT based on formative evaluations and the perceived needs of BTs by school leaders. The supervisors/mentors support and advise the BTs on their teaching and learning for three school terms and following that, the BTs get inspected by the schools inspector towards the end of first year teaching. The inspector makes recommendation for BTs to be fully registered as certified teachers in PNG or otherwise. Teacher registration is decided by the National Inspections Rating Conference annually and final endorsements are signed by the PNG Secretary of Education (NDOE, 1999). This would mean that the BT has passed the induction requirements, but the professional development through in-service education continues through a teacher's career span.

The study will be located in Simbu province, Papua New Guinea (refer to appendix 1 for map). There are 20 provinces in PNG and given the time and financial constraints of the study, Simbu province is likely to be the natural choice because of my local knowledge and professional connections. The settings of both schools are semi-urban where school one (1) is located within the vicinity of a Catholic mission station and school two (2) is located in the centre of the Kerowagi district headquarters and access by road transport easy. This would be an added advantage for me to have easy access to the schools and to recruit potential participants without any problem. Most primary schools in Simbu province are scattered into small communities. It was sensible then, to choose two schools, which were within easy reach.

The BTs in this study will be in their first three years of teaching and the mentors will have between 2 to 17 years mentoring experience.

1.10 Organization of the thesis

This thesis has five chapters to systematically investigate the issue of beginning teacher induction and mentoring in Papua New Guinea, and is structured as follows:

Chapter One: Introduction gives an overview of the thesis and defines the common terms used in this study. It also discusses the purpose and outlines the setting for this study.

Chapter Two: Literature Review explored selected literature on beginning teachers' induction and mentoring as a common induction programme.

Chapter Three: Methodology describes the research methodology, method of data collection and data analysis.

Chapter Four: Findings and Discussions, outlines the main findings of the study.

Chapter Five: Conclusions, Implications and Recommendations, discusses the implications of this study, provides suggestions to improve beginning teachers' induction and mentoring programs and makes recommendation on areas for future studies.

CHAPTER TWO: LITERATURE REVIEW

2.0 Chapter overview

Beginning teachers assume two roles when they take up their appointment in schools in their first three years of teaching: the roles of a teacher and a learner (Wildman, Niles, Magliaro & McLaughlin, 1989). Induction is the phase of teacher professional development where BTs teach and learn to teach in schools (Feiman-Nemser, et al. 1999). The length of induction programmes varies from country to country and there are also variations in the types of induction programmes; however, one of the common induction programmes features mentoring.

This chapter begins by discussing selected literature that relates to induction as a professional development strategy for BTs within the context of education reforms, and the kinds of induction programmes available to novice teachers. Mentoring as a common approach to induction is expounded, leading on to the topic of teacher reflection and collaborative learning in schools. The latter part of the chapter looks at constructivist learning theory as it relates to this study. The chapter concludes by linking induction and mentoring through reflective practice within professional learning communities and stating the questions that arise from my readings and frame the present research.

2.1 Introduction

It is notable that hardly any phase in a teacher's career over the recent decades appears to have received more research attention than the induction period, particularly the first year as a BT (e.g. Darling-Hammond, 1998; Feiman-Nemser, 2001; Feiman-Nemser, et al. 1999; Gold, 1996; Kelchtermans, 1993; Lang, 1996; Tickle, 1994; Veenman, 1984; Vonk, 1994). Studies of BTs (Gold, 1996; Veenman, 1984; Wideen, et al., 1998) pointed out that novice teachers are often idealistic in their goals and that many have difficulty coping with the transition from pre-service to beginning teacher.

Brock and Grady (1997) suggest that as first year teachers move into teaching after successfully completing required courses for graduation to novice teachers, they are

accustomed to academic success and may not anticipate problems when they switch from learner to teacher. However, the reality of teaching can be overwhelming as they now have to be responsible, manage students and relate to other adult colleagues (Broke & Grady, 1997). Fullan (1993) contends that many people enter the teaching profession to make a difference in the lives of their students: “Scratch a good teacher and you will find a moral purpose” (p.12) he says. This sentiment echoes the view that BTs are often idealistic when they enter teaching and may not be prepared for the complexity of making changes to children’s lives.

Selected literature on BTs’ induction pointed out that one of the main ideals BTs have when joining the other experienced colleagues in schools is to make a difference in their teaching practices (Battersby, 1981; Fullan, 1993; Lang, 1996, 1999). Despite the good intentions that BTs bring with them to schools, the realities can be different. Ryan (1986) contends that BTs’ career entry phase (or the survival phase) is about withstanding the reality of their complexities in first year teaching. Veenman (1984) surveyed responses of BTs in several countries and described his respondents’ experiences as being similar to a ‘reality shock’. According to Brock & Brady (1997), reality shock generally means that “the bubble of idealism has burst and the teacher has entered the harsh world of daily classroom reality” (p.12).

Empirical studies by Veenman (1984) and others (e.g., Gold, 1996) revealed that BTs experience many problems and challenges during their first three years of teaching, partly because they lack experience and face the greatest challenges and the most responsibilities (Brock & Grady, 1997; Darling-Hammond, 1998). The first of these challenges is simply learning to be a responsible adult in charge of a class, which is very different from being a student. Some of the common challenges encountered by BTs are discussed below.

2.2 Problems and challenges for BTs

Research on beginning teachers seems to come up with a consistent list of findings concerning problems BTs have (Huberman, 1993; Veenman, 1984; Lang, 1996). One of the common problems encountered by BTs is classroom management (Veenman, 1984), while another common problem is the BTs’ lack of teaching resources (Battersby, 1981; Katz, 1977; Lang, 1996, 1999; Veenman, 1984). The third most common issue is the

general lack of support from other experienced teachers, including the head teacher. According to Lang's (1996) study of beginning primary teachers in New Zealand, stress and tiredness can set in when BTs are left on their own. Similar studies of BTs' learning and development in the United States indicate that making the transition from being students of teaching to teachers of students is difficult for many teachers and often considerably influences their next career stages (Darling-Hammond, 1998; Day, 1999; Gold, 1996; Tickle, 1994). This last point reiterates the point made earlier about the struggle BTs have over their teacher identities, given that they have been students beforehand.

Many BTs experience challenges in their first year of teaching experience (Gold, 1999; Lang, 1996, 1999; Veenman, 1984). For instance, BTs may be given some of the most difficult classes in terms of discipline. They may also teach subjects in which they were not trained or educated (Fidler, 1997); this is particularly true in secondary schools. Furthermore, according to Gordon and Maxey (2000), novice teachers confront a wide range of non-academic duties they may have had little prior experience of. These include disciplining students, collecting money and forms, completing administrative paperwork, and serving as surrogate parents. For example, BTs in PNG primary schools are required take up the same teaching loads, including the extra curricula duties, as their experienced colleagues and their performance appraisal is based on that.

Wilderman et al. (1989), in a study of BTs in the United States, argued that beginning teachers have two roles: teaching effectively and learning to teach. Induction, they believe, should recognise and support both roles. One of the BTs in their study echoed the common dilemma BTs encounter:

I feel like the administrators, my mentor, everybody expects me to be a teacher. Whether it's the first year or the twentieth year, the outcome should be the same as if I've been teaching for 20 years. I know it's not. I feel like I am missing a lot.
(Carla, First Year Teacher as cited in Wilderman et al. (1989), p.471)

According to Huling-Austin (1990), many beginning teachers are isolated from their more experienced colleagues, from whom they should be able to gather information and learn. With or without support from administrators or mentors, BTs must learn quickly to survive the complexity of their first year teaching. Schere's (2003) study of a group of BTs in the

United States indicated that school-specific questions of curriculum, instruction and classroom management are what concern new teachers most. Beginning teachers need support and guidance in the initial stage of their career and school based induction, with mentoring support, can influence BTs' decision to remain in teaching or to leave.

These complex expectations are often experienced negatively, because BTs are not often supported to know what to do, and they may be afraid to show that they do not already know. Gordon and Maxey (2000) add that the ultimate effect of such negative experiences is that BTs leave teaching, contributing to teacher retention issues. Moreover, other studies point out that it is often the most promising BTs who leave teaching in the early years (e.g., Schlechty & Vance, 1983). Nevertheless, other parallel studies such as Gilbert (2005) counter that when BTs are supported and guided by other experienced teachers during these 'turbulent' career phases, they can have rewarding and satisfying inductions. In order to provide support and assistance to keep BTs in the teaching profession, an understanding of teachers' learning and developmental stages is needed.

Despite continuing research, the list of problems remains relatively stable over the last 50 years (Fuller, 1969). As a result, a standard belief system has emerged, labelling the first year of teaching a challenging year requiring BTs to assume 'survival mode' that I will discuss below. Huberman (1993) labelled the first year of teaching as a 'sink and swim' scenario. Veenman (1984) described the "harsh and rude reality of everyday teaching" as "reality shock" (p.143), which implies that BTs bring with them unrealistic ideas of teaching. A discussion on teacher development stages based on literature findings follows.

2.3 Teacher Developmental Stages

The process of becoming and being a teacher has been extensively researched across a range of different theoretical stances. The general consensus is that beginning teaching is a complex issue (Aitken, 2005; Andrews, 1987; Flores, 2001; Lang, 1996; Odell, 1986). Earlier studies on teacher development (e.g. Fuller, 1969; Katz, 1977) suggested that BTs progress through developmental stages. The first is the initial stage of simply surviving the transition from student teacher to full-time instructional leader in a classroom. Later stages are, according to Fuller (1969): confidence, autonomy, and commitment. During these stages, the concerns of new teachers shift from the self to other teachers and later broaden

to the profession as a whole. Subsequent studies (e.g. Bromfield, Deane & Bernett, 2003; Feiman-Nemser, 1991; Gold, 1996; Lortie, 1975; Veenman, 1984) show that BTs need professional and psychosocial support (Bubb, 2000) in their early stages of personal and professional development. Recognising the different stages of teacher development is helpful when examining the relationship between mentors and BTs in induction programmes (Fuller, 1969).

Lang (1996, 1999) pointed out some of the various struggles faced by her participants. She identified the ‘survival stage’ as also appropriate to describe BTs’ experiences in New Zealand primary schools. The ‘survival stage’ is critical, in which mentoring support from experienced colleagues, families and friends is required (Lang, 1997, 1999).

The induction phase within the continuum of teacher development gets more attention from researchers than pre-service and in-service teacher education, because induction has important consequences for the teachers’ later professional development and retention (Bubb, 2000; Feiman-Nemser, 1991). Following on, I discuss the significance of induction and mentoring within the context of education changes in PNG and elsewhere.

2.4 Education reform and professional development

A lot of countries, both developed and developing nations, are involved in some aspects of education reform at some time (Darling-Hammond, 1998; NDOE, 2000) because of changes in technology, research into new teaching and learning approaches, economic and political imperatives, and globalization (Fullan, 1991; Lieberman & Miller, 1999). In other words, technology, culture, students and educational organizations change at a remarkable pace. Schools must be able to keep up and plan for these changes within existing educational landscapes (Fullan, 2000).

During the international educational reforms of the last two decades, teachers and the teaching profession have been under much scrutiny (Lieberman & Miller, 1999; Darling-Hammond, 1998). While reform initiatives may differ in their purposes and directions, one of the main themes is students’ learning improvement (Lieberman & Miller, 1999). Often, it is assumed that the reform initiatives focus on teachers’ professional development to enhance students’ learning outcomes (Spillane, 1999). As well, literature findings indicate

that reforms in schools cannot occur without reforms in teaching, and reform in teaching cannot occur without schools being reformed (Fullan, 2001; Hargreaves, 1999; Lieberman & Miller, 1999). This means that school cultures need to change, often from teacher isolation to more collaborative learning forms. For example, the schools cluster group in-service in PNG allows for teachers from schools in close proximity to share human and material resources and ideas to improve their teaching and student assessment practices.

The role of teachers' professional development during education reforms was seen to be so important that Hilda Borko focused her 2004 presidential address to the Annual American Education Research Association Meeting on the need for a new research agenda on the topic. In sharing the views of Borko (2004), the Governor General of PNG, Sir Paulias Matane, in his keynote address to the PNG National Curriculum Conference participants in 2005, also emphasized the importance of teacher development learning (Matane, 2005). This is because teachers have an important role to play in implementing the new curriculum changes in schools. In the context of this study, teachers' ongoing professional development is necessary to equip them with the necessary skills and knowledge of the new curriculum to confidently teach. BTs in PNG bring with them to schools new theoretical knowledge from pre-service education and the experienced teachers have practical knowledge acquired over many years of practice (Darling-Hammond, 1998). Thus sharing of such knowledge between BTs and mentors through induction and mentoring can be mutually beneficial (Bezzina, 2006).

The need for teachers to be equipped with the content knowledge, pedagogical skills and experiences to work within changing school contexts is paramount to improve teachers' competency level (Darling-Hammond, 1998). Teachers, in some countries, are viewed as important change agents. For example, the United States federal legislation 'No Child Left Behind' (NCLB) Act of 2001 requires that each classroom have a 'highly qualified' teacher by 2005-06. Fletcher and Adele (2004) explained 'highly qualified' as having a state certification, a bachelor's degree and subject matter competency. However, literature findings show that new teachers graduating from teacher education programmes will still be under-prepared for their first year as teachers (Veenman, 1984; Gold, 1996). Therefore, beginning teacher development through induction and mentoring is vital (Darling-Hammond, 1999; Fullan, 1991; Liebermann & Miller, 1999; Tickle, 1994).

In this research, the BTs in PNG graduate with a teaching diploma and spend longer time in college covering the new curriculum contents than their supervisor/mentors. The BTs' knowledge of the curriculum content may be new to experienced teachers, including the mentors/supervisors. By working collectively through mentoring practices, BTs and mentors/supervisors combine their skills, knowledge and expertise to be able to respond promptly to an ever-changing educational environment (Liebermann & Miller, 1999). Both the BTs and their assigned mentors/supervisors have the opportunity to learn from each other when they work together, by observing each other's teaching, and in discussing common issues affecting their practices as teachers in schools (Brock & Grady, 1997). Hargreaves (1995) stated that, "Collaboration, therefore, can be a powerful source of professional learning: a means of getting better at the job" (p. 154).

2.5 Beginning teacher induction

Earlier in the introduction chapter of this thesis, I defined induction as a planned and formal support arrangement between an experienced teacher (mentor) and BT in the first three years of teaching in PNG schools. The duration of induction and types of induction programmes vary from country to country. However, in PNG the induction period is three years and within this period BTs are expected to receive a satisfactory inspection report to pass induction as certified teachers. Induction programmes can include lesson observations, journal writing, and collaborative lesson planning programmes, in-service courses, workshop attendance, and guided professional reading (e.g., PNG Teachers Association Code of Ethics).

Effective induction is significant for the transition of BTs from pre-service to teachers in practice. It is also important to the retention of young teachers, providing some continuity in teaching (Brock & Grady, 1997; Gordon & Maxey, 2000; Renwick, 2001; Tickle, 2000). A survey by Wong (2002) in the United States indicates that 95% percent of those BTs supported by a strong induction programme continued teaching after three years and 80% after five years. Within other professions such as law, medicine and accountancy, new graduates are not expected to make a full contribution in the workplace as BTs often do, and this is why Tickle (2000) argued that professional development and induction programmes are vital to assist in the transition. The subsequent effect is that such well supported and thus effective teachers are more likely to be able to support improved

student achievement. According to the National Commission on Teaching and America's Future (1996):

On the whole, the school reform movement has ignored the obvious. What teachers know and can do makes the crucial difference in what children learn. And the ways school systems organize their work makes a big difference in what teachers can accomplish. New courses, tests, and curriculum reforms can be important starting points, but they are meaningless unless teachers can use them well. Policies can only improve if the people in them are armed with the knowledge, skills, and supports they need. Student learning in this country will improve only when we focus our effort on improving teaching. (p. 5)

Teachers at all experience levels need to be knowledgeable on new challenges they encounter in schools, through ongoing professional learning. Professional development of teachers, including BTs' induction and mentoring can enhance such learning for BTs and mentors. Related to this study, mentor training and support at the national, provincial and school level is vital, if beginning teachers are to be given the necessary instructional and psychosocial support (Darling-Hammond, 1998; Feiman-Nemser, 1991).

My study is likely to be significant because the philosophical underpinning of the new Outcome Based Education (OBE) in the reformed curriculum (NDOE, 2000) derives from social constructivism and is quite different from what experienced teachers in PNG are used to. The 'old' objective based curriculum, which the experienced teachers are familiar with, requires learning objectives to be stated in behavioural terms and the teacher passes knowledge to passive learners. The new outcome-based education (OBE) is premised on social constructivist learning theory and views learning as a dynamic social interaction entailing active students' participation. This would require that experienced teachers learn about the content and methods of teaching the new curriculum. Much of this training and in-service is provided by the AusAID funded Curriculum Reform Implementation Project (CRIP), whose term of contracts was due to end in 2006. Induction programs have the potential for BTs to share new ideas and mentors can provide practical knowledge to BTs through mentoring and collaborative learning in schools.

Induction and mentoring programmes have potential to foster teachers' personal and professional growth and alleviate teacher shortfalls in schools (Tickle, 1994), shortfalls that are a real possibility if BTs are not well supported.

2.6 Purpose of induction

Various researchers such as Clement (2000), Gordon and Maxey (2000), and Lang (1996) suggest that induction programmes should aim to: improve teaching performance, increase retention of good teachers, promote personal and professional well-being, transmit the culture of the system and satisfy requirements related to certification. Moreover, induction programmes should include: a lighter teaching load than that of experienced teachers, tiered responsibilities outside of the classroom, opportunities for non-threatening feedback, dedicated mentors and a clearly structured programme (Clement, 2000; Hope, 1999; Reynard, 2003; Tickle, 2000). Bush and Middlewood (2005) identified three main purposes for the induction process:

1. Socialization - enabling the new employee (beginning teacher) to become part of the organization.
2. Achieving competent performance - enabling the new person to contribute to the organization through the way he or she carries out the job.
3. Understand the organization culture - enabling the new colleague to appreciate the core values and beliefs of the institution (p.142).

In the context of this study, BTs as newcomers to the teaching profession, are supposed to be mentored by experienced teachers as part of the induction program. The induction programs introduce novice to teaching, the school context and the profession, which this study aims to explore in PNG schools.

New Zealand has induction structures for BTs established in schools. The government funds 0.2 of BTs' teaching time in their first year for professional development (Lang, 1996, 1999; Renwick, 2001). BTs in the United Kingdom have a 90% teaching load with the rest dedicated to professional development, such as observations of other teachers and writing reflective journals (McIntyre, 1994). New Zealand and United Kingdom are used here as examples, because both of these countries' mandatory requirements on time release for BTs professional development in their first year, whereas there is none in place in PNG.

