

**Investigating the implementation process of a
curriculum: A case study from Papua New Guinea**

by

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A thesis

**Submitted to the Victoria University of Wellington
in fulfilment of the requirements for the degree of
Doctor of Philosophy
in Education**

2013

ABSTRACT

Investigating the implementation process of a curriculum: A case study from Papua New Guinea

The purpose of this study was to investigate how policy intentions of the curriculum were received and practiced by teachers and to evaluate the effectiveness of the implementation process. The study probed three levels of an implementation process of an Outcomes-Based English Education curriculum in two urban secondary schools in Port Moresby, Papua New Guinea. The specific focus of implementation was on: the initial introduction process, teachers' beliefs and attitudes, and classroom practices. This research was an exploratory one using focus group discussions, structured interviews, participant observations, and document analysis. A case study method was used; two qualitative studies situated within the constructivist and symbolic interactionism paradigms were used to probe alignment of policy with practice using the diffusion of innovation theoretical lenses. Content, discourse, and document analyses were used to give interpretations to themes resonating with the research focus; these themes were derived both deductively and inductively from data. Findings revealed that the curriculum change was challenging as policy expectations failed to align with practices. There were little shared meanings between teachers' views and classroom practices; this lack of connection contradicted policy intentions. There also appeared to be no connection by policy makers of the inbuilt tensions inherent in the outcomes-based model of education adopted for PNG. In relation to this, findings from this study revealed the need for collaborative professional development if policy is to be aligned with practice. Hence, this study offers a working tool called a Kibung PD framework as a priority for curriculum implementation at the classroom level.

ACKNOWLEDGEMENTS

All glory and honour to God for this blessing.

This thesis is dedicated to the memory of my late mother: Josepha Apiak Rumajir, without whose insightful visions those so many moons ago; I would not have accomplished what I have.

So many people have contributed to the success of my doctoral journey. Firstly, I am grateful to the New Zealand Government for the scholarship of study and equally grateful to my employer, The University of Papua New Guinea for supporting me in my study from March 2008 – till May 2012.

Secondly, I am appreciative of my academic mentors and supervisors who have played a significant role in my pursuit for this qualification – Associate Professor Kabini Sanga of the Faculty of Education and Dr John Macalister in the School of Linguistics and Applied Language Studies. I also acknowledge the participants from the two secondary schools that have contributed to this thesis and hope I have told their ‘implementation stories’ accordingly. I thank the NZAID team at Victoria International, VUW for the support given to my children and me during my studies.

I also acknowledge Dr Cherie Chu, Ms Pine Southern and the Pacific Leadership Cluster at VUW who have been a support base to me, both professionally and socially. ‘Tenk yu tumas’ to Dr Sanga and Mrs Sanga for the hospitality to my children and me over the summer breaks. Additionally, I thank the postgraduate Education students from 2008 - 2012 at 31A Campbell Street, Karori for the friendship, potluck lunches, and research discussions, as being on a doctoral journey is a lonely one and the friendship made a difference. A special mention to Linda Bonne, Kerese Manueli, and Amton Mwarakurmes and family.

Similarly, I acknowledge the support from the Office of the Pasifika Assistant Vice Chancellor at VUW – Associate Professor Luamanuvao Winnie Laban and staff. Additionally, I would also like to thank and acknowledge the Student Learning Support for reading the chapter drafts of my thesis. Furthermore, my gratitude goes to the Education Faculty, the School of Te Kura Maori, and the Post Graduate Students' Association at VUW for assisting me financially to attend and present two papers at two international conferences. I would also like to acknowledge the University Hall Management for the support of accommodation during my studies and the VUW Hardship Fund for assistance with the medicals for the visa extension for me and the family. Additionally, I would also like to thank Laura van Peer for her sound proof-reading of the chapters for my thesis. Similarly, I acknowledge Professor Cedric Hall at the Education Faculty of VUW for his useful comments on my thesis.

Furthermore, I would also like to acknowledge my colleagues at UPNG for the support from the work place: Dr Bernard Minol and staff of the Centre for Human Resource Development, Professor Albert Mellam, Ms Grace Guaigu, Ms Georgina Numbasa, Ms Jenny Panao, Ms Natalie Niaga, and Ms Zara Varily. Additionally, I thank my extended family members who have supported me tremendously: The Sambua's, Poko's, Kabai's, Ramengga's, Tainau Gukaine and family, Janet Aisir and family and awau Kalmayen and family.

I would also like to give a special acknowledgement for the immense support from my daughter – Marlene Michelle who was my strength in everything including taking care of her baby brother (Kenneth) during the first three years of my studies. Similarly, I also extend a special acknowledgement to my youngest son, Kenneth who walked the first steps of the doctoral journey with me as a three year old in March of 2008 till the end as a seven year old in May of 2012, by putting up with all my highs and lows, and being the inspiration when the going got tough.

Lastly, but not the least, I am in debt to my four children for the sacrifice of family time that was given up so that I could pursue my dream – this thesis is for: Benson, Marlon, Marlene, and Kenneth.

THANK YOU and GOD BLESS.

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CHAPTER ONE

Situating the study

Introduction

This introductory chapter sets the background for this thesis. It begins by describing the research context, and then presents the issue of investigation within the socio-cultural, historical, and educational contexts of Papua New Guinea (PNG). The third section outlines the research's main purpose followed by the objectives and research questions. The fifth and sixth sections discuss the significance and motivation for the study, while section seven gives an outline of the thesis structure.

1.1 Research context

There are two parts to this section. The first describes the geographical location, historical and socio-cultural features of the country. The second shows the types of educational system practiced in PNG before colonialism and after. These are discussed to show that the education system in PNG was considered a foreign concept modelled from the colonial administrator's system. Consequently, western education was argued to be inappropriate for a diverse indigenous nation. This gives background information to the issue of the curriculum implementation process investigated by this study.

1.1.1 Brief background of Papua New Guinea

PNG is a developing Melanesian country in the Pacific. It is situated in the eastern half of the island of New Guinea south of the equator and 150 kilometres north of the tip of Australia (Department of Education, 2004). Historically, PNG was a country divided into two when it was settled by Europeans in the 1800s. Germany annexed New Guinea, the northern part of the island and the United Kingdom declared a protectorate over Papua, the

southern region (Asian Development Bank, 2009). In 1902, Britain transferred the latter to Australia while Germany governed the former till World War One broke out (Smith, 1987). The war gave Australia the opportunity to administer both regions when Germany exited. Australian administration of a unified nation commenced in 1946 and continued until 16 September 1975 when PNG gained independence after approximately 30 years of Australian colonial administration (Thomas, 1976). PNG's parliamentary system, public service, and education system were adapted from the Australian systems. Despite, being independent, it is noted that PNG receives the largest aid recipient of overseas funded projects from the Australian Government (AusAID, 2009).

PNG is heterogeneous linguistically and culturally. There are over 800 languages and 1000 tribal groups, each with its distinctive cultural features that make up the social fabric of society (Department of Education, 2004; Waiko, 1993). There are three official languages: English, Tok Pisin and Motu. The country has 22 provinces and 89 districts with large socio - cultural differences between and within provinces (Asian Development Bank, 2009). The estimated population in 2009 was 6.6 million people (AusAID, 2009). Despite the diversity, there are also common traditional PNG practices in most cultures (Narokobi, 1983). Some of these are: The Melanesian reciprocal relationship, subsistence living practices, obligations of kinship bonds extending beyond a nuclear family, people's attachment to and ownership of land, property inheritance through birth-right, and practices of patrilineal and matrilineal societies.

Thus, the geographical and historical features, social background, and political governance of the country have influenced the development of the education system in PNG.

1.1.2 Educational Context

1.1.2.1 *Traditional education*

PNG societies had their own forms of education before the arrival of the early Europeans in the 1800s. The curriculum for learning was based on life experiences required for survival in societies (Smith, 1975). Practical lessons through word of mouth were administered by knowledgeable adults who were specialists in certain fields. These included general and specific teaching of skills and knowledge. Traditional learning also included gender lessons which segregated males from females and vice versa. The lessons were based on responsibilities within societies. These included: fishing, gardening, hunting, defending, and nurturing among many roles. There were no failures in the practical lessons in traditional PNG society. Pupils had to repeat the learning tasks until they were competent in the content so that they could practically apply the knowledge and skills learned. Maximum participation was required and pupils could not question the experienced adults. Traditional education in PNG resonated towards a teacher-centred approach of village elders verbally instructing, guiding, and mentoring the youths into learning appropriate skills and knowledge required for survival in traditional PNG contexts (Nongkas, 2007).

1.1.2.2 *Introduction of Western education*

Christian missionaries first brought formal education into PNG in the 1800s. Their goal was the conversion of indigenous people from paganism to Christianity, teaching basic literacy, and appreciation of moral conduct on the one hand. Literature states that mission schools based their curricula on biblical teachings and principles of churches (Smith, 1975; Smith, 1987). In contrast, it was argued that the colonial administration established government schools with the objective of serving their colonial purposes for political, economic and social control in the colony (Thomas, 1976). Hence, the two education providers of formal schooling were functioning independently of each other with different education goals until 1970 (Department of Education, 2004). In 1970 the national Department of Education (DOE) was established. From its inception it had adapted aspects from the colonial administration's system (Smith, 1987). It

was from the back drop of colonial influence on the education system that the type of education provided by the department has been contested since independence (Tololo, 1975).

1.2 Research problem

1.2.1 Education tension

The issue of curriculum implementation has been debated in the context of discussion about the quality of education in PNG. The argument dates back to the inception of the Department of Education in 1970. In 1974 at the “Eight Waigani Seminar” an indigenous educator, Tololo (1975) argued about the quality and relevance of education in PNG. He raised issues on curriculum relevance; the pursuit of universal primary education; the introduction of vernacular education, and increased access to grades seven, nine, ten, and twelve in high school education. Tololo’s highlighted issues were addressed eleven years later by the Matane Report in 1986.

From the discussions of the Eight Waigani Seminar, there was a general feeling of dissatisfaction with the education system in PNG in the early 1970s (Tololo, 1975). The argument was that the system was a foreign concept modelled from the colonial system of Australia resulting in the issue of education quality being debated vigorously prior to and after independence (Department of Education, 2001; Matane, 1986). Hence, it also was contested that the system was producing an elitist approach to education that aimed at educating citizens for the post- independence era (Solon & Solon, 2006).

Due to the opposition expressed in the Eight Waigani Seminar (Tololo, 1975), two committees were formed to address the issue of the type of education provided in PNG. The earlier one was chaired by Tololo in 1975 (Department of Education, 2003c), and the latter was by Matane in 1985 (Matane, 1986). Both committees reported recommendations on developing an education system that was more culturally relevant to PNG. The suggestions were for vernacular instructions in early childhood education and developing community based education that was parallel with the needs of society (Matane, 1986; Tololo,

1975). However, due to financial constraints in the DOE these recommendations could not be implemented till the 1990s when donor funding assisted with large scale reform (Department of Education, 2000).

1.2.2 Education Policy

The Matane Report (1986) is defined as the Education policy that signalled directions for change for the education system in PNG (Department of Education, 1991). That report, termed the Philosophy of Education, was instrumental in influencing educational reform in PNG because it had been mandated as a Ministerial Report (Department of Education, 2001b; Franken & August, 2011). The Report elicited its goals and objectives from the National Constitution (Department of Education, 1991). The main emphasis was for all citizens to receive an education that resonates with the “five pillars” for integral human development (Matane, 1986, p. 6) as stipulated in the National Constitution. The Matane Report was the impetus that charted direction for a post-independence education system, and was described as the “birth of the education reforms, in particular the reform of the curriculum” (Department of Education, 2001, p. 6). It suggested a holistic approach to education which should encompass academic, social, economic, political, and spiritual development for students who would ultimately participate in national development (Maha, 2009).

Nevertheless, critics of the Matane Report described it as being impractical for teachers to use in universities’ and schools’ curricular (Yoko, 2000). Observations have also been made noting that there have been minimal changes to the quality of education in PNG since the inception of the Matane Report (Department of Education, 2000; Pagelio, 2002; Tapo, 2004). As a result of various investigations into the PNG Education System (Department of Education, 1996a; 1996b; Kenehe, 1981), the DOE commissioned a review into its entire education system in 1991, and made recommendations for structural and curriculum changes (Department of Education, 2001). Interestingly, the two recommendations provided by the DOE for reforming education in PNG were similar to the global educational issues that were widespread in the 1990s

(Fullan, 2007). The issues were championed by the United Nations' (UN) Millennium Development Goals (MDGs) (World Bank, 1995). Structural changes resonated with the 'Education for All' (EFA) - movement, which argued that children should have greater accessibility to education (Nongkas, 2007). Similarly, curriculum change leaned towards an Outcomes-Based Education model, which is described as a unified education model influenced by the UN (Coxon & Tolley, 2005).

1.2.3 Outcomes-Based Education

The education curriculum reform that PNG has adopted in the 2000s is based on the principles of Outcomes-Based Education (OBE). According to one of its advocators, William Spady (1994), OBE is a comprehensive approach to organising an education system. It requires a significant change to the way people have been doing things in an education system. According to Spady, OBE emphasises a student-centred learning philosophy through a focus on measurable student outcomes. Students have to demonstrate that they have learned the required skill or content as a learning outcome in an OBE system. Spady also supports the view that an OBE curriculum should be based on constructivist thinking that argues that learners create knowledge and meaning from interaction between their experiences and their ideas as per their social contexts (Creswell, 2009). In this view of OBE, the intention is to discourage traditional teaching based on direct instruction of facts and standard methods. PNG adopted Spady's conception of OBE and reformed its state curriculum (Department of Education, 2003a).

However, as will be seen in Chapter Two, Spady's concept of OBE is not the same as other writers (Hall, 2005a; 2013). Hall argues that OBE does not harmonise at all well with notions such as constructivism and student-centred learning. For this reason Chapter Two will include a critical analysis of OBE. In the PNG education system the OBE curriculum identifies skills, knowledge, values, and attitudes that students will demonstrate as a result of being taught from the national syllabi developed for elementary to grade 12 (Department of Education, 2003a).

It should be stated that some writers have argued that an OBE model of change resonates with global developmental issues that focuses on effective aid delivery in third world countries (Coxon & Tolley, 2005). The argument for this view stems from the MDGs' framework endorsed by the UN (World Bank, 1995). Furthermore, it is argued that the OBE model has gained wide acceptance because of its potential to be used as "a systems approach" (Hall, 2005a, p. 305). Hence, OBE has gained global popularity because of the UN's influence (Coxon & Tolley, 2005). For instance, development aid to the Pacific, aims to help recipient nations eradicate poverty, and champion the MDGs in the region (Puamau, 2005). Noted examples of various forms of OBE aid to the Pacific include Solomon Islands, Fiji, and PNG (Daudau, 2010; Maha, 2009; Ruru, 2010). These examples align with the Paris Declaration for effective aid delivery to third world nations (World Bank, 2005), which focuses on capacity building of human resources that would ensure good governance in developing nations.

1.2.4 Policy intentions for teaching English

The curriculum policy for PNG is derived from the National Curriculum Statement (NCS) (Department of Education, 2003a) and the English Language Syllabus for lower secondary school (ELLSS) (Department of Education, 2006). The policy documents point out that English is a subject which has many forms; this belief has also been well documented (Ellis, 2008). Thus, in the PNG context, policy emphasises that English needs to be taught meaningfully for the PNG secondary school context.

Likewise, policy envisages that having knowledge in English entails learning its grammar so that it would determine a learner's competency for performance in society (Department of Education, 2006). It is stressed by policy that the English language content such as vocabulary, conventions of language, interpersonal skills in reading, writing, listening, viewing, speaking and grammar requirements needs to be taught in context (Ibid). This approach would reinforce policy intentions for students to generate meanings within their learning contexts. Additionally, policy states that the teaching and learning of English needs to be done through three methods. These are: text-based

approach, thematic or integrated teaching, and student-centred learning (Department of Education, 2003a; 2006). This shows the policy aspiration for the teaching methods for learning English in the PNG secondary school context. Thus, policy (Department of Education, 2003a) reiterates that, "The Curriculum Principles should also influence what teachers teach, how they teach, and how students learn, and apply their learning throughout their lives" (p. 12) (see Section 4.3).

Figure 1.1: Timeline for curriculum implementation

Issue ↔	Philosophy of Education ↔	Policy ↔	This study
(1975)	(1986)	(2003a)	(2009)
Irrelevant Curriculum Tololo (1975)	Matane Report	i) National Curriculum Statement ii) English Language Syllabus (2006)	i) Initial introduction ii) Teachers' beliefs & understandings iii) Classroom practices

1.3 Purpose of the study

This study had two points of focus, the first of which was: to seek qualitative information from stakeholders to determine how policy intentions align with practices when a curriculum is implemented. This study investigated three levels of curriculum implementation at a local context at the secondary level of education: the initial introduction phase, teachers' beliefs about the concept of the curriculum implementation process, and classroom practices of grade nine English lessons.

The second point of the focus was to determine if the data could be used to develop a framework for assisting curriculum implementation processes in PNG and similar Melanesian contexts. By doing that, this study contributes to the broad topic of educational change in the international literature concerning curriculum implementation processes from a local context in the Melanesian region of the Pacific. At the same time, it contributes to the debate about curriculum change, and highlights factors that are context specific which may assist or impede local implementation processes.

1.4 Research objectives and questions

There were three objectives for this study:

1. To describe three levels of English curriculum implementation at the secondary level of education in Papua New Guinea;
2. To evaluate policy intentions of teaching English against observed classroom practices; and
3. To develop an explanatory framework to assist future curriculum implementation processes.

To achieve these objectives, two main research questions were designed:

1. *How does the intended Outcomes-Based Education Curriculum in Papua New Guinea align with the experienced curriculum in the teaching and learning of English as a second language in lower secondary schools?*
 - a) How was the Outcomes-Based Education Curriculum introduced to teachers?
 - b) What are teachers' beliefs and understandings of the Outcomes-Based Education Curriculum and why do they have those beliefs and understandings?
 - c) How do teachers implement the Outcomes-Based Education Curriculum in their grade nine English lessons?
2. *What contributions on processes of curriculum implementation does the experience with the Outcomes-Based Education Curriculum from Papua New Guinea provide?*
 - a) What was the model of curriculum innovation applied in Papua New Guinea?
 - b) What curriculum innovation model is relevant for a Melanesian context as perceived by educators involved in the Papua New Guinea experience?

1.5 Significance of the study

Freeman, Anderson and Morgan (2005) point out that since the introduction of the Outcomes-Based curriculum in PNG, questions have been asked about its effectiveness in raising educational standards. For instance, the media has reported widespread hostility and suspicion among PNG citizens towards the curriculum (Post Courier, 11 September 2003; The National, 15 March 2007). Thus, there is a need for empirical studies to clarify issues and inform stakeholders. This study is a pioneer study in this context as implementation of the English syllabus within the lower secondary system recently began in 2008. Curriculum innovation is an area that requires further research as it is difficult to ascertain at which point in the process an innovation would be judged satisfactory or even whether it has been adopted at all by the population for which it was intended (Markee, 2001).

My research has implications for both local and international audiences in terms of its potential to:

- Inform policy makers in PNG of the relationship between policy intentions and classroom realities;
- Be used as a resource document for PNG policy makers, teachers, teacher institutions, researchers, and the public;
- Be of value as a resource document on education reform for the Melanesian region; and
- Contribute to the body of theoretical and practical knowledge about how a curriculum innovation is implemented in a local context.

1.6 Motivation for study

Three factors influenced this study: the agenda of curriculum reform in PNG, my personal motivation, and gaps in the literature.

Firstly, the reform curriculum was described as being sustainable and a “home grown curriculum” by the then Education Minister (Laimo, 2006, p. 1), in 2005. That personal reflection was made at the first conference discussing the reform

of curriculum (Paraka, 2006) in Port Moresby. While the curriculum reform was originally intended to improve education quality for the lower levels of education, it also has implications for the performance of tertiary students who enrol at the University of Papua New Guinea (UPNG) where I work as a lecturer with a strong interest in the issue of curriculum implementation.

Secondly, my motivation for this study also stems from my observations of foundation students' performances at UPNG. The concern developed from my observation of a lack of comprehension of basic English commands. These were from academic writing skills displayed in assignments and examinations of first year UPNG students undertaking a foundation 'Communication and Life Skills' course over a period of five years (2003 – 2007). To me these were simple mistakes for students to be producing at that level. Thus, I questioned how well the education reform's new curriculum for English had prepared secondary students to advance to the next level of tertiary studies.

Preceding my employment at UPNG, I had experience in teaching secondary English to speakers of other languages (TESOL). Consequently, I was curious as to the implementation process of teaching and learning at the secondary level. My rationale for researching this problem resonates with the descriptions from Silverman (2005). He states that those who investigate teaching are involved in concerted attempts to understand the phenomena of teaching, or learning how to improve its performance, or discovering better ways of preparing individuals who wish to teach, which sums up my motivation.

Accordingly, based upon personal reflection, it is asserted that conducting research in classrooms enables one to focus on better understanding of teaching and learning (Tobin & Kincheloe, 2006). This is especially significant when there is a new concept involved such as the reform curriculum in PNG which needs exploration to seek answers (Creswell, 2007). Thus, this reflected the essence of my thinking because I have the professional knowledge (Stake, 2006) of 18 years of TESOL experience from four different PNG institutional levels along with the appropriate qualifications. Together these experiences and

qualifications, and my ethnicity make me well placed to investigate the implementation process of the English OBE curriculum in PNG.