It is vital, as shown above, that BTs have close guidance and support from supervisors in order to pass set standards so as to be given a satisfactory report for full registration as certified teachers. The early years of teaching are considered to be intense and formative for teaching and learning to teach. It is widely acknowledged in the literature and the profession that the early year of teaching is filled with difficulties and challenges.

No period is more important for the development of teachers than the initial induction into the profession. For too long, and in sad contrast to most other professions, many new teachers have been left to struggle with the complex and challenging demands of their first job completely by themselves, in professional isolation (Andy Hargreaves in Tickle, 1994, p. viii).

The condition in PNG is that BTs work under an assigned supervisor/mentor, which is a part of the inspections and guidance program. The BTs have the same hours of teaching as their experienced colleagues posted on a base level teaching position, and so there are not much salary differences between a BT and an experienced base level teacher. The only difference is the BTs lack experience in teaching.

Induction is likened to a 'bridge' linking pre-service education and in-service education of teachers. Renwick (2001) suggests that induction programmes are an important supporting arrangement for BTs to transit from being students of teaching to practitioners of teaching, and to build their confidence personally and professionally. This transition is vital because BTs put into practice their theoretical knowledge, skills and attitudes acquired from pre-service and apply it to real classroom contexts when they are beginning teaching. Research studies in other countries (e.g., Battersby, 1981; Bezzina, 2006; Lang, 1996), show that BTs through induction and mentoring benefit from the support provided rather than being left on their own without any support from the supervisors/mentors. This is relevant in the context of the present study that I am undertaking.

An important goal of any induction program is to introduce new teachers to the culture of the schools (Huling-Austin, 1990). Culture is the 'way things are done around here' and teachers new to a school must learn this and the related nuances that go along with the singular and collective personalities of the staff (Brock & Grady, 1997). BTs need to be oriented and introduced to the school and its staff by the head teacher at the start of the school year. The subsequent support and assistance for BTs are, according to Carter (2000)

provided by an assigned mentor or supervisor, but assistance can also be sought from other teachers in the school. Mentoring is an essential and commonly used induction practice and is discussed under a separate heading later in this chapter.

According to Koetsier & Wubbels (1995), BTs, when faced with the demands of teaching practice and with the gap between their ideals and the reality of everyday school life, blame teacher education colleges for not preparing them well enough. This particular point may be relevant to this study because I intend to seek out the perceptions of BTs regarding the congruence between their initial teacher education and the realities of being a teacher. There may be many reasons for BTs to blame teachers' college, the first reason being that teachers' college dwells more on theoretical knowledge than practical aspects of teaching, and secondly, trainee-teacher practice teaching component of pre-service education may be too short, lasting for a month or less. The first reason can be speculated to link to the lack of partnership and dialogue between teachers' colleges/universities and schools.

2.7 Induction as a teacher development programme

Induction as a phase in teachers' development and socialisation can happen with or without a formal programme (Feiman–Nemser et al., 1999). However, in contemporary discussions of educational policy and practice, induction is a formal programme for BTs. According to the American National Teacher Recruitment Clearinghouse (2002), successful induction programmes are made of four elements. These elements are:

- 1 Orientation: includes such matters as being greeted and welcomed, shown around the place, and introduced to key resources personnel and the office for collection of teaching materials.
- 2 Education in classroom management, students' assessment and curriculum content, as well as department and staff meetings, lesson plan checks, programme outlines and preparation checks by supervisors, and lesson observations of themselves and others coupled with post-lesson conferences to evaluate the observation.
- 3 Support from an assigned mentor: includes advice, guidance and assistance to collect materials, discussing teaching methods, answering curriculum-related questions.
- 4 The assessment of new teachers' performance for registration and certification as a teacher. This is a vital role for supervisors/mentors.

2.8 Mentoring as an induction approach

According to Hargreaves and Fullan (2000), the notion that new professionals should have mentors to guide them through developing skills and managing stress has become increasingly accepted. The constant changes to the education system globally place considerable demands upon schools and the work of teachers (Carter, 1997; Fullan, 2001). The pressure on experienced teachers and on BTs can be immense and schools need to develop capacities to deal with these changes (Carter, 1997). BTs' mentoring is one strategy in workplace professional learning that has the potential to respond to change in a constructive and critical way, to initiate change and thus contribute to school development (Bromfield, Deane & Burnett, 2003; Feiman-Nemser, 2001). In its most effective form, mentoring emerges from a culture of collegiality and provides teachers with opportunities to reflect on their work, to question their practices and challenge the assumptions that underpin schooling and approaches to education (Carter, 1997).

Bubb (2000) emphasised professional support as the key to the success of the induction year and highlighted some of the roles experienced teachers and mentors take in schools. Some of the roles included:

friend	colleague	counsellor
supporter	trainer	critical friend
facilitator	monitor of progress	parent
disciplinarian of students	motivator	sponsor
protector	expert practitioner	organizer
helper	planning partner	assessor

In view of the various roles listed above, mentors/supervisors seem to have multiple roles that are sometimes not clearly defined in a supervisor/mentor's duty statements. Therefore, without mentoring training and appropriate support by responsible authorities such as head teachers and inspectors in PNG, supervisors/mentors can end up with role overloads (Bubb, 2000). For example, the role of a supervisor/mentor as a supporter and assessor can be problematic for supervisors and the BTs. The net effect of this could be the neglect of responsibilities as vital support links to BTs, which is related to this study. Appointed mentors could not and should not take on all the roles by themselves. According to Bubb (2000), the roles listed above can be a shared responsibility for inducting a new teacher,

and often some people take on certain roles more naturally than others do. This allows everyone in the school to be involved in induction and mentoring by providing advice and support to BTs where and when needed.

In new teacher education, the mentor may attend to the professional development of BTs through ongoing observations, conversation and assessment of practice, setting goals aligned with the relevant country's standards of quality teaching and subject matter knowledge, advocacy, technical and emotional support (Darling-Hammond, 1998; Feiman-Nemser, et al. 1999). Mentors may model lessons, jointly plan curriculum, coach on subject matter content or pedagogy, collaboratively inquire, discuss individual learners, examine student work, and guide novices in using a variety of teaching and learning approaches (Gilbert, 2005). Providing support for BTs is essential for two main reasons: the need to retain qualified BTs and the need for BTs to become effective practitioners. Feiman-Nemser, et al. (1999) offered a third reason: supporting BTs is a humane response to the trials and tribulations associated with the first year of teaching.

In the remainder of this section on induction approaches, I elaborate on mentoring in relation to reflective practices within learning communities based on challenges put forward by Hargreaves and Fullan (2000). Hargreaves and Fullan contend that mentoring may fall short of its ideals unless it is guided by a "deep conceptualization that treats it as central to the task of transforming the teaching profession" (p. 50). The three strategic approaches they suggested are: firstly, to conceptualize and redesign mentoring programmes to be seen as instruments of re-culturing; secondly, mentoring must be explicitly connected to other reform components in transforming the teaching profession; and finally, all the experienced teachers involved directly or indirectly with mentoring are to be conscious of the window of opportunity they have to recreate the profession.

Mentoring is a cornerstone of many successful teacher assistance programmes (Gordon & Maxey, 2000) and there have been several reasons for its prominence. There has been a growth in understanding of how BTs learn (Feiman-Nemser, 2001), and a recognition of the place of practitioner knowledge in the teaching profession together with a belief that mentoring offers a 'cost' solution to teacher education and development (Lortie, 1975). The literature strongly suggests that 'situated learning' or workplace learning mediated by mentors has the potential to assist BTs in the development of an appropriate body of

practical professional knowledge (Lave & Wenger, 1998). This emphasises the need for school-based professional development for BTs where a formally assigned mentor and other experienced teachers work together with the BTs and learn from each other by being involved in activities such as team planning, staff in-services and observation of each others' lessons (Lave & Wenger, 1998; Loughran, 2002; Feiman-Nemser, 2001).

2.9 Teacher reflective practice

Several writers (e.g., Elliot, 1991; Loughran, 2002; Risko, et al., 2002) indicate that reflective actions lead to:

- a new understanding of actions and situations; for instance, at the end each lesson all teachers, including BTs are to make evaluations of lessons taught, commenting on individual lesson success, shortfalls and areas for improvements. Furthermore, post lesson observations conferences provide avenues for BTs and their mentor to reflect on the lessons taught and how to improve on it in future.
- new understanding of oneself as a teacher in terms of cultural, political and social environment of teaching; in the context of this research, BTs in PNG are normally advised during orientation to portray their new roles as teachers by dressing appropriately and follow closely the PNG Teachers Code of Ethics suitable to the teaching profession.
- a understanding of assumptions about teaching due to the critical stance one adopts; for instance, in PNG culture, the younger generations hold respect for elders and for BTs as younger generations of teachers to openly question a supervisor/mentor's advise on teaching pedagogy may seem inappropriate. This can lead to BTs' compliance and conformity to established practice without much critical reflection about teaching practices.
- the development of the commitment and skill to take on informed action. BTs in PNG schools are usually reminded, at the start of the school year that teaching takes a lot of one's time, commitment and dedication. It is required that teachers remain committed throughout their employment, for instance, where a BT is to knowingly absent himself/herself, prior arrangement should be made with a relief teacher and to set work for his/her students.

Stenhouse (1975) said, "...it is not enough that teachers should be studied, they need to study it themselves" (p. 143). This is at the heart of reflective practice (Argyris & Schon, 1982). The reflective teachers question their own teaching, and in doing so establish a foundation for growth and learning, and test their own teaching and learning theories within a set work context (Hammersley, 1993). Reflection has become one of the key principles underpinning good teaching practice and in teacher education (Rarieya, 2005). Calderhead & Gates (1993) pointed out that "it is frequently presumed that reflection is an intrinsically good, and desirable aspect of teaching and teacher education, and that teachers, in becoming reflective, will in some sense be better teachers..."(p. 1). Butler (1996) goes further in suggesting that reflection is the process enabling a novice (BT) to develop into an expert and without reflection, development does not occur.

It may be significant for this study for the BTs and their mentors to constantly reflect on their work through what Schon (1987) calls the three modes of reflection: reflection-to-action, reflection-in-action and reflection-on action. Actions can be understood as planning, preparations, and teachers' dialogue and the actual teaching. Reflections occur when the BTs and mentors, individually or collectively think through their actions. Reflection-to-action is basically the thought that precedes an event as teachers plan action. Reflection-in-action involves the analysis and review of the action as the teacher is teaching; the idea of thinking on one's feet. Reflection-on-action is the retrospective evaluation of one's practice after the event (Bell & Gilbert, 1996; Butler, 1996).

Reflection normally resides in the mind of individuals involved such as a BTs and it is difficult to observe directly (Elliot, 1991). However, reflective dialogue helps to move reflection from the realm of private activity in the mind to it being a mutual conversation between two individuals such as BT and a mentor. The dialogue creates a level of understanding about the constraints of one another's practices and gives teachers that are engaged in the reflective dialogue an opportunity to bring their expertise to an endeavour that is potentially enriching to all involved (Schon,1987). In the case of the BTs and their mentors, reflective dialogue can be an enriching tool for growth and development. This is important for this study because I predict that BTs and mentors would think about their teaching practices and share ideas about what has worked and what could be possibly be tried out. Reflection involves creative thinking for both the novice and the mentor (Elliot, 1991).

The education landscape and the teaching profession in particular, is going through certain changes to meet new demands of the 21st century (Day, 1993). For example, the structural and curricular changes in PNG under the education reform required teachers, both BTs and experienced teachers to constantly reflect on their teaching practices (NDOE, 2002). Reflective teachers are more likely, therefore, to survive and flourish in such an environment (Day, 1993). However, as noted by Day (1993), reflection is a necessary but not sufficient condition for learning. Confrontation either by self or others must occur. For instance, a mentor or 'critical' friend may challenge a BT's classroom practice in the first year by questioning teaching approaches such as teacher-centred learning to student-centred learning methods.

Teachers need such challenge and support if their professional development is to be enhanced. For example, the BTs bring with them personal beliefs and values acquired over years of their experiences in life and education. In order to practice their (BTs') deeply held beliefs and values, it may be contrary to the mentors' beliefs and values as well as the school's culture. That requires constant negotiation and re-learning that aim for the best teaching practices that enhance students' learning outcomes.

According to Zeichner and Liston (1996), reflective teaching is an empowering process in allowing teachers to understand their practice and to constantly improve on their teaching. Schon (1983) called this process knowledge-in-action, as I have mentioned earlier. Reflective teaching can be seen as a shift away from the view of teachers as technicians, who carry out what other people programmed, to a professional teacher whose work is reviewed and monitored in the light of theory and regularly changing environment (Hammersley, 1993). Moreover, it signifies a recognition that the process of learning to teach continues throughout the teachers' entire career (Zeichner & Liston, 1996). Reflection can be an important school-based professional development approach where teachers' beliefs, values and actions are constantly reviewed and refined, throughout their careers (Pollard, et al. 2005). These ideas are relevant to my study because BTs, as novices, are constantly guided or scaffolded by a more experienced and expert practitioner being a supervisor or mentor (Schon, 1983).

Mentors report that mentoring has forced them to be reflective about their own beliefs about teaching, students, learning, and teaching as a career. It also provided them with opportunities to validate their experiences (Ganser, 1996). Mentors find that just as teachers learn more about their subject by teaching, so analysing and talking about teaching is a natural opportunity to deepen teaching sensitivity and skill (Tomlinson, 1997). Critically reflective mentors find that they are more focused in their mentoring relationships; they bring expanded energy, take more informed action, and are generally more satisfied with their mentoring relationships than they would have been as ordinary teachers without mentoring roles. Reflective practice in mentoring can also provide an opportunity for renewal and regeneration (Daloz, 1999; Stevens, 1995).

Therefore, reflective dialogue provides ‘windows’ into teachers’ thinking (Schon, 1983), as it enables teachers to open up their teaching to the public through writing or talk. It becomes a valued approach as it gives the reflective practitioner a whole new perspective of things and to improve practice where applicable. This would allow the BTs in PNG to collaborate with parents of children, schools inspectors, board of management members and the mentors/supervisors to improve BTs’ classroom practices for enhanced students’ learning.

2.10 Collaborative practices in learning communities

It has been noted that unlike many other professions, there is loneliness in teaching (Martin-Kniep, 2004). Jones & Stammers (1997) contend that teaching is typically an isolated job with teachers in rooms surrounded by young people that yield to greater commitments and time. Teachers’ interactions with other adults are limited to brief exchanges or to problem solving and classroom management situations. Miser & Whitaker (1999) further affirmed that

...in many cases, teachers share the same feelings of alienation in schools that students do. Teacher isolation has permeated schools for decades. Teachers work in their individual classrooms with little time to interact and connect with other adults. (p. 140)

The autonomy of the teaching profession allows for teachers to respect each other’s right to practice. Many researchers and writers (see, for example, Eaker & DuFour, 2000; Martin-

Kneip, 2004; Senge, 1990) suggested that learning communities are the means by which teacher isolation can be broken to foster a collaborative and reflective culture. If the primary focus of schools is learning, then the children and teachers will need to be constantly learning and teaching in a learning community (Fullan, 1991). Learning communities can possibly work within the formal structure of collaboration, inquiry and reflection or can operate loosely (Martin-Kneip, 2004). As is common in the teaching profession, primary teachers in PNG are likely to feel comfortable working alone to hide any inadequacies, especially in their knowledge of the new curriculum. This can be viewed as being aloof by BTs who may need to approach experienced teachers for help but are not able to because of them keeping a distance. The BTs may ultimately perceive that as the norm in schools, thus restricting themselves from seeking help when needed (Eaker & DuFour, 2000).

However, it has been acknowledged that in the absence of learning communities, schools must rely exclusively on so called experts outside to support their continual improvement (Martin-Kneip, 2004). The traditional approach to staff training and development has been piecemeal, where an expert is brought in from outside of the school system to impart knowledge and skills (Feiman-Nemser, 2001).

Studies have reported teams to be effective in promoting student achievement (Felner, Jackson, & Kasak, 1997; Mertens & Flowers, 2003) and supporting teachers as well (Mills, Powell, & Pollak, 1992; Powell & Mills, 1994). Teachers express a reduction in feelings of isolation when working in teams (Mills et al., 1992). Powell and Mills (1994) suggested that teams provide an avenue for teachers to share pedagogical practices and help one another with bureaucratic and clerical issues, provide a venue to encourage and challenge professional practices, provide a means to understand other teacher's subject knowledge, and develop informal supportive relationships. The collegial nature of teams suggests that teaming meets both personal and professional needs.

A newer theory of learning is based on the principle of collaborative and collegial learning in professional learning communities such as schools (Hargreaves & Fullan, 2000). The assumption is that adults learn best when actively involved in activities related to their work context, which Lave and Wenger (1991) termed 'situated learning'. From the perspective of learning as a social act, recent literature on situated cognition emphasizes

the importance of how people socially construct meanings and appropriate social cultural norms. Jones & Straker (2006) asserted that teachers in collaborative school environments gain opportunities to learn from each other as they compare their practices and results when using reflective problem solving. This is relevant to this study because the BTs in primary schools are provided support and advice by supervisors/mentors who are members of teaching and thus, learning is situated in the school context (Lave & Wenger, 1991).

Learners through legitimate peripheral participation (Lave & Wenger, 1991) “steal” implicit and explicit knowledge through participating and observing practitioners at the periphery or edge of most school activities (Brown & Duguid, 2000). The new teachers start at the periphery and progressively move inwards through the process of integration and socialization (Lave & Wenger, 1991). Through a process similar to apprenticeship, learners gradually acquire skills of the traits, norms, and rules held by the community of practice. Soon, they move from peripheral participation to central participation. The process of integration becomes desirable and beneficial only when it is embedded in a collaborative school culture that promotes reflective practice and life long learning (Lortie, 1975).

Within the context of this study, the BTs and supervisors/mentors as well as other experienced teachers can learn together about the reformed curriculum contents and teaching methods (NDOE, 2002). Hargreaves (1995) suggests that a collaborative culture increase the capacity for reflection, as feedback is given, and through discussion, teachers are prompted to reflect upon their own practice (Bell & Gilbert, 1996). Particularly in collaborative practices, mentors and other experienced teachers can act as a critical friend (Bubb, 2000), enabling BTs to reflect upon their own work in the classroom (Jarwoski, 1994). Not only does collaboration promote opportunities to learn, it also encourages continuous improvement as BTs see change as a constant process of improvement and reform in the face of a changing educational environment (Hargreaves, 1995).

2.11 Constructivist learning: mentoring, reflection and collaboration

Viewing BTs as learners, I was drawn to the constructivist learning theory based on the work of early cognitive psychologists such as Piaget (1975) and Vygotsky (1978) on constructivism. Constructivism is one of the many theories on learning with ancient roots (von Glaserfeld, 1995) that has extensive implication for the use of collaborative inquiry. An induction program with a strong mentoring support means that BTs and mentors work together and learn from each other through collaboration.

Vygotsky's (1978) work on social constructivism explained that learning is defined as a social construct and further contends that knowledge is constructed through social interactions in cultural contexts. Take for example, the case of teachers interacting with other teachers and their students in school organisations or classrooms where meaning is made of their social world. The prior knowledge and experiences a learner brings with him/her, be it a student in the classroom or BTs in a school, forms the basis of what Vygotsky (1978) termed the 'zone of proximal development' which is where the students or BTs are 'scaffolded' to create learning. This idea resonates with the notion of a mentor and BTs through a collegial relations within a school's learning community (Martin-Kneip, 2004) where the mentor provides support, guidance and assistance (Bell, 1996) to the novice to learn the 'ropes' of teaching.

According to Bruner (1994), scaffolded learning relates to various forms of support or assistance provided to a learner by an expert or a mentor who enables the learner to complete a task such as teaching a class or solving a problem that would not have been possible without such support. An appropriate analogy for scaffolding in ZPD, as suggested by Bruner (1994), is that of a house. Scaffolding is needed to support the process as the house is gradually constructed from its foundations – but when it has been finally completed and all the parts have been secured the scaffolding can be removed. The building, being the metaphor for the child's or beginning teacher's understanding will stand on independently (Pollard, et al. 2005).

Vygotsky believed that learners, in working to understand and cross their 'zone of proximal development', could be supported by their own disciplined and reflective thinking, in addition to the assistance offered by more capable adults and peers (Pollard, et

al. 2005). This is vital for a BT and a mentor as well as students and teachers in a classroom. In looking at the ZPD, another concept applicable to the BT and the mentor relationship is that of cognitive apprenticeship, referring to a socially interactive relationship similar to the master-apprenticeship one in skilled trades and crafts. The concept assumes that newcomer learners (such as novice teachers) should be acculturated into established community of practice by observing and participating on the periphery as beginning teachers. This indicates the importance of mentoring through the induction programmes in teacher education within the school context and is vital for this study.

2.12 Research Question emerging from the literature

Studies on BT induction affirmed that mentoring has become a commonly used induction process among other approaches, such as classroom observations, collaborative planning and in-service courses (e.g., Battersby, 1981; Feiman-Nemser, 1991; Kelcherman & Ballet, 2002; Lang, 1996, 1999; Veenman, 1984). Except for a research study by Stevens and Moskowitz (1997) reporting the existence of induction and mentoring programmes in PNG primary and secondary schools, there is limited research on BT induction in Papua New Guinea. This provides further impetus to this study. Given the recent education reform in Papua New Guinea (PNG Education Report, 1994) and the emphasis on BT professional development for effective teaching and learning, these questions arose:

1. What are beginning teachers' experiences of teaching during their first three years of teaching?
2. What are common issues and challenges faced by BTs in their PNG school environment?
3. What are the kinds of induction practices common at the school level to induct BTs in PNG?

These questions are the basis of this research project. Methodological issues and methods will now be discussed in Chapter 3, and an argument made for the kind of research I wish to undertake.

3.0 Chapter overview

Chapter three has two parts to it. The first part explains the research methodology and the second part explains the process of data collection and analysis. The methodology section begins by discussing the positivist and interpretive research traditions or paradigms and moves on to the quantitative and qualitative research methodologies based on these two major research paradigms. The interview as a method of data collection is discussed following on from the methodology section. In the second part, I explain the process involved in collecting the data and the analysis process using a thematic approach.

3.1 Introduction

The methodology section provides a rationale for the way in which a researcher goes about gaining knowledge and gathering the required data. It is more than particular techniques in relation to the kind of knowledge that is being collected, developed or constructed (Griffiths, 1998). Understanding and justifying methodology is essential in all research and should be more clearly outlined when doing research that involves human beings.

Researchers have their own different worldviews about the nature of knowledge and reality based on their own philosophical orientation (Cohen, et al. 2000). In any research endeavour, linking research and philosophical traditions or schools of thought helps clarify a researcher's theoretical frameworks (Cohen, et al. 2000). In this chapter, I will explain the two main worldviews in research and discuss why a particular research methodology is used in collecting data to provide answers for the research questions.

In first part of this chapter, the theoretical framework is discussed by making comparison between the interpretive paradigm and positivist paradigm. Following that, the rationale for my choice of an interpretive, qualitative research methodology as opposed to a quantitative research methodology is presented. In the second part of the chapter, I discuss the practical aspects, including the data collection and analysis process.

3.2 Research Methodology: The Two Paradigms

This part of the chapter discusses the two worldviews underpinning any research endeavor, and in the context of this study, the theoretical basis for studying the beginning teachers' induction and mentoring practices in Papua New Guinea.

The realities presented in the social world have provided researchers with challenges in trying to find meanings and interpretations about given situations or social contexts (Cohen, et al. 2000). According to Popkewitz (1984), social scientists live in a world of different social visions, human possibilities and contradictions and so to make meaning of social phenomena, social researchers have the option of using three paradigms or lenses. The three paradigms are positivist, interpretive and critical paradigms (Ruane, 2005). The two predominant research worldviews are the positivist paradigm and interpretive paradigm, which are discussed in brief below.

A researcher with a positivist orientation regards reality as being 'out there' in the world and needing to be discovered using conventional scientific methods (Bassey, 1995). People, through the use of their senses, can observe this reality and the discoveries made about the realities of human actions are expressed as factual statements (Bassey, 1995; Mutch, 2005). Positivist researchers do not regard themselves as important variables in their research and believe they remain detached from what they research. The philosophical basis is that the world exists and is knowable and researchers can use quantitative methods to discover it (Cohen et al. 2000). Through this orientation, knowledge is a given and must be studied using objective methods. Research findings are usually represented quantitatively in numbers which speak for themselves (Bassey, 1995; Cohen et al. 2000; Mutch, 2005).

On the other hand, interpretive researchers cannot accept the idea of there being a reality 'out there', which exists irrespective of people. They see reality as a human construct (Mutch, 2005). The interpretive research paradigm views reality and meaning making as socially constructed and it holds that people make their own sense of social realities. Interpretive researchers use qualitative research methodologies to investigate, interpret and describe social realities (Bassey, 1995; Cohen et al. 2000). The research findings in qualitative methods are usually reported descriptively using words (Mutch, 2005).

The purpose of my research is exploratory in nature. I intend to explore the experiences of beginning primary teachers in PNG; their challenges and difficulties in schools, and what help or support they get from school-based mentors. I am interested in finding out what the teachers have experienced as BTs and mentors. I will use interviews to do so. My reason for adopting an interpretive approach in this study was its suitability in accounting for the unique and varied aspects of culture and experiences found within and across the schools where the beginning teachers work (Cohen et al. 2000; Yates, 2004). The staff culture and school contexts vary from school to school. There is considerable diversity in the background and situation of the participants and the primary schools that they work in PNG. For example, the two participating schools are different in many aspects such as: control agency (government and church/private), school location (semi-urban), school leadership, staff and school culture. Therefore, using the scientific approaches is unlikely to work, given the variability of context outlined and so an interpretive approach is appropriate to answer my research questions.

It may be difficult to generalise the findings against other schools in the province or country because the BTs graduated from eight different pre-service colleges in PNG, whose programmes differ from each other. Consequently, the beginning teachers are likely to have diverse views of their pre-service education and preparation for teaching. Thus, the adoption of an interpretive and qualitative approach allows for different and multiple realities to be shown and contrasted with each other, adding new ways of making meaning in relation to newly qualified teachers' and their mentors' experiences.

An in-depth study following the naturalistic tradition would enable me to get from the school and participants what Geertz (1973) termed 'thick data'. I want to get to where the teachers are working to collect my data and to interact with the participants. Posting out questionnaires can be difficult, especially where communication networks are unreliable and it is slow for mail to reach teachers in rural communities. Given the time I had, it is more feasible for me to do qualitative interviews rather than use survey questionnaires. Survey questions may not get posted back to me, as I am aware that teachers are busy people who already have enough work to do and may think that such questions may steal teachers' time, thus it can affect the response rate. Therefore, I wanted to get to where they are located and interview them.

3.3 Qualitative research paradigm

The research paradigm chosen by individual researchers appears to be dependent on their perceptions of “what real world truth is” (ontology) and “how they know it to be real truth” (epistemology). A researcher’s choice of research paradigm can also be determined by the kinds of questions that help them to investigate problems or issues they find intriguing. A ‘paradigm’ refers to the accepted procedure or way of thinking within a particular area of study (Boronski, 1987). Definitions from the *Concise Oxford Dictionary* (1995) explain ‘paradigm’ as “a pattern, example, or model”. When we add ‘interpretive’ it relates to viewing and interpreting social settings. It is a framework within which social (and educational) researchers often choose to work, based on their values, beliefs and ideals and research questions. Bailey (1994) offers a more elaborate definition in explaining paradigm as a perspective or frame of reference for viewing the social world “consisting of a set of concepts and assumptions” (p.26). My research is aimed at collecting the views of the BTs and their mentors on their lived experiences of induction and mentoring in the PNG school context. These views of the BTs and mentors make the collected data authentic and personalised.

I will make some basic comparisons between quantitative and qualitative research methodologies to explain why a qualitative approach seems appropriate in this research study. The comparison is not to delve into the seemingly perpetual debate on the quantitative and qualitative research paradigms, but to explain my methodological choice. Some writers argue that no one paradigm is better or worse than the other as both are proven to be useful in most research endeavours (Cohen, et al. 2001; Silverman, 1997). For instance, two different researchers investigating a given social phenomenon using either the positivist or interpretive approach view the same situation through their own ‘lenses’. They use quite different methods of data collection, analysis and reporting methods for their finding, but may come to complementary conclusions.

Given the nature of this research study, which centres on the self perceptions or feelings and experiences of BTs and mentors, qualitative research methods are, therefore, more appropriate than quantitative methods. In understanding the meaning of social nature, one has to understand the individual’s interpretation of the world from within, not from the

outside (Cohen, et al. 2000). For example, the participants are the ‘insiders’ as they are the ones who experienced the phenomenon under investigation and the researcher is an ‘outsider’ trying to get an insight of the phenomenon in question. The key philosophical assumption of qualitative researchers is that they “are interested in understanding the meaning people have constructed, that is, how they make sense of their own world and the experiences they have in the world”(Merriam, 1998, p.6). It follows that in real life situations there are multiple interpretations of reality.

On the other hand, quantitative researchers view reality as a given that can only be discovered using rigorous scientific investigations to uncover the “natural and universal laws regulating and determining individual and social behaviour” (Cohen, et al. 2000, p. 5). In thinking and planning out my research, I will therefore base my study on the notion that the teachers’ own interpretations of their experiences are the most vital ones, and their interpretation will therefore be placed in the centre of my agenda (Casey, 1992).

The tools for qualitative research, such as one-to-one interviewing, will allow for interactions between my participants and myself. The semi-structured interview will enable me to encourage and elicit further details from the participants. This is probably not easily done with quantitative instruments that use standardized measures, and where the data must be gathered via a number of pre-determined responses categories. In short, survey questionnaires are highly structured and can be answered at a distance whereas interview questions can be fluid and flexible, immediate and can develop relationships.

Rubin and Rubin (1995) and Cohen, et al. (2000), pointed out that quantitative research methodologies are a search for both law-like regularities and principles which are true all the time and in all given situations. On the other hand, qualitative researchers attempt to understand the complexities of the world through participants’ experiences. Knowledge through this lens is constructed through social interactions within cultural settings. Meanings are “found in the symbols people invent to communicate meanings or an interpretation for the events of daily life” (Popkewitz, 1984, p. 41). This relates well to my research, as I wanted to talk to the BTs and mentors using oral language as in the interview. In PNG, people often tell stories to relate events and express themselves more than write about it.

Qualitative research is a naturalistic, interpretive method of social research and, as explained by LeCompte & Preissle (1984), is about “descriptions of observation made as a means to interpreting social phenomena” (p.141). Denzin & Lincoln (2001) offered a more comprehensive definition stating that:

Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practice that makes the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach. This means that the researcher gets to see and talk with participants as they go about the things they would do naturally. (p. 128)

This is basically what I wanted to do in this research and to talk with the teachers using semi- structured interview to collect my data about their lived experience.

The interpretive paradigm has become known as a qualitative, ethnographic, ecological or naturalistic approach (Kumar, 1996). It is a research methodology traced from earlier work of the disciplines of sociology and anthropology and adapted to educational settings. The following are useful and key characteristics of qualitative research provided as a summary by Losdico et al. (2006, p. 264).

- Studies are carried out in the natural setting. For example, in my study, I will be going to the two selected primary schools to interview my participants.
- Researchers ask broad research questions designed to explore, interpret, or understand the social context. My research questions were mainly semi-structured and that allowed for more flexibility and probing to be done by me to sought clarification if there is a need to.
- Participants are selected through non-random methods based on whether the individuals have information vital to the questions being asked. For this study, I chose to BTs and mentors from among all the other teachers because this group of teachers (BTs) would provide specific answers related to my research questions.
- Data collection techniques involve observation and interviewing that bring the researcher in close contact with the participants. My main data collection for

this study was interview and that brought me closer to my participants. I had to visit them and develop rapport before I could collect data from them.

- The researcher is likely to take an interactive role where he or she gets to know the participants and the social context in which they live. For, example, in my study, I was able to re-establish the former relationships I had with some of the teachers whom I had the privilege to teach with in the same province.

In linking what Losdico et al. (2006) outlined above to the present study, I will visit two primary schools in just one part of PNG and engage in research with my participants in natural settings where “the participants do what they normally do” (Bogdan & Biklen, 1992, p.79). This will enable me to observe each school’s physical settings, relationships and other daily happenings naturally.

In other words, in qualitative educational research the focus is on the everyday concerns of people within their natural settings such as classroom or school. Data gathered are generally descriptive rather than numerical (Denzin & Lincoln, 1998) where the interview responses from the participants are audio taped and transcribed. The emphasis of qualitative enquiry is on the meanings in context, and so the findings are often expressed in the participant’s own words (Bogdan & Biklen, 1992; Cohen et al. 2000). This would mean that in collecting and analysing the data, the participants’ responses could be represented as data on what they say and the meanings they make of their experiences.

Schools are social and dynamic organizations comprising children, teachers, parents and significant others that interact with one another. Teaching and learning involves a lot of social interactions with pupils, teachers, and school leaders within predetermined buildings called classrooms and space called schools that have their own cultural norms and practices (Fullan, 2000). For instance, the interaction between a beginning teacher and his/her mentor creates shared experiences that can be beneficial to both. These experiences are idiosyncratic and add both theoretical and practical knowledge of the beginning teacher. For a researcher to get research participants to share their personal experiences require a research methodology that can draw people to talk about these personal and professional experiences. Thus qualitative research seemed a relevant approach.

The qualitative approach treats people as research participants and not as objects as in the positivist research approach. This emphasis can be an empowering process for participants in qualitative research, as the participants can be seen as the writers of their own history rather than objects of research (Casey, 1993). This approach enables the participants to make meanings of their own realities and come to appreciate their own construction of knowledge through practice. For example, the BTs and mentors in this research are assured of the anonymity of data and this can allow them to express their views on induction and mentoring without having to fear any repercussions. This process can be seen as enabling or empowering them to freely express their views, which they may not have a chance to do with someone outside of the school system (Cohen et al. 2000).

I wanted to hear the voices of the beginning teachers and their mentor teachers on their experiences of a significant professional development approach in schools. Teachers in schools are constantly pressured to perform to standards in students' achievements and implementing new curriculum, as is the case with PNG teachers currently (Matane, 2005). And so, I wanted to get the perceptions of the BTs and their mentors from schools on induction and mentoring of BTs in PNG. To do that well, qualitative researchers often work with small samples of people to do an in-depth study (Miles & Huberman, 1994). This project will therefore use a qualitative approach, involving a small number of teacher participants (n=15) of Simbu province in Papua New Guinea. The study will use one-to-one interviews with ten (10)-beginning teachers and five (5) mentors. I now move on to discussing the kind of interview method that I will use to collect my data.

3.4 Semi-structured Interview

Interview is a commonly used data collection method in qualitative research (Merriam, 1998). Other data collection methods in qualitative research include observation. A one-on-one interview is common. Other forms of qualitative interviews are focused group interviews and telephone interviews. According to Merriam (1998), interviews can be viewed as a form of conversation, but a "conversation with a purpose" (Dexter, 1970, as cited in Merriam, 1998, p.71). The interview process is likely to make it easy to interact with my participants at their place of practice (schools). I intend to use the interview as the "primary mode of data collection" because it will give me the kind of information I need to answer my research questions. Thus, Kvale (1996) affirmed that, "The qualitative research

interview is a construction site of knowledge. An interview is literally an inter view, an exchange of views between two persons conversing about a theme of mutual interest” (p. 2). Qualitative interviews are generally semi-structured or unstructured, and usually one-to-one (Mutch, 2005).

I have chosen semi-structured interviews as my main data collection method in this project, because I want to find out, understand and describe the feelings of beginning teachers about their experiences during their first three years of teaching. If the present study is to contribute to improving teacher education, knowing about the lived experiences and challenges and dilemmas of people who have become teachers is vital. From these data I can begin to understand themes pertinent to the teaching experiences of beginning teachers and their mentors.

The use of semi-structured interviews allows for some flexibility in the order in which questions are asked and I will be able to probe participants to clarify ambiguities in the research process. According to Mutch (2005), interviews have advantages over written questionnaires because misunderstandings can be readily clarified. Interviews will also make it easy to collect the necessary data. Moreover, this research project is small in scope and it will provide a small window on the experiences of beginning teachers (BTs) and mentors in PNG, which may lead to further investigations.

Rubin and Rubin (1995) contend that “qualitative interviewing offers a good place to start in learning how to hear others” (p.viii). Qualitative interviewing allows the research participants to relate their experiences using a narrative approach. This is another reason for choosing interview as a qualitative research methodology, because it could help me gain some understanding “by encouraging people to describe their world in their own terms” (p.2).

3.5 Trustworthiness

Each research model or method has its own strengths and weakness when applied to educational contexts. In considering what method to use, the researcher must have to figure out whether the considered or desired methods are likely to assist him or her to achieve the main goals or to answer the questions (Cohen, et al. 2000). Trustworthiness and honesty

play an important part in the interview and final analysis of the information. Honesty and openness should always prevail in qualitative research (Punch, 2005). Trustworthiness is a term, which may be seen by others as a criterion offered as an alternative to the traditional 'validity' and 'reliability' (Burns, 1994; Merriam, 1998). That means that I need to be careful in the handling of the data and to let the data 'speak for itself'. One of the strategies used was to cross check the interview transcripts with the participants which I did send back to my participants to verify what they said and what was written. I have not got any responses from the participants as to whether or not to alter or to affirm the scripts.