My work experiences include: 10 years as a TESOL teacher in government secondary schools, two years as a teacher educator at a primary teachers college, one year at a private secondary school, and five at my current employment at UPNG before commencing this study. In my responsibilities as a classroom teacher, a head of an English Department (four years), and a primary teachers college lecturer, I have taught English programmes required by respective curricula (secondary and teacher education) prior to the PNG education reform. In my roles I have also mentored and supervised secondary trainee English teachers from the University of Goroka (UOG) in my capacity as a participating teacher in UOG's teaching practice programmes. Likewise, as a language teacher educator I have also lectured and supervised primary trainee teachers during practicum. It was these teaching experiences that motivated me to reflect on the requirement for investigating curriculum implementation in the field of English education.

In this research, my roles were both outsider and insider. The outsider perspective being that I have not taught in the two Port Moresby secondary school contexts that I researched. Furthermore, I did not have any prior knowledge or information of any participants from the research contexts. My acquaintance with the participants was drawn from the research experiences. Additionally, as an outsider, I was also able to interpret the participants' views of the notion of a curriculum implementation process through a theoretical lens. My different teaching experiences, grounded with my qualifications, enabled me to give meaning to participants' perceptions. To avoid bias because of my professional experiences, a journal was used to record instances that would have influenced my interpretations of participants' views.

On the other hand, as an indigenous Papua New Guinean, I also had an insider's role. Having knowledge of common cultural and social practices from PNG (Narokobi, 1983) gave me the advantage to make sense of data from this study.

Additionally, having formal qualifications in education (diploma and degree) from a teacher education university in PNG gave me insights into realistic experiences raised by participants from this study. Consequently, these factors assisted me in interpreting and giving contextual definitions to concepts derived from this study. Likewise, also having taught for 10 years in the secondary school context provided me with the familiarity of interpreting meanings at this level of implementation investigated by this study. Overall, I have used a Western theoretical lens to investigate a local issue of curriculum implementation process and I am aware of the double roles that I play in this study.

Thirdly, the literature reviews in the areas of general education and especially in second language teaching and learning from a Melanesian Pacific context revealed a gap. There was little about insights into curriculum implementation processes from language education in PNG. The review of literature outlined indicated that, while there has been a significant amount of valuable work in the field of second and foreign language curriculum innovation (Markee, 1997; Prabhu, 1987), there was very little literature from a Melanesian context. Therefore, there was a need for more research studies from this particular context and to hear from teachers who had experienced the implementation process of a new curriculum in a PNG context. Thus, my study tried to fill this space.

Gauging teachers and teaching perspectives will provide insights into the processes of teacher education and the nature of teachers' instructional practices (Borg, 2006). It will also highlight to policy makers the results so that they become more sensitive to the key role teachers play in implementing educational innovation projects. As aptly stressed by Goh and Yin (2008), it is in the classrooms that the aspirations of policy makers are either realised or forsaken.

The three reasons discussed above therefore, provide the impetus for this study. Hence, this study is in line with calls from international sources (Fullan, 2007;

Markee, 1997) for more situated empirical studies to contribute to the discussion on education change and curriculum implementation. Likewise, at the national level, my study is a response to the call made by Morgan (2006) at the first reform curriculum conference. He stressed for PNG to have a monitoring system for evaluation purposes on the outcomes of the reform curriculum. He argued that this would objectively provide evidence that the new curriculum is either resulting in positive learning or not. Because of my interest, my teacher training, and TESOL experience in PNG, I have pursued the investigation of the English OBE curriculum implementation process in this study.

1.7 Thesis outline

This chapter introduced the context for this study, gave a brief overview of the education context in PNG, and described the research objectives and questions, followed by stating the significance and motivation for the study. Chapter Two outlines the literature reviewed and the theoretical lens used for viewing change by this study. This investigation is situated within the broad topic of education change, specifically focusing on a curriculum implementation process from a situated context. Chapter Three presents the research methodology including data collection methods and analysis. Chapters Four through Six present findings from this study. Chapter Four describes the policy documents, and their intentions for the curriculum implementation process for this contextual study. Chapter Five outlines the observation findings and Chapter Six presents participants' views concerning issues related to the curriculum implementation process. Chapter Seven discusses the conceptual issues consistent with the results of Chapters' Four to Six, and provides a model to assist curriculum implementation. Lastly, Chapter Eight concludes the discussion of this study, reiterates the limitations of this study, and outlines implications for future research.

CHAPTER TWO

Literature Review and the Theoretical Framework

Introduction

This chapter has twelve sections. The next section (2.1) identifies the context for educational change along with definitions of terms used in this discussion and the reasons for introducing educational innovations. In Section 2.2, the theoretical lens that is used to interpret change in this study is presented while in Section 2.3 the management of innovation is discussed followed by processes of diffusion (2.4). In section 2.5 the perceived issues in curriculum innovation are outlined, followed by a discussion on policy perspectives (2.6). Section 2.7 discusses curriculum as a policy intention, and Section 2.8 presents four educational change models; this is followed by a discussion of four change strategies relevant to educational contexts (2.9). The remaining sections present information relating to educational change in PNG (2.10) and provide a summary of the current chapter (2.11).

2.1 Innovation seen as educational change

This study focused on innovation but situates the term in the broad topic of education change. Therefore, innovation and change are used interchangeably here.

According to the literature, change is inevitable in the twenty first century (Lieberman & Miller, 2005; Stoller, 2009). Some writers use either “reform” or “innovation” to refer to change (Datnow, Hubbard, & Mehan, 2002; Fullan, 2007). Educational changes are context specific and they can be initiated either internally or externally. The former is instigated by members within social systems whilst the latter is recommended by change personnel outside social systems. For instance, the former could be at school level and the latter as part of the global education reform agenda. Innovations as educational change are deliberate acts aimed to change both goals and practices in education systems

(McInerney, Van Etten & Dowson, 2007; Rizvi & Lingard, 2010). Educational change here encompasses reform, improvement, professional development, management, and innovation (Towndrow, Silver, & Albright, 2010).

Some examples of innovations that are perceived as educational changes are: the American large scale national curriculum reform in the late 1950s - 1960s, the Pacific reform curriculum project for junior high schools, 1970 - 1975 at the University of South Pacific (Thaman, 2009), and the United Kingdom's systemic reform of 1977 (Fullan, 2007). Similarly, New Zealand's national literacy initiative (Timperley & Parr, 2005) and Hong Kong's primary school task based learning (Adamson & Davison, 2008). In some instances, educational changes have been mandated by legislation (Murray, 2008) like the PNG Education Reform Act of 1991. In summary, innovations as educational change occur in different forms and shapes and are context specific as the examples above illustrate.

The diffusion of innovation theory (Rogers, 1995) rather than Fullan's change theory (Fullan, 2007) is used here to investigate curriculum change. The communication aspect of Rogers' framework resonates with the cultural aspect of this contextual PNG study. PNG is more of an oral society (Waiko, 1993), despite the western influence of written print. Furthermore, change theory looks at understanding change from a holistic view point, and developing strategies for all concerned in the tri levels of society: national, district and school / classroom (Fullan, 2007); this is not the focus here. The diffusion of innovation theory focuses on a specific social context with the aim of getting new ideas (innovation) out to those in that system receiving it through mediums of communication; this is appropriate for the present study.

2.2 Diffusion of innovation theory

According to Rogers (1995), diffusion refers to a process when new ideas or technology considered relevant by Person A for improvement purposes in a situated context is introduced to Person B (see Section 2.8.1). Diffusion involves various inter-related activities such as decision making and systemic

preparation before any new idea / technology is being adopted or rejected by individuals or social systems. The diffusion of innovation theory - or diffusion theory - studies processes of change (Rogers, 1995). This theory asserts that there are three broad phases in a diffusion process (Bentley, 2010; Berman & McLaughlin, 1976). These are: Initiation, Implementation, and Continuation. All stages have different activities which are interactive. These activities include decision making choices, support, and putting into practice the required necessities for intending recipients of change. They do not occur sequentially in time and place. The phases are discussed below.

2.2.1 The Initiation phase

The Initiation phase is the first part of a diffusion process. In education, change can come externally from global influences, or internally from education ministries within countries. This phase includes all decision making processes, planning for implementation and seeking resources about ideas for new innovations that seem relevant for making differences in societies' practices (Johnson, 1989). Literature suggests that three main influences may impact on curriculum decision making at the initiation stage: policy influence, pragmatic considerations, and participants' reactions (Prapaisit de Segovia & Hardison, 2009).

According to the Markee (2001), decision making at policy level involves four areas: (a) decisions about curriculum planning and policy statements, (b) learning aims and means of achieving them, (c) project implementation including materials, resources development, and teacher training, and (d) classroom implementation which refers to teachers' and learners' actions. Change managers need to take account of pragmatic considerations as these concern time and resources incorporated into curriculum innovation projects. Markee (1997) cautions that teachers receiving innovation through projects that employ a top-down change process would need to equate their practices according to policy. Furthermore, literature cautions that decision making must include issues pertaining to managing change within diffusion processes (Rogers, 1995). These four areas outlined above for decision making at a policy

level are not comprehensive, but demonstrate that the initiation stage in itself is a highly complex process.

Rogers (1995) stresses that initiating change involves short and long term planning and management. These entail multiple - tasks, including decisions for proceeding with change in society (Fullan, 2007). Others are: needs analysis, lobbying for support, drafting implementation plans, and organising capacity building. This list is not extensive but contains some institutional factors and realities for those involved in change projects (Stoller, 2009). Thus, the initiation stage has numerous tasks to be dealt with, and so could seem confusing and overwhelming to recipients (Markee, 1997).

2.2.2 The Implementation phase

Rogers (1995) describes the Implementation phase as the second stage in the diffusion process. The term implementation may have two meanings according to policy perspectives (Lane, 1997). One shows policy intentions and the other implies policy results. For instance, this study encompasses both - what policy requires and how teachers' understand policy intentions and have applied them. Thus, implementation concerns initial experiences of attempting to translate policy intentions into practice (Stoller, 2009).

Fullan (2007) is of the view that "implementation" is evident in the first three years of an innovation project. During this period teachers will adapt and modify practices according to their interpretations of the innovation. This time frame was relevant to this study. The initial classroom implementation was 2008 and this study followed in 2009, a year after the official launch (Department of Education, 2006). It is during this crucial phase that issues are likely to arise. Consequently, Stoller (2009) suggested that teachers and change managers should see problems occurring here as learning opportunities rather than as obstacles. Hence, implementation is similar to a teething process of growth whereby issues are inevitable, and potential recipients of change may either embrace or reject the innovation during the implementation phase of the diffusion process.

Markee (1997) highlights that factors such as the social context, teachers' characteristics, and attributes of innovations also have the potential to hinder or support implementation. The social context includes: cultural, political, administrative, educational, and institutional factors and realities. Kennedy (1988) believes that any classroom innovation cannot exist in isolation but is embedded in society. The cultural aspects of society, according to Kennedy (1988) determine how the other five variables listed here influence classroom innovation. Change agents need to be aware of such dynamics when implementing large scale curriculum innovations. Some scholars suggest that it has been observed that during implementation, recipients of change make surface decisions to adopt innovations without deep reflections about consequences (Ball & Cohen, 1999; Cohen & Hill, 2001; Datnow & Stringfield, 2000). Likewise, evidence shows schools have accepted change without realising their full impact (Hatch, 2000). Fullan (2007) argues that accepting change is often due to the influence of lobbying rather than rational thinking. Hence, implementation of a diffusion process maybe complex and has consequences for the continuation (Markee, 1997).

2.2.3 The Continuation phase

Rogers (1995) identifies the continuation phase as focusing on the need to sustain innovations for longevity purposes. For example, incorporating curriculum innovations into teachers' long term practices. This involves institutionalising curricula as part of integral teaching programmes. Prior decisions and activities made in phases one and two will impact on stage three as they are interactively linked. Two possible results may occur here, adoption or rejection (as phase 2). Teachers' choices of curriculum change are said to be influenced by their beliefs, attitudes, and understandings which make up their world views (Borg, 2006). Additionally, teachers could create their own interpretations of the innovation in view of their experiences and knowledge (Carless, 2004). Consequently, the innovation may change into a "weakened" (or strengthened) version of the original (Stoller, 2009, p. 81).

Some studies have shown that innovations do not get successfully institutionalised during the Continuation phase (Chan, 2002; Datnow & Stringfield, 2000). For instance, Chan's study into task based learning in Hong Kong revealed teachers' diverse reactions during the continuation period. A few teachers drew from personal experience and altered their teaching approaches, but Chan (2000) asserts that this was from teachers' personal interpretations rather than prescriptively using the Education Ministry's guidelines. Arguably, Chan's finding could also suggest that the teachers were being innovative and responding to their particular context. As a result teachers applied weaker versions of the original innovation. Stoller (2009) advises that such reactions should not be seen as immediate failures but viewed as learning experiences. According to Murray (2008), this indicates the need for further training to ensure practice meets policy intentions. This supports Markee's (1997) position that curriculum innovation is complex and is a socially situated process. The continuation phase of diffusion therefore is just as challenging as the other two phases. Hence, there needs to be monitoring and evaluation of the three diffusion processes through empirical studies (Adamson & Davison, 2008).

2.2.4 Defining innovation

Innovation is used here to refer to educational reform changes (Murray, 2008). Reform is synonymous to general education change (Fullan, 2007). Collectively, innovation and change are used interchangeably to describe changes in language education (Kennedy, 1988). Murray describes innovation as being new with intentions for improvement, and change as inevitable that leads to innovative responses. Markee (1997) argues that innovation should be deliberate and not left to chance. Changes may remain as illusions only when institutions abandon innovations and revert to traditional practices. Fullan defines innovation as "the content of a given new program" (2007, p. 11) and further uses the word innovative to describe capabilities of organisations to engage in continuous improvement. Thus, "innovative" is also used here to describe change and innovation.

According to White (1988), classroom innovations take place when conscious decisions are made for adopting new methods with intentions for improvement. This alludes to pedagogical changes as it involves new teaching approaches and beliefs. Respectively, these changes involve behavioural change in actions and thoughts (Markee, 1997). However, some might not deem innovation as improvement (Fullan, 2001) when there is no compatibility with the introduced innovation. For instance, the process of adoption is only one possible response to innovation, but there are other variables involved in the process of diffusion (Section 2.2). Hence, accepting innovation for the purposes of change could be challenging.

Others, however, differentiate between change and innovation. Stoller (2009) believes change does not need a deliberate effort from people, but still brings improvement, while, innovation needs conscious attempts from people directed to bringing about improvements. Despite, these distinctions, both terms have improvement as the end result. This discussion concurs with the view that innovation requires deliberate effort for adoption and achieving diffusion. Despite, distinctions between change and innovation the common factor is to improve situations for the purposes of development. This study uses change, reform and innovations interchangeably to describe diffusion, management, policy, and implementation of language educational changes. Some examples from applied linguistics show that English language teaching (ELT) reform projects have had elements of both innovation and change associated with them (Godrey, Murray, Nimmannit, & Wirth, 2008; Henrichsen, 1989). Those projects were managed and filtered through the diffusion processes (Section 2.2). Other noted English language innovation projects include Prabhu (1987), Markee (1997), and Adamson and Davison (2008).

2.2.5 Reasons for innovation

According to the literature, different reasons motivate innovations in education systems (Nation & Macalister, 2010). These may be from within social contexts or from outside influences (Datnow & Stringfield, 2000; Morris & Adamson, 2010). Generally, the environment provides circumstances for innovations

(Stoller, 2009). Generally suggested, three reasons are often given for innovation but, as identified below, these are not exhaustive: dissatisfaction with the status quo, stated or implicit desire for more professionalism, and top-down directives from higher administration or government legislation. These reasons are embedded in the debate about bottom-up and top-down approaches for introducing changes (Sabatier, 1986).

An example of dissatisfaction with the status quo would be Prabhu's Bangalore Project (1987). This project developed a procedural syllabus using games to promote communicative approaches for learning English as a second language (L2). The project was dissatisfied with the audio lingual and structural syllabi for learning L2. These grammar translation methods were considered inappropriate for teaching L2 in India, thus, generating the need for innovation in that environment.

Another example may arise from teachers themselves. If teachers indicate a need for more in-service workshops, then they are providing impetus for change (Markee, 1997). This may be for content, theory or pedagogical skills and knowledge. In such situations teachers are receptive to introduced changes as they initiated it at that level. Thus, taking ownership of classroom innovations would not be so challenging for them. These two examples show a bottom-up approach to change.

Alternatively, a top-down approach to change involves education ministries instigating change in their organisations and passing decisions to other stakeholders within their education systems (Sabatier, 1997). This type of change is common in systems as those found in the Pacific region with more centralised control from education ministries. Nevertheless, it is said to be applied also in certain developed countries including Japan and France (Fullan, 2007). Some studies into government initiated educational changes conducted in developed countries show a top-down approach to change (Ball & Cohen, 1999; Howard & Millar, 2008). From an Asian context, Goh and Yin (2008) investigated Singapore's revised English syllabus for primary and secondary

education in 2001. An example from a Pacific Melanesian Region is Daudau's (2010) study of an outcomes-based science curriculum that was based in the Solomon Islands. These listed examples illustrate that a top-down approach to change may happen in any context despite socio-economic rankings of countries.

Furthermore, literature also reveals other causes for innovation (Markee, 1997). These may include: education access, and structural, organisational, systemic and pedagogical changes (Morris & Adamson, 2010). According to Bentley (2010), change due to purposes of access refers to expanding education opportunities in countries. Arguably, this has links to global education agendas advocated by the World Bank (Coxon & Tolley, 2005; Griffiths, Vidovich & Chapman, 2008). For instance, the "Education For All" (EFA) movement signed by 165 countries in Jomtien, Thailand in 1990, and re-asserted in Dakar, Senegal in 2000, is an example of an access change that has influenced educational changes globally (Nongas, 2007).

Fullan (2007) describes a structural change as occurring when education ministries restructure systems. The structural change in PNG is discussed to illustrate the idea. The basic educational levels prior to the 1990s reform were a 6-2-2-2 structure covering different stages within and across primary, high school, and senior secondary. The current reform structure is a 9-2-2 which covers elementary and primary, lower secondary, and upper secondary (see Figure 2.1). In the former structure, students started primary school at seven or eight years old in grade one to grade six. Then students had to sit a national grade six examination for placement into high school for grades seven and eight. Those students who did not make it to high school because of low results were left to their parents to find private or vocational education as alternatives for their children. Similarly, at the end of grade eight, students sat internal examinations to get placing for grades nine and ten. Repeatedly, at the end of grade ten, students sat a grade ten national examination for placement into grades eleven and twelve. Finally, in grade twelve, there was another national examination to determine places for tertiary studies. Overall, the old PNG

education structure was examination oriented with three nationals and one internal.

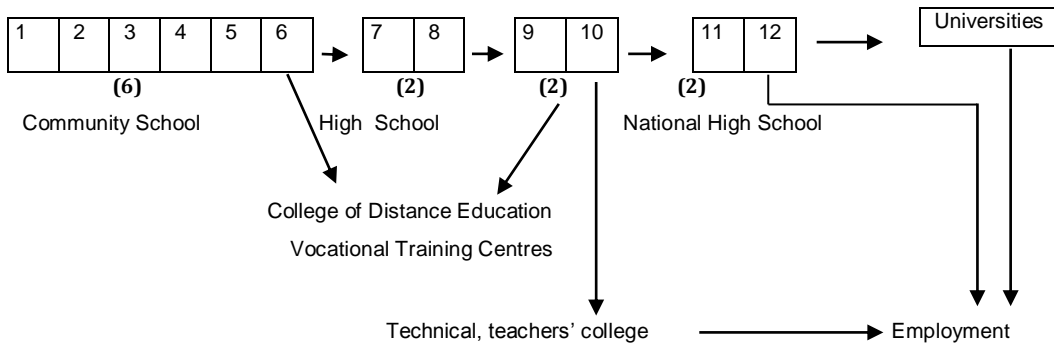
The current reform structure of a 9-2-2 model gives emphasis to early childhood education at seven years of age. Students do the first three years of education at the primary school (National Department of Education, 2003a). Following that students do grades four to eight still at the primary level. Then, there is a national grade eight examination for determining places for secondary education. At the secondary level, students do grades nine and ten for the lower secondary, and grades eleven and twelve for the upper secondary. There are two national examinations at the secondary level for students to sit. The first one is at the end of grade ten for determining places to grades eleven and twelve. Lastly, students sit the grade twelve national examinations for tertiary studies' placement. In summary, the reform structure is also examination oriented with three national exams for students to sit, which resonates with the old structure also having three national examinations.

According to Markee (1997), organisational change is internally driven by schools such as offering new courses in the school curriculum. Morris and Adamson (2010) define systemic changes as focusing on a targeted aspect within an education process. For instance, a shift from public examinations to school - based assessments show a systemic change. Likewise, in the context of this study, a change from the objective-based curriculum in PNG to an OBE curriculum illustrates a systemic change. The literature notes that a pedagogical change refers to new approaches in teaching (Nation & Macalister, 2010). Some examples of this are the communicative language teaching in South Korea (Li, 1998), and the student-centred learning approach introduced into the PNG OBE curriculum (Department of Education, 2003a; 2006).

Figure 2.1 illustrates the PNG education structure prior to and after the reform.