Validity and reliability serve as the two main areas of concern in having a qualitative research output that is trustworthy or has some credibility to the readers. Credibility, according to Losdico, et al. (2006), refers to whether the participants' perceptions of the settings or events match up with the researcher's portrayal of them in the research report. In this discussion, I prefer using the term trustworthiness. Professionals in applied fields, such as education, must be able to trust research findings. This trust must come from the reader seeing sufficient detail to know that the author's conclusions make sense (Merriam, 1998; Punch, 2005).

In qualitative research, the reliability can be considered as the similarities between the collected data and the realities being researched (Cohen, et al. 2000). Sarankatos (2006), defines validity as "the property of research instrument that measures its relevance, precision and accuracy" (p. 83). The validity tells the researcher whether an instrument measures what it is supposed to measure, and whether or not this measurement is accurate and precise. Validity and reliability are both important requirements of effective research and are explained by Cohen et al. (2000) that "reliability is a necessary but insufficient condition for validity and; reliability is a necessary precondition of validity" (p.105). In other words, research without reliability cannot be quality research.

Therefore, researchers should consider each research method, including its basic characteristics, strengths, and weakness, to ensure the reliability and validity under consideration (Goetz & LeCompte, 1984). Although it is impossible for researchers to be value-free in qualitative research, researchers may address "data validity through honesty, depth, richness and scope of the data achieved, the participants approached, the extent of triangulation and the disinterestedness or objectivity of the researcher"(Cohen et al. 2000,

p.105). My bias on this research as a teacher educator and teacher cannot be ruled out and the method of triangulation used was data triangulation, where I compared what BTs said to what the mentors had to say in this study. I explain my situation as a teacher and researcher below in the context of this research.

3.6 Personal and professional bias

My own professional experience as a teacher educator in a primary pre-service college in PNG and teacher played a part in the research outcome during the course of the interviews. My being a former teacher in the province, moving away to another part of the country as a college lecturer and now going around schools to collect research data aroused a lot of questions which the BTs wanted to know about. Having being assured of my promise of complete confidentiality of what they related to me, participants appeared to feel free to speak in a frank and forthright manner. On several occasions, before the tape was turned on, I was queried on whether I was there to in-service them on one of the new curriculum materials introduced to schools which I helped to write. The enthusiasm of all the participants in this study indicated to me that the BTs and their supervisors felt they had a sympathetic ear from the researcher to discuss issues pertinent to their work.

Likewise, whilst I as a researcher tried to maintain neutrality, it is inevitable that on many occasions, strong elements of subjectivity crept into the interviews and I am aware that such is unescapable given the nature of my study. Some of the more worrying comments related to some of my own experiences as an inductee recently and also as a mentor during supervision of novice teachers during practice teaching in PNG primary schools. Being wary of these issues helped me to keep these thoughts in check during the fieldwork and analysis process.

I now explain the actual process of data collection and the analysis of the transcribed interview data.

3.7 Methods of data collection and analysis

In the methods part of this chapter, I discuss the actual process involved in acquiring the data from the two schools whose teachers voluntarily participated. I begin my discussion

on informed consent for accessibility and other aspects of the ethical protocol involved. The interviews were semi-structured and focused on the beginning teachers and the school assigned supervisors/mentors. In the subsequent part I discuss who the participants were as they are the primary source of data collected.

3.8 Process of gaining informed consent and access to school

Following gaining ethical approval from the University of Waikato - School of Education Research Ethics Committee (refer to appendix 2), I wrote to the respective PNG provincial and national education authorities (refer to appendix 3 & 5). The purpose was to inform them of my research intent and seek their approval to conduct research. The responses from the local and national education authorities were positive and I travelled back to PNG for my data collection (see appendix 4 & 6). The two primary schools and the cohort of teachers that met my selection criteria were identified. The first criterion was for the schools to be easily accessed and the second one was that schools have the required number of 4 to 5 BTs in each school willing to participate in the research. Both schools met those two criteria.

3.9 Ethical considerations

The process of gaining permission to enter the study site is vital and once entry is gained, the researcher has ethical and moral responsibility to protect the participants and school from possible harms as a result of the research (Cohen et al. 2000). Once institutional permission is granted, the researcher must ensure that permission is sought from those who will be participating. After gaining entry into the field, good field relations must be established and maintained. The establishment and maintenance of good field relations requires that trust and credibility need to be established (Mutch, 2005). These good practices come under the ethical considerations discussed below.

There are many ethical considerations involved in any research and mine was no exception. Ethical issues encountered in educational research can be complex, and may have placed me, as the researcher, in some unexpected moral dilemmas (Cohen, et al. 2000). It is imperative for me as a researcher that my behaviour is ethical, always preserving the dignity of my participants (Cohen, et al. 2000). The ethical consideration

revolves around the following issues: a) informed consent, b) the right to privacy and, c) protection from harm.

At the outset, the research participants were informed of their rights and obligations regarding the project. I explained that the main data-collecting techniques for the research are semi-structured interviews to be conducted on a one-on-one basis and recorded. The principle of informed consent arises from the participant's right to "freedom and self-determination" (Cohen, et al. 2000, p. 51). To be informed, a participant must be made aware of the purpose of the research (refer to appendix 9), and risks and benefits, the procedure and the time involved, and the right to withdraw (Cohen, et al. 2000). My entire interview participants consented to participate and all signed the written consent form before I conducted my interviews (refer to appendix 10). I informed them that their identity in this research would be protected by the use of anonymity in the data analysis and reporting in the thesis write up. However, I am wary that there is no guarantee of complete anonymity; especially when a specific group of teachers (BTs and their mentors) in just two schools are involved. I can only do my best to protect my participants' identity in being careful with my report in this thesis, such as, not using names or giving away some other clues to trace identities of my participants.

3.10 Research participants

In this study, I chose and interviewed ten BTs and five mentors/supervisors from two selected primary schools that had students' enrolment of grade 3 to grade 8. The 5 supervisors were also mentors to the BTs. The two schools were chosen because of easy accessibility by road travel and each school had more than three beginning teachers in the overall staff composition for 2006. Moreover, the school's leadership was more than open to my request to conduct research at their school involving their beginning teachers and mentors. The interviews occurred at the school in either the teachers' classrooms or common staffroom during September 2006. Each of the participating beginning teachers graduated from one of the eight PNG primary teachers colleges between 2003 and 2005. All of the participants attained a diploma in teaching (primary) certificate and, at the time of the interviews, were on provisional registration as teachers (that is, in their second or third year as teachers). The BTs were aged between 22 and 25. The mentors had substantial teaching experience and their ages ranged between 35 and 45 years.

Figure 1: Number of participants

a) BTs

Year graduated	School 1	School 2	Total
2003	1	2	3
2004	2	2	4
2005	1	2	3
Total	4	6	10

b) Mentors

School	No.
1	2
2	3
Total	5

Teachers from the two schools in their first three years of teaching were invited to participate and recruitment of participants was based on informed consent. To validate and cross check data, I also included mentors/supervisor in my research as well. Moreover, supervisors/mentors are a significant component of the induction program in schools and it was necessary to gauge their views of induction to add value to this study. Written and verbal consent was sought from the head teachers and the respective participants at the school. Following that, I met with the beginning teachers and conducted interviews with them on a one-to-one basis. The teachers represented only a small sample of teachers in the country. According to Cohen, et al. (2000), purposive sampling is one sampling type where “the sample has been chosen for a specific purpose” (p.103).

3.11 Data collection method: semi-structured interviews

Most of the interviews took place on the weekdays between 9.00 am and 3.00 pm and the participants were allowed their free time morning tea and lunch breaks. The interviews took place at the two separate schools over a period of two weeks and each interview took 45 to 60 minutes. I audio taped each interview and later transcribed them with the assistance of two other people. Before I started the interviews, participants were asked if they were comfortable with me recording their voices. All the participants seemed comfortable with their voice being recorded on tape and each of the mentors and beginning teachers were interviewed separately, at different times. The main venues were the teacher’s home classroom and the staff common room. Notices pasted on doors warned people about the interviews thus minimising disruptions (refer to appendix 11 for interview schedule of questions and invited comments).

3.12 Sending completed transcriptions to the participants

The recorded interview data in the audiotape were transcribed by listening to the tapes over and over for a while which took about 5 to 6 hours for each interview and I transferred them into written texts. I then read through the transcriptions and to make edits before I posted by mail to my research participants in PNG. The intent was for them to read through for corrections, clarifications, deletions and exclusions of the transcribed data before they could be used for analysis and reporting as a thesis. The transcripts were sent with clear instructions that changes or alterations were to be indicated on the original transcript and sent back to me. Included in the package posted to the participants were self-addressed envelopes for return mail. I made it clear that non-response from the participants would mean that they agreed with the transcribed data. None of the participants returned their transcripts.

3.13 Analyzing the interview data

Once I had transcribed the interviews with the fifteen participants for this research project, I analysed the data for common themes to answer my research questions. The questions are:

- What were the joys, challenges and problems faced by BTs?
- What are your perceptions on the primary teachers college program and the realities of teaching in PNG primary schools?
- What are the kinds of assistance provided to the BTs and how did they value such help?

To analyse the transcripts, I used coloured highlighter pens to highlight parts of the participants' responses that explored the BTs' experiences. The colour codes used were for different themes, such as: needs were yellow and joys were coded green. This was done in relation to ideas that emerged from the literature review. The value that BTs' place on mentors was colour coded blue and their teachers' college curriculum coded purple. The findings are presented in chapter four.

In qualitative methods, there is room for some flexibility in research. While some constraints may be placed on the research by supervising agencies, there was still some flexibility (Merriam, 1998). For example, I was able to interview the primary schools inspector when he was on his normal inspection rounds to one of the two schools that I visited. He provided useful and insightful information on the inspector's roles as being a 'quality controller and monitoring officer' and about beginning teachers' inspection and certification process. The information collected from the inspector (interview) and my experience as a teacher and teacher educator is used to explain the induction process in PNG. It was during this meeting that he revealed the planned transfer of inspectors' roles to the head teachers in primary school starting in 2007. That would mean the head teachers will have wide powers and responsibility as evaluators and assessors of teachers and school performance (personal communication with school inspector, 28/08/06 in school 1).

I was also able to clarify matters on interviews by talking informally to the participants. Banister, Burman, Parker, and Taylor (1994) argued that research is not a linear progression, where the researcher always has understanding and control. Rather, it is a constantly ongoing, evolving and responsive process whereby emerging issues can be attended to.

3.14 Conclusion

The two main traditions of research are positivist paradigm and interpretive paradigm. My preference for the interpretive paradigm stems from PNG's oral tradition where stories of social events are told and retold. Also, my previous educational experiences and training in the social science discipline has a large leaning towards my choice of research methodology. Qualitative research methodologies have their historical roots within the disciplines of sociology and anthropology, which are adapted to educational settings. Qualitative researchers use inductive methods of reasoning and hold that there are multiple realities to be uncovered (Cohen, et al. 2000). Qualitative researchers focus on the study of social phenomena and give voice to the feelings and perceptions of the participants in the study. In this study, the voices were those of the beginning teachers and the mentors about their lived experience in teaching and mentoring during the induction period.

Qualitative studies are carried out in natural settings, where researchers ask broad research questions designed to explore, interpret, or understand the social context and where participants are selected through non-random methods based on whether the individuals have information vital to answer the questions being asked. Participant interviews took place in schools during the normal school days when students and teachers were in action. This research was conducted using one-on-one interviews to collect in-depth data about Papua New Guinea beginning teachers from two separate primary schools in Simbu province. Not every teacher was eligible according to the criteria I set, as the purpose was to get the views of beginning teachers in the first three years of teaching.

The findings of the research interviews on induction and mentoring of beginning primary teachers in Papua New Guinea are presented in the next chapter.

4.0 Introduction

This chapter includes the results of the study arranged in formal themes derived from the participants' interview transcripts. The analysis and findings show extracts of words from the participants' transcripts, supported by relevant literature relating to this study. There are five themes that are pertinent to this study and I will discuss each of them with supporting quotes from the research participants. The five main themes from the findings are:

1. Initial teaching experience: this includes the findings on personal information as study context, the BTs' reasons for choosing teaching, BTs' early teaching experiences and their future plans/ambitions based on these experiences. This theme links to the question of BTs' continued desire to teach in primary schools and to ascertain how induction and mentoring can impact on BTs' retention, even if they had no initial motivation to take up teaching as a career.
2. Pre-service education: this presents findings on BTs' perception of their initial teacher preparations, issues on material and human resources, and their need for mentoring support. This theme is relevant to tease out the congruency of BTs' pre-service teacher education and the realities that are presented in primary schools amounting to what is known as 'reality shock'.
3. Induction and mentoring: this includes findings on school induction programs, mentoring support, training and incentive for mentors. The BTs' value for induction and mentoring is also discussed in this section. This section also includes views of those who mentored the BTs in the study, whether in a formal or informal capacity. This theme is significant in supporting the notion that BTs with proper induction and mentoring support can formally be socialised into teaching, leading to further personal and professional growth.

4. School collaborative culture: this includes findings related to BTs' and mentors' approaches to learning collaboration and teacher reflection. This theme relates schools as learning communities where BTs teachers learn to teach with the support of other experienced teachers and their formally appointed mentors/supervisors. Learning collaboration and teacher reflection are significant for induction and mentoring because teachers as adult learners learn better from doing than being told on what to do. The BTs and supervisors/mentors can collectively reflect on their teaching.
5. Reformed curriculum and teachers' development: this finding includes the BTs' and mentors' understanding of the curriculum and the teaching approaches. It also presents findings on teacher in-service programs. This theme is about the implications inherent in BTs learning about a new curriculum and induction programs targeted at meeting mentors' and BTs' curriculum knowledge through externally provided in-services.

4.1 Theme 1: Initial teaching experience for BTs

4.1.1 Study context

BT participants conformed to the standard in PNG where they graduated with a diploma in primary teaching and are provisionally qualified to teach as generalist teachers in primary schools. Following their appointments in the first year, BTs are on compulsory inspection as part of their induction program until they are given a successful inspection rating by a designated district schools inspector at the end of first year.

Most of the BT participants for this study were in their first two years of teaching. Only two out of the total (n=10) BT participants in this study were in their third year of teaching at the time of the interview. The participants' ages ranged between 20-25 years. The mentors are experienced and certified teachers and their mentoring experiences ranged from 1- 17 years, and their ages from 35-45 years. With a total of ten BTs recruited as my research participants, three BT participants were female and the rest were male. There were three female and two male supervisors/mentors participants.

4.1.2 Motivation for choosing teaching as a career

I had in my interview schedule a question on ‘Why did you choose teaching as a career?’ which drew many interesting and varied responses (refer to appendix 11). I intend to discuss my findings by looking at BTs’ underlying reasons for becoming a teacher, which may signal BTs’ attitudes to teaching and their chances of continuing as teachers.

Presented below is what some of the participants said. One theme that emerged from the data about BTs’ initial interest for wanting to be teachers related to their academic results. Two BTs said:

I think it was the grades or marks that I scored on my final examination which got me to the teachers college and I became a teacher [Female BT C from school 1, 24/08/06]

Yes, when I did my grade 12, I thought I would be doing something else, but when looking at my assessment marks I wasn’t fit so I decided to choose teaching as a career. [Male BT E at school 2, 27/08/06]

Teaching seemed not to be enticing for secondary school leavers wanting a future career that rewards them with good pay and status. It is implied that primary teaching career in PNG is left to those that do not score good grades to enter into universities studies and the BTs take up teaching to secure a job for themselves. This indicates the low value placed on teaching as a profession by young school leavers from secondary schools.

One of the other BT participants refers to financial constraints on meeting high university fees as a reason for enrolling in primary teachers’ colleges. The government’s user-pay policy for tertiary education means students pay their own tuition fees to get tertiary education in PNG. One BT said that:

To become a teacher was my third preference. I was accepted for university studies [University of PNG] but had no school fees to go there. The teachers college was only my third choice. [Female BT F from school 1, 24/08/06]

Although, the user-pay policy is applicable for all tertiary education, the fees charged by teachers college are comparatively lower than that of other higher education institutions like the universities. The user pay policy has disadvantaged the academically bright

students who could not afford university fees to end up in primary teachers' college, but would these people have the interest to complete their courses and remain in teaching is a question that concerned authorities have to answer. There should be match of academic abilities with career interest so that there is no wastage of resources and sustainability in tertiary education.

Another factor relating to the cost issue is that, the length of training period is shorter. For example, in primary teachers' colleges students spent only two years of full-time study. The primary teachers' colleges follow a trimester program that reduces the initial three years program of teacher education to just two years. The rationale for shortening the course duration was to meet teacher demands in PNG primary schools throughout the education reform. That is an added impetus for students wanting a tertiary education with the least cost and primary teachers colleges seemed to be a favorable option.

One other BT in this research confirmed the assertion that primary teachers' colleges in PNG charge low institutional fees and that was the deciding factor for him choosing to be a teacher:

After grade 12, you have to make choices for future careers and apply to colleges and institutions. For me, one deciding factor for choosing teaching as a career was that teachers colleges charged the lowest institutional fees. So I chose to go to the teachers college and trained to become a teacher. [Male BT D from school 2, 28/08/06]

Apart from the academic and financial reasons that influenced BTs to choose teaching, some other participants developed their initial interest in teaching based on their personal observations of their former teachers, or their personal convictions, beliefs and philosophy formed while being in different stages of their education.

Former teachers influenced one of the BTs and he wanted to be a teacher to influence other children:

I was very interested in teaching because during my primary schooling, I saw teachers... and ... admired them [former teachers]. So from these early experiences, I decided to become a teacher. [Male BT B from school 2, 28/08/06]

This finding confirms what the literature (e.g., Veenman, 1984; Feiman-Nemser, 1991) pointed out that a lot of BTs enter teaching with ideals to make a difference in influencing others, both adults and children in schools.

Another BT had deeply held beliefs and values that prompted him to become a teacher so that he can also make a difference. He said:

I chose to become a teacher... to help mould the students' behaviour and for them to have positive attitudes. What I see in the young people ... going out of line a bit. I want to influence my students... to be good citizens and behave well in their families and communities as good citizens of the country. [Male BT A from school 2, 28/08/06]

It appears from this finding that teachers believe they can have a profound influence on children even though the effects may not be seen until later in life when former students reflect back and acknowledge how they were influenced. The influences can be both positive and negative. The BT quoted above, aspired to be proactive and have positive influence on the younger generations of PNG citizens (children). This resonates with the assertion made by Lortie (1975) that teachers have widespread doubts and they can never really know whether their teaching has lasting effect upon student or not.