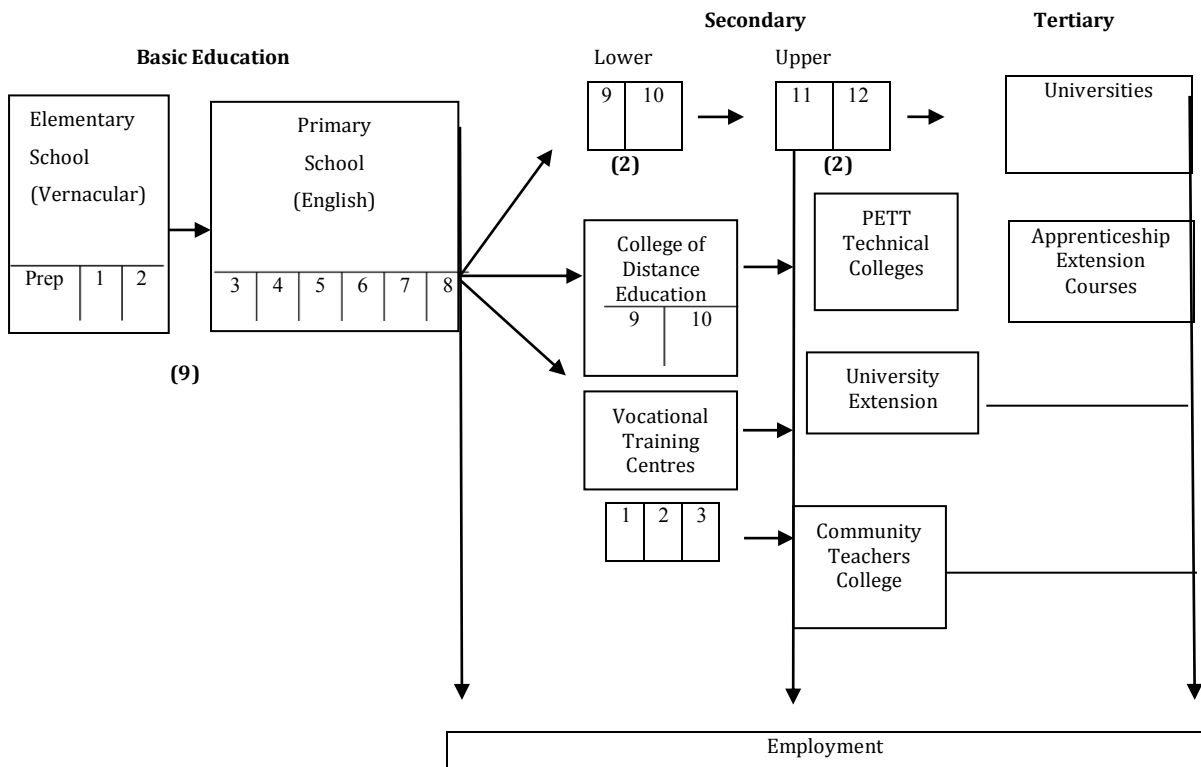
Figure 2.1: PNG Education Reform Structure

Before the reform structure



The structure of the education system prior to the 1990s reform was a 6-2-2-2.

After the reform structure



The current education structure is a 9-2-2 level.

Source: Education Report (Department of Education, 2008)

In summary, educational changes are either internally or externally motivated. Changes may come from top-down, bottom-up or both a collaborative effort of top-down and bottom-up.

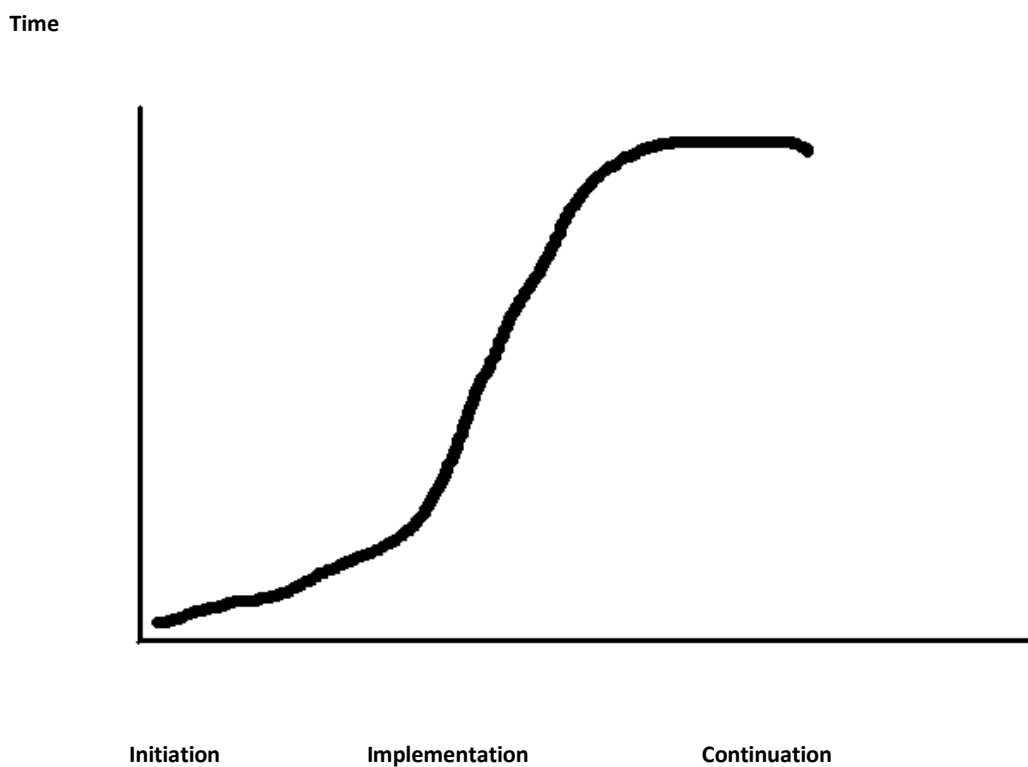
2.2.6 Diffusion studies

Diffusion research was earlier documented by Tarde in the field of business (Tarde & Parsons, 1903). He coined the original S-shaped innovation curve to explain adoption rates noticed in innovations. Those with steep slopes plotted on a chart were identified as displaying high adoption rates, whilst gradual slopes indicated slower adoption rates (Figure 2.2). Since then the diffusion of innovation theory has been used to study adoption processes (Rogers, 1962; 1995). Another study that impacted on diffusion theory was from Ryan and Gross (1943). They studied how farmers adopted agricultural innovations probing how hybrid seed was accepted among farmers in Iowa, USA. Their model described five categories of adopters: innovators, early adopters, early majority, late majority, and laggards. Each of the five levels of adopters had distinctive characteristics influential in determining recipients' accepting innovations. Those five terms have been used by other studies to describe participants' characteristics in their roles of accepting change (Huberman, 1973; Joskin, 2011).

For instance, Ryan and Gross (1943) concluded that farmers who adopted were more cosmopolitan and had higher socioeconomic status than members of other categories. Their finding relates to Markee (1997) in the area of curriculum innovation. He stated that psychological profiles of adopters influenced adoption. For instance, early adopters were often well educated, socially mobile, and receptive to new ideas. In contrast, laggards were the opposite. Diffusion is a social process whereby earlier to late adopters make subjective interpretations rather than use rational economic decision making thoughts (Valente, 1995). Their conclusion reconfirmed the earlier work of Tarde (1903). Consequently, this generated discussions of the diffusion theory across disciplines (Rogers, 1995).

Rogers' work originated from sociology but is applicable elsewhere (Markee, 1997). Other studies from the fields of education and linguistics have also demonstrated ideas of diffusion processes (Fullan, 2007; Kennedy, 1988). For example, Huberman's (1973) education study traced the acceptance rates of people receiving innovation in a social context and concluded that diffusion curves were also S – shaped, re-confirming the notion that adopting innovations starts slowly, then accelerates in the middle until it subsides at the end (Rogers, 1995). The end point happens when innovations are institutionalised or rejected.

Figure 2.2: Adoption process: S-Curve



Adapted from Huberman (1973)

2.3 Management of innovation

According to Holliday (1994), management is a tool for organising people with activities in time and space. Writers stress that management is important in any innovation, “For an innovation to be successful it must be carefully managed” (Murray, 2008, p. 5). Thus, management enables organisations to function smoothly despite negative and positive outcomes (Stoller, 2009). Management involves multiple-tasking such as, planning work, writing, performing duty statements, and coordinating tasks between colleagues, sub-ordinates, and team leaders. This list is not exhaustive but defines performance management because such activities are arrangements for organisations to get the right things done (Lawson, 1995; McNaught, 2009).

Literature points out that good management also require capable leadership skills (McCaffery, 2004; Murray 2009). Management leaders plan strategically and are also deemed change agents (Fullan, 2007; Murray & Christison, 2009). They can challenge the status quo or leave things in place (Christison & Lindahl, 2009). For example, managing curriculum innovation requires both involvement in and knowledge of curriculum instruction and assessment issues. Managing change involves issues entailed in curricula design, instructional, and assessment activities (Markee, 1997). This requires change managers to have grounded knowledge of subject matter and pedagogy in order to support teachers undergoing systemic changes. On the other hand, teachers also need to be proactive as change managers for classroom implementation (Burton, Daroon, Raimaturapong, & Siripong, 2008).

Systems theory is suggested here to help readers understand systemic changes. Five attributes provided by Everard and Morris (1990) show how educational managers effect change. These illustrate a top-down management view: (1) policy making - setting the organisation’s goals and priorities, (2) development - refers to organisations linking visions to the bigger framework of national and global development issues, (3) controlling - turning policy into plans, (4) liaising - the communication process between participants, and the (5) doing stage - implementing policy. This practice is common in highly structured

organisations. Hence, change is complex and having to manage innovations through the systems framework is challenging (Fullan, 2007).

In summary, it is suggested that change managers need to aim for improvement (Murray, 2008), as change is not simple and straightforward, but complex and has to be handled with caution (Stoller, 2009).

2.4 Diffusion of innovation process

This study shows that the diffusion of innovation process has three complex cycles (Section 2.2). An illustration of the diffusion process is best captured by Cooper's (1982) original question /s and restated by Markee (1997): "Who, adopts, what, where, when, why and how?" (p. 43).

2.4.1 Complexity of innovation process

Each of the seven words (who, adopts, what, where, when, why, how) captures the essence of different functions within a diffusion framework. Some language innovations studies are used here to explain the complexity involved in diffusion of a curriculum innovation.

"Who?" - refers to people in innovation projects. These are individuals and their roles in society (Markee, 1997; Murray, 2008). Examples are: education officials, consultants, school principals, teachers, inspectors, donor representatives, parents, students, and the public who are stakeholders in educational changes. However, teachers are key people as evidence shows (Markee, 1997). It is in classrooms that the aspirations of change agents are either achieved or discarded (Adamson & Davison, 2008; Goh & Yin, 2008). As argued consistently (Howard & Millar, 2008; Li, 1998), teachers' roles in any innovation project are important. Hence, terms have been coined for participants in the 'who' group characteristic of their relationship to the innovation. These are: innovators, early adopters, early majority, late majority, and laggards (Rogers, 1995). Lambright and Flynn (1980) used adopters or resisters, implementers, clients, suppliers and entrepreneurs as change agents. Basically, 'who' refers to the actors involved in innovations.

“Adopts” - defines decision making processes for potential users. It could mean embracing or refusing innovations. This portrays essential characteristics of decision making behaviour also inherent in adopters. This stage according to Rogers (1995) and Markee (1997) has four phases. It involves potential recipients (1) gaining knowledge of the innovation, (2) being persuaded of its value, (3) making preliminary decisions whether to adopt or reject the innovation, and (4) confirming or disconfirming their previous decisions.

Markee (1997) equates the ‘adopt’ stage with initiation. This phase involves decisions for instigating and embracing change. The adoption phase applies to all people within different layers of society affected by innovations. Fullan (2007) categorises decision making into three levels for people adopting innovations. These are: local or school level, district level, and national or regional level. Hence, the complexity involved in decision making processes is re-iterated here. It is not simple or straight forward but involves various participants and factors.

“What?”- concerns identifying and naming actual innovations introduced into social contexts. For instance, in this study, the ‘what’ refers to the notion of curriculum innovation. It is best explained by Markee this way: “Curricula innovation is a managed process of development whose principal products are teaching (and/or testing) materials, methodological skills and pedagogical values that are perceived as new by potential adopters” (1997, p. 46).

Markee’s (1997) definition illustrates the complexity of the diffusion process itself. Analysing the definition gives five different components: (1) curricula innovation, (2) is a managed, (3) process of development, (4) whose principal products are teaching (and/or testing) materials, methodological skills and pedagogical values (5) that are perceived as new by potential adopters. In contrast, Fullan (2007) offers three interpretations contending that changes occur in (1) curriculum materials, (2) teaching practices, and (3) beliefs or understandings about the curriculum and learning practices. Hence, both illustrations reveal complexity. The need for a ‘what’ change such as curriculum

innovation is brought about by many different sources and combination of sources.

“Where?” – gives the locations that innovations occur in (Cooper, 1984). Settings may include socio-cultural, historical, political, religious and geographical features. Change agents need to be aware of various elements in society where innovation will be introduced and managed as these may impact on practices. Cultural factors of social settings are important as they may supersede other forces such as, political, administrative, and institutional pressures (Kennedy, 1988).

“When?” – indicates the timing in which adopters embrace innovations. Markee (1997) demonstrated the concept of time by plotting the note of acceptance on an S – curve (Figure 2.2) showing how early adopters embraced innovation. Literature reveals that adopting change generally has slow beginnings when early adopters start, then gathers momentum when early and late majority adopters are convinced (Huberman, 1973). Later, it either becomes part of institutions or is discarded (Murray, 2008). Interestingly, Markee (1997), points out that it is at this phase that the notions of ownership in diffusion processes may be felt. Nevertheless, change agents need patience with a new innovation, as it has been re-iterated by literature that not only does innovation take time to implement, it always takes longer than expected (Stoller, 2009).

“Why?” - refers to reasons that make innovations successful or otherwise. Two things may enable curricula innovations to be readily adopted by participants: psychological characteristics of adopters, and attributes of successful innovations (Markee 1997). Interestingly, the ‘Why’ question resonates with the notion of feasibility underlying innovations. For instance, the group that easily embraces innovations according to literature, are early adopters, sometimes called innovators (Rogers, 1995).

In contrast, laggards or resisters according to Markee (1997), are stubborn and do not take ownership of innovations quickly, but accept the change slowly.

Alternatively, adopters could be resisting change because their concerns about the innovation were not properly addressed by change agents who have too little practical experience of the innovation (Hall & Irving, 2010). Similarly, Markee (1997) points out that innovation projects have intrinsic features that contribute to their success or failure. For instance, Rogers (1995) provides five attributes from his analysis of 1,500 innovation studies: (1) the relative advantage of adopting an innovation, (2) its compatibility with previous practice, (3) its complexity, (4) its trialability, and (5) its observability. Markee (1997) calls these “core” characteristics (p. 60) because they could impact upon users’ decisions. For example, the willingness to embrace innovations when adopters perceive them as beneficial and not detrimental (Stoller, 2009).

Writers have argued that if teachers resist curriculum change at the initiation stage then the consequences of implementing effectively in both stages two and three would be problematic (Morris & Adamson, 2010). This reflects a human tendency to accept things that one considers significant for one’s development. Furthermore, it is argued that if innovations are either very similar to or very different from current practices, then adoption may not be possible because of no compatibility (Markee, 1997). Literature suggests that innovations having moderate levels of innovativeness fall within the “zone of innovation” (Stoller, 2009, p. 79). This implies that there is possibility of the innovation being appropriate for a social context. Hence, people receiving the innovation in the setting might have something in common with that introduced innovation, capturing Stoller’s description of the ‘zone of innovation’. These innovations would have high chances of adoption by potential users (Ibid). Seemingly, innovations easily observed by intended recipients also have a higher chance of acceptance than invisible ones (Fullan, 2007). This is because potential users may learn from seeing concrete things which have meaning rather than abstract out-of-sight innovative concepts.

According to Markee (1997) and Stoller (2009), innovations that adopters believe are too difficult may not be embraced especially if current teaching practices are relatively easy, and teachers do not want to try out the new

practices. For innovations to be successfully adopted and accepted they have to be trialled in segments by potential users to build up their experience before embracing innovations. One cannot expect innovations to be fully adopted from the onset of implementation. Life brings changes that are managed and viewed as learning processes (Clarke & Hollingsworth, 2002). Hence, innovations have to be learned through processes before one can take ownership.

“How”- According to Markee (1997), ‘how’ refers to the process of initiating change in social contexts. This may include the socio-political, economic, and religious climate that has provided the rationale for change (Kennedy, 1988). Likewise, it could also mean naming the types of approaches that change agents use for their social contexts. Further, ‘how’ may also describe the decision making process for change. Accordingly, this may either be through a centralised top-down system, or via a bottom-up approach, or from a combination of both.

For instance, Hall and Irving (2010), in their discussion of understanding why radical policy reform takes time to embed, illustrate both a top-down and bottom-up approach being used successfully in New Zealand. They termed it the “co-construction” (p. 114) approach, as it involved the Ministry of Education, with practitioners and experts. The aim of the co-construction approach was to harmonise implementation of an assessment policy called the National Educational Monitoring Project (NEMP) in the 1990s. According to Hall and Irving, NEMP “bedded down remarkably quickly” (p. 116 - 117) because of meaningful interaction between the Ministry officials and both the teaching profession, and assessment experts throughout the development and implementation of the policy. In contrast, Hall and Irving noted that implementation of the National Certificate of Educational Achievement (NCEA), the assessment system introduced in 2002 at the senior secondary level, had still not settled a number of problematic issues because of a top-down approach to policy development and implementation. The process used failed to connect adequately with professionals and assessment experts.

Regardless of the approach used for initiating change, it is believed that the aim for change in any context is for making improvement (Sabatier, 1997). Hence, the 'how' talks about the process of introducing change and resonates with the implementation of public policy (see Section 2.6.2.1).

2.5 Factors affecting change in a diffusion process

This section discusses factors that may impede or facilitate change in a diffusion process.

2.5.1 Factors impeding change

Three issues may impede change in a diffusion process are: systemic attributes, characteristics of participants, and the innovation itself.

Systemic attributes, according to Bentley (2010) are the social structures of society that accommodate any education change/innovation such as a curriculum reform. Social structures involve the different organisations and levels of decision making that curriculum change goes through within a social context (Kennedy, 1998). For instance, in an education organisation (social system), there are systemic attributes contained within to support or not the services of providing teaching and learning. According to Fullan (2007), national, district, and school / teachers are three levels of an education system that need to address any educational change. These three categories resonate with systemic attributes and involve different stakeholders within the system. The stakeholders would need to embrace an education change before diffusion can take place. Hence, there could be tension, if stakeholders in these three levels of the education system have different interpretations about the concept of change (Ibid). Arguably, systemic attributes may affect diffusion processes related to education change if there are different interpretations (Markee, 1997).

Furthermore, Kennedy (1988) also lists other systemic attributes that may impede an educational change. These include: cultural, political, administrative, educational, institutional, and classroom factors (Section 2.2.). Each systemic

attribute has its own functions. However, Kennedy (1996) argues that cultural elements guide other systemic societal practices. Because of this significant role in change, the concept of culture needs unpacking if its impact is to be properly understood. Cultural definitions vary depending on social contexts. In this discussion, culture means a way of practice for situated contexts. It is not surprising therefore, that tensions arise when there are different stakeholders involved from several levels or constituencies of the education system.

Teachers' characteristics according to Markee (1997) also influence change in diffusion processes. Characteristics may include: beliefs, attitudes, training, and understanding (Li, 1998). Markee (2001) describe teachers' beliefs as personal convictions about how teaching and learning is done as a process. Literature reveals that teachers' classroom actions can reflect their belief systems and thinking (Garton, 2008). As such, Freeman (2002) claims that teachers' beliefs may sometimes form the hidden curricula in classroom teachings. The "hidden curricula" refers to the content and processes that influence classroom teaching, but are not directly identified as part of a programme.

Similarly, teachers' attitudes also affect classroom practice. Literature shows that attitudes are derived from experiences as learners, trainees, teaching careers and interactions with colleagues (Carless, 2001; Howard & Millar, 2008). Overall, attitudes may develop according to the work ethics, values and norms of society where teachers work. Likewise, if innovations are incompatible with teacher perspectives, attitudes, and understandings then resistance is possible (Wang & Cheng, 2005). It has been observed that teachers need in-depth understanding of theory, principles and applications that lie behind any innovation (Carless, 2001) in order to enhance its adoption. Lack of such understanding and of appropriate interventions for teachers during any diffusion stage may result in mismatches between intentions and practice (Stoller, 2009).

Attributes of innovations according to Stoller (2009) also affect adoption or rejection. Kennedy (1988) names two attributes: feasibility, and relevance. The former includes the availability of resources and infrastructure. The latter entails innovations addressing students' learning needs. If teachers perceive an innovation's worthiness for purposes of teaching and learning, then adoption is likely to proceed smoothly. In summary, issues are inevitable for change to take place through diffusion processes. Hence, these need addressing during the planning, implementation, and evaluation of the processes of change. Failure to do so increases the likelihood of failure to translate policy into practices (Stoller, 2009).

2.5.2 Factor(s) facilitating change

Professional development (PD) is discussed here as a key feature to facilitating change in a diffusions process.

PD as suggested in the literature (Hall & Irving, 2010) is a tool that is important for embedding a policy reform, such as OBE into an education system. Hall and Irving (2010) cite the research of Mitchell and Cubey (2003) which identifies eight factors as important for successful PD. The PD:

- Incorporates participants' own aspirations, skills, knowledge and understanding into the learning context.
- Engages participants in analysing data from their own settings. Identification of discrepant data is a mechanism to invoke revised understanding.
- Involves critical reflection enabling participants to investigate and challenge assumptions and extend their thinking.
- Helps participants change educational practice, beliefs, understandings and / or attitudes.
- Helps participants gain awareness of their thinking, actions, and influence on others.
- Focuses on the need for inclusiveness.
- Involves engagement with pedagogy, and

- Involves engagement with theoretical knowledge and alternate practices.