One other BT participant chose teaching to pay back corporal punishments he received for being a naughty student in school. Corporal punishment has since been outlawed in PNG schools and the teacher had subsequently reformed his perception of teaching:

I made up my mind to become a teacher while I was in grade three in primary schools many years ago. My motive was to take revenge on my teacher who smacked me for being naughty in class and I vowed to become a teacher and beat his children or any of his relatives by becoming a teacher ...in his area. [Male BT J in school 1, 24/08/06]

The above finding is particularly significant because the BT's initial motive of wanting to be a teacher was a result of having a bad experience with his former teacher. His former teacher may have applied the best-known discipline tactic at that time when dealing with classroom discipline. However, he has now reformed his attitude and the implicit factors determining this change are the pre-service education, first year teaching experience and the induction and mentoring support in his school. Using Vygotsky's (1978) social constructivist notion of learning, the BT through his prior learning experiences as a

student, trainee teacher and current BT has learnt through social interaction with his class and supervisors/mentors to form a new perception of teaching. According to Jones & Straker (2006), teachers in collaborative school environments are given opportunities to change their practices through constant reflections (Schon, 1983).

4.1.3 Joys and challenges of beginning as a teachers

All the BT participants interviewed recalled that they were excited to teach upon receiving notices from the provincial recruitment office about their first teaching appointments. As one BT said:

On the graduation day, I was very excited, knowing that I am now qualified as ... a teacher. My joy was confirmed when I got a letter from the appointments [recruitment] officer about my teaching post...where I am located now. [Male BT H in school 2, 28/08/06]

The BTs' joy of completing their studies and securing a job seemed to have been the cause for their emotional state, given the current difficulties in securing paid employment in PNG. As related earlier, the BTs' motivation for teaching varied and almost half of the BT participants from this study got into teaching because they could not get to other institutions of their liking.

Given that PNG's secondary schools have expanded under the education reform and many more grade 12 graduates pass out each year from secondary schools, the labour force and tertiary colleges' capacities to absorb the increasing number of graduands is debilitated. Thus, the students who had initially planned to go on to universities, but who could not secure places have the option to go to primary teachers' colleges or to join the pool of escalating school leavers not having direct employment or a place in tertiary institutions. The findings from this research showed that most would have chosen to go on to teachers' colleges than to go back to a village. One of the BT participants said:

I applied for...Health Sciences course ...in my school leavers' form, but they didn't get me, so then I was put to the teachers' college. From there I went ... and I did the 2 year course and graduated in 2005, and so I am happy to get employed as a teacher [Male BT A from school 1, 25/08/06]

Apart from having a job as a safety net in a country where getting formal employment with regular income is not easy, other BTs expressed their joys of teaching with a much deeper sense of purpose. One of the joys of teaching as expressed by BTs was in becoming life long learners while teaching. According to Scherer (1999), teachers make teaching more meaningful when they become learners with and from students. One of the BTs said:

As a beginning teacher... I have learnt a lot. As time goes on, I've learnt more and more. By teaching, I learn a lot from the kids I have been teaching, and how to go about life, behaviour, and characters and how to dress. How life is outside, it happens in the classroom. I can see this through my students. [Female BT E from school 2, 28/08/06]

In support of what the above BT said, Lieberman and Miller (1999) in writing on different ways on teachers' learning pointed out that one of these ways was by "observing their students" in the school (p.69). They went on to argue that "learning for teachers involves more than listening to ideas about school" (p.69) and suggest that teachers learn best from peers and students as 'situated learning' (Lave & Wenger, 1991). Learning must be contextual for it to make sense and become meaningful.

A few other BTs expressed their joy of teaching in helping slow learners or those that have difficulty in learning new things and spend considerable time helping them overcome the learning difficulties. On BT said:

As a teacher of grade 3, I find that the students coming through elementary school had difficulty in reading and writing in bridging from vernacular to English. I spend extra time to help them with their reading during lunch hours and after school ... most times. At other times, when I see that most of the smart children finish their work and the slow learners ... are still working on the same task, I help them ... with their work. Most of my students cannot read and write in language or even in English... so I use my free time to help them [Female BT F from school 1, 25/08/06]

The act of reflecting on one's actions or experiences as related above is a significant approach to improving teaching practice for the BTs. Schon (1983) determined that reflection is a process needing hindsight, insight and foresight for development and growth of teachers. The growth and development could manifest in the teachers' improved practice that may result in students' learning. The joy of helping and caring is the heart of

teaching and, according to Scherer (2000), this can make a teacher become more passionate about his/her job, leading to self-fulfilment of teaching as being enjoyable.

After the initial excitement following the graduation and appointment notices, the BTs get to their new school locations to meet and work with new people, including the teaching staff and the school children. Some experiences can be summarised as follows:

My first day of experience as a teacher was interesting. I woke up early at 5.30am on the first day of teaching and was eager to meet my students. I don't normally wake up at this time of the day... [Male BT J from school 1, 24/08/06]

The finding indicated that the BT was keen and excited to meet his students and had to rise early as part of orientation for his new role as a teacher, working to scheduled hours. This made them simultaneously excited and anxious, but they seemed to overcome their fears of their new learning experiences once they got the 'feel' of it, as one of the BT participants said:

...as the first school day started, and my students walked into my class, I realised that they were smaller in size, so I felt at ease. I felt my confidence level rising and was comfortable to face them [Male BT C from school 1, 24/08/06]

It is apparent from this finding that the BT initially lacked self-confidence. In one of the two schools, a strategy was in place by the school administrators to help BTs to progressively build up self-confidence. The school's administrator/mentor using such a practice explained:

Normally when new graduates take up their first year of teaching, we [school administration] do not allocate them [BTs] upper primary classes. Most of the BTs in this school start with grades 4 and 5 in their first year of teaching, and then we try them [BTs] out for grades 7 and 8 classes when they are confident enough to teach. We allow them to see other teachers as their role model when they observe other experienced teachers' in action. [Female mentor from school 2, 29/08/06]

However, the above mentioned practice of progressively building up teachers' confidence is not standard and varies from school to school based on different head teachers' perception of BTs' potential.

4.1.4 Classroom management

Apart from the lack of confidence at the initial stage of teaching, other themes emerging from the data are issues of classroom control and management, as one BT participant said:

I find it hard to control my students in class and as I lacked confidence. I talked to my senior teachers and other experienced colleges for advice and assistance on to solve such...issue. [Male BT D of school 1, 25/08/06]

Another BT participant commented about the similar issue on class control and personal confidence:

My first experience in teaching this grade was frightening as I realised that some of these students were big like me. As I got used to my students' I felt at ease with them. [Male BT B from school 1, 24/08/06]

The classroom control and management related to BTs' lack of self-confidence and improved over time. As one of the BTs in this study revealed of his experience of wanting to be a teacher because of the physical punishment applied on him, BTs are aware that corporal punishment is outlawed in PNG schools. Classroom discipline and management can be stressful, especially for BTs. According to Bromfield, et al. (2003) BTs need to be skilful in “managing groups, facilitating positive behaviour, planning motivating activities...and responding to individual needs of a large group of student” (p. 184). This requires confidence gained over many years of experience, which BTs lack. They resort to advice from other experienced colleagues or send students who present discipline problems to the deputy head teacher or head teacher to be dealt with appropriately.

4.1.5 Planning and programming

Another challenge facing BTs, according to findings from this study, is a general lack of BTs' understanding about planning and programming of the new outcome based curriculum. Most of the help for BTs was sourced from their mentors as well as the knowledge gained from school and district organized in-services course they attended. This is what one BT participant said:

The most help I needed was, on how to prepare teaching program because what I learnt at teachers' college is... different from what ... the teachers in my school

are using, so I am ... having tough time trying to fit into the program format used by the school. I am trying to fit together what the teachers' colleges taught me with what teachers in my school are using. [Male BT G of school, 2,28/08/06]

The finding above is significant and imply that there is a lack of commonality between what the newly qualified teachers learn as part of their teacher preparation, and what the schools have available for them, to upskill them in the new curriculum demands. Learning one thing, then having to immediately adapt to something else, is hard work for BTs who have to learn a lot of new things all at once when they (BTs) get their first job.

4.1.6 Resources

Resources in this study refer to both material resource and human resource. In the case of the latter, it implies significant people within the school environment that interact and provide support services directly or indirectly to BTs. One other significant finding from this research related to the lack of teaching resources and materials in schools. Darling-Hammond (2003), in writing about her study of BTs in schools of United States, contended that a lack of resources was a contributing cause of BTs exiting teaching. Teachers in this study felt that access to good resources and teaching space of their own had an impact on their ability to meet demands of their new career. The new curriculum demands and the lack of proper teaching material seem to have hampered BTs ability to make proper teaching programs and lesson plans.

I really need teachers' resource materials for my teaching. Right now we do not have [the] grade three teacher's guide... I have just these [showed a few samples] curriculum reform books and I find it difficult to plan when there are not enough materials around. I basically need teachers' resource [with emphasis]. [Female BT F, from school 1, 25/08/06]

I also need supportive teaching materials to better prepare and teach my students.[Male BT from school 1, 25/08/06]

As well as mentioning the professional issues above, all the beginning teachers talked about issues of social and personal support when they commenced teaching. The BTs expressed appreciation for the approaches of the schools and boards of management in helping meet their financial needs. On occasion, boards lend money to BTs in advance of their salaries. This is paid back through their salaries.

The school's board first greeted me and welcomed me to the school during the first day I took up my teaching post. I was shown my house and because my salary was delayed and not paid on time, the board loaned me some money to keep me going until I was paid my wages. [Female BT F from school 1, 25/08/06]

BTs in PNG usually do not receive their commencement salaries on time and the delay could last for almost a whole school term. Being support financially, socially and professionally is vital and all stakeholders of the school, including the school board members can contribute to settling BTs into their new school environment. It appeared to be important for the BT to feel accepted into the unfamiliar community and as such the school leaders and governors have a vital duty to make them feel welcome and accepted into their new community as part of the orientation and induction program at the school level.

As a beginner I would say that the BOM and school leadership ask ... about their [BTs] feelings on how they are getting on with their work or any personal needs that they may have. Even... simple gestures such as greeting us... makes us prepared for the visit of the inspector ...for registration purpose [Female BT F from school 1, 25/08/06]

Some schools organize activities at the start of the school year where new teachers, that includes teachers new to the school location as well as BTs, are introduced and made welcome at the parents' and citizens' meeting at the start of the school year by the head teacher. The practice of introducing BTs to the students, parents and the community varies from school to school and is very much dependent on the head teachers' and governors' leadership styles and personal values. Social acceptance and support provided, even to the extent of providing for beginning teachers' financial needs by loaning money to be repaid when BTs get paid, demonstrated attitudes of caring which the BTs appreciated. Support from the people in terms of providing for the BTs financial support is just one sign of a supportive and caring community.

However, after being in the school as a teacher now, I have changed my attitude and think that teaching is a great profession and I enjoy working with my students. [Male BT J in school 1, 24/08/06]

The first impression BTs get when they first take up their teaching post is important. According to Fuller (1969), the first year is the 'survival stage' and as such, the support BTs get from their school, the community and provincial education office is significant to forming BTs' perception of teacher as implied in the above quote.

4.1.7 BTs' motivation to continue service in teaching

As the research interviews occurred towards the end of August, which was around third term of the school year, it is assumed that the first year BTs will have taught in the school for three quarters of the school year. The other BTs in their third or fourth years would have probably passed the 'survival stage' in teaching. When I asked whether or not they intend to continue as teachers, all the BT participants, including those who had not been initially keen on teaching, had changed their perceptions of teaching in the last few years. As one BT said:

I planned to move out of teaching but as I have been teaching now I come to love it. I enjoy working with others, [teachers] who are supportive of what I am going through. [Female BT E from school 2, 28/08/06]

Another BT, who is now committed to teaching as a career said:

Teaching has never been my choice of career in the early stages of my education from primary school through high school. However, after having taught in schools as a teacher now, I came to realise that teaching is my call or vocation. I now enjoy it and intend to stay on as a teacher for a while. [Male BT H from school 1, 25/08/06]

This finding is significant for teacher retention and can be at least partly, attributed to a positive induction and teaching experience. The findings from the current study supports research studies in other countries (e.g., Battersby, 1981; Bezzina, 2006; Lang, 1996), showing that BTs through induction and mentoring, benefit from the support provided rather than being left on their own without any support from the supervisors/mentors. The literature (e.g., Lave & Wenger, 1991) strongly suggests that contextualised, workplace learning mediated by mentors has the potential to assist BTs in their appropriate body of knowledge.

Some of the interviewees expressed their short and long term goals on personal and professional development. These teachers seemed more conscious and deliberate about their work as teachers. Most BT participants had definite short term goals and as one BT said:

First, I want to be registered as a teacher. Say, five years down the line, I want to be a senior teacher and also further my education by taking further in-service courses. [Female BT F from school 1, 25/08/06]

The above BT contemplates further career development after the initial induction period and is likely to move through Fuller's (1969) different stages of teacher development after the 'survival stage' in the first year.

One of the BTs had a long-term career ambition, which he spelt out eagerly:

I have a long-term goal, which is to become a lecturer or university professor. I want to start from the lowest level to the highest, starting from primary schools as a teacher. [Male BT B from school 2, 30/08/06]

The finding above indicated that induction and mentoring is an important process not only leading to teacher survival in the first year but also assists BTs to focus about their short and long term career development plans. In pursuit of such plans, the potential of BTs remaining in teaching is highly likely and this can improve teacher retention.

4.1.8 BTs' personal beliefs and values

Teachers' preconceptions of teaching and learning come through personal experiences, schooling, and formal knowledge (Richardson, 1996). Personal values and beliefs form an individual's actions, and these sometimes determine teachers' approaches to teaching and learning in schools. One BT views teaching as a calling for serving others, especially children, to realise their potential in life.

Teaching is a mission.... and I would encourage teacher education providers to train teachers to be ethical and committed to their work. Just like Christ, who was a great teacher who taught and healed people, I believe that every child has potential to do well in what they are able to do in all aspects of their lives. [Female BT F from school 1, 24/08/06]

Another participant held strong views on work ethic and has this to say:

.... beginning teachers should be committed and to serve with dedication. They should not take teaching as a job to earn fortnightly pay, but as a lifelong career with a promise to shaping and moulding future good citizens of PNG. [Male BT H from school 1, 25/08/06]

One other BT participant justifies his reason for being a teacher as a knowledge imparter and to influence positive character formation for the future citizens of PNG as he explained below:

I chose to become a teacher for two main reasons. The first reason is to impart what I learnt... in my schooling years to the students. The second reason is to help

mould the students' character and help them have positive attitudes and behaviors. [Male BT A from school 2, 28/08/06]

The finding above relates to ideals that BTs bring with them to their teaching and without any properly planned and executed induction programs to support BTs in their first three years of teaching, frustrations can set in and the inevitable things happen, teachers lose focus and could possibly leave teaching.

4.2 Theme 2: BTs' perceptions of initial teacher preparation and school reality

The participants were asked to describe their teacher education program and how it helped them in their first years of teaching. Generally, there were mixed responses in describing the teacher education programmes ranging from adequate to inadequate. These responses were understandable because the BTs interviewed graduated from 7 different primary teachers colleges and view their initial pre-service programmes differently.

4.2.1 Curriculum and subject content knowledge

BT participants expressed inadequate knowledge of new curriculum content and how to make preparations and planning to teach the new curriculum. Most BTs conceded that their pre-service education providers have not prepared them adequately to meet the realities of teaching in primary schools. Two BT participants graduating from two separate colleges said:

I was one of the pioneers at the college when it started using the new curriculum to expose us to the content and methods of teaching it. The college program changed from the use of old curriculum to using the new curriculum and I feel that I was not well prepared to teach from the new curriculum. I was taught the basic stuff such as doing teaching programs, classroom management skills and assessment skills. [Male BT H from school 1, 28/08/06]

I think the teachers colleges did not prepare us well to come and meet the realities in schools. In...[College named]... Teachers College, I spent most of the time researching the library to complete my assessment task and not doing many practicals. [Female BT E from school 2, 28/08/06]

It appeared that primary teachers' colleges programs in PNG pre-service colleges do not expose their trainee teachers on the new reformed curriculum for the demands they would encounter in the primary schools. This confirms Lortie's (1975) comparison of teaching with other occupations and succinctly states that teachers' receive very little training to

become teachers, especially on the current practice in schools and what they learn from colleges.

Contrary to what the participants expressed above, school administrators, governors and other experienced teachers have high and unrealistic expectation on BTs and expected BTs to prepare and present school based in-service to other teachers. As one mentor revealed in the interview quoted below:

Most ... teachers... are looking upon the new graduates at our school to give in-service on what they learnt at college [such as the new curriculum] but they are not helping. They sometimes give excuses saying they are not ready and so I kind of think that they are not confident in elaborating the outcomes or that they were not introduced to the new curriculum. [Female mentor teacher from school 2 who is also the Deputy H/T, 28/08/06]

The common assumption by the authorities and others is that BTs are young and fresh from teachers' college and should be more knowledgeable on the new outcome-based (OBE) curriculum content and teaching methods. When BTs are requested to conduct in-service for other experienced teachers in their schools, most of the BTs declined and cited reasons such as:

They did not teach us on this new curriculum in college [or] I am not ready to give in-service now.... may be some time later.

Some courageous BTs take on the challenge, either to impress the authorities or as a personal feat to overcome the high expectations. As one BT in his second year puts it:

At my first teaching post ... [at a different school] ... my head teacher and school governors [board of management] told me that I was young and fresh from college and to teach the grade 8 class. That was a real challenge.... [Male BT B from school 1, 24/08/06]

When given challenging tasks such as what has been related above, BTs put themselves under immense pressure:

I worked so hard in trying to meet their [Head teacher and governors'] expectations and finally the exam result showed that the school's rating from the previous year's results to the year I taught the grade 8 class improved ... very much. [Male BT B from school 1, 24/08/06]

Other respondents valued what the college program had done in inculcating essential teaching skills needed in their first year of teaching:

I was taught the basic stuff such as doing teaching programs, classroom management and other skills such as assessment methods. This has been helping me with my teaching programs and planning a bit but I continue to learn from my practice as a teacher [Male BT H from school 1, 26/08/06]

The teachers' college education helped prepare me with ideas how to make plans and programmes [and] I value it. It has helped me by giving me a good start and I adjust my duties to meet the needs as required. [Male BT I from school 2, 30/08/09]

One of the participants affirmed what most of the BTs expressed that without their initial teacher education training they would not be doing their job as teachers.