(Adapted from Mitchell & Cubey, 2003, p. 81)

Hall and Irving (2010) argue that participants need to view PD as something that will not only change their educational practices, but be able to give them insights into critically analysing their own teaching assumptions, beliefs, and practices, as well as the impact of their actions on student learning.

Hall and Irving also provide a serious warning about the impact of PD in the context of a major educational reform or innovation that is introduced rapidly and widely across the system. Hall and Irving note that by its nature, a radical reform is not usually accompanied by the appointment of professional developers who themselves have had sufficient enough expertise in the theory and practice of the reform or innovation. The professional developers are not able to operate with an “internalised” grasp of the many different issues and questions that arise when the reform is introduced. Consequently, the receivers of the PD return to their classrooms far from convinced either of the benefits that have been claimed for the innovation or of an understanding of how to deal with the many teaching and learning dilemmas that arise on an everyday basis. For this reason, Hall and Irving argue that a “co-constructed” approach to policy development and implementation is needed if a radical/complex innovation is to be introduced. In other words, governments and their officials should engage meaningfully with the education profession, including schools, academics and curriculum and assessment experts, throughout the development and implementation of a major policy innovation.

It is worth noting that a parallel exists here between education reform and aid interventions (Hall, 2005a). Crowl and Hall (2005) coin the phrase “learning in tandem” to capture the idea that sustainable changes requires a two-way process of learning between aid consultants and local participants for aid programmes to embed within the local cultural and social context and maintain their impetus after the consultants have withdrawn. Co-construction is a key element of success.

2.6 Policy and implementation

This section describes policy as a concept and how it influences implementation.

2.6.1 Policy as a concept

Literature states that before a policy is developed, issues in society need to motivate its formation (Lane, 1997). Policies results from both evolving processes involving intra- and inter- relationships. Documents termed public policies are for public use. As such, public policies are closely related to the term governance (Downey, 1988; Hill & Hupe, 2006). Polices are considered instruments of governance at local levels because they guide actions legislated by national governments (Shaw & Eichbaum, 2008).

According to Jenkins (2007), policies comprise goals and objectives because they are created deliberately with intentions to improve social conditions. It is discussed that governments use policies as pivotal working tools for maintaining social, political, and economic relationships between state and people (Hodgson & Irving, 2007). This concept may also be applicable to interpersonal relationships within organisations, and between providers and users of services. The subject of this study, the PNG curriculum policy (Department of Education, 2003a); is an example of a public policy as a pivotal working tool maintaining the relationship between providers and users of education.

Lane (1997) argues that a policy may be deemed ambiguous because of its relationship with politics. That is, politics involves processes of decision making and governance. Hence, it is argued that the close resemblance of policy to politics sometimes makes them inseparable (Spicker, 2008; Yanow, 1996). Alternatively, Therbon (2001) contests that policy differs from politics. That is, a policy is a framework developed from a political context of a social system, arguing that politics reign supreme over policy (Ibid).

Arguably, policy links national governments with their citizens (Sabatier, 1997). Similarly, policy connects bureaucrats with sub-ordinates in institutions. Therefore, it is argued that policy is not a simple concept but is subjective depending on people's interpretations (Lane, 1997). Hence, a policy is sometimes seen as prescriptive, but can be descriptive as there are allowances for discretion in implementation because of the many actors involved (Fullan, 2007). For the purposes of this study, Downey's (1988) definition of policy is used: [Policy is] "An authoritarian guideline to institutions governed by the authority (and persons who work in them) as to what their intents are to be and how they are to set out to achieve them" (p. 28). This definition implies a top-down lens for policy development and implementation.

2.6.2 Policy motivates implementation

Lane (1997) re-iterates that a policy contains political messages for achievement of social goals in society. Hence, others also concur that the use of policy aims to promote meaningful change in society (Shaw & Eichbaum, 2008; Titmuss, 1974). For example, the era of the post war reform in Britain had policies legislated to build education infrastructure. According to Downey (1988), for policy to ignite change it needs to go through implementation processes. These take different forms in different cultures or institutional settings. Thus, the notion of policy relates to both politics and implementation. According to public policy writers, implementation has varying definitions (Hill & Hupe, 2006; Sabatier, 2007). Nevertheless, implementation here means carrying out directives under a policy framework with the intention of change. This definition resonates with the second stage of the diffusion of innovation process (Section 2.2.2).

2.6.2.1 Implementation of public policy

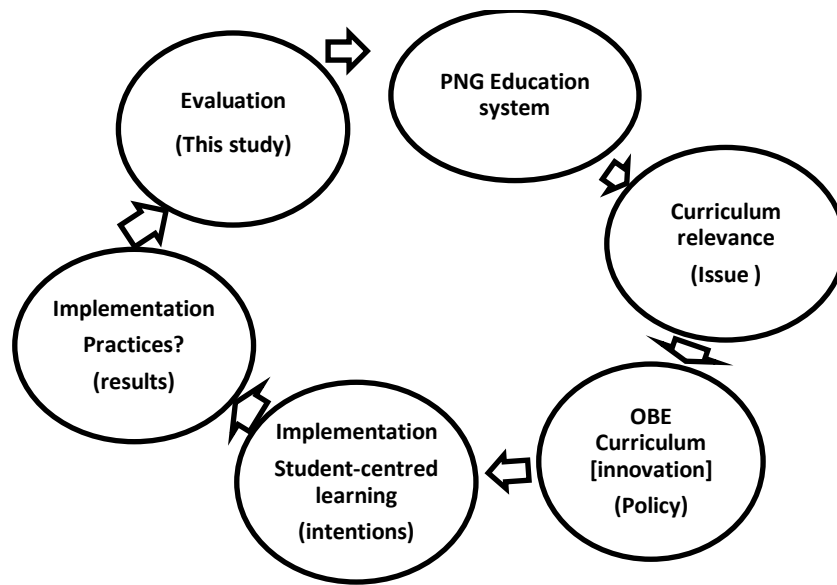
This section describes three stages illustrating how public policy evolves through implementation processes.

Governance – according to Lane (1997) refers to authority. This is the political decision making arena for policy development and application. This may eventuate through top-down, bottom-up, or a co-construction approach (Hall, 2005b; Sabatier, 1997). The top-down approach involves legislation from the hierarchy which is then passed down to subordinates via channels of communication within organisations. Arguably, perceived weaknesses in the top-down approach have elevated the bottom-up pressures (Hjern & O'Porter, 1997). The bottom-up approach starts by people with issues working together to rectify them. The co-construction approach refers to all stakeholders working together to develop solutions to social issues (Hall & Irving, 2010).

Policy – Spicker (2008) describes policy as a legal document developed to improve social issues. Hence, mandating policy is intentional because objectives have to be achieved (Jenkins, 2007). Because many actors are involved in embracing policy, interpretations of it may vary and tensions may arise. Furthermore, Shaw and Eichbaum (2008) argue that formulating policy entails commitment of resources from the initiators. Failure to do so may impact on policy application (Lane, 1997). In brief, policy formulation and application resonate with the diffusion of innovation process (Section 2.4).

Implementation – according to Hill and Hupe (2006), is the continuum between policy and action. It is the application of policy mandated either through top-down, bottom-up or a co-construction approach (Hall, 2005b; Sabatier, 1997). Arguably, 'implementation' may have two meanings (Lane, 1997). It could connote an act of doing (implementing), which means that the activities have not yet been done. Alternatively, it may refer to the state of having been done already (implemented). The latter meaning stresses results of policy while the former emphasises its intentions. To avoid misunderstanding there needs to be clarity about the meaning of implementation in any specific context. Figure 2.3 illustrates the inter-relatedness of policy and implementation encompassing the issue of this study.

Figure 2.3: Policy and implementation concept



Adapted from Lane (1997)

In summary, a policy is a political tool evolving through decision making, processes, implementation and evaluation.

2.7 Curriculum as a policy intention

The word curriculum, originally from Latin, means a short running track (Adamson & Morris, 2007). However, that meaning does not closely resonate with the meaning of the word as used today. According to literature, a contemporary narrow definition of curriculum is the totality of course content to be taught including the intended aims that are to be realised and offered within school systems (White, 1988). However, curriculum has multiple meanings and has various definitions.

Pacific educators for instance, see it as a product to achieve, a body of knowledge to pass on, and as processes to aid practical learning Sanga (2009). Others have dissected curriculum into parts: intended, implemented, experienced, and assessed (Morris & Adamson, 2010). Markee (1997) describes it as a document capturing long term strategic planning guidelines. A generic profile of a curriculum outlines aims, goals, change strategies, purposes, and content of instruction. It may also name attributes that teachers and learners

will acquire from using the document. Likewise, it may give basic descriptions of required teaching methodology as well. Hence, there are various intentions of a curriculum (Ibid).

A curriculum is subjective in meaning. Pacific educators have argued that the choices for curriculum design adopted for use on large scales in education systems are sometimes politically motivated (Bakalevu, 2009) and problematic because of the argument that the model of curriculum design is based on an imported model such as the PNG OBE (Maha, 2009). Similarly, Marsh and Willis (1995) have provided seven broad attributes that illustrate the complexity of a curriculum description. These are: 1) Classical heritage subjects: philosophy, ethics, logic, mathematics, and rhetoric from the fourth century BC philosophies (Plato and Aristotle). 2) Established knowledge – this views curriculum in terms of subjects and content that have become established academic disciplines (arts, languages, sciences, humanities). 3) Social utility – this sees curriculum as providing subjects useful for life in contemporary society. 4) Planned learning – this includes embracing learning outcomes as processes of learning such as critical thinking that are planned. 5) Experienced learning – this includes the planned and unplanned, desirable, and undesirable learning. 6) Personal transformation – this refers to the transformation that teachers and pupils go through during the teaching and learning processes, and 7) Life experiences - a broader concept of curriculum viewing life experiences as the creation of curriculum; this covers planned and experienced learning with other realistic experiences from the society.

As outlined above, a curriculum has different meanings according to contextual use. Curriculum is defined here as a course of study inclusive of developers' intentions for an educational system and inclusive of the teachers' teaching programmes. Hence, it is a term that also incorporates teaching, learning materials, text books and syllabi.

Some curriculum writers distinguish between curriculum and syllabus. Two compatible views are provided by Markee (1997) and Nation and Macalister (2010). Markee depicts curriculum as framing a syllabus. This uses both a top-down and bottom up lens to curriculum design. A curriculum is seen as a long term strategic planning document and a syllabus as medium term tactical plans. The former drives the latter which becomes personalised by teachers' meanings. Hence, teachers translate curricula guidelines to prepare teaching and learning materials. They go through intra-personal reflective processes as users. Teachers interpret curricula guidelines based on their training, experiences, qualifications, professional development, and interactions (Section 2.5). Markee's explanations allude to societal needs motivating the type of education deemed appropriate for situated contexts.

Similarly, Nation and Macalister (2010) provide a bottom-up view of curriculum design. They show a syllabus being the core of planning, designing, and implementing. Syllabus goals influence curriculum design based on learners' needs from inside classrooms. According to Nation and Macalister, a syllabus consists of three elements: content and sequencing, format and presentation, and monitoring and assessing. Course content and sequence refer to the items programmed for learning purposes in a course. The format and presentation represents units of lessons for delivery which also includes activities and techniques that will be used to help learning. Monitoring and evaluation relates to observing learning, testing the process of learning and providing progressive feedback to learners. Hence, this view places learners' needs for education above society's needs (Ibid).

In this discussion a syllabus refers to content or subject matter and intended goals for the learning of a specific course as per a curriculum framework encompassing academic subjects like English.

2.7.1 Curriculum change

According to literature, curriculum changes arise when there are perceived needs and, subsequently, curriculum reforms or innovations are undertaken with aims for improvement (Fullan, 2007). However, implementing a large scale curriculum change is not simple and straight-forward, but is a highly complex phenomenon (Marsh & Willis, 1995). For instance, Hall and Irving (2010) noted in the New Zealand context that having a curriculum that is mandated to operate based on valid sound research could still have problems if the policy makers, experts and practitioners are not working together to ensure that the curriculum (or curriculum innovation) not only “operates” but actually “works”; the distinction between “operating” and “working” draws attention to the need to ensure that the goals of the curriculum are achieved.

Furthermore, Markee (1997) argues that implementing curriculum change is not just mandating policy for practices but includes changes to classroom practices that possibly require new teaching and testing approaches, involve new materials/resources, and possibly see alterations in teachers’ belief systems. These three features show that curriculum change is complex. Hence, the intended meanings of curriculum developers may not be shared by all participants involved in a curriculum change process (Stoller, 2009). For instance, intentions of curriculum developers may not be clearly understood by teachers who also have personalised teaching beliefs (Fullan, 2007), and this could impede practice, as Hall and Irving (2010) observed in the New Zealand context (Section 2.5.2).

Therefore, curriculum change not only concerns identifying issues that need resolving, then setting appropriate systemic functions to deal with the issues, it also involves the practicality of teachers’ roles and understandings. These are equally important for any change to be realised and sustained for long term purposes. Teachers are vital for any curriculum change proposed as policy for practice.

2.8 Models of educational change

Markee (1997) describes a model as a framework that attempts to explain related ideas, processes, or systems. Despite other educational change models in the literature, this review focuses on four: 1) the Social Interaction Model, 2) the Centre-Periphery Model, 3) the Research Development and Diffusion model, and 4) the Problem Solving Model.

2.8.1 The Social Interaction Model

The Social Interaction Model (SIM) stems from sociology and from the works of Ryan and Gross (1943), and Rogers (1995). SIM aims to explain motivation for clients' receptiveness towards innovations and the processes involved. SIM emphasises two-way communication as necessary for accepting innovations. Rogers proposes four key components of the SIM as essential for change purposes: The innovation, communication channels, time, and a social system.

According to Rogers (1995), the four features of the SIM illustrate a cycle of communication between Person A and Person B in a social context. For instance, Person A has a new idea - Person B is yet to know about the new idea. Hence, the social relationships of A and B influence how A tells B about the innovation, and also impacts on the end results. As illustrated, the communication process is a necessary ingredient for diffusion (Rogers & Kincaid, 1981) in the SIM. Subsequently, it brings out the essence of human interactions and behavioural traits inherent in adoption processes of an innovation (Cooper, 1984). The focus of the SIM is on social relationship between change agents and recipients of change.

However, critics argue that Rogers (1995) does not distinguish between planned and spontaneous diffusion in his model (Marsh & Willis, 1995). Thus, management issues essential for monitoring and evaluation purposes may be challenging (Stoller, 2009). The SIM does not appear to cater sufficiently for the process of managing change, despite the urging of communication as its marketing strategy. There appears to be insufficient attention to leadership which is a prerequisite for effective management of change (Murray, 2008;

McNaught, 2009). Despite this deficiency, the SIM offers language teaching professionals the insight that diffusion is a form of communication (Holliday, 1994). Similarly, Cooper (1984) argues that languages spread quickly through social communication networks such as face-to-face encounters between change initiators and recipients. Messages of innovation filter through acquaintances at exceptional pace compared to situations where bureaucrats manage innovations. As communication is central to innovation success, it is suggested that change agents should aim for a clear channel of communication between them and those implementing and receiving change (Slatyer, 2008; White, 1987).

In summary, communication is essential in any change. Therefore, insights from the SIM suggest using communication effectively in all levels of society for enhancing curriculum innovation.

2.8.2 The Centre-Periphery Model

The Centre-Periphery Model (CPM) is said to represent a developmental model of change (Coxon & Tolley, 2005). According to literature, it has been applied by international aid donors to developing nations (Daudau, 2010). An example is the OBE model in PNG (Joskin, 2011). Change can be motivated from an outside influence. Consequently, it is argued to be Euro-centric because it describes unequal economic and political relationships between developed countries and third world nations (McDonald, 2005; Puamau, 2005). Critics argue that international aid programmes for developing countries use CPM for purposes of initiating and implementing educational change (Coxon & Tolley, 2005). However, Markee (1997) claims a version of CPM has also been used in developed countries like Japan and France. These countries have highly centralised education systems in which senior Education Ministry officials make decisions for curriculum change, then delegate these change ideas to teachers who are on the edge of decision making processes (Markee, 1997).

It may be argued that CPM prioritises developmental rather than educational issues (Ruru, 2010). This is shown in global educational issues that are inter-related with development issues. An example is, the United Nations MDG agenda for eradicating global poverty (World Bank, 2005), which exemplifies a form of CPM used to introduce change. Different objectives may be emphasised from a development view as compared to the context of educational objectives that arise from internally generated curriculum change.

Arguably, the aim of international donors seems to be about ensuring effective aid delivery for capacity building of human resources (World Bank, 1995). Ultimately, this would influence good governance in developing nations (McDonald, 2005), such as the scenario noted for PNG's educational change. Interestingly, it would seem that development goals are often the focus of donor agencies' causes (McDonald, 2005). Because of global influences on development issues (World Bank, 2005), countries align their policies with international frameworks. For instance, PNG has aligned its national developmental policies with such requirements; "Vision 2050" a comprehensive policy document outlines the nation's aspirations (National Strategic Plan Task Force, 2009). Retrospectively, this also includes capacity building of citizens as a way forward towards achieving the MDGs and being accountable for global education issues.

However, aid does not necessarily evoke independent development; rather it may create dependency for recipient nations (Phillipson, 1992). Instead of sustaining aid projects, recipients tend to depend more on donors than taking ownership (Hilton & Weber, 1993). For instance, change instigated by CPM is argued to be from external sources (Markee, 1997). Arguably, international aid agencies export their education from their systems into donor countries (Evans, 2005). Some examples include: models, resources, and ideologies (Markee, 1997). One noted education model would be OBE because it involves both internal and external change agents working on the curriculum design and implementation processes. Therefore, it is argued here that communication (Rogers, 1995) is essential if change instigated from CPM is to succeed. Failure

to do so may result in a one-way communication process, despite the original intentions (Thaman, 1997).

According to Hall (2005a), OBE has potential to be used as a “systems approach” (p. 305). Therefore, it is argued here that the OBE model in the Pacific Region, especially from donor funded projects leans towards CPM (Coxon & Tolley, 2005). This argument is premised on two points. Firstly, the adoption of top-down decision making by the host nation for the introduction of OBE. Secondly, the use of a donor as an external change agent working in partnership with the host nation. Thus, some job descriptions for donor representatives may include: consultants, curriculum designers, material developers, trainers, or evaluators. According to the literature, the length of the tenure ship of donor consultants often involves five years in host nations with the focus to co-facilitate and train local officers (Markee, 1997). For instance, Puamau (2005) describes an Australian Aid (AusAID) project in the Fiji College of Advanced Education where Australian consultants trained their Fiji counterparts. Similarly, the curriculum change in PNG also had donor consultants training local officers (Department of Education, 2006).

Critics argue that a disadvantage of CPM is the issue of ownership because change imposed from outsiders seems to be contentious, particularly if practitioners interpret the change concept differently (Markee, 1997; Puamau, 2005). Similarly, Fullan (2007) from a western context alludes to the ownership issue in his discussion when he contends that there are three levels in society for dealing with educational change. Likewise, tensions in ownership of educational change are noted from other Pacific nations (Daudau, 2010). Significantly, according to Naidu (2005), curriculum development in the Pacific region relies on international funding and consequently, donors have a tight rein on educational agendas in Pacific nations (Sanga, 2003). Other variables such as complex socio-cultural factors can also inhibit or enhance innovation in any context (Kennedy, 1987). These include cultural appropriateness and compatibility of innovations to recipients’ current beliefs and practices. The primary school curriculum change for PNG confirms this assumption (Maha,

2009). Pacific educators note that there are conflicts between the development goals of aid donors and those of recipient nations (Maha, 2009; Sanga, 2003). Hence, human resource training is crucial in projects and overall, CPM is limited in its capacity to promote ownership of innovations.

2.8.3 The Research Development and Diffusion Model

Literature identifies that the Research Development and Diffusion Model (RD&DM) has been used by academics to promote change (Markee, 1997). Academics use empirical studies to support impetus for change. Thus, they are lead players who initiate, implement, and evaluate changes. For instance, research based on expertise is conducted in language centres at universities then filtered out to local contexts (Jones, 2009).

The RD&DM originated from macroeconomic management, agriculture and the space and defence industries in America. However, it is popular in education and social sciences too. Havelock (1971) and Markee (1997) attest that the RD&DM is rational, systematic, and theory based thereby providing logical reasoning for effecting change. According to Markee (1997), characteristics of qualifications, status, expertise, and professional credibility intrinsically certify academics at the helm of change. Change agents using RD&DM retain decision making control at hierarchical positions. Arguably, the model illuminates a hint of a top-down approach for change because decision making remains with a few key personnel (Sabatier, 1997), who then pass on results of decisions to teachers and institutions to implement (Markee, 1997).

However, literature shows that RD&DM aspires to free flowing communication between top and lower levels in environments where change is proposed (Rondinelli, Middleton, & Verspoor, 1990). This supports Rogers' social interaction orientation (Section 2.8.1). RD&DM requires team work and specialisation of tasks such as long term planning, delegation, and coordination. Consider the manufacture of a car in a car plant as an analogy for RD&DM. There is division of labour amongst specialists at various manufacturing firms, making the car frames, lights, tyres, windscreens, bonnets, engines, seats, and air bags -

until the final products are ready for use. Similarly, various elements of RD&DM are collated by specialists before a final product is implemented.

Regardless of influences of expertise, the RD&DM is criticised for overlooking practical implementation issues (Milstein, 1982). Implementation is one of three phases of innovation (Section 2.2.2), and thus, issues related to management of change need consideration for further improvement and ownership purposes. Aoki (1984) argues that RD&DM is considered too heavily centralised, and can manipulate constant policy changes as recommendations for changes are based on empirical evidence that may influence policy making. However, Hall and Irving (2010) note that sound research supporting education change is a good thing when all stakeholders are working and learning together. Furthermore, it is contested that RD&DM equates with CPM (Markee, 1997) because they have similar top-down decision making processes.

Arguably, there seems to be elements of unfairness entwined with RD&DM (Aoki, 1984). Teachers receiving change through it do not have influence in the initiation and decision making phases. Due to policy influence, teachers are expected to conform as decisions have been made by the Education Ministry and communicated to schools and teachers who are at the edge of the decision making process. Alarming, this can affect teachers' pedagogy in stages two and three of implementation (Winterbottom, Brindley, Taber, Fisher, John & Figa, 2008).

In summary, RD&DM has a narrow scope of focus. It assumes that rational arguments from experts are enough to convince recipients of change and overlooks other features such as teachers' beliefs, attributes of the innovation itself, and systemic attributes that do not work satisfactorily (Markee, 1997).

2.8.4 Problem Solving Model

The Problem Solving Model (PSM) for change is initiated from within social contexts (Markee, 1997). As such, PSM motivates people to take ownership of their contextual issues. It is a bottom-up approach to change. The common impetus for PSM is dissatisfaction with the status quo (Nation & Macalister, 2010). Participants identify needs and then work collaboratively to find solutions. Hence, it is discussed as the most popular model used in education research (Markee, 1997).

One example of PSM is the Bangalore Project (BP) (Prabhu, 1987). The Indian educators were dissatisfied with grammar translation methods used for teaching English as an L2 in India. Consequently, the dissatisfaction with the status quo of the grammar syllabus generated a communicative language teaching syllabus for that environment. The project was led by indigenous academics so leaned towards an RD & DM as well. Irrespective of that, the BP was conceived from local needs analyses, served its purposes then ceased operations. As such, critics argue that there is no longevity but only short to medium term applications for the BP as a form of PSM (Markee, 1997). Nevertheless, since its closure, the BP has continued to inform theoretical discussions on language change and language education programmes in recent years.

According to the literature (Cohen, Manion & Morrison, 2007; Kapoor & Jordan, 2009), PSM is commonly applied through action research conducted by teachers in classrooms. Action research enables individual teachers to evaluate their own teaching practices (Edge, 2001; Edge & Richards, 1993). Furthermore, it accommodates team research (Godrey et al., 2008). Markee (1997) claims that it is an educational model being applied in education contexts. Teachers allude to using PSM when reflecting on improvement for their classroom teaching. PSM targets teacher's worldviews to promote change. Worldviews comprise attitudes, values, skills and relationships. These are deeply entrenched mentally and cognitively; changes to them are not easily made. Therefore, these core

aspects of teachers' worldviews require vigorous persuasion from change managers if change is initiated on a large scale (Markee, 1997).

Likewise, the literature also reveals that PSM has been used with other strategies in TESOL classrooms (Godrey et al., 2008). These include: diary studies (Allwright & Bailey, 1990); exploratory practices (Allwright, 2003); learning logs (Porter, Goldstein, Leatherman & Conrad, 1990); teaching portfolios (Bullock & Hawk, 2001); peer coaching (Nunan, 1989); and mentoring (Wallace, 1994). This list of strategies supports Markee's point that PSM is the most popular model for initiating change within a bottom-up educational context (1997). These strategies give teachers alternatives to reflect on their teaching practices and make improvements where they deem appropriate. Hence, this study argues that taking ownership of an education change using PSM may not be too challenging for the teachers' worldviews.

2.9 Change strategies

Change strategies as defined by Markee (1997) are approaches used for guiding change within models that focus on socio-cultural contexts. Three strategies from the literature (Chin & Benne, 1970; Nation & Macalister, 2010) are discussed:

- Power-coercive
- Rational-empirical
- Normative re-educative.

2.9.1 Power-Coercive Strategy

The Power-Coercive Strategy (PCS) is sometimes referred to as the top-down approach (Nation & Macalister, 2010). It is applied in situations where change is initiated by governments or authority (Section 2.6). Top-down pressure is applied in a social structure for implementing change (Kennedy, 1987). In situations like this, power-brokers resort to systemic functions such as the administrative governance within the institutions of society to effect change through policy frameworks.

PCS has been said to be applicable in highly centralised systems of both developed and third world countries (Markee, 1997). This strategy is linked to the CPM of change as illustrated in programmes funded by international donors from developed countries (Puamau, 2005). An example is the PNG educational change (Maha, 2009). Arguably, this strategy involves less time for planning and management. According to McDonald (2005), it does not consider a collaborative approach, consequently, it is good for those in power but not for recipients of change. Consequently, because innovation is complicated – as pointed out by educational change and applied linguistics scholars (Fullan, 2007; Kennedy, 1988) – issues are likely to arise.

2.9.2 Rationale-Empirical Strategy

The Rational Empirical Strategy (RES) according to Markee (1997) is used when change is achieved through reasoning, supported and justified by evidence from empirical studies. It is argued that RES involves explaining, justifying, and outlining arguments for and against the proposal of change (Nation & Macalister, 2010). This strategy appeals to the assumption that human beings are rational people so once change is explained, it will be sufficient to convince participants to adopt innovations (Kennedy, 1987).

According to Nation and Macalister (2010), this strategy works in conjunction with an RD&DM of educational change. Academics apply it in research and then propose changes according to research findings. This strategy involves specialists with delegated responsibilities for putting together a complete package of change. According to Milstein (1982), despite the argument that RES uses empirical evidence, it does not seem to consider implementation issues. Hence, RES would probably work if the audience already has sympathetic attitudes for the motive of change (Kennedy, 1987). Arguably, this strategy takes more time than PCS for planning and implementation of educational change (Markee, 1997).

2.9.3 Normative Re-educative Strategy

The Normative Re-educative Strategy (NRS) according to Kennedy (1987) views change as a complex process. That is, it is based on the premise that change has to be a process of transformation and development for recipients. According to literature, underlying this strategy is the argument that people act the way they do according to values and attitudes deeply rooted in the culture(s) of society (Creswell, 2007). Some writers argue that to initiate change through this approach requires a collaborative effort, and it is said to work in alliance with PSM for initiating educational change (Kennedy, 1987; Nation & Macalister, 2010).

Furthermore, NRS is said to have a directional view of change as compared to the other two strategies (Markee, 1997). This relates to a bottom-up approach for change because it is initiated by concerned peoples living with issues. For instance, change from PCS is imposed by people in power, while the RES provides information in the hope that recipients will adopt the change. NRS is not only concerned with the adoption of innovation but equally emphasises the development processes of individuals involved in the change (Ibid). Thus, teachers can apply action research in their classrooms through strategies designed to enhance their professional development.

The final comment on strategies employed for change is that more than one strategy may be employed (Nation & Macalister, 2010) for a particular innovation, as illustrated in the co-construction approach described by Hall and Irving (2010).

2.10 Papua New Guinea Education Change

2.10.1 Background

The issue surrounding the relevance of curriculum and formal education in PNG has been present since pre-independence. From the 1960s to early 1970s concerns were voiced and, thus began the impetus for educational change. In 1974 at the 'Eight Waigani Seminar', held at the University of Papua New Guinea, an indigenous educator, Tololo (1975) identified three features of the type of education offered in the then colony of Australia. Tololo drew attention to:

- (i) The difference between traditional education in a non-western society and formal education in a western society,
- (ii) The fact that Western type schools are a foreign import, and
- (iii) The necessity for PNG to set its own goals for society and decide how to achieve them.

Tololo (1975) argued that education provided by the Department of Education (DOE) at that time was irrelevant to the PNG traditional cultures (Section 1.1.2.1). Accordingly, the curriculum was not preparing students adequately for village life should they not make it through the system; in fact, schooling appeared to alienate them from their traditional environments. Similarly, Solon and Solon (2006) provided support for Tololo's argument that the system had an elitist approach to education aimed at educating citizens for the post-independence era. This was the impetus (Tololo, 1975) that directed discussions on the issue of curriculum relevance for PNG.

Tololo (1975) stressed that the above three factors should be deliberated as a "consideration of possible trends in education" (p. 5) for PNG. As an indigenous educator Tololo had both experience and credibility with the DOE which was established four years earlier in 1970 (Bray, 1984). Furthermore, because this

was a period of patriotism and self-government for PNG - which would become a newly independent nation from Australia on September 16, 1975 - Tololo's arguments were accommodated as the basis for critiquing the education system. Interestingly, the three issues highlighted by Tololo in the 1970s alluded to an expectation of change for the PNG education system. However, although Tololo (1975) initially advocated educational change in 1975, the issues were not addressed until 11 years later by the Matane Report (1986) which signalled directions for educational policy change in PNG.

2.10.2 Education Policy for Papua New Guinea

The term, "Matane Report" is defined by the DOE as the "Philosophy of Education" for PNG (Department of Education, 1991). The Matane Report charted educational reform for PNG because it was mandated as a Ministerial Report (Franken & August, 2011). The Matane Report (1986) was framed from the aspirations of the national constitution. Subsequently, one excerpt from the report concluded that for PNG to have quality education it needs to have a new curriculum. It emphasised that, when developed, the curriculum should focus on learning about PNG culture and language. It was argued that this would develop a child holistically encompassing the political, spiritual, social, economical, and academic components within the PNG context (Matane, 1986). Thus, the Matane Report drew its education goals succinctly from the five pillars of the country's constitution:

- Integral human development
- Equality and participation
- National sovereignty and self – reliance
- Natural resources and environment
- Papua New Guinea ways.

(Matane, 1986, p. 6)

It was from this scenario that the DOE mandated a large scale education reform in the 1990s. Interestingly, the time frame for the PNG education reform also coincided with the global reforms from the 1990s (Fullan, 2007). PNG's reform consisted of two tiers: re-structuring the levels of schooling and curriculum (Nongkas, 2007). The former commenced in the 1990s (Figure 2.1), while the latter was developed at different times for different levels into the 2000s, and had to cater for all basic education levels from elementary to upper secondary via AusAid funding (Australian Government, 2009).

Various studies and reports from the DOE provided evidence to support the change agenda (Department of Education, 1996a, 1996b, 2000, 2001; 2003b). For instance, the Education Sector Study (Department of Education, 1991) reported that the attrition rate for students at the primary grades was 45%, for the secondary level grades 7 to 10 was 34%, and 33% for grades 10 and 11. The high attrition rates may have resulted from students leaving schools due to school fee problems, or other environmental factors. Hence, the noted high attrition rates were considered alarming (Kenehe, 1981), thus providing more incentive for curriculum reform in PNG (Department of Education, 1991).

Accordingly, the Matane Report recommended a holistic approach to education that should prepare graduates to participate in the social, economic, political, and spiritual development of PNG (Matane, 1986). These intended holistic changes to teaching included teachers' belief systems, teaching approaches, and use of classroom resources (Markee, 1997). The Philosophy of Education (Matane, 1986) stressed that formal education should strive for integral human development. In other words, PNG should have an education model that would encompass all aspects of its social system, and not only focus on the academic component.

However, the Matane Report (1986) has its critics. One contention was its impracticality for curricula implementation in university contexts (Yoko, 2000) and schools (Franken & August, 2011). Similarly, empirical studies (Pagalio, 2002; Tapo, 2004) conducted into other aspects within the DOE after the

inception of “The Matane Report” have noted that there were minimal changes to the discussion on the quality of education. Pagelio and Tapo’s findings demonstrated that the issue of education quality had various interpretations depending on how one defined quality.

Furthermore, the studies by Pagelio (2002) and Tapo (2004) support the argument of Spady (1994) that for a system to be judged as successful, the system needs to be perceived from three lens, inputs into the system, events within the system, and outputs from the system (Section 2.10.4.4.1). Pagelio (2002) probed leadership to measure education quality, and reported that leadership could be better improved in the context of his study, especially from a management perspective. Tapo (2004) investigated national standards in the teacher education context and made recommendations for improving national standards as practices varied from the policy intentions. These two studies and others (Nongkas, 2007) illustrate that there is a need to investigate other areas of the PNG education system so that reports based from empirical studies could be made about the different attributes of the system.

2.10.3 Motivation for change

Many factors may influence education changes (Section 2.1.2). As described, PNG DOE is a highly centralised organisation (Figure 2.4). Consequently, systemic functions of Policies and Acts were used to control power and function within the system. The Philosophy of Education (Matane, 1986), for example, was endorsed through Policies and Acts of Parliament. The Education Act (Department of Education, 1983; 2001) gives the DOE control of curriculum at all levels of the national education system to purposefully maintain curriculum uniformity across the country (Bray, 1984).

According to Bray (1984), the DOE regulated curriculum as a strategy of management and control under the 1977 Organic Law (Papua New Guinea Government, 1977). Having done that, the national government restricted provincial governments from establishing their own teacher training institutions which may give them provincial autonomy and probably offset the

PNG labour market (Bray, 1987). Hence, that policy direction is noted in the Power Distribution from a 1977 National Executive Council (NEC) Decision No 19, (Papua New Guinea Government, 1977).

Hence, PNG educators have noted that the DOE applied a top-down policy approach in the 1990s and the 2000s for initiating educational change (Maha, 2009). Accordingly, Policies and the Education Act were used to mandate educational changes in PNG as earlier discussed. This practice resonates with a CPM of change (Section 2.8.2). Furthermore, the use of policy also resonates with the traditional 'big man' attitude and way of practice in PNG (Narokobi, 1983). The 'big man' attitude is premised on power inherited from birth rights by a traditional leader in a patrilineal / matrilineal society in PNG.

Therefore, it is argued here that CPM resonates with the traditional decision making processes in PNG. Likewise, the traditional 'big man' attitude seems to align with the placement of the power-coercive decision making processes (Nation & Macalister, 2010) in the hands of a few bureaucrats in the DOE who legitimised policy (Maha, 2009). Consequently, the decisions that were delegated to teachers on the periphery or edge of decision making processes (Figure 2.4) were about classroom practices (Department of Education, 2003a).

Furthermore, the DOE relied on donor funding from an external partner to assist with its internal curriculum change process (Section 2.8.2). As a member of the Pacific Islands Forum Nations, PNG sourced assistance for its educational reform project (Sanga, 2005). The AusAID funded project provided technical expertise to assist with local counterparts and assisted with the processes of curriculum development and training of selected teachers and education officials. According to Maha (2009), the selected teachers were mostly senior teachers comprising principals and subject department heads. As will be seen later, this claim is supported by the findings in this study (see Section 6.2.3). The training sessions were short, intense courses of one week duration used as intervention strategies (see Table 6.1).

Arguably, the intervention strategies used by the DOE were similar to that of a Cascade Model (CM) (Gilpin 1997). CM is an intense, short training session conducted by specialists or experts in the curriculum innovation (Gilpin, 1997; Vespoor, 1989). The aim of CM is to pass on knowledge and skills acquired from initial training. It is said to be a strategic activity that aims to spread the effects, likened to water cascading down (Goh, 1999). This model also implies a hierarchical structure in a social system (Ibid). Thus, it is argued that a complex curriculum innovation is impossible to be communicated in a short time through training sessions of information providing seminars (Godfrey, Murray, Nimmannit & Wirth, 2008). Goh's study (1999) in Malaysia of a nation-wide top-down curriculum reform revealed that teachers trained with the CM as an intervention strategy, had difficulty sustaining knowledge themselves, and were not confident in passing their learning onto colleagues. Hence, this insight may be a caution for others involved in training for curriculum change.

According to Gilpin (1997), CM resonates with the input-output accountability of internationally funded projects. It is argued that the focus is on projects' objectives and not the people involved in the projects (McDonald, 2005). Two studies from PNG highlighted staff professional development as an issue that was lacking (Apelis, 2008; Maha, 2009). Apelis (2008) confirmed that all stakeholders needed to work together in the education system. His investigation of the primary teachers' inspectorial system and teachers' professional development supported team work. This finding from PNG supports the argument by Crowl and Hall (2005) and Fullan (2007) that the different levels of society are inter-related and need to work together for successful policy implementation. Hence, this finding can be applied to donor funded projects using CM to train local teachers.

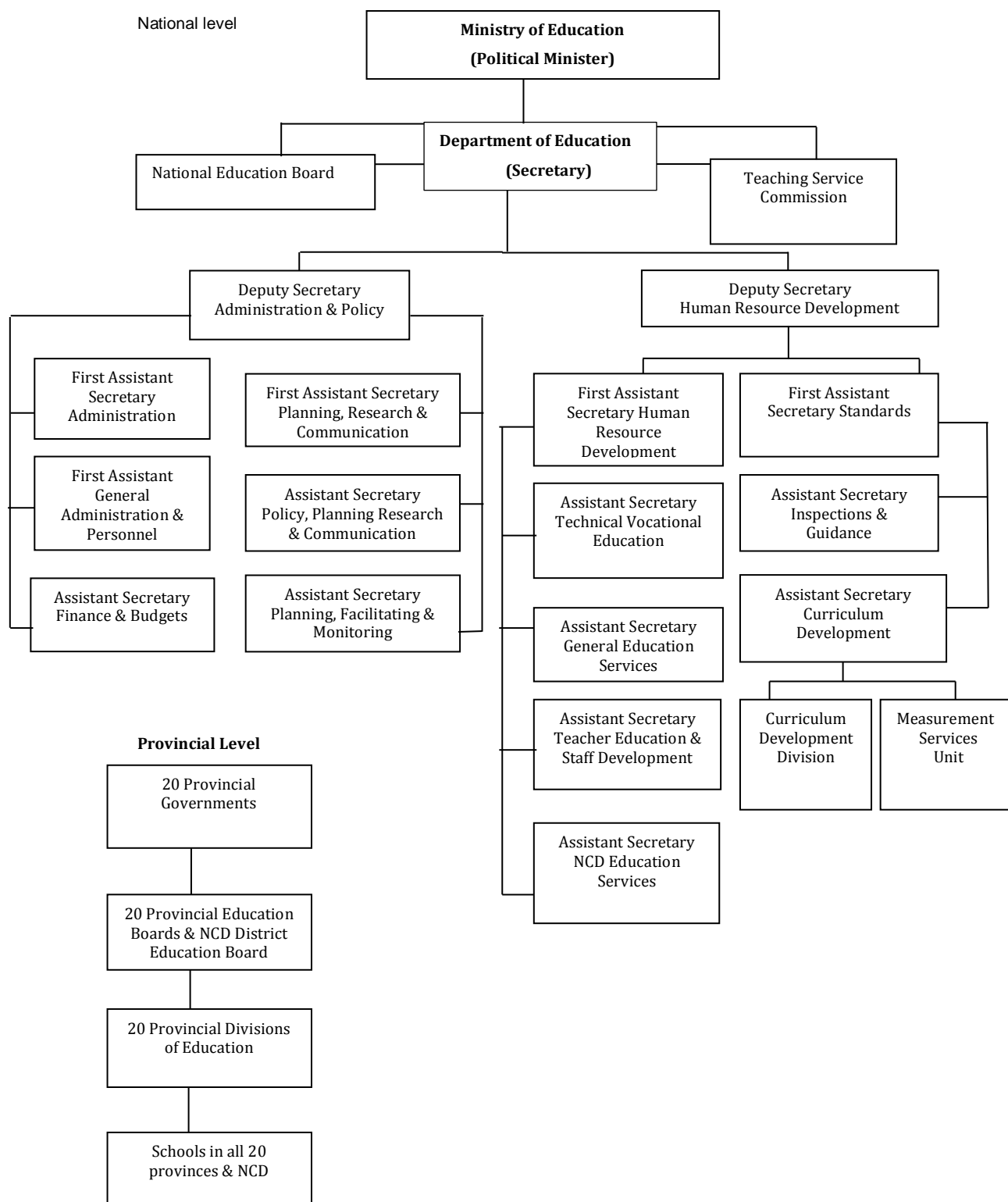
A second observation was made by another PNG academic and educator involved in the reform of primary curriculum development and implementation. Maha (2009) described the process as being hasty for large scale changes and cautioned against rushed implementation. However, this caution was not adhered to and the primary curriculum was implemented without vigorous

evaluation. Maha's reflection that the primary curriculum reform, design, trial and implementation could be best explained by the phrase, "Ready or not, here I come" (Maha, 2009, p. 36) encompasses issues associated with teachers' PD along with others.

According to Joskin (2012), the experience with the primary curriculum also raises questions about the processes associated with the secondary school curriculum. It seems that both the time-frame of the Curriculum Reform Implementation Project (CRIP), and the relationship between donor personnel and indigenous education officers would likely have impacted on decision making processes. This supports the argument that donor agencies continue to have overly influential roles in the educational affairs of Pacific countries (Sanga, 2003). As introduced in Figure 2.4 (next page), the DOE is a highly structured system and used its systemic functions to influence curriculum change, drawing on its relationship with donor personnel.

As shown in Figure 2.4, at the top of the hierarchy is the Ministry of Education (MOE) that has a politician as the minister at the political level. Then there is the DOE which oversees the administrative functions of the system with a secretary in charge of the organisation below the MOE. Following the hierarchy down, are the different elements of the system with schools and teachers at the provincial level, which is at the edge of the decision making process of the organisation.