Without my teacher education, I wouldn't be here. [Female BT F in school 2, 29/08/06]

What these BTs valued most about their PNG teacher education programs relates to what they could use in teaching. The finding from this study indicates that BTs are appreciative of other aspect of their initial teacher education programs such as the teaching methods and the teaching practicum at the teachers' colleges

At the colleges, we [trainee teachers] go through teaching practicals twice during the two-year training period in primary schools nearby [i.e. nearby to the Teachers' College]. From these practicals, I picked up skills that I found useful in my first year teaching... but I still learn more during my first years of teaching. [Male BT D from school 2, 30/08/06]

Experiential learning had a great deal of impact on the BTs, helping them to adjust to the daily, unfamiliar learning situations:

Yes, in the college I have learnt so much about theory but only those things that are practical are useful to my early stage of teaching. I feel that most of what I needed to do my work job as a teacher was learnt from my experiences in schools more than what I learnt at the teachers college.[Male BT J from school 1, 24/08/06].

The above sentiment appears to be commonly expressed by all the BTs that were interviewed. The implication here is that the teachers will continue to be life-long learners

of the theory and practical aspects of teaching in order to build up their repertoire of teaching skills.

4.3 Theme 3: Induction and mentoring practice

4.3.1 Induction programmes

In order for induction activity to be a success, it has to be planned with a programme and well implemented. Most of the beginning teachers were assigned a supervisor/mentor but there is no planned program to implement induction and most of the programs are on an *ad hoc* basis. One teacher learned by observation and personal intuition:

Yes, I look at all the teachers who have been teaching for many [more] years than myself. I seek advice and assistance from them, especially my supervisor for answers to my queries. She offers advice on what to do and I take her advice to improve practice. [Male BT A, from school 2, 29/08/06]

Some of the reasons highlighted by Lortie (1975) are that practicum is short and comparatively casual, implying the teacher education courses are too theoretical. He went on to claim that the induction system for teachers is not well developed and “there is an abruptness with which full responsibility is assumed” (p.59) and the BTs teach with less or no supervision at all.

Other BTs approached resourceful staff within the school for help in matters of student discipline and classroom control. Other experienced teachers in the school shared ideas and teaching resources with BTs, as one BT said:

I sought valuable advice from my peers, mentor and other experienced teachers who kindly shared their experiences when I asked how I could deal with such issues. [Male BT A from school 2, 29/08/06]

All BTs in this research reported having to attend some staff professional development and in-services courses provided at the provincial and school level.

I attended some in-service that was provided by the agency and I found that to be very useful. The topic included the curriculum and teaching approaches on the reform curriculum.[Female BT E of school 2, 29/08/07]

Most of the school-based professional development programs are tailored to suit individual BTs’ needs and the school contexts.

I try to learn from observation and watching other experienced teachers around me, but not copying all that they do. I try to use my own judgements and common sense. [Female BT F from school 1, 25/08/06]

Some examples of programmes BTs in this study participated in are: workshops on curriculum and assessment strategies, daily lesson plans and weekly teaching programme checks, lesson observation from supervisors, staff meetings and school-based in-services on topics perceived to be a need by supervisors and other school leaders.

One of the BT participants used her own initiative to make arrangement to see other experienced teachers' lessons in class:

I also go to their classrooms and observe them teach. That has been very helpful to me as a beginning teacher. [Female BT F of school 2, 28/08/06]

Lesson observations of other teachers during a lesson are a useful approach for BTs to reflect on their own teaching practice and improve from it. Both the BTs and the mentor or the person observed can discuss and reflect on the lesson. This refers to what Schon (1987) called reflection-in-action where practitioners reflect on their teaching practice with the intent to improve their practice. Such an approach can be mutually beneficial to the mentor and the BT whose lesson may have been observed or vice versa.

4.3.2 Mentor training and incentives

All of the ten BTs interviewed agreed that they work under a school assigned supervisor/mentor. Other people within the school also provide mentoring support to BTs to complement what the appointed mentors provide.

In this study, the officially appointed mentors are senior teachers in the school's hierarchy. One of the mentor respondents, having 17 years of supervision experiences, confirmed undertaking some form of supervisory course but since then, newly appointed mentors have not attended such education to make them efficient in their roles.

Around the 1990s when I first got promoted to a senior teacher, I attended a supervisor's course. Before I did supervisory duties, I was in-serviced and that enabled me to be a good supervisor. From there on, I started supervising

subordinates, including the beginning teachers. In teaching duties or any thing they want me to assist, I 'jump in' and help. [Male mentor in school 2, 30/08/06]

Shore and Stokes (2006) argue that experienced teachers often do not receive the professional help and support required for becoming effective mentors. One of the practicing mentors with 17 years experiences as senior teacher and head teacher, lamented above that mentors/supervisors used be in-serviced before taking up supervisory duties. This seemed not to be the case now and this can be a factor hindering newly appointed mentors to carry out mentoring roles with some confidence. One novice mentor for this study said:

This is my second year as mentor and I have not attended any in-service or courses to help me carry out my role as a supervisor/mentor. I learn by observing what other senior teachers do and try to emulate them. [Female mentor of school 2, 29/08/06]

However, the findings in this study indicated that all mentors/supervisor were provided ongoing school-based in-services and guidelines by the head teachers of each school when the supervisors/mentors of BTs needed help or to refresh their memory on what to do. The role of the head teacher becomes significant as someone who oversees staff development as well as the school development programs. One of the mentors in this study pointed out this vital supportive role required of the head teacher:

We [mentors] get guidelines and support from the head teacher. He gives us some advisory notes on how to go about assisting the younger teachers. [Male mentor teacher of school 2, 28/08/06]

Occasionally, assistance through in-service is provided for mentors/supervisors by the inspectors as agents of the national and provincial education authorities. The in-service is conducted at a central place, either at the district or provincial education office usually for a day. Alternatively, they send information circulars to be read by teachers on matters such as supervision tips and on how to write inspection/appraisal reports.

Once in a while inspectors call us in and we have supervisory workshops. Senior teachers go for this in-service and they get some information on how to supervise teachers. That's done at the district and sometimes in the provincial level. [Male mentor of school 2, 28/08/06]

Formally appointed mentors in schools in this study were senior teachers assuming such duties as part of their responsibilities. The incentive for the supervisory/mentoring duties

involves gaining recognition as senior teachers of the school's administration helping novice teachers to gaining a place in the school community as a teacher. The mentor can be viewed as teachers of teachers in the school, linked to what Bruner (1994) referred to as scaffolded learning in the literature. Other than gaining recognition, the other incentive for mentor teachers is the monetary gain of higher duties allowance (HDA) received in the salary package. Moreover, the support in-house training provided through in-services by the head teachers and the practical experiences of mentoring can be beneficial to the mentors' personal and professional growth. Provision of incentives can motivate mentors to continue on with this important role with diligence and can provide better support to BTs.

Nevertheless, the two newly appointed mentors in this study pointed out the need for a formalised mentoring/supervising course by district education authorities as it has been the case in the past. Working as mentors without such support seemed to be a cause of distress as expressed by one of the newly appointed mentors/supervisors:

When my duties become hard to bear, I just wanted to give up and be an ordinary base level teacher. Being a senior teacher and mentor is an extra duty and stressful. [Female mentor of school 2, 29/08/06].

Mentor training does help the mentor or supervisor to have confidence in his/her role and provide support and advice to BTs. When supervisors/mentors are not sure of their work, they can neglect BTs to work on their own as this BTs said:

My senior teacher needs to make frequent visits and provide support and encouragement. I seek assistance from others. My personality makes me kind of shy away from seeking help easily [Female BT G from school 2, 29/08/06]

Apart from BTs' personalities, their fear of showing their inadequacy and of being ridiculed can prevent BTs from seeking assistance when they need it. This is what one BT has said:

I think some of us are too scared to approach senior teachers and show that I am stuck. This would show that I am not fit or something and so I try to do things without seeking assistance. [Female BT G from school 2, 29/08/06]

The findings from this study indicate that mentors/supervisors can improve their mentoring practices through formal in-service courses. Most of the BTs are simply assigned to

supervisor/mentors by the head teacher at the start of the year into what Hargreaves (1995) called 'contrived collegiality'. Personality differences can prevent BTs from approaching their assigned mentors for help and advice when BTs need it.

4.3.3 School as learning community

Although most of the BTs' support and assistance came from the formally assigned supervisors/mentors within the schools which they valued, BTs also got support and advice from head teachers, deputy head teachers, other experienced teachers and other beginning teachers through informal contacts:

When I had my own class to teach as a grade and subject teacher, I had difficulty controlling the students inside, because I did not feel confident myself. They talked over me and I lost control of them... it seems they were taking over control. I sought valuable advice from my peers, mentor and other experienced teachers who kindly shared their experiences when I asked how I could deal with such issues. [Male BT A from school 2, 28/08/06]

In one of the two schools, the supervisor/mentor encouraged collaborative planning and reflection and this was said to be ongoing at the end of every term as part of team evaluation of teaching programs.

I also encourage those [BTs] to come up with in-service topic for discussions when we have supervisors/subordinate [mentor/BTs] meetings and in-services. BTs are encouraged to come up with their own in-service topics. They present that to the mini group that we are in. We also have upper primary in-service where we plan as a group to present and we have school base in-service where they participate to present BTs can present their in-services to. These are some of the things that I help them in. [Female teacher mentor from school 1, 25/08/06]

The BTs had to develop some form of trust between people whom they confided in and sought personal and professional help from informally. Some BTs found it easier to start with a family member or someone else they felt close to, particularly if they were also teachers. They were also strategic about whom they approached for specific issues:

I approached my elder brother who also teaches here. He has been teaching here [at the same school] for three years now and he helps me with administration and timetables. [Male BT G from school 2, 29/08/06]

Most of the beginning teachers did not want to appear inadequate, and this may relate to their choice of person they sought advice from. However, as they built more trusting relationships with other staff members, they could more easily participate in a school's professional learning community. For example, in one of the schools one of the participants in the study has this to say:

I am shy by nature and I find it hard to approach other teachers. If I do, they might say that this new graduate came out fresh from college but does not know how to teacher or something... This made me shy away from asking for help from others. I only approach my own peers and those in the same category of teaching experience as myself. [Female BT B from school 1, 25/08/06]

The quote from the above participant is significant as it could reflect teachers' general attitude and excuse for not wanting to collaborate and isolating themselves. On the other, they could be genuine and need every support and assistance they can muster to form networks with other colleagues in the school through communication.

4.4 Theme 4: Collaborative School Culture

4.4.1 Head teacher and school culture

A school's organizational structure consisted of both a formal structure and informal structure. The formal structure consists of a governing system and stated expectations. The informal structure addresses the realities of daily operations and lets its members know the specifics of "the way we do things here" (Brock & Grady, 1997, p. 53). One significant finding from this study was that most of the BTs revealed that they got support from other experienced teachers, head teacher and their BT colleagues. As one of the BTs said:

The head teacher normally comes around to my house and ... chats with me informally on what to do. He advises me on things like setting my classroom corners, and personal files. These are the sorts of help I get from the head teacher. He is a very generous and kind with his time. I remember he ... visits almost every afternoon and ask me how I am going about in my teaching and things like this. He is the only one that helps me in the field. [Male BT A from school 1, 15/08/06]

As BTs are socialised into the teaching profession, they identify role models, form relationships and begin to establish their own teaching identity (Brock & Grady, 1997). Head teachers can set the tone of the school culture in the way they take an interest in BTs'

induction and professional development in their school. One of the other BTs had this experience to say about the head teacher:

I think most of what I need to do my work as a teacher is provided by the school board, head teacher and senior teachers...[Male BT C of school 1, 25/08/06]

According to Brock and Grady (1997), the head teacher plays a “pivotal role in creating and nurturing a positive school culture” (p. 59) that allows for collaboration. Within a supportive and collaborative culture, teachers are more likely to take risks, to experiment with a new teaching idea, if they feel they have the moral support of their colleagues (Hargreaves, 1995). One of the BT participants confirmed the collaborative practice in the schools by saying:

I do group planing with my other grade colleagues but I ... take the lead.... Whether they follow up or not is not my concern. I think it has helped me with my professional development. [Female BT E from school 1, 25/08/06]

All of the BTs in the current study took risks in leading the kind of collaborative learning process evident from the above quote. The BT apparently lacked the confidence to follow up and check if it was implemented as planned, possibly because of the groups’ composition. The majority of the team members comprised experienced teachers. However, the opportunity to form and work in a collaborative team has developed her leadership skills in a profound way as she acknowledged.

Teamwork and collegial partnership leads to collaborative school culture, which cannot be externally mandated, and usually emerges from a need to collectively solve a teaching problem. According to Hargreaves (1995), the relationships that flourish in such school environments may be unpredictable, ranging from short to long term benefits for all stakeholders, including the students. Sergiovanni (1994) contended that once the culture of collaboration is established, it becomes a source of significance and meaning for the school community and socializes its members in thought and behavior. This can provide a niche for growth and development for BTs, mentors and other experienced teachers and the children within the school.

4.5 Theme 5: Reformed curriculum and teachers' development:

4.5.1 Curriculum reform

The findings from this study revealed that both the BTs and the experienced teachers are involved in a process of learning the new curriculum and how to teach from it. As one mentor said:

What we are doing now is we are implementing the reform curriculum in schools. Many of the things we learnt at the teachers colleges ... are not implemented ... now. We are going straight to reform curriculum and so I think that those that come of from the teachers colleges... should learn about the reform too. [Female mentor from school 2, 28/08/06]

Another mentor is a Curriculum Reform Implementation Project province-based in-service provider and assessor that work alongside the PNGEI to provide in-service for both BTs and experienced teachers within the province. The mentor explains her role as being a significant in-service provider in the province. Provincial assessors get support from the CRIP and PNGEI and the assessor/mentor said:

... my responsibilities are especially in curriculum development, so I provide curriculum in-services to our teachers in the reform curriculum on outcome based education. I train teachers in our existing schools in Simbu to be aware of the outcome based education, strategies and assessment especially to implement the outcome based education... and in the school I guide the senior teachers and also the graduates [BTs]... And if they have any problem ...they come to me for help. [Female mentor and DHT of school 2, 28/08/06]

Most of the old curriculum materials were made obsolete in primary schools and this implies that schools need to stock up the new curriculum materials for use in teaching the children. This is one major factor hindering BTs from doing program preparation and lesson planning, as there is a lack of sufficient curriculum materials in both schools to be accessed. Lack of teaching materials was highlighted as one of the main challenges facing BTs.

In PNG the Curriculum Reform Implementation Project assessors and trainers in collaboration with Papua New Guinea Education Institute receive training modules from CRIP/PNGEI training organizers. The provincial based trainers/assessors return to organize in-service courses for teachers in the province. This implies that the district and school-based in-services hold some promise for BTs and the experienced teacher to learn

about the new curriculum and how to go about teaching it. Learning based on such an approach relates to what Lave and Wenger (1991) called ‘situated learning’ implying that adults learn when they are actively participating and constantly reflect on their actions, such as when they are teaching (Schon, 1983).

4.6 Discussion

In my discussion of the findings, I refer to the initial guiding questions for this research which I have extended in this section to make connections between BT experiences and induction and mentoring explicit.

The questions are:

1. What are beginning teachers’ experiences of teaching during their first three years of teaching? What indicators are there that induction and mentoring are important?
2. What are common issues and challenges faced by BTs in their PNG school environment? In what ways could induction and mentoring support BTs in addressing some of the issues and challenges?
3. What are the kinds of induction and mentoring practices common at the school level to induct BTs in PNG?

The seven primary pre-service teachers’ colleges within the country provide the initial pre-service teacher education for primary school teachers in PNG over a period of two years for grade 12 (equivalent to NZ year 12) graduands wanting to become teachers. Following graduation and certification as newly qualified teachers (NQTs), these novice teachers join their experienced colleagues in a teaching position at a primary school to begin their practice as teachers. In reference to the first of the three questions, I wanted to find out about BTs lived experiences as novices in two selected primary schools of Simbu province in PNG. In talking about their lived experiences, the BTs related to common experiences of joys and challenges encountered, and how they overcame these difficulties through their first three years when going through the school-based induction and mentoring support from experienced colleagues.

4.6.1 BTs’ motivation and experiences of teaching

The answers to the first of the three questions that guided my research subsequently linked to the second and third questions respectively. The findings from this research indicated

that BTs had various motives for their initial decision to accept their offer of place in teachers' colleges. Some of the reasons derived from the data were low academic grades, teachers' colleges having low institutional fees and the desire to avenge former teachers for imposition of harsh discipline on them rather than a burning desire to influence the lives of young children. To know of these motives is significant as it can influence the commitment and further motivations of BTs in developing a passion for teaching, and to fulfil a contractual obligation to teach young children with care and love. It can also underline the need for early and ongoing professional support for BTs.

This research finding indicates that almost all the BT participants experienced enthusiasm and excitement in their first teaching experiences. Most of the BTs participants from this study leave their pre-service colleges with a feeling of excitement, mixed with a little trepidation of working in a new environment. Beginning teaching was described by the participants in this study as being joyful and challenging and these views supported by what Bubb (2000) said: "Teaching children is a very rewarding job, albeit demanding" (p. 38) and it requires one to actually do the job of teaching to know about it. This is likened to Lave and Wenger's (1991) theory of 'situated learning' where the novice learns to teach by actually teaching. This affirms that BTs teach their students and also learn to teach while teaching (Darling-Hammond, 1998).

The overall outcome of this study suggested that the majority of the BTs felt sufficiently competent, confident, and enthusiastic and committed to teaching in their schools after their teaching experiences, although two of the ten participants decided otherwise. The two decided to leave teaching but were uncertain about the actual time of exiting from teaching. This delay could mean that they could be further influenced by their own teaching experiences and the benefit of partaking in induction activities may ultimately change their perceptions about teaching as a life long career. The impending exit of two BTs may also suggest the importance of ongoing mentoring of the remaining eight BTs to maintain their commitment to and enthusiasm for teaching.

The eight BTs for this study who planned to continue teaching at their school benefited from an induction program provided in accordance with the PNG inspection and guidance mandatory requirement, featuring support, guidance, monitoring and assessment from their assigned supervisor/mentors. They enjoyed a trusting and cordial relationship with their

induction mentors/supervisors and engaged in interactive activities with other experienced colleagues, some of whom were relatives who were also teachers.

4.6.2 Issues and challenges for BTs

In relation to the second research question about issues and challenges, not all the 10 BTs enjoyed the benefit of a well-resourced school, as is typical for most primary schools within PNG. The induction program worked on an *ad hoc* basis. However, the benefits of colleagues involved in collaborative practice and dialogue was characteristic of the two schools. Most of the BTs' interview data supports this view: "*Teachers in my school are friendly and helpful... they help in sharing text books and one of my friends helped in my teaching program preparation*" [BT, 25.08.06]. The finding from this study revealed that most of the BT participants had their idealistic conceptions of teaching challenged in the light of their classroom practice and had experienced challenges such as lack of basic teaching materials, culminating in their difficulty in lesson planning and timely teaching program preparations. This calls for relevant authorities to fast track the delivery of much needed teaching materials to school locations where it can be easily accessed for lesson planning, preparation and teaching. Schools can also help in having in place proper recording and monitoring systems of lending to minimise loss through theft and carelessness, once the required materials are received and stocked in schools.