Figure 2.4: Organisation structure of the system



Source: Asian Development Bank (2006)

2.10.4 Outcomes-Based Education

The PNG education reform model recently adopted OBE as its approach to curriculum change. The discussion here presents three applications of OBE: as a theory of education, as a systemic structure, and as an instructional approach. These three aspects have implications for the implementation process of the outcomes-based English curriculum that this study investigated.

2.10.4.1 OBE as a theory

According to Spady (1994), OBE is defined as having clarity of focus for an education system, whilst at the same time, organising everything essential for students to be successful at the end of their learning experiences. Spady, provides three basic premises that he argues underpins OBE, although Hall points out that these premises are not unique to OBE (personal communication, February 21, 2013). These are:

- All students can learn and succeed, but not at the same time / in the same way
- Successful learning promotes even more successful learning
- Schools (and teachers) control the conditions that determine whether or not students are successful at school learning.

As a theory of learning, OBE encompasses and affiliates with certain assumptions about learning, teaching, and the systemic structures within which teaching and learning occur. Similar to the other teaching and learning models, it defines interactions of learners as being pivotal for meaning creation in social environments (Creswell, 2007). A related view is provided by Killen (2000) who describes OBE as a collaborative approach in an education system that needs administrators, teachers, and students to aim for “desired results of change” (p. 2), whereby outcomes of students’ learning are expressed individually against a set of criteria (Section 2.10.4.4.2).

According to Killen (2000), OBE has three types of outcomes: traditional, transitional, and transformational. In Spady's view (1994): "traditional outcomes are grounded primarily in subject matter content; they are not generalizable across other areas of the curriculum or other performance contexts; school is the only place where they are typically formed" (p.19). The transitional outcomes are "generalizable across content area and requires substantial degrees of integration, synthesis, and functional application, thereby encouraging interdisciplinary approaches to developing the outcomes" (Spady 1994, p. 19). The third, transformational outcomes "requires the highest degrees of ownership, integration, synthesis, and functional application of prior learning because they [require learners to] respond to the complexity of real life performances" (Spady, 1994, p. 19). Killen (2000) argues that not all the outcomes are equal; some require much more complex learning and sophisticated demonstration than others.

Arguably, Spady (1994) is critical of curriculum planning and teaching that focus only on traditional outcomes. Accordingly, this study argues that the traditional OBE view seems to be congruent with the content-based curriculum, the former curriculum practice in PNG. That is, the lesson focus is on content that is not transferrable to other contexts. However, Killen (2000) acknowledges that OBE has failed in various American States due to an emphasis on social reforms rather than academic reforms as the study by Manno (1994) noted. Thus, this is an insight for others using the OBE model to be mindful of as practice generally does not match the theory.

2.10.4.2 OBE as a systemic structure

According to Spady (1994), a genuine OBE system requires holistic changes to the whole system. The systemic structure of society is complex with multiple layers and functions (Markee, 1997). Systems theory (Section 2.3) illustrates the complexity involved for adopting and managing large-scale changes. Killen (2000) argues that for OBE to be successful there should be alignment of systemic structure, and the classroom practice with the theory. This ensures that the argument for quality of education (Tololo, 1975) is

judged from three perspectives: the inputs into the system, the actual events within the system, and the outputs from the system. These three categories provide a frame for describing education quality, rather than perceiving education quality through only one lens (Spady, 1994).

The UN has also contributed to OBE becoming a universally applied idea in education systems (Section 1.2.3). Critics argue that the UN chartered a “global blueprint for education development” (Coxon & Tolley, 2005, p. 42), through the MDGs. The recommendation was for the same set of UN policies (World Bank, 1995) to be applied whatever the context for educational accountability purposes. Arguably, because OBE has the potential to be used as “a systems approach” (Hall, 2005a, p. 305), there have been increases of various forms of OBE in both western and developing nations (Killen, 2000). For example, PNG adopted OBE because of that influence, and also to cater for her pre-existing issue of an irrelevant curriculum from the 1970s (Matane, 1986; Tololo, 1975). From this perspective, it is argued that OBE is a developmental model because it has been used by educational aid donors in the Pacific (Daudau, 2010; Maha, 2009).

The development of the PNG OBE model was made possible through the support of AusAid (Section 2.9.1). The DOE and AusAID worked in partnership developing a national curriculum through the CRIP (Curriculum Reform Implementation Project, 2004). CRIP was a five year project that began in 2000 (Maha, 2009). Initially it developed basic curricula for elementary and primary education. CRIP was extended to accommodate the development of secondary curriculum materials. This demonstrated the commitment PNG had with global education agendas spearheaded by the UN, such as “Basic Education” which aspires for accessibility to education for all (Tolley, 2005). In essence, the reform curriculum development was a venture that PNG embraced in determining its own goals for society and deciding how to achieve them (Tololo, 1975) with support from donor funding.

While it is stated that the Curriculum Development Division (CDD) (Figure 2.4) prepared the NCS (Department of Education, 2003a), this project was donor funded, raising questions about how much input was locally derived, and how much was driven according to the objectives of the experts involved in the project (Joskin, 2012; Maha, 2009). However, the DOE (Department of Education, 2003b), claims there were collective efforts from donor advisors and local counterparts in developing the OBE curriculum. Accordingly, contributions were also sought from other PNG educators (Maha, 2009). Curriculum developers were also guided by the National Education Plan A and the National Education Plan B (Department of Education, 1996a; 1996b) when writing the OBE Curriculum (Department of Education, 2003a).

2.10.4.3 *OBE as an instructional strategy*

It is believed that OBE can be used as an instructional strategy for classroom practices (Killen, 2000). The emphasis is on teachers having a clear picture of what is important for learners' education, and then developing curriculum instruction, and assessment to make sure that learning does happen. It is argued that this feature of OBE is common to various models of teaching and learning, including behaviourism (Hall 2005b).

Spady identifies four key principles (OBE) that he asserts are practical for classroom instructions:

- Clarity of focus
- Designing back
- High expectation
- Expanded opportunities

(Spady, 1994, p. 1)

According to Killen (2000) clarity of focus in the OBE model may refer to two things. Firstly, the organisation of the whole education system and schools to cater for the OBE approach. Secondly, teachers and learners in the system

need to have a clear focus on the significant outcomes that learners are ultimately able to demonstrate at the end of their learning processes. Thus, the clarity of focus has implications for systemic attributes that may impede or support implementation of an OBE curriculum (Section 2.5). Furthermore, it also resonates with the notion of curriculum design (Killen, 2000). Likewise, the clarity of focus principle may also resonate with teachers' pedagogical knowledge. That is, teachers have to identify the learning outcomes that they want learners to learn first, and then do the programming backwards.

According to Spady (1994) and Killen (2000) outcomes are statements of intentions written in terms of what students will learn. It is argued that all students have intrinsic knowledge and it is up to the school to develop the raw talent (Mamary, 1991). In the context of this study, clarity of focus includes teachers' knowledge of using a student-centred approach as a teaching strategy according to the PNG policy intentions (Department of Education, 2003a), and the systemic attributes with the PNG DOE.

According to Killen (2000), designing back links to the first principle, clarity of focus. This phase includes curriculum design and teachers' pedagogical knowledge (Killen, 1998). These include the preparation and management of the OBE teaching programme by teachers (Spady, 1994). Both Killen (2000) and Spady (1994) acknowledge that designing back does not mean that curriculum design is a linear process. However, they argue that there needs to be a clear direction in the designing of teaching programmes with links back to the focus of the intended learning outcomes. Furthermore, designing back also encompasses planning, teaching, and assessment decisions to be considered by teachers. These teaching and learning activities all have to align with the intended learning outcomes identified in principle one. Killen (1998) argues that teachers also may need to be conscious of obstacles that may hinder students' short term achievements, forestalling them from reaching their long-term outcomes. Hence the link of designing back relates to clarity of focus, principle one.

According to Spady (1994), high expectation refers to motivation from both teacher and students. It involves teachers setting high standards of performance in order to motivate students to be co-learners in the learning process (Killen, 2000). Evidence from an OBE context in Queensland, Australia showed that when students engage deeply with their classroom learning successful learning is promoted (Queensland School Reform Longitudinal Study, 1999). When this happens, students' confidence develops and gives them experiences to accept further challenges. Arguably, Spady (1994) claims OBE helps all learners to do difficult things well which defines learning from the OBE lens.

According to Killen (2000) expanded opportunities involve teachers accommodating different teaching strategies to enhance students' learning irrespective of cognitive abilities. This principle appeals to teachers' knowledge of instructional strategies for purposes of lesson delivery. Some examples include: problem solving methods, student-centred lessons, whole class teaching, integrated teaching, research and exploratory learning. Killen (1998) argues that teaching programmes need flexibility to cater for different learners' needs. Killen (2000) acknowledges that working in a systemic structure with time constraint is challenging, but emphasises that teachers need adapting to the students' needs, rather than students adapting to teachers and institutions.

In summary, the theoretical applications of OBE seem workable but the practical application is questionable (Hall, 2013).

2.10.4.4 Critique of OBE

This section presents a critical analysis of OBE in relation to its curriculum design and implementation.

There are four parts in this critique. Part one discusses Hall's OBE model (2005b). Part two compares Spady's and Hall's OBE model, while part three describes the PNG's OBE model (Department of Education, 2003a; 2006) and

part four discusses possible tensions in OBE.

2.10.4.4.1 Hall's critique of OBE

Not all educationists endorse OBE as an effective approach to curriculum design and implementation. This position is well encapsulated in the writing of Hall (2013; 2005a; 2005b; 1996). The position taken by Hall is that OBE, as ***it is practised***, quickly leads to restrictive teaching practices which place emphasis on the training and coaching of students to achieve the outcomes that have been mandated for them through centralised educational requirements.

Writing in the New Zealand context, Hall observes that the high stakes assessment requirements of the National Certificate of Educational Achievement (NCEA) at the secondary level, has increasingly promoted narrow training and direct instructional methods within schools to ensure that as many students as possible achieve success in NCEA. He argues that over-emphasis on specified outcomes (centrally determined) does not harmonise at all well with teacher education programmes that focus on the need for critical reflection by lecturers on the impact of their methods on student learning (Hall, 2005b). He argues that student-centredness requires tailoring of learning to student needs; this is not generally achieved through centralised definition of outcomes. He further argues that as practised, OBE aligns more with behaviourist than other teaching-learning theories such as cognitivist or constructivist (Hall, 2013).

However, Hall does not dismiss OBE entirely. He notes that the identification of the learning objectives (or intended learning outcomes) for students at the outset is useful for giving students a sense of direction for learning. However, he does not see these intended outcomes as necessarily the important outcomes that will be achieved. Writing in the tertiary context, Hall (1996) notes that the statement of learning outcomes given to students at the beginning of a course rarely describes in detail and precision the ***actual*** learning that students are able to demonstrate by the end. He argues

that students need to know much more about the content of a course and the process of activities that they will undertake, before they can make informed decisions about whether to enrol in the course. As pointed out by Hall (1996), “The open-ended nature of knowledge and learning is something which a statement of learning outcomes can never capture with precision” (p. 82). Hall further notes:

Learning outcomes are useful for giving students a sense of direction; they are much less useful in describing with precision what a student will achieve. If utility is the test, it is likely that students will find a statement about the course content and processes just as valuable for giving them the direction they need.

(Hall, 1996, p. 83)

In describing OBE with the New Zealand context, Hall (2013) observes that it is a “comprehensive model of educational organisation which covers usually all spheres of the operation of the New Zealand education system” (p. 1). He notes that the model is used for the contractual relationship between government and educational institutions, the management of schools, curriculum, national assessments of students, staff development and appraisal, and the evaluation of institutional performance. According to Hall:

OBE comprises in its simplest form, the declaration of the intended outcomes (objectives) of an education system or operation, the design and implementation of a programme or activities aimed at achieving these outcomes, and monitoring of the actual outcomes against the intended ones (Hall, 2013, p. 1).

In the New Zealand context (and New Zealand does not seem to be an exception) OBE is a high stakes and high accountability framework for ensuring that educational institutions deliver what they are contracted to deliver by the government. The intended outcomes are either centrally defined or institutions declare their own but have them centrally approved;

institutions are then supposedly free to design activities and programmes as they see fit. However, institutions are then held accountable for ensuring that the intended outcomes are achieved. Sanctions usually apply; disestablishment of institutions is ultimately possible within the framework.

The three-step OBE framework described by Hall depends critically on the success of institutions in designing and implementing programmes that are harmonised with the intended outcomes. It is here that Hall stresses the importance of collaboration between schools and the central administration of education. If a new innovation is to be embedded successfully, it requires a commitment on the part of the central administration to co-construct the policy and its implementation so that the educational benefits that are intended actually occur. In addition, it requires that considerable resources are set aside for PD so that the programmes developed in schools harmonise with the directions of the education system (Hall & Irving, 2010). If particular learning theories and teaching practices are to be fostered, such as student-centred learning and constructivism then, these need to be strongly focused on in all phases of the design and delivery of the curriculum. Because student-centred learning and constructivism are not natural bedfellows of OBE, particular attention is needed to achieve the harmonisation necessary for the success of OBE (Hall, 2005b).

2.10.4.4.2 Comparison of Spady and Hall on OBE

One of the points that emerge is that although Spady and Hall differ in their acceptance level of OBE, they recognise some of the same issues that need close attention if OBE is to be implemented successfully.

Spady defines OBE as focusing education on significant outcomes:

Outcomes-Based Education means clearly focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences (Spady, 1994, p. 1).

According to Spady (1994) and Killen (2000), OBE is an educational concept that is perceived and applied in many different ways. That is, OBE has been used in western countries (Australia, New Zealand), in third world countries (the Pacific) (Maha, 2009), and by agencies like the World Bank, UNESCO and other various organisations (Coxon & Tolley, 2005). Because of the various interpretations given to OBE (Hall, 2005a), Killen (2012) argues there is confusion and criticisms of the way OBE is perceived and applied.

Spady (1998) argues that the intended learning outcomes should direct curriculum design and implementation. That is, the decisions about the teaching and learning should come after the declaration of the intended learning outcomes (Section 2.10.4.3). Killen (2012) further recognises that the intending learning outcomes of a curriculum should emphasise the development of intellectual behaviours that are beneficial for life-long learning. On this point, Hall (2005b) is in agreement with the views of both Killen and Spady. All three see curriculum as a tool for preparing students to be functional members of the society that they live in.

Spady (1998) differentiates between the terms “objectives” and “outcomes” in his OBE model. According to Killen (2012), objectives seem to emphasise student mastery of traditional subjects related to academic outcomes with a strong focus on specific subject content. In Spady’s views (1994), objectives are short term learning in a lesson, while outcomes have a more long term focus that encompasses knowledge, skills, and values that learners are required to learn and demonstrate beyond their schooling experiences. Hence, Spady (1994), defines outcomes as, “high quality culminating, demonstrations of significant learning in context” (p.18). Thus, Spady (1994) stresses that outcomes are demonstrations of learning, which are the things that learners can do as a result of their learning. Spady, argues that outcomes are not the scores, labels, or percentages attached to the demonstrations, “but the substance and actions of the demonstration itself” (Spady 1998, p, 25). As noted in the earlier quote from Hall (1996), he also sees a distinction between learning objectives (the succinct statement of

intent that typically identifies what students should achieve by the end of a course) and learning outcomes which represent the rich description of the actual learning a student demonstrates by the end of a course.

Furthermore, Spady (1998) seems to recognise that curriculum developers need to have practical in-depth knowledge of the design of his OBE model before attempting implementation. According to Spady (1994), the responsibility of a successful implementation of an OBE is placed on governments and administrators at all levels of systems to provide sufficient resources and appropriate organisational structures within which teachers can implement OBE (again a point made by Hall). Spady (1994) believes OBE has potential as a theory of learning, a systemic structure, and an instructional strategy (Section 2.10.4.1 – 2.10.4.3).

Spady (1998) is critical of curriculum planning and teaching that focuses on traditional outcomes that focus primarily on subject content matter which may not be generalizable across other areas of the curriculum or outside of school contexts (see Killen, 2012). According to Spady (1994), in an OBE system, there are three major steps concerning instructional planning. 1) Deciding on and making declarations of the outcomes (both short and long term) that students are to achieve. 2) Deciding on how to assist students to achieve those outcomes. This part involves processes like the selection of content, teaching strategies, assessment methods, and reporting procedures. The second step also refers to the systemic support that may be in place to assist teachers and students for the implementation of the OBE. Lastly, 3) deciding on how to determine when students have achieved the outcomes. That is, deciding on the reporting and assessment procedures. The discussion here resonates with the use of OBE as an instructional strategy (Section 2.10.4.3), and also links to the implementation phase of the diffusion of innovation theory (Section 2.2.2). It also closely resembles the three-step description of OBE given by Hall earlier.

Spady (1998) notes that when a state or country decides to introduce OBE, the intended outcomes are generally declared by the centralised organisation to encompass the values deemed appropriate for that contextual education system. This implies that a form of control from the hierarchy is established because the intended outcomes give directions for teaching and learning that schools are expected to implement. This part of the OBE description resonates strongly with the views of Hall. According to the literature (Killen, 2012), the suggested processes for step 2 (assist students to achieve actual outcomes) in Spady's OBE model involve:

- Constructivist teaching and learning;
- Student-centred activities;
- Teaching strategies that emphasise students “doing” activities rather than direct instructions.

The three processes listed above are not simple concepts, but are complex and require a significant change in behaviour for teachers who have adopted a traditional direct instructional model of teaching. However, these ideas are also familiar to many of the teachers and resonate with their pedagogical knowledge, and their world views of teaching learning, and assessment (Markee, 1997). Furthermore, literature (Stoller, 2009) has highlighted that if teachers' current practices do not align with the intended educational change, there may be tensions during the implementation stage (Fullan, 2007). This of course is exactly the issue identified by Hall; if OBE is to be successfully introduced in practice, it requires that all designers pay major attention to the “processes” that need to be employed by schools and teachers in order to provide harmony between teaching practices and the achievement of the intended outcomes.

According to Spady (1998), actual outcomes are measured using criterion – reference assessment systems, not traditional norm-referenced tests. Spady (1994) believes that criterion-referenced systems are fair because they compare students' performance to set standards. He describes a criterion-

referenced assessment system as requiring schools to, “clearly define and apply the same standard for all students and impose no limits on how many students can reach a given performance level” (p. 14).

Once again, Hall is in agreement with Spady and Killen. However, within the New Zealand context, Hall (2005b) provides a detailed analysis of two models of criterion-referenced assessment that have emerged (in New Zealand, the term “standards-based assessment” is used to refer to “criterion-referenced assessment”). Hall terms these two models as: the separate standards model; and the integrated standards model. The important point about this distinction is that the separate standards model is the preferred approach in both school level and vocational / technical education, while the integrated model is more evident in academic and most professional educational programmes.

The argument made by Hall is that the integrated approach, not the separate standards approach, is far more suited to OBE goals that foster life-long learning and more complex intellectual skills. His concern for OBE goals within New Zealand is that a model of assessment is being used in schools which has strong backwash effects on teaching and learning; these effects include the pressure for teachers to train or coach students to pass the “standard” rather than provide a rich and integrated treatment of the curriculum.

In summary, it is evident that Hall and Spady (and Killen) agree on a number of issues related to OBE. The greater negativity of Hall is perhaps related to his experience of the New Zealand context which appears to have introduced OBE without attending to the many practical problems that arise when policies are implemented in a top-down fashion. Co-construction is a strong message in the paper by Hall and Irving (2010).

2.10.4.4.3 PNG's OBE

This section discusses the design and development of the PNG OBE model.

The curriculum reform that PNG has adopted in recent times is based on the principles of OBE as identified by writers such as Spady and Killen. The two Policy Documents: 'NCS' (Department of Education 2003a), and 'ELLSS' (Department of Education, 2006) were developed "with the support of the Australian Government funds through the Curriculum Reform Implementation Project" (CRIP) (p. i). The OBE model had two major players (DOE and AusAID) involved in the design and development stages of the curriculum as stated by policy above.

This study argues that the development of the PNG OBE curriculum adopted a centralised approach to educational change. The developments were characterised by:

- The publication of the Philosophy of Education (Matane, 1986)
- The involvement of the Education Act (2001)
- The DOE circulars to schools informing them of the curriculum change
- The involvement of AusAID in partnership with the DOE for the design and development of the OBE curriculum, and
- The publication of the NCS (2003a).

Reflecting on the five descriptions provided above, the indication is that a top-down, power-coercive approach was applied to mandate the PNG curriculum change; this view is also supported by literature (Maha, 2009).

Furthermore, policy clearly defines the required education model for the system. For instance,

In the PNG school education system, the outcomes-based curriculum identifies what students will demonstrate as a consequence following

syllabuses for Elementary Prep to Grade 12. Each syllabus identifies a set of outcomes for each grade that students are expected to achieve. Teachers will use the indicators to write learning objectives when planning programmes and lessons... in order to achieve the learning outcomes.

(Department of Education, 2003a, p. 4)

Analysing the above descriptions, there seems to be a three part structure in the design and implementation of the PNG OBE curriculum. That is, 1) intended learning outcomes (outcomes-based curriculum identifies what students...), 2) processes (Teachers will use the indicators...), and 3) actual outcomes (...in order to achieve the learning outcomes).

In the PNG context, the DOE explicitly declares its intended learning outcomes for grade 9 secondary English learning on page 11 – 12 (Department of Education, 2006) (centrally defined) – point one above. Teachers are free to design activities, which are the processes (point 2) for teaching and learning which hopefully would encompass the outcomes which are centrally determined (point 3). This three part structure resonates with Hall's three step OBE model (Section 2.10.4.4.1).

In addition, the preparations (processes) undertaken at the school level (point 2) to prepare teachers for the curriculum change, according to the literature (Maha, 2009), involved some form of PD. That is, activities described as purposeful intervention strategies aimed at training teachers (Cohen et al., 2007) to be able to implement the OBE curriculum successfully. These were:

- The secondary school inspector visiting schools and providing information about the OBE curriculum.
- The CRIP officers visiting and talking to schools.
- The CDD officers visiting and talking to schools.
- The circulation of the NCS and the ELLSS to schools.

- The selection of principals and senior teachers for a one week intensive trainer of trainers' workshop (who had to return to their own schools and train colleagues).

Upon reflection, the first four bullet points describe the 'What' processes that the DOE did to inform teachers of the curriculum change. However, it seems that the, 'How' process for using the OBE curriculum is encapsulated in the last bullet point. Literature (Joskin, 2011; Maha, 2009) reveals that the one week PD training was not sufficient to adequately prepare trainers to return to schools and confidently train colleagues. In other words, the process seems to be left to teachers to take ownership of the curriculum implementation.

A third component of the development was the adoption of Spady's (1994; 1998) model of OBE curriculum, emphasising constructivism and student-centred learning. In relation to the descriptions provided earlier from both Hall and Spady of OBE (Section 2.10.4.4.2), this approach to constructivist teaching and learning differs from traditional PNG practices (Section 1.1.2.1) in the following ways:

- Teaching and learning (teacher-centred / student-centred);
- Direct instructions (behaviourist not constructivist);
- Passive learning not active learning;
- Melanesian 'big man attitude'.

The differences listed above highlight the notion of feasibility and relevance (Kennedy, 1988) of the OBE curriculum against the traditional learning practices that may affect the implementation of the PNG curriculum change (Section 2.5.1).

According to the literature (Bryman, 2008), constructivism is a social theory for explaining the realities of the social world. That is, meanings are created by the people, from their experiences and understandings from living and

interacting in the social context (Flick, 2007). Spady (1998) alludes to the constructivist approach underpinning his OBE model when he stresses that learning is significant when the outcomes “matter in the future” (p. 25).

Killen (2012) alludes to constructivist learning as having intended learning outcomes reflecting the complexities of real life, and relevant to the realistic situations that learners may face beyond school. In other words, in the OBE teaching and learning contexts, students bring into the classrooms their experiences from their social worlds, and create new knowledge from the content taught in the classrooms. Consequently, learners go and apply the new knowledge in other social situations beyond the school, which is described as applying the actual outcomes (Spady, 1994), situated in a constructivist view.

Similarly, the PNG OBE model also resembles the constructivist theory. The meaning is derived from this quote, “A key focus of the English Syllabus is to provide all students with real life and relevant learning experiences” (Department of Education, 2006, p. 8). As gathered here, the aim is for teaching and learning to be meaningful and realistic for the PNG context. Therefore, it is concluded that the theoretical underpinning of one process inherent in the PNG OBE model is constructivism, and that this view also underpins Spady’s OBE model as the descriptions from Killen (2012) and Spady (1994; 1998) reveal.

Secondly, the notion of a student-centred learning in the Spady OBE model (1998) is derived from this quotation: “Teaching and learning should be learner-centred” (Killen, 2012, p. 72). Both Spady (1998) and Killen (2012) describe the process as ‘learner centred’, while the PNG model terms it the “student-centred approach” (Department of Education, 2003a, p. 5). Furthermore, subjects’ syllabi also mention the specific teaching process. For instance, “The English Syllabus uses a student-centred approach as a guide to facilitate students’ learning” (Department of Education, 2006, p. 7).

According to the literature, a student-centred learning strategy is not teacher-centred learning (Killen, 2012). That is, learning focuses on students creating knowledge and meaning from interaction between their experiences and their ideas as per their social contexts (Creswell, 2009). In the PNG context (Department of Education, 2006), policy stresses that learners need to be active constructors of knowledge with the teachers during the teaching and learning sessions. The PNG OBE approach is supposed to discourage traditional education teaching based on direct instruction of facts and standard methods (Department of Education, 2003a).

However, embracing student-centred learning means changing pedagogical orientations (Markee, 1997) because of the involvement of new teaching approaches and beliefs. Hence, to create harmonisation with the policy intention of a student-centred curriculum, literature recommends that PD be used. For instance, Hall and Kidman (2004), argue that an understanding of the concept of a learner-centredness /student-centredness is important.

Writing in a university context, Hall and Kidman (2004) argue that learner-centredness is not a matter of simply focusing on students' needs; the content of learning (knowledge and skills) is also very important (the writers have made a point that "you can't change knowledge if you don't have knowledge", p. 341); and the quality of the teaching provided by the teacher (their ability to select appropriate strategies and use them effectively) is also very important. For Hall and Kidman, learner-centredness is most effectively addressed when all three – students, content and teaching quality – are focused on and harmonised.

The three cornerstones of the PNG curriculum development as described above – centralisation, the approach to PD, and the integration of constructivism and student-centred learning – raise major questions as to whether the curriculum and its implementation involved processes that were in harmony with successful change. In other words, to what extent

were the events that took place consistent with the risks identified by Hall (2005b) and Hall and Irving (2010). The data in Chapters Four – Six will be investigated to see whether, or to what extent, the risks posed by Hall were actually considered during implementation.

2.10.4.4.4 *Tensions in the OBE model*

Literature reveals that the strong emphasis on achieving the outcomes in an OBE system creates a backwash effect on teaching (Hall, 2005b). Exams become highly emphasised – students are trained/coached using direct instructions and other behaviourist methods to pass the exams and ‘achieve the outcomes’. As noted by Hall (2005b) the backwash effect of the OBE examination system in New Zealand (NCEA) has been influenced by the need for schools to appear to be doing well in “league-table” reports that compare schools.

Similarly, the comparison of examination results also resonates in the PNG context. PNG schools are ranked according to the Mean Rating Index (MRI) of their students’ pass rates from the national examinations using norm-referenced assessments. There are three national examinations that students sit at grades: 8, 10, and 12. First, the grade 8 examinations determine places for secondary education. The second examination is at the end of grade 10 for progress to grades 11 and 12. The third and last examination is the 12 national examinations for tertiary studies’ placement. Hence, as described here, the examination structure in PNG seems to also have implications for the processes of classroom teaching and learning, as movement within the secondary system and between secondary and tertiary education seems to be competitive and not accessible to all students.

According to the literature for a successful embedding of a radical policy reform (Hall & Irving, 2010) there needs to be cooperation from all stakeholders described as ‘learning in tandem’ (Crowl & Hall, 2005). Applying the idea of ‘learning in tandem’ to the PNG context, would mean that if the OBE model were to be made to work in practice to avoid the

pressures of examination teaching and learning, there is need for significant attention to be paid at both the curriculum design and the implementation stages. Therefore, as Hall and Kidman (2004) suggested, the use of PD situated within a T-LM framework may relieve the inherent tensions encountered. For instance, to harmonise between the cultural practices of the former PNG learning system (objective-based teaching) with the use of constructivism and student-centredness, the processes for achieving the intended outcomes (OBE) would need a 'learning in tandem' process between the policy makers, government officials and teachers in schools.

Overall, the impact of OBE, unless deliberately harmonised through PD (Section 2.5.2) risks encouraging a "behaviourist" rather than "constructivist" approach to teaching and learning. This research will consider this intended problem in the analysis of data obtained from documents, and the two case study schools.

2.11 Summary

This chapter discussed curriculum change as an innovation through the diffusion of innovation theory, and situated the curriculum innovation within the broad topic of education change. Theories relating to change management, the diffusion process and factors affecting change in a diffusion process were also discussed. Furthermore, descriptions of the concepts of policy and implementation and curriculum as a policy intention were discussed to illustrate the focus of this study. Additionally, the discussion also presented four models of educational change, including three types of strategies used for introducing educational change. Lastly, the discussion outlined educational change within the PNG context, the focus of this study. This included, the rationale for change, the education model that PNG adopted (OBE), the theory behind OBE, and provided a critique of OBE.

The next chapter presents the research methodology used for this study.

CHAPTER THREE

Methodology

Introduction

This chapter outlines the research methodology for this study. There are eleven sections in this discussion. Section one is the introduction, and section two gives the focus and questions of investigation. Section three discusses the paradigm that influenced this inquiry, and elaborates on the rationale for the use of the epistemological approach and the theoretical perspective. Section four outlines the justification for using a multiple case study method, then Section five outlines the data management procedures. Sections six and seven describe the data collection and data analysis procedures, while Section eight discusses issues of reliability and validity. Sections nine and ten present the ethical procedures, and the limitations, while Section 11 presents the summary of the chapter.

Table 3.1 shows six aspects of the framework underpinning the research methodology.

Table 3.1: Theoretical framework for research methodology

Paradigm	Qualitative
Epistemology	Constructivism
Theoretical Perspective	Interpretivism & Symbolic Interactionism
Research Methodology	Multiple case study
Data collection techniques	Interview (structured) Focus group discussion Observation Document analysis
Data Analysis	Content analysis Discourse analysis

3.1 Research objectives

This thesis explores the implementation of an English outcomes-based curriculum in two city secondary schools in Port Moresby, PNG. There are three objectives for this study:

1. To describe three levels of an English curriculum implementation process at a secondary level of education in PNG;
2. To evaluate policy intentions of teaching English against observations, and participants' data; and
3. To develop an explanatory framework to assist future curriculum implementation processes.

Two main research questions were asked to achieve these objectives:

1. *How does the intended Outcomes-Based Education Curriculum in PNG align with the experienced curriculum in the teaching and learning of English as a second language in lower secondary schools?*
 - a) How was the Outcomes-Based Education Curriculum introduced to teachers?
 - b) What are teachers' beliefs and understandings of the Outcomes-Based Education Curriculum, and why do they have those beliefs and understandings?
 - c) How do teachers implement the Outcomes-Based Education Curriculum in their grade nine English lessons?
2. *What contributions to processes of curriculum implementation does the experience with the Outcomes-Based Education Curriculum from Papua New Guinea provide?*

- a) What model of curriculum innovation was applied in Papua New Guinea?
- b) What model of curriculum innovation is relevant for a Melanesian context as perceived by educators involved in the Papua New Guinea experience?

The research questions determined the choice of the research orientation.

3.2 Research paradigm

Given that the focus of this thesis is on exploring educational change in the form of a curriculum innovation from a situated context, a qualitative approach was selected for this study. Qualitative investigation is also known as interpretive research (Flick, 2006; Hitchcock & Hughes, 1995) because it requires the researchers' interpretations to detect meanings embedded in data to be able to complete a research story. Qualitative investigation originated from anthropology, psychology, and sociology but is a field of inquiry that cuts across disciplines and subject matters (Denzin & Lincoln, 2005) and thus is appropriate for this study. Individuals in society create social reality from their constructions of interactions, perceptions and meanings which are context specific (Burns, 1994). Qualitative research enables researchers to probe answers to questions by studying, talking, recording interactions and collecting documents from inhabitants in their social settings. The purpose is to enable researchers to attempt to have an understanding of participants' everyday knowledge, and to uncover the meanings that they attach as reality in their world views within their social contexts (Creswell, 2009; Lancy, 1993).

Understanding context is crucial because it is a doorway to comprehending human behaviour which occurs within a particular context (Bogdan & Biklen, 2007). Three aims of qualitative research that have applications to this study are: understanding a particular social situation, event, role, group, or interaction (Locke, Spirduso & Silverman, 2007); decoding meanings and

interpreting individuals' events and actions in their social world (Hitchcock & Hughes, 1995); and offering descriptions, interpretations and clarifications of naturalistic social contexts (Burns, 1999).

The literature reviewed provided various definitions of a qualitative study (Denzin & Lincoln, 2005; Flick, 2007). The one that resonates with the focus of this thesis is the description given by Cohen et al. (2007): qualitative research is an investigative process where the "researcher is the main instrument conducting research in a natural setting" (p. 168) and meanings are attached to the phenomena by the researcher, participants, and the research process (LeCompte & Preissle, 1992). There are several purposes of a qualitative study and these include description and interpretation, reporting, the creation of key concepts, and theory generation and testing (Miles & Huberman, 1994). This investigation was an exploratory study that sought to elicit meanings of individuals involved in a top-down policy approach to changing curriculum in two PNG secondary schools. A quantitative approach involving numeric explanations, such as counting and measuring occurrences (Strauss & Corbin, 1998) would have been unsuitable for attempting to elicit meanings from participants' lived experiences (Maxwell, 2005; O'Donoghue, 2007).

3.2.1 Epistemology

Epistemology is a theory of knowledge that stems from philosophy. It studies the nature of knowledge and processes of how knowledge is acquired and validated (Clark, 1997). In essence, it concerns the issue of what is acceptable knowledge in the social world (Bryman, 2008; Creswell, 2009). In contrast to the positivist view of knowledge, the alternative views of constructivism and interpretivism exist. Positivism assumes that the researcher is independent of the issue of investigation and implies that knowledge is validated against predetermined tests for linking abstract phenomena of the social world into reality. Positivism argues that there is an "objective knowledge of external reality which is rational and independent of the observed" (Wellington, 2000, p. 16), and aims to generate

generalisations based on hard quantitative data as responses to issues of investigation. Conversely, constructivism and interpretivism assert that knowledge is subjective, and it is embedded in people who create meanings and attach meanings to things in their social world. Both views accept that knowledge is socially constructed by inhabitants and is not independent of them (Crotty, 1998).

Given that this study focuses on meaning, reality and knowledge, it is situated within a constructivist epistemological paradigm. Constructivism is a social theory that underpins qualitative research and it posits the view that the realities investigated by researchers are social products of the actors, of interactions and institutions (Flick, 2006). It argues that the realities of the world are created by individuals' understandings and experiences (Bryman, 2008; Flick, 2007). Constructivism is adopted here because of the view that knowledge is constructed by humans from their societal practices.

In the case of this study, knowledge is derived from the eight participating English teachers and two principals in this study. Their meanings are derived from their individual practices and reflections of the curriculum innovation process in their schools, and how they have implemented the government mandated curriculum. This investigation of a curriculum change is context specific and needs participants' social knowledge of this particular location to understand the story of a curriculum innovation process. Similarly, the constructivism lens views a social environment's existence according to meanings individuals within that context construct, and thus the environment does not operate in isolation from inhabitants' interactions (Gall, Gall & Borg, 2007). Therefore, the constructivist view is applicable for the design of this study.

3.2.2 Theoretical position of this study

A theoretical perspective is significant for examining the world and to make sense of it. This study investigated and analysed the implementation of a curriculum innovation in two PNG secondary schools. Research into the

curriculum implementation from a situated context entails looking at the principals' and teachers' world; their beliefs about what is significant for them in the implementation process; and what makes their world real (Clark, 1997; Maxwell, 2005). Hence, the interpretive approach is also adopted by this study because the purpose of this view is to foster understanding of an issue from a particular location.

The use of interpretation in social research is linked to the early works of German theorists Wilhem Dilthey and Max Weber. The former asserts that there are two ways to see the world; through the natural sciences, which includes abstract explanations for the world, or through an empathetic understanding which encompasses everyday lived experiences of people as social beings in social contexts. Hence, meanings are attached to behaviour, events, processes or practice from a specific context because of cultural symbol systems. Interpretive inquiry sets out to discover actions, beliefs, values and attitudes of individuals' subjective meanings and to make sense of them (Patton, 1990). Social existence of reality does not occur in isolation but through negotiated experiences of peoples' meanings and interpretations (Weber, 1999). That is, the emphasis is on the researcher eliciting meanings from concerned individuals' actions, their experiences, and how they use those meanings to interpret and make sense of their world (Berg, 2007).

The symbolic interaction lens is the specific interpretive approach used by this study. This epistemological lens refers to "a distinctive approach to the study of human group life and human conduct" (Blumer, 1969, p. 1). It views how individuals perform social acts in society subsequently creating meanings and explanations for their behaviours and identities within social structures (Neuman, 2006). There are three basic premises underlying this perspective that are fundamental to understanding it. First, people act towards things on the basis of the meanings they give to those things. Second, meanings are elicited from or arise from social interactions that people have with others and society. Third, meanings are infiltrated and

personalised through an interpretive process used by individuals in response to their experiences (Bogdan & Biklen, 2007). Thus, the symbolic interaction lens is also suitable for this investigation as its three aims are applicable for the purposes of this exploratory study.

The symbolic interaction view argues that behaviour is learned in social contexts as discussed in the constructivism view (Section 3.2.1) and not from a biological instinct (Clark, 1997). People give subjective meanings to realities and those meanings are generated by individuals' interactions in society (Berg, 2007; Maxwell, 2005). People behave according to how they interpret and give definitions to their social world through specific contextual symbols. Symbols include sounds, physical gestures, print media, texts, language, behaviour, actions and so forth. The most common symbol is language. The essence of the symbolic interaction lens is to capture the interpretation process and meaning attachments that individuals ascribe to symbols in their environments.

In summary, interaction is an on-going process that is context specific, creates context, and is significant in any symbolic interaction investigation. Therefore, it is considered an appropriate lens to investigate the world view of the participants involved in implementing the curriculum innovation - to enable me to observe, measure, and understand their social realities in that location (Scott & Usher, 1999).

3.2.3 Researcher's position

This section looks at my situation within the scope of this study. My position in this research is significant as I am the main instrument (Cohen et al., 2007) for data collection, analysis, synthesis, and write up of the final report. Position refers to my professional, philosophical, and personal background to this particular curriculum implementation investigation in two PNG secondary schools contexts. Although I am an indigenous Papua New Guinean, I was not automatically qualified to walk into a research site to commence field work. While I am an insider from PNG, at the same time I am

also an outsider going into two secondary school contexts with which I have no previous relationship.

I work at a tertiary institution and, although I have previously taught in secondary schools, I have not taught in either of the two schools involved in the study, nor have I had any relationship with the participants. Like any researcher, I had to familiarise myself with the context of others; this is what Cohen and colleagues (2007) describe as the political, ethical, cultural, and personal issues to be overcome before the study could be pursued successfully. I had to be mindful at all times that my professional judgement as a TESOL lecturer did not influence my judgement in interpretations, a challenging issue for me. To avoid that, I kept a journal for recording my thoughts, and further examined my thoughts against the multiple data sources to interpret participants' views.

3.3 Methodology

3.3.1 Case study

Research methodology focuses on the design for data collection and the analysis and interpretation of observations. Yin (2003) notes that case study research has been effectively used for decisions, programmes, implementation processes, and organisational change. As the focus of this study is on exploring a curriculum innovation process from a situated context the use of a case study approach is justified. There are various definitions of a case study in the literature, and sometimes it is used interchangeably with other qualitative research terms (Merriam & Associates, 2002). A case study method relates to perusal for understanding and meaning of an issue under contention. It has been defined as examining a specific phenomenon such as an event, person, process, institution, or social group (Merriam, 1998). Furthermore, a case study also refers to investigating the particularity of an individual, group, or phenomenon (Keeves, 1997) and probes the complexity of a single case with the aim of understanding its activity within important circumstances (Stake, 1995). Yin defines case study as “an empirical inquiry that investigates a contemporary

phenomenon in depth and within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident” (2009, p. 18).

In summary, case study research requires an in-depth examination of one or more instances of a phenomenon investigated in its real life context that reflects the perspectives of the participants involved in the phenomenon.

3.3.1.1 Rationale for using case study

The case study approach is appropriate here because it can address interpretive questions that seek to explore, explain, or portray extensive or in-depth descriptions of social phenomena (Stake, 1995). The researcher has little control of issues that the research questions attempt to explore using case study method. The approach also permits the investigator who is the main instrument of data collection and analysis to observe events as they eventuate and to interview participants about those events (Merriam & Associates, 2002). Furthermore, it enables multiple data sources such as focus group discussions, interviews, direct observations, and analysis of written documents which need to be validated using triangulation (Merriam, 1998; Yin, 2009): these techniques were used for collecting data in this investigation.

Three further reasons justify using a case study approach for this investigation. First, it has been shown to be fitting for teacher research in developing countries (Crossley & Vulliamy, 1997). Second, it is ideal for an exploratory study such as mine. That is, it allowed me to investigate the unique issues not yet probed in PNG and to build an understanding of the case (Punch, 2005). The implementation for the curriculum innovation for the PNG secondary schools started in the 2008 academic year (Department of Education, 2008), whilst data collection for this study - to understand the implementation process - occurred in August 2009. Lastly, a case study approach allows for triangulation of findings from various data sources and processes to corroborate each other where the different data connect (Stake,

2006).

3.3.1.2 Case study characteristics

Four characteristics of a case study are relevant to this interpretive case study: particularistic, descriptive, inductive, and heuristic (Punch, 2005; Stake, 1995). Particularistic refers to the uniqueness of individual cases that focus on particular phenomena within a specific context. In this study, particularistic refers to investigating the curriculum implementation in a particular education context, PNG. This is important for understanding the particularity and complexity of the case itself, for what it reveals about the phenomenon, and for what it may represent. The focus on two schools for this study make a case study an appropriate design for probing practical issues arising from the daily practices of the two case study schools who were part of the large scale curriculum reform. Hence, case studies focus on the manner in which specific groups of people deal with particular problems and also provide a holistic view of the situation (Merriam, 1998).