4.6.3 Support for BTs through induction and mentoring

In relation to induction and mentoring, the findings indicate that structural, social and cultural factors inherent in the setting influence the induction outcome, and imply that the effective implementation is likely to be dependent on the head teacher and school inspector, while the quality of its delivery rests with the induction mentor/supervisor. The implication for the mentors/supervisors is the need for ongoing learning and development to enhance their confidence and competency level to provide sustained support for BTs, which I elaborate further in the next paragraph. Literature indicates (for example, see Feiman-Nemser, 1996; Ganser, 1996) that successful mentor programs are dependent upon the quality of training afforded to the mentors. According to the National Commission of Teaching and America's Future (1996) survey, mentored novice teachers tend to focus on students' learning and leave teaching at a lower rate. The research indicates that beginning teachers who work with a mentor are more effective teachers during their early years, since they learned from guided practice rather than depending upon trial-and-error alone.

BTs in this study had induction programs that included a brief orientations to the school, attendance of school and district-based in-services, check of teaching programs and lesson plans by supervisors/mentors, supervisor/mentor observation of BTs' lesson, team planning and grade level teacher in-services. Bubb (2000) states that teachers are chosen to be induction mentors for a variety of reasons, but they think they will do a good job. In PNG, mentors/supervisors are senior teachers, who have been inspected recently and promoted to the next level as a senior teacher (NDOE, 1978). These categories of mentors are formally appointed. Informal support such as where and how to obtain teaching materials and advice on how to deal with students' disciplinary issues in classrooms were sought from experienced colleagues from the school. In other words, the day to day rudiments of teaching were attended to, as BTs continued with their daily teaching duties, implying an individualised induction program to meet each BT's perceived needs. This is based on the supervisor's/mentor's formative evaluations and intuitions. The implication of such approach is an *ad hoc* program and if BTs are observed to be doing well in their new roles as teachers, the supervisor/mentor leaves BTs on their own. This suggests that BTs are given great autonomy; however, they can be easily deprived of the constant advice and encouragement required as novice teachers.

4.6.4 Support for mentors/supervisors

A more proactive approach on induction program and mentoring practice is called for than to use a reactive approach in times of problems as they occur. One of the factors hindering such an approach is the lack of supervisor/mentor training and development apparent in this research. The findings of this study revealed that mentor/supervisor training is missing in PNG, and this can have far-reaching consequences such as not providing adequate advice and support for BTs. The ultimate effect of unsupported BTs could be teacher ineffectiveness that can affect students' learning in schools. Speculation on other effects could be the BTs' leaving teaching for other jobs, which is not a serious problem as yet in PNG. Moreover, incentive packages for supervisors/mentors such as an increase of salaries, reduction of teaching loads and further training opportunities are vital in recognition of the duties they perform. Further enhancement of induction and mentoring programs can be achieved through positive relationships and regular interaction between experienced colleagues and BTs at the school level.

4.7 Conclusion

My argument from this research finding is that a planned curriculum for the induction of BTs must be institutionalised with the school and the teaching culture must be conducive to providing opportunities to BTs to engage in dialogue with colleagues. Owing to factors such as unreliable road networks and expensive travel costs, lack of funding for inter-school in-services, schools being physically isolated from each other and a myriad of other factors in PNG, school based induction and mentoring is crucial for BTs' professional growth and personal development.

On a related note, the primary teachers' colleges have a very important role to play in ensuring that they keep pace with the changes and developments taking place in other divisions of the department. The new curriculum will be implemented by teachers which mean current teachers in the field (schools) will require appropriate in-service training, while current student teachers should be prepared for the new outcomes based curriculum now. The teachers colleges have a crucial role in ensuring that the next batch of graduate teachers is prepared to teach the new curriculum. It is a waste of time, money, resources and opportunity to continue training teachers, as if the old curriculum is still in use.

BTs in PNG make entry into primary teachers' colleges after finishing grade 12 qualifications. Subsequent teacher education program follows over a two-year period and they qualify as BTs with a primary teaching diploma. BTs can then apply for and get a teaching place in any primary schools in PNG as provisionally registered teachers. According to this study, the motive for BTs' choice into the teaching career varied considerably. Some of the reasons emerging from the data were funding deficits, low academic grades, revenge on former teachers and desire to follow childhood dream. This is significant for this study for teacher retention in primary schools within PNG, because without induction and mentoring, the BTs can leave teaching or their commitment and effectiveness as teachers can be at stake. The likely consequence is that students' learning will be affected.

Regardless of the motive, the study revealed that BT participants in this study found teaching to be enjoyable and challenging. The challenges of teaching stem from the realities BTs find in schools such as lack of teaching resources, class discipline problems,

and unfamiliarity with the new curriculum. BTs are also expected to teach the same teaching loads as the experienced teachers. All of the BTs in this study took up extra curricula activities such as sport co-ordinator, grounds and beautification specialist, religious instruction co-ordinator and a host of minor responsibilities in addition to their teaching duties. It is required that BTs volunteer to take up an extra curricular responsibility as it is one of the criteria to be used for appraisal to get full registration as a teacher.

All of the participants indicated having difficulties in their planning and programming of the new curriculum and blamed teachers' colleges for not having prepared them on the curriculum content and teaching methods. Some of these difficulties were confirmed from the interview on common issues faced by BTs such as difficulty in planning and preparation and student discipline and classroom management. This may have contributed to their confidence level, which has slowly increased as they gain more experience in planning, preparation and teaching from the new curriculum.

The findings of this study indicate that beginning teacher support through induction is vital and is mostly provided at school level, although they participate in provincially organised in-service annually for a week. Once in a school year, usually in the second term, teachers in both primary and secondary school do participate in one-week in-services training and the topics of the in-service normally varies from school to school. Such in-services are targeted at the whole group and not just BTs but then it provided opportunities for BTs to meet their peers from other school where they compare and share their teaching experiences. The in-service can be school based or provincially organised. From time to time other 'experts' outside of the school provide in-service or workshops but it is the experienced teachers who attend. Attendants of external in-service are then required to plan and deliver school in-service for the other teachers.

The entire BT participants in this study valued the mentoring arrangements and other support received from other experienced teachers in both schools. The formal mentoring support in PNG primary schools is by way of senior teacher being assigned to provide guidance and support for BTs. The mentor checks the BTs teaching programs and lessons plan to see if they follow the set standard and provide advice where improvements are needed. Other professional advisory roles of supervisor/mentor include lesson observations

for BTs' lesson and to have post-lesson conference to aid reflective dialogues. School-based mentors are also involved in providing encouragement and social support when BTs need it. This study revealed that BTs sourced supplementary support and guidance from other experienced teachers in the school as well as from assigned mentors/supervisors. Mentoring support in this study appeared to be a joint responsibility of everyone in the school. This is significant because mentoring can promote collaborative school cultures conducive for learning communities to triumph. As apparent in this study, mentoring enables the experienced teachers and the BTs to reflect and learn about their teaching practices with the view to improving it. This entails considerable trust with all involved and everyone in the school become students of teaching. Learning becomes dynamic and contextual in what Lave & Wenger (1991) termed 'situated learning'.

I will now move on to the last chapter which concludes the study in pointing out some implications relating to the pre-service colleges, the local education authorities and primary schools in PNG. Some suggestions are made for consideration to improving the induction and mentoring practices in PNG primary schools.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.0 The Project

As stated at the outset, the main aim of the research was to explore whether or not induction and mentoring practices existed in PNG schools as a strategy to support and assist beginning teachers, and to tease out beginning teachers' perception of relative value in mentoring. The intention was to ascertain how beginning teachers finally thread their way through the many challenges and problems presented in the form of the 'praxis shock' (Veenman, 1984) in taking up their teaching appointments.

The findings from this research on beginning teacher induction and mentoring confirmed that induction support and assistance programmes by way of school appointed supervisors/mentors and the national inspection system is in place to support and assist BTs in PNG. All of the 10 BT participants affirmed that they have a supervisor/mentor whom they worked with for support, assistance and guidance. The same supervisor/mentor also makes quarterly staff appraisals and the reports from the supervisor and the head teachers are used to make final appraisal reports by visiting school inspectors. The inspector's report forms the basis of a teacher's rating for full registration/licences and promotions.

Teacher education is continuous, and certification marks only the beginning of a career in education (Tickle, 2000). Teaching is formative in nature. The need to link the pre-service stage with the induction phase and in-service education is identified as crucial. This study reinforces the conclusions derived from studies in other countries such United States, New Zealand and United Kingdom that call for mentoring programmes and other forms of support for beginning teachers (Bezzina, 2006; Feiman-Nemser, 1991; Renwick, 2001). All of these countries have long histories of programmed induction with state support, for example, novice/mentor incentives such as released time for professional development, promotions and payment of extra allowances. Initial professional learning experiences are critical to the subsequent professional development of beginning teachers. A call for on-the-job support is emerging as a challenging theme in education circles (Martin & Rippon, 2003).

This study has revealed that for beginning teachers to build up their competency to a level required to perform teaching duties, they need a whole repertoire of theoretical and practical skills. The required knowledge, values and skills are acquired and accumulated over a long period in their life through training and experience. Beginning teacher induction and mentoring is one useful approach to beginning teacher learning. The successful implementation of school-based induction is directly related to conceptions of, and approaches to, professional learning in each school. A workplace learning model or what Lave & Wenger (1998) called a 'situated learning' model of teacher professional development applied to induction has significant implications for the practice of supervisors and classroom teaching colleagues. Effective workplace learning for teachers requires that relationships between beginning teachers and their mentors/ supervisors transcend simple novice/ expert relationships that imply passive transmission of knowledge and skills.

Professional practice in teaching requires teacher reflection and the exercise of judgement. Mentoring is most effective where there is an alignment of the strategy with a general collegial approach to professional development within each school. Mentoring and induction practices are closely related to the concept of professionalism in teaching and mentors have a key role in the professional socialisation of teachers, particularly beginning teachers. The professional perspective, values and personalities of mentors have a major bearing on the nature and development of mentoring relationships. School culture also has a strong influence on mentoring and induction practice and, by implication, the process of professional socialisation. If workplace learning and the process of mentoring are to advance public education and contribute to improvements in schools and the learning of students, then they must be able to facilitate a questioning of existing conceptions of teachers' learning and teaching practice in schools.

5.1 Curriculum reform and teacher development in PNG

To address the curriculum reform currently in its implementation stage, the NDOE considers teacher development to be essential. Thus, simultaneously with the school structural and curriculum reforms at the system level, teacher qualifications have been raised and teachers are urged to upgrade their teaching qualifications to appropriate

standards. For example, all BTs in PNG primary schools have a teaching diploma and their experienced colleagues are required to upgrade their qualifications from a teaching certificate to a diploma level. In reality, the only In-services College in PNG (PNGEI) for experienced teachers wanting to upgrade their qualifications is located in Port Moresby, the nation's capital. Teachers have to consider the costs of leaving their jobs and family to attend such courses. Moreover, individual teachers are required to pay for the costs of transport and courses materials when pursuing professional development and there are few scholarships from the National Department of Education. Coupled with geographical isolations, high transport and logistical costs and lack of support from the national and provincial division of education for teachers' professional development, curriculum implementation by teachers can be a real burden. Against all odds, the more determined teachers still get through with some form of formal professional development, but the bulk of the teaching population in rural schools need to be in-serviced about the 'what' and 'how' of the new curriculum. How could the experienced teachers confidently supervise and assist the new teachers when they themselves are not clear about the new curriculum is the lingering question in my mind.

It is therefore, important to have school-based professional development where teachers, both the novice and experienced, can pool their material and human resources to share and learn from each other. BTs go to schools with new curriculum knowledge acquired from pre-service colleges while the experienced teachers have practice knowledge that can be shared through induction and mentoring. This knowledge can be mutually beneficial (Brock & Grady, 1997). Beginning teachers, in the light of the curriculum reform under way in PNG, are seen by head teachers, pre-service colleges, and national and provincial education authorities as important change agents. BTs have the potential to influence curriculum changes in their practice by collaborative planning, in-servicing of others and teaching through school based induction programmes (Darling Hammond, 1999), because they will have been learning about becoming teachers through a focus on the requirements of the new curriculum, not the old one. In this way, they may be beneficial to schools as existing teachers learn how to work within a new curriculum programme.

5.2 Implications and recommendations

When undertaking this study, the intention was to gain a deeper understanding of the BTs' experiences relating to their joys and challenges/problems, and to examine their

perceptions about ways in which they were supported in their first three years of teaching. However, as the study unfolded it became clear the implications of what these teachers were saying were not limited to just induction and mentoring practices alone, but pre-service education, policy making and other practices, and therefore I discuss the implications of the findings from this study within the wider context. I also make some suggestions for consideration and recommend that necessary action can be taken at appropriate levels to improve BTs' induction and mentoring programs in PNG primary schools.

5.2.1 Implication and recommendation for teacher education in PNG

- First year teaching appears to be the real training ground of teachers. But the irony of the first year of teaching is when BTs are given least support. Teaching Practicum during teachers' college days is not as hectic, however, because teachers had all the support they needed from their college lecturer and co-operating teachers in schools. In theory, the BTs in the first year of teaching are assigned a mentor to guide them.
- BTs in the study felt that they could be better prepared for their teacher roles if they knew how to translate their theoretical learning from teacher training to actual instructional practice in schools. Course instructions could create assignments that link content of the new reform curriculum with application in the real classroom. Knowledge of the curriculum is to be linked constantly to application.
- The frustration and anxiety created by feeling unprepared for the routines of teaching and non-teaching responsibilities and the effort to deal with these matters, interfered in the ability of BTs to reflect on their teaching, to improve on their teaching and to expand on their professional knowledge. It is suggested that BTs will be better able to begin their practice as reflective practitioners if they have the security of knowing how to deliver effective lessons and at least have the basic skills of classroom management and organisation for learning. The teacher education program should provide experiences that are context embedded and all learning experiences must be related to the real and authentic school situation, both in the rural and urban settings in PNG. One such approach is to increase the length of practicum period for final year trainees from four weeks to eight weeks.

- Trainees need opportunities to observe different teaching styles, to interact with students of different abilities and motivations, and to see how experienced teachers cope with their multiple roles. To alleviate reality shock trainee teachers could be made more aware of the wider aspects of school life during their practicum. An expanded length of practicum time could cater for these needs where the first 1-2 weeks of practicum are classroom observations and study of the school and teaching culture. The final four weeks may involve actual teaching and the final assessment for trainee teachers left to the last two of the four weeks of teaching.

- It is a common practice in my experience for co-operating teachers in PNG primary schools where trainees undertake their practicum to take holidays (unexplained leaves) and leave trainees on their own. A policy should be spelt out by local education authorities to view practicum as an important extended teacher education program that is vital for trainee teachers' preparation as a budding young teacher. Head teachers of schools should ensure that co-operating teachers are all the time present in the classroom while the trainee is teaching and create opportunities for reflections of each day's lesson with the trainee teacher.

5.2.2 Implication and recommendation for provincial education authorities

- What appeared to be a great need for mentors in this study is the mentors' lack of training opportunities specifically targeted for supervisory roles. Training is one incentive for mentors. Other incentives that could enhance school-based mentoring may include reduced teaching loads, and salary increments for duties done as mentors.

- Liaise and co-ordinate mentor appointments and the teachers' colleges to jointly assist BTs in the first year of teaching in selected schools around PNG primary school and these schools become venues for staff in-service for current and potential mentors.

- With respect to the feasibility of the above suggestions in PNG, where it is important to consider physical distance and perhaps sometimes constraints by people involved, it is suggested newsletters be published and distributed to all schools.

5.2.3 Implication and recommendation for primary schools in PNG

- Provincial education authorities and schools should review their practice of appointments and support for new teachers to ensure that induction is effectively arranged and delivered. At least all schools with newly trained teachers should have a plan for their induction and should make arrangements for the close monitoring of progress including the observation of, and feedback on, lessons taught. Schools also need to consider what special expertise new teachers have to offer and how might this be used.
- BTs need to know if they are doing it right, if they measure up and if there were things they could do better. Confidence is built when BTs' efforts are recognised and acknowledged especially during the survival stages of learning to teach when they are filled with self-doubts. BTs should access people whom they can trust and was deemed competent and are able to give constructive feedback, including the assigned supervisors/mentors. BTs in PNG schools need release time, to learn to teach, to plan lessons, to develop teaching resources, to learn about roles and responsibilities, to conference with supervisors/mentors and to observe competent teachers in their classrooms. It is also significant for head teachers and deputy head teachers of schools to remember that pushing BTs to work harder and longer because they are deemed young and fresh can be counter productive and cannot help the BTs.
- Mentors/supervisors and head teachers should include in formal induction programs the opportunity of BTs to observe other teachers. Observing other teachers' help BTs learn about different teaching styles, critique and affirm BTs' belief about instructional practices and consider alternative ways of doing things.
- When schools create a climate where collaboration is the encouraged, where teachers, administrators and BTs are encouraged to share and problem solve their teaching dilemmas, professional development and ease of transition of BTs is greatly enhanced. Head teachers play a pivotal role in this regard for creating collaborative learning communities in schools.

- Schools must ensure that every BT has a reasonable opportunity to develop proficiency in instruction by assuring them assistance in classroom management because pupils' mismanagement can be a major hindrance to effective teaching and learning. Head teachers and experienced colleagues must support the BTs by working with them to set and consistently enforce clear standards of students' conduct.

5.3 Limitations of the study

- This study is not a comprehensive study of the beginning teacher induction program in PNG schools as it was a small scale study involving only two selected schools in just one province of PNG. Therefore, the findings cannot be generalized to all beginning teachers' induction programs for PNG primary schools. However, what emerged out from this study is that the need to distinguish the roles of supervisor and the mentor is critical, if there is going to be any trusting relationship between mentor/supervisor and BTs for an effective mentoring program in PNG primary schools. Literature and the findings from this research indicate that mentoring is a common and beneficial induction program for beginning teachers. In PNG there is a supervision system at all levels of school system for teacher inspections leading to certification and teacher registration in the first year of teaching. The many challenges and problems faced by beginning teachers range from personal, social, professional and operational issue that mentors can offer help and assistance to beginning teachers.
- One methodological limitation was that the study was done over a short period of time of two weeks where data collection was done through semi-structured interviews. A longitudinal study over a period of time, say one to two years could possibly derive richer and coherent data for a study on a significant phase of teacher development. With such study being longer in duration, it may be possible spread the participants over the different districts or possibly across two neighbouring provinces with more funding

5.4 Recommendation: Area for further research

- Mentoring is a popular concept applied in training and development programs involving schools and teachers. However in the process of its application, mentoring

tends to become an artefact of training and development rather than a strategy in an integrated approach to professional learning. Mentoring as an approach to teacher professional development raises the issue of what constitutes professionalism in teaching. In the context of beginning teacher induction it has implications for the professional socialization of teachers, conceptions of teachers' work, the shape of schooling, and approaches to student learning. Of particular interest are the interactions between structured beginning teacher induction programs, approaches to teacher professional learning and different school cultures. This can be a subject for further research in PNG.

- A study could also be extended into mentoring relationships between different sex groups such as how gender affects mentoring practices and how can it can enhanced. This can be an interesting study for PNG as a culturally sensitive society where male dominates. However, primary school teaching in PNG is an equally male and female based job and this study revealed that a lot of female teachers are moving up to middle level leadership positions, and part of that responsibility involves mentoring BTs.

5.5 Summary

For new teachers, the first months in a school have too often been a test of survival than a time of professional growth and development (Elliot & Calderhead, 1993). An induction program introduces BTs into their chosen profession and prepares them fully to meet its challenges (DES, 1978). BT induction in PNG primary schools is a mandatory component of the inspection and guidance program leading to teacher certification and registration (PNGTA, 2000). Apparently, the two schools in this study had BTs posted to them without being aware of the induction requirements and did not all have basic arrangement in place when the induction period started. These basic arrangements included non-contact time, supporting documentation, trained induction mentoring, planning and timetabling support, monitoring and professional development arrangement (Darling-Hammond, 1998). This could be attributed to the fact that teachers in PNG are appointed to schools by the provincial education board and the head teachers do not know who gets posted to their school until teachers resume duties at the start of the school year. It was also clear from this research that BTs were clustered together with other experienced teachers on base-level positions and are under an assigned supervisor.

Comparatively, in countries like New Zealand (Lang, 1996)) and United Kingdom (Kyriacou & O'Connor, 2003), a reduced teaching time for beginning teachers professional development is allowed; but in PNG beginning teachers take full teaching responsibilities as their experienced colleagues. For example, beginning teachers in upper primary classes are required to teach all seven subjects daily for 50 minutes per subject as generalist teachers (NDOE, 2000). On top of the full teaching responsibilities, beginning teachers are required to take on extra curricular activities, such as sports and student counselling, added to their overall responsibilities as teachers. The kind of work load experienced by beginning teachers is no different to that of their experienced counterparts and thus becomes what the literature predominantly referred to as part of a 'sink or swim' philosophy (Wildman et al. 1989).

BTs in PNG need to be supported and assisted for their professional and personal growth and development through planned induction programs. It is clear from this study that the use of mentors as part of school-based education of teachers has real potential. Teaching should be treated as problematic and subject to constant inquiry and potential improvements. One suggestion for doing that is by incorporating collaborative learning activities such as team planning, lesson observations and peer evaluation in to the induction program. There are caveats concerning changes required to the concepts of teachers' work and school climate if the notions of mentoring are to be maximised. The notion of the school as a 'learning community' in which learning occurs at various levels will need to become widely accepted (Elliot & Calderhead, 1993). Such an approach could encourage positive attitudes in learning teaching, while reducing the feeling of deficiency which are common among teachers (Tickle, 1994).

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APPENDICES

Appendix 1

MAP OF PAPUA NEW GUINEA



Source: PNG Schools Jarcaranda Atlas.

Appendix 2

UNIVERSITY OF WAIKATO ETHICAL COMMITTEE APPROVAL

Dean's Office
School of Education
Te Kura Toi Tangata
The University of Waikato
Private Bag 3105
Hamilton, New Zealand

Phone +64 7 838 4500
www.waikato.ac.nz



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

MEMORANDUM

To: Joe Deruage
Cc: Noeline Wright

From: Dr Rosemary De Luca

Date: 7 August 2006

Subject: Research Ethics Approval

Thank you for submitting the revisions to your research proposal:

An Investigation into Induction, Professional Development and Mentoring of Beginning Primary School Teachers in Papua New Guinea.

I am pleased to advise you that your application has received ethical approval.

The Committee wishes you all the best with your research.

A handwritten signature in black ink, appearing to read 'R De Luca'.

for

Dr Rosemary De Luca
Chairperson
For School of Education Research Ethics Committee

Appendix 3

LETTER TO PNG NATIONAL DEPARTMENT OF EDUCATION

Department of Education
University of Waikato
Private Mail Bag, 3105
Hamilton, 2001
New Zealand

The Director – Research & Evaluation Unit,
Department of Education
FinCorp Haus,
P.O.Box 446, WAIGANI
N.C.D.
Papua New Guinea

Attention: [name of director]

Dear Sir/Madam,

RE: REQUESTING APPROVAL TO CONDUCT EDUCATION RESEARCH IN SIMBU PROVINCE

My name is Joe Deruage, a postgraduate student at the University of Waikato currently completing my Masters in Education this year (2006). In partial fulfilment of this qualification, a research thesis is required.

I propose to investigate beginning teachers' perceptions of their induction experiences during their teaching probation in Papua New Guinea. The scope of the study is for beginning primary teachers and their teacher mentors (or supervisors). I would like to collect my data mainly through interviews of 5-8 beginning teachers and 2 mentors from two separate primary schools (to be identified) in Simbu Province, PNG.

My research is entitled: *Induction and Mentoring Practices of Beginning Teachers' in Papua New Guinea*. The specific objectives are:

1. To investigate beginning teachers' and their mentors' perception on induction and mentoring experiences.
2. To learn about some of the issues and challenges beginning teachers' face at their schools and classrooms.
3. To identify assistance provided by the local and school authorities for the beginning teachers.
4. To investigate factors that enhances smooth transition from being college student teachers to real classroom teachers.

The fieldwork is anticipated between August and September this year for a period of 4 weeks. Due to time and resource constraint the scope of the study is limited to 2 primary schools. It will be an in-depth qualitative interview involving up to 10 participants (5 mentors and 5-10 novices). The interviews will be recorded on audiotape and later transcribed to identify common themes that emerge from the data. Participants will be given opportunity to read through transcriptions of the interviews to confirm or make changes to it. The participants can keep a copy of his or her transcription.

Apart from the interview, the researcher will scan written documents (e.g. induction program, school professional development program etc.) that participants may wish to provide to add richness to the interview data.

I write to inform and seek approval through your office of my intention to conduct educational research in Simbu province. The Principal Adviser for Education in the province will be informed in writing and his/her permission (see appendix 5 & 6) would also be sought. Following that, I intend to approach the head teachers of the two primary schools and discuss the research purpose, plans, procedures and ethical issues before inviting their school to participate.

The potential participants (i.e. the novice and mentor teachers) will be provided the same information through a meeting following the head teacher's approval (see appendix 3 & 6). The participants will be informed that their participation is voluntary; and as such they may withdraw from the study at any stage of the data collection process. They will be informed of their rights in refusing to answer any specific questions. All data collected will be treated as highly confidential by the researcher and the participants' identity will be

protected to the best of my ability by the use of pseudonyms. Each participant will be asked to read and sign a written consent (see appendix 4), based on voluntary and informed consent.

Should this request be approved, I would appreciate if you could sign and return the enclosed Consent Form by post. (See appendix 4).

For further information please contact my supervisors, Dr. Noeline Wright (*phone: 64-7-838 4500 ext. 7861 or email: noelinew@waikato.ac.nz*) and Dr. Rosemary De Luca (*phone: 64-7-838 4500 ext. 7907 or email: deluca@waikato.ac.nz*).

Yours faithfully,

Joe Kua Deruage

Postgraduate Student

Ph: (64 7) 856 8311

Email address: jkd2@waikato.ac.nz

Appendix 4

CONSENT FORM OF DIRECTOR – RESEARCH & EVALUATION UNIT

I, _____ the Secretary, National Department of Education hereby give permission to Joe Deruage of the University of Waikato to undertake the research project:

The study will take place in Simbu Province. The participants of the research will be the identified volunteer teachers in the selected primary school of the said province.

Below are the conditions that the researcher has to abide with.

1. To observe with respect at all times the teachers and their instructional hours where research is being conducted.
2. To observe with respect at all times the policies of the agency which runs the school.
3. To observe and abide to the Provincial Education Board's policies in conducting the research.
4. To observe and abide to the Research and Monitoring Division's policies in conducting the research.

Signed: _____

Dated: ___/ ___/ ____

The Secretary
National Department of Education
Fincorp Haus
P.O. Box 446 Waigani, NCD
Papua New Guinea

Appendix 5

LETTER TO PROVINCIAL EDUCATION AUTHORITY

Department of Education
University of Waikato
Private Mail Bag, 3105
Hamilton, 2001
New Zealand

The Principal Advisor
Division of Education
P.O. Box 192
Kundiawa, Simbu Province
Papua New Guinea

Dear Sir/Madam,

RE: REQUESTING APPROVAL TO CONDUCT RESEARCH PROJECT IN SIMBU PROVINCE

My name is Joe Deruage, a postgraduate student at the University of Waikato currently undertaking my Masters in Education program. In partial fulfilment of this qualification, a research thesis is required.

I plan to carry out a research project involving teachers of two primary schools in Simbu Province. The fieldwork is anticipated between August and September 2006, for a period of 4 weeks. It will be around the middle of term 3 this school year. I plan to do an in-depth qualitative interview of up to 10 participants (2 mentors and 5-8 novices). The interviews will be recorded on audiotape and later transcribed to tease out common themes that may emerge from the data. Participants will be given the opportunity to read through the raw transcripts to verify data and make change to parts of them, if required. The participants can keep a copy of their own transcription.

My research is entitled: *Induction and Mentoring Practices of Beginning Teachers' in Papua New Guinea*. The specific objectives are:

1. To investigate beginning teachers and their mentors' perception on induction and mentoring in primary schools.
2. To learn about some of the issues and challenges beginning teachers' face at their schools and classrooms.
3. To identify assistance provided by the local and school authorities for the beginning teachers.
4. To investigate factors that enhances smooth transition from being college student teachers to real classroom teachers.

The research is aimed to gain an insight into beginning teachers' and mentors' experiences of induction at schools. I trust that the findings from this research may be of practical use to the Department of Education with its teacher education program at the school, local and national levels.

I write to inform and to seek your approval to gain access to the school and to invite primary teachers to be interviewed. Should you endorse this proposal, I will approach the head teacher of the 2 identified schools and discuss the project details including the purpose and research ethics. Also at that meeting, the head teacher will be requested if his/her school can be involved. If the head-teacher agrees to that, a subsequent meeting will be arranged to inform the potential participants of the research purpose and ethical requirements.

Participants will be informed that their participation is voluntary; and they may refuse to be involved or withdraw up to the end of the interview data collection. It is also their right in refusing to answer any specific questions asked. All data collected will be treated as confidential and pseudonyms used to conceal the participant's identity. Each participant will be asked to provide written consent before any data collection commences.

Should you approve of this request, please sign and return the enclosed consent form to me by fax (refer to appendix 6).

Please contact my thesis supervisors, Dr. Noeline Wright (*phone: 64-7-838 4500 ext.7861 or email: noelinew@waikato.ac.nz*) or Dr. Rosemary De Luca (*phone: 64-7-838 4500 ext. 7907 or email: deluca@waikato.ac.nz*) if you require further information.

Yours faithfully,

Joe Kua Deruage

Postgraduate Student

Ph: (64 7) 856 8311

Email address: jkd2@waikato.ac.nz

Cc - The Senior School Inspector, Division of Education
- The In-service Co-ordinator, Division of Education

Appendix 6

CONSENT FORM OF PRINCIPAL ADVISOR – EDUCATION

I _____ the Principal Advisor of the Division of Education in the Simbu Provincial Administration hereby give permission to Joe Deruage from the University of Waikato to undertake the research project entitled: *Induction and Mentoring Practices of Beginning Teachers' in Papua New Guinea*.

The participants will only be volunteer beginning and mentor teachers in the selected primary school of the province.

The researcher is required:

1. To observe with respect at all times the teachers' rights in participating in the data collections.
2. To treat all data with confidentiality.
3. To observe with respect at all times the teachers and their instructional hours where research is being conducted.
4. To observe with respect at all times the policies of the Agency that operates the school.
5. To observe and abide to the Provincial Education Board's policies in conducting the research.
6. To observe and abide to the Research and Monitoring Division's policies in conducting the research.

Signed: _____

Dated: ___/___/___

The Principal Advisor
Division of Education
P.O. Box 192, Kundiawa,
Simbu Province.
Papua New Guinea.

Appendix 7

LETTER TO THE SCHOOL AUTHORITY

School of Education
University of Waikato
Private Mail Bag, 3105
Hamilton, 2001
New Zealand

The Headmaster
_____ Primary School
P.O. Box _____
Kundiawa, Simbu Province
Papua New Guinea

Dear Head teacher

RE: REQUEST FOR APPROVAL TO CONDUCT IN YOUR SCHOOL

My name is Joe Deruage and I am a teacher. I have taught in this province for a while at the secondary/high school division, before joining Madang Teachers College as a lecturer. At the moment I am studying towards a Masters in Education degree at the University of Waikato in New Zealand. Part of the study requirement is to do a research project.

I have proposed to carry out research in your school to gain an insight into the beginning teachers' experience about induction and mentoring. The project will involve teacher mentors and beginning teachers in their first three years of teaching.

I write to seek permission to conduct research at your school and to request your staff to participate voluntarily in the interview. Before involving your staff in the research, each participant will be asked to sign written consent. I will discuss the interviewing and consenting process with you, when I come around to talk to you of my proposal and other information on ethical requirements.

The participants will be informed that their participation is voluntary and they may withdraw at any stage up till the end of the interview data collection. They can decline to

answer any specific questions if it is considered harmful or offending to them. All data collected will be treated with confidentiality and the identity of those participating will be protected at all times by using coded names.

If you approve this research study I would be grateful if you could complete, sign and return the attached Consent Form (see appendix 8).

For further information, please contact Dr. Noeline Wright (phone: 64-7-838 4500 7861 or email: noelinew@waikato.ac.nz) or Dr. Rosemary De Luca (phone: 64-7- 838 4500 7907 or email: deluca@waikato.ac.nz).

Yours faithfully,

Joe Kua Deruage

Postgraduate Student

Ph: (64 7) 856 8311

Email address: jkd2@waikato.ac.nz

Appendix 8

CONSENT FORM OF THE HEADTEACHER

I _____, Head teacher of _____ Primary School, hereby give permission to **Joe Deruage** from the University of Waikato to undertake his research study in this school.

The researcher is required:

1. To observe with respect at all times the teachers' rights in participating in the data collections.
2. To treat all data with confidentiality.
3. To observe with respect at all times the teachers and their instructional hours where research is being conducted.
4. To observe with respect at all times the policies of the Agency, this runs the school.
5. To observe and abide by the Provincial Education Board's policies in conducting the research.

Signed: _____

Dated: ___/ ___/ ___

The Head teacher

_____ Primary School

P.O. Box 192

Kundiawa, Simbu province

Papua New Guinea

Appendix 9

INTRODUCTION LETTER TO PARTICIPANTS

School of Education
University of Waikato
Private Mail Bag, 3105
Hamilton, 2001
New Zealand

The Teacher/Mentor
_____ Primary School
P.O. Box _____
Kundiawa, Simbu Province
Papua New Guinea

Dear Teacher/Mentor

RE: REQUEST TO PARTICIPATE AS A RESEARCH SUBJECT

My name is Joe Deruage and I am a teacher from Simbu province. At the moment I am studying towards a Masters in Education degree at the University of Waikato in New Zealand. Part of my study requirement is to do a research thesis. I have proposed to carry out research at your school to gain an insight into the beginning teachers' experience about induction and mentoring.

As I understand you are involved with the induction as an inductee or mentor and I would appreciate if you would consider volunteering in sharing your experiences by participating in an interview. All information that is passed on to me will be highly confidential and used for this study alone. I will ask a few questions regarding your teacher training, your reasons for wanting to be a teacher, and your experiences of being involved as a mentor or novice in your school. The interview will take up to an hour at a place agreed by you and myself. Time and venue for the interview can be further discussed at a later meeting leading up to the actual interview.

I will tape record your responses during the interview, so that I won't forget anything that you tell me and that information will be transcribed later. During the process of interviews,

transcriptions will be made available for agreement and/or making changes where required. Your transcription will be given to you to keep. The data collected will be used for the purpose of this study only. It will be protected from being accessed by unauthorized persons and no names will be used to reveal your identity in the final reports (thesis).

I may request related documents such as personal journals, school professional development policy, and induction programs to scan for common themes to help answer my research questions. If you would like to be involved please read and sign this consent form (appendix 10). I will collect it from you in person at the school.

You are free to withdraw up to the end of the interview data collection. All information gathered would be treated confidential and your identity will be protected by use of pseudonym. If there are any question(s) in the interview that you feel is intimidating or insulting, you are at liberty to decline to answer.

For further information, please contact my thesis supervisors, Dr. Noeline Wright (phone: 64-7 – 838 4500 7861 or email: noelinew@waikato.ac.nz) or Dr. Rosemary De Luca (phone: 64-7- 838 4500 7907 or deluca@waikato.ac.nz)

Yours faithfully,

Joe Kua Deruage

Postgraduate Student

Ph: (64 7) 856 8311

Email address: jkd2@waikato.ac.nz

Appendix 10

CONSENT FORM FOR THE INTERVIEW PARTICIPANTS

Joe Deruage has explained the topic and purpose of the research interview to me. I understand that:

1. I may choose not to answer any questions, which I consider inappropriate.
2. My responses will be treated as highly confidential.
3. Within the research process, my identity will be covered as best as possible through the use of false names and/or other coding in the thesis report.
4. I may withdraw from this research at any point up to the end of the interview stage.

Signed: _____

Dated: ___/ ___/ ____

The Interviewee

Appendix 11

INTERVIEW SCHEDULES

1. The following questions will form the basis of teacher/mentor interview
2. Please tell me about your teacher education and what you learned from the experience.
3. Please tell me your reason(s) for choosing teaching as a career.
4. What did your teacher education preparation teach you about the realities of schooling and your teaching roles/responsibilities?
5. Please tell me about your teaching positions and what other responsibilities that you take up.
6. What sort of help did you most need when you first started teaching and who provided it?
7. How has the school supported you?
8. What kinds of help or support did the district/provincial division of education give?
9. Please, tell me about activities that you do on your own as an add-on to school organised programs.
10. What would you like to have, that you currently don't in terms of support as a beginning teacher?
11. What are your goals and aspirations as beginning teacher/mentor?
12. What advice would you give to teacher education providers?
13. Are there other issues that you would like to talk about?

Thank you so much for your time in thinking through and answering the questions. It is highly appreciated.

Mr. Joe Deruage – student researcher