Descriptive findings refer to the final outcomes of a case study which are portrayed as being rich with thick descriptions of the phenomenon under investigation. Thick description is a phrase from anthropology that encompasses a complete literal description of the entity being investigated (Punch, 2005). Descriptions also refer to the interpretations of meanings situated in descriptive data from cultural norms that are deeply laden attitudes, and beliefs (Guba & Lincoln, 1989). Descriptive case studies include a wide range of variables to show their interaction over a time span. These include presentations of documentation of events, quotes, samples, and artefacts. Findings are reported in words, pictures, and tables (Miles & Huberman, 1994). In this study, the descriptions of the two cases studied for the curriculum implementation process are described through tabular displays and written forms (Chapters One to Eight).

A case study is inductive: that is, case studies rely on inductive reasoning. Data examination may reveal transferability of concepts, or hypotheses that

are grounded in the data itself. These are not predetermined but arise from data analysis (Yin, 2009). Expectations are subjected to reformulation as the investigation proceeds. Likewise, previously undetected variables and relationships can emerge from case studies leading to a rethinking of the phenomenon being studied (Gall et al., 2007).

Lastly, a case study is heuristic which means that the cases are deliberately chosen. Case studies enlighten the reader's understanding of the phenomenon under investigation. Case studies give reasons for a problem, the background of a situation, what happened, and why. Furthermore, case studies explain why the issue worked or failed. Next, they discuss and evaluate alternatives not chosen. Finally, case studies evaluate, summarise, and conclude, thus increasing their potential applicability (Punch, 2005).

Furthermore, case studies allow discovery of new meaning, extend the reader's experience, or confirm and reconfirm what has been known. Revelations of how things get to be the way they are can be expected to arise from case studies (Stake, 1995). The four characteristics given of a case study (particularistic, descriptive, inductive and heuristic), are relevant to this investigation as a case is a bounded system (Yin, 2009). A case study enables investigators to explore a bounded system in trying to discover interactivity and connections between participants and then revealing those experiences in a report so that readers would then draw their own conclusions (Stake, 2006).

A case study can comprise a single case or a series of cases. Stake (1995) describes and differentiates three case study designs - intrinsic, instrumental, and collective. An intrinsic case study refers to probing into a specific case with the intent of learning about that particular case only. Hence, readers may transfer ideas from an intrinsic case study to their own situations. An instrumental case study is used to investigate another issue or refine a theory to get a general understanding with applications going beyond the study. Furthermore, themes in instrumental cases can emerge

during data collection and analysis and require a continual process of interpreting and reinterpreting data. A collective case study entails investigating a number of single studies to draw on thematically for the purpose of understanding an issue or phenomenon (Stake, 2006). Hence a collective case study is relevant to this investigation that probed implementation of an outcomes-based curriculum in two secondary schools (cases) studied by this thesis.

3.3.1.3 Case study design

A case study is designed according to the research purpose. Yin (2003; 2009) identifies three case study designs - exploratory, explanatory, and descriptive which can be used with either single or multiple case studies. An exploratory case study may undertake field work and data collection prior to definition of a research question. It can be used as a pilot study that has implications for further social scientific study. However, the study needs to have an organisational framework that was designed prior to research commencement (Berg, 2007).

An explanatory case study is undertaken when conducting a causal study. This is done when the focus of investigation is on complex organisations and has intentions of building up explanations through pattern matching (Yin, 2003; 2009). Multiple cases may be employed to examine a plurality of influences through the pattern matching technique offered by Yin. A descriptive case study involves the researcher presenting a descriptive theory that guides the overall framework for the investigator to follow throughout the research duration. In essence, the researcher needs to prepare a research proposal that lists: study questions, study propositions, identification of the units of analysis, the logical linking of data to the propositions, and the criteria for interpreting the findings (Yin, 2009). These three designs: exploratory, descriptive, and explanatory are applicable in this case study. This study investigated the implementation process of the PNG secondary English curriculum, and then provided descriptions, and explanations of the implementation process, with finally, providing a

judgment of how the implementation practices aligns with policy intentions (Section 3.1).

3.3.2 Multiple case study approach

This study used multiple case studies, comprising two cases from different sites to investigate whether there were similar or different characteristics (Stake, 2006; Yin, 2009). The value of a multiple case study is that data collected and evidence are “more persuasive” than from a single case investigation (Blaxter, Hughes & Tight, 2001, p. 73). This study used a multiple case study of two sites and simultaneously collected data from the two cases. The relevance or irrelevance of findings from the first case studied was compared with the second to enable interpretations and analysis to be made by the researcher. Furthermore, multiple case studies when presented through the lenses of exploration, description, and explanation give a rich account of the case studied so that readers have greater information (than from a single case study) to make their own judgments from the narrations provided (Cohen et al., 2007).

The issue for this investigation was exploring how an innovative curriculum reform was implemented. The particular curriculum reform was mandated by the PNG DOE (Figure 2.4) and was implemented by all secondary state schools in 2008. The contemporary phenomenon investigated is the “processes of a curriculum innovation implementation” in the bounded system (two secondary schools). Locating the school sites for investigation (Bodgan & Biklen, 2007) was based on their location and accessibility to my work place from the University of Papua New Guinea. I had no previous connections with either of these two schools apart from my research experiences. The multiple cases in this study are given code names, School 1 and School 2. Both school sites were pre-selected (Glesne, 1999) because they shared common characteristics of the phenomena under study (Merriam, 2002). The criteria used to select were:

- Day secondary schools located in an urban city of PNG

- Level nine schools (student population)
- Accessibility to materials from the Education Ministry
- Government agency schools
- Accessibility for the researcher.

The DOE defines a secondary school in PNG as providing secondary education for grades 9 to 12 (Figure 2.1), with lower secondary levels at grade 9 and 10, and upper secondary from grades 11 to 12 (Department of Education, 2008). English is the language of instruction at the secondary education level (Department of Education, 2003a). The multi-case studies are described below.

3.3.2.1 Case study one

Case one: Secondary School 1 is an urban institution in Port Moresby, the national capital district of PNG. The institution is a level nine co-educational school according to the DOE's classification of student population (Department of Education, 2009). The school staff comprises the senior management of the principal, two deputy principals, senior staff (department heads of academic subjects), teachers, and the support staff. The total number of staff was not available during data collection, and not on the DOE's web page for reporting.

Case one has 23 classrooms: five grade nine classes, six grade tens, six grade 11s, and six grade 12s. There is a slightly higher enrolment figure for female students than males in case study one (Department of Education, 2009). Grade nine has 107 males to 111 females, grade 10 has 130 boys to 140 girls, while grade 11 has 99 males to 109 females, and grade 12 has 111 males to 115 females. The total student population is 447 males to 475 females, which gives an overall total of 922. The indication of the students' population shows that case one has adhered to the "Gender Equity Policy" (Department of Education, 2002), which is also part of the global education movement for equal opportunity for female students captured in the vision of the MDGs (World Bank, 1995).

The school schedule comprises eight forty minutes lessons daily, and the timetable is organised into two blocks. The first four lessons are programmed from 8am till 10:40am, and then there is a 20 minute recess break, followed by the second slot of lessons from 10:40 am – 2:40pm. Students' lunch time is after 2:40pm when period eight is over. This school has good academic records for both the grade 10 and 12 national examinations dating back several years as stated by the focus group participants (P1-S1), and also attested to by my insider knowledge as a PNG educator. The school is located within the vicinity of the DOE, and as such, there is easy access to information from the ministry about educational issues.

3.3.2.2 Case study two

Case two: Secondary School 2 is also an urban institution located in Port Moresby in the national capital district of PNG. Despite being in the same city as case one, case two is located in a different suburb. Case two is also a level nine school defined by its students' population (Department of Education, 2009). Case two is also a state school enrolling grades 9 to 12, and is co-educational.

Case two has 29 classes in total: eight grades 9s, nine grades 10s, six grades 11s, and six grades 12s. Case two has more classes, and more students than case one. In case two, there are 191 grade 9 male students, as compared to 221 females. Grade 10 has 279 males to 221 females. In the upper secondary grades 11 has 158 males, and 128 females, while grades 12 has 220 males to 155 females. The total student population for case two is 848 for males, and 725 for females, which gives an overall total of 1573.

The school structure is similar to case one where there is one principal, two deputy principals, senior staff, teachers, and support staff. The total number for staff was not available during data collection, and not on the DOE's web page for reporting. The time-table had a similar structure to case one, having four forty minutes lessons before recess, and four after recess, from 8am till

3pm. The school is located within the vicinity of the DOE, and has easy access to information related to educational issues.

Table 3.2: Description of case study sites

Location	Secondary School	School Level	Type
Port Moresby	* School 1	9 **	Urban
Port Moresby	* School 2	9 **	Urban

* Pseudonym for the school.

** "9" refers to the classification of the school in terms of its population size.

3.3.3 Case study limitations

According to the literature (Yin, 2003), a case study approach has limitations. It has been suggested that case study as a research method is soft because it lacks rigour (Yin, 2009). To minimise this argument, I collected data from different sources through discussions with participants in structured interviews, focus groups, direct observation, and analysis of written documents. This enabled an exploration of perceptions from more than one participant in both cases in order to triangulate findings.

Cohen et al. (2007) define triangulation as a tool that is used in case study research to validate findings. Triangulation shows various perspectives of participants involved in the study so that it projects a more holistic and complete picture of the phenomena that the investigator is seeking to understand (Silverman & Marvasti, 2008). Furthermore, triangulation helps reduce the risk of biased conclusions drawn from one set of data (Maxwell, 2005). Merriam (1998) and Stake (1995) argue that adopting triangulation in a case study is rigorous, challenging, and a hard process that gives credibility to the results. Therefore, a case study is not a soft research method as claimed as this study used triangulation to test validity and reliability (Section 3.7) of its findings from its multiple data sources (Yin, 2003).

Another argument is that a single case study provides weak grounds for scientific generalisations as it can oversimplify or exaggerate (Punch, 2005). Hence, to counteract that, this study conducted a multiple investigation comprising two cases so as to strengthen analysis and theoretical propositions that emerge from the analysis (Yin, 2003). Propositions provide links between the concepts that are common across the cases and enable greater reader transferability to other similar situations. From its design, this investigation is limited to exploring the processes of how an innovative curriculum is being implemented in two PNG secondary schools with intending significance for the wider context. The unit of analysis in this study is the implementation process of the new curriculum in the two school sites, which are the bounded systems. This study's findings will develop theory to help others understand similar situations (Cohen et al., 2007).

From a local context, this study provides feedback to policy makers and stakeholders in PNG, and also to the wider field on the implementation issues discovered by the study (Cohen et al., 2007). The intention here is to provide insights relating to a situated curriculum innovation experience (Markee, 1997) which will enable better understanding for local and outside readers about the innovation process from a local context (and, in this case, other than from a western context). In summary, findings from this situated study will add to the body of knowledge of curriculum implementation in the broader context of educational change (Fullan, 2007; Stake, 2006).

3.3.4 Participants

A criterion-based selection is said to enable researchers to specify in advance attributes for selecting research participants (Cohen et al., 2007). Miles and Huberman (1994) outline criteria and describe the process of snowball sampling which are relevant to this study. The former means that participants selected are representative of the group under study, while the latter means one participant provides access to a further participant and so on. Patton (1980) argues that "there are no rules for sample size in qualitative enquiry" (p. 184). Participants are selected for their potential to

offer new insights into issues of investigation in their social contexts.

I pre-selected the two school principals as participants (Stake, 1995) because of their roles (Fullan, 2007) as the administrators of the schools. Having done that, snowball sampling was applied (Miles & Huberman, 1994). The teachers and classes for this study were purposefully identified by the principals and the English Head of Departments. The reason was because of their roles and relationships with the issue of investigating curriculum innovation in a lower secondary school context in PNG. In total there were ten direct adult participants, eight teachers, and two school principals, and 90 indirect student participants from the two English grade 9 classrooms that I observed.

3.3.4.1 Case study one participants

This section outlines participants' descriptions from School 1 (S1).

Participant category 1: The principal. The principal of S1 is identified as P1-S1 here. He is the administrative leader of the school and the middle person between teachers in S1 and the DOE. Because of the responsibilities that come with the position, the role is significant in this situation because, "the principal is the gate keeper of change" (Fullan, 2007, p. 156).

Participant category 2: Focus group teachers. Three focus group English teachers in S1 are identified as FGT1-S1, FGT2-S1, and FGT3-S1 here. The teachers consisted of two females and one male, and they all have had more than five years teaching experience. Educational change depends on what teachers think and do (Fullan, 2007). Therefore, it was significant to understand the teachers' views as to how they made sense of their work to provide the contextual detail (Borg, 2006).

Participant category 3: A grade nine English classroom teacher. The English teacher is identified as ET1-S1. This teacher is female, and has more than five years teaching experience. She was chosen by a snowball sampling

(Miles & Huberman, 1994) on recommendation from the English Department Head. Therefore, I investigated the classroom implementation of the outcomes-based curriculum through her interactions.

Participant category 4: A grade nine class of 45 students. This class is identified as C1 here. There were 19 females and 26 male students who were present during the study. These students were indirect participants as their English lessons were observed four times. The students were between 15 – 16 years old, and their English competency level is in the intermediate range as English is the language of instruction in PNG secondary state schools (Department of Education, 2006).

In total there were five direct and 45 indirect participants from the first case studied.

3.3.4.2 Case study two participants

The descriptions for participants in the second case, School 2 (S2), are similar to those of S1. There were five direct participants comprising four English teachers and the principal, and 45 indirect participating students in a grade nine English class.

Participant category 1: The principal of S2. The second principal is identified as P2-S2. He is the administrative leader of the school, and the middle person between the school and the DOE. This person is important because of the title, and as such, I had to gain access (Cohen et al., 2007) through him to the research site, after obtaining clearance from the Education Ministry.

Participant category 2: Three focus group teachers at S2. The three teachers are identified as FGT1-S2, FGT2-S2, and FGT3-S2. These teachers are important stakeholders as they implement the aspirations of policy makers (Markee, 1997). Therefore, it was necessary to engage teachers in discussion, and to explore the topic of this research, as seen through their experiences.

Participant category 3: A grade nine English classroom teacher in S2. The teacher is identified as ET2-S2. This teacher is female, and has more than five years teaching experience. She is the English Department Head of S2, and appointed herself to be a research participant. This study explored the topic of research, through observing and interviewing ET2-S2 to gauge her views and experiences of the outcomes-based curriculum.

Participant category 4: A grade nine class of approximately 45 students in S2. This class is identified as C2 here. There were about 17 females and 28 male students who were present during the study. The students are between 15 – 16 years old, and their English competency level is in the intermediate range as English is the language of instruction in the PNG secondary state schools.

3.3.4.3 Participants' consent

This study followed the research ethics of Victoria University of Wellington (Appendix 6) and as such informed consent (Cohen et al., 2007) was sought from all participants (Appendices 9 – 12). Informed consent entails four attributes: competence, voluntarism, full information, and comprehension. Diener and Crandall (1978) describe informed consent as the process that participants go through to choose whether they participate in an investigation after being informed of facts that may influence their decisions. All the adult participants, including parents of the students of the grade nine classes in both cases received an individual invitation letter for participation (Appendices 12 and 13). The invitations were distributed after I had a general meeting with the school principals and the participating teachers. The purpose of the meeting was introducing myself to them, and explaining the research focus, and informing participants that their participation in the research was voluntary, and should they refuse then there would not be any consequences (Appendix 13).

Furthermore, there were individual informal meetings of introduction between the ten selected participants and myself. There was a second

meeting for me to present my credentials (Cohen et al., 2007) to individual participants and gain their trust to allow me into their personal teaching worlds. The individual meeting with participants was necessary because Foster (1989) highlights that cooperation is especially important when research extends over a period of time. Hence, it enabled me to answer individual questions that participants had as a means of building relationships (Neuman, 2006). This meeting occurred prior to commencement of data collection. The selected grade nine English teachers had pupils hand-deliver consent letters to their parents for approval which were signed and returned to the teacher to pass onto me. Classroom observations of the English teacher and the students' interactions commenced after consent was sought from all participants (Appendices 9 and 12).

There were four different consent letters. Letter one - for the principals, letter two - the focus group teachers, letter three - the English class teachers, and letter four - for parents' approval. Each letter explained the background of the study, the purpose of the study, the process of how the structured interviews would be conducted, how the focus group discussions and lesson observations were to be conducted, and the data to be collected (Appendices 9 - 12). All participants signed the consent forms and each participant was given a code name to ensure anonymity (Sections 3.3.4.1 and 3.3.4.2).

Interviews with the two principals were conducted for 15 minutes, the focus groups for approximately 60 minutes, and the post-observation interviews with the two English teachers for 10 minutes. Additionally, there were a total of eight classroom observations of forty minutes during English lessons covering both classrooms. These observations were carried out over five consecutive weeks in term three of 2009.

3.4 Research questions

The research questions are repeated again to illustrate the focus of the data collected for this study:

1. *How does the intended Outcomes-Based Education Curriculum in PNG align with the experienced curriculum in the teaching and learning of English as a second language in lower secondary schools?*
 - a) How was the Outcomes-based Education Curriculum introduced to teachers?
 - b) What are teachers' beliefs and understandings of the Outcomes-Based Education Curriculum?
 - c) How do teachers implement the Outcomes-Based Education Curriculum in their grade nine English lessons?

2. *What contributions on processes of curriculum implementation does the experience with the Outcomes-Based Education Curriculum from Papua New Guinea provide?*
 - a) What was the model of curriculum innovation applied in Papua New Guinea?
 - b) What curriculum innovation model is relevant for a Melanesian context as perceived by educators involved in the Papua New Guinea experience?

3.4.1 Data management

This section outlines the data collection procedures used to answer the research questions for this study.

Descriptions are displayed in tabular forms (Miles & Huberman, 1994). Tables 3.3, 3.4, and 3.5 illustrate the management of both data collection and analysis for the two main research questions.

Table 3.3 shows how Questions 1 (a) and 1 (b) were answered; that is, to

identify how the outcomes-based curriculum was introduced to teachers, and to define teachers' beliefs and understandings of the curriculum.

Table 3.3: Data management for question 1 (a) and 1 (b)

Data Collection	Data Source	Technique	Data Analysis
Documents	Department of Education Publications Matane Report Tololo Report	Document analysis	Content analysis
Structured interviews	Two school principals Two grade 9 English teachers	Audio recordings were transcribed Field notes were also written to capture the interviews	Content analysis & discourse analysis
Focus group discussion	Three English teachers from each of the two schools	Audio recordings were transcribed Field notes of discussion	Content analysis & discourse analysis

Table 3.4 illustrates the data management for question 1 (c): How do teachers implement the OBE curriculum in their grade nine English lessons?

Table 3.4: Data management for question 1 (c)

Data collection	Data source	Technique	Data analysis
Four lesson observations each teacher	Two female English teachers	Field notes Audio recordings & transcriptions	Content analysis & discourse analysis
Post observation interviews	Two female English teachers	Field notes Audio recordings & transcriptions	Content analysis & discourse analysis
Documents	Teachers' teaching materials	Document analysis	Content analysis
Structured interviews	Two principals	Field notes & Audio recordings with transcriptions	Content analysis & discourse analysis

The management of research questions 2 (a) and 2 (b) is illustrated in Table 3.5.

2. *What contributions on processes of curriculum implementation does the experience with the Outcomes-Based Education Curriculum from Papua New Guinea provide?*
 - a) What was the model of curriculum innovation applied in Papua New Guinea?
 - b) What curriculum innovation model is relevant for a Melanesian context as perceived by educators involved in the Papua New Guinea experience?

Table 3.5: Data management for research question 2

Data collection	Data source	Technique	Data analysis
Literature Review	Murray, 2008 Fullan, 2007 Markee, 1997 Stoller, 2009 Journal articles PNG studies	Document analysis of models of educational change and comparisons with the PNG experience	Content analysis Educational change theory Strategies of change Diffusion of innovation theory
PNG Documents	Department of Education publications School documents	Document analysis	Content analysis
Structured interviews	2 school principals 2 grade 9 English teachers	Refer to interview transcripts & field notes to elicit themes and whether these themes support model of change from literature review	Content analysis & discourse analysis to triangulate change theory model
Focus group discussion	Six English teachers from the two schools	Refer to interview transcripts & field notes to elicit themes and whether these themes support model of change from literature review	Content analysis & discourse analysis to triangulate themes

Table 3.5 outlines how I collected and analysed data to answer question 2 (a) and (b): that is, identifying the curriculum innovation model used, and to develop a framework for assisting curriculum implementation in PNG.

3.5 Data collection

This section describes the data sources used for this study.

As outlined in Table 3.1, a multiple data collecting strategy was adopted. Structured interviews, focus group discussions, and lesson observations comprised primary sources, while document reviews provided secondary data sources (Punch, 2005; Silverman & Marvasti, 2008). Multiple methods were employed so as to elicit a rich description of the phenomenon being pursued and also to help in corroborating findings for validity purposes (Yin, 2003). In summary, the use of multiple data for this study focuses on understanding policy driven curriculum implementation processes encountered by participants in this study.

3.5.1 Structured interview

According to Lincoln and Cuba (1985), a structured interview has questions planned in advance by the researcher, who determines the sequence for questioning interviewees. Furthermore, the same questions are used by the researcher for different interviewees during the interview. Cohen et al. (2007) describe a structured interview as a conversation between two people initiated by the interviewer for the specific purpose of obtaining relevant information for research. Kvale (1996) refers to a structured interview as an exchange of views between the researcher and one or more people on topics of mutual interest. A structured interview may also be called a focused conversation or a joint product between the investigator and participants with the purpose of exploring a specific topic in-depth (Mishler, 1986).

Lincoln and Cuba (1985) argue that a structured interview is appropriate in situations when the researcher aims to interpret meanings from

respondents' perspectives. For instance, a structured interview that has an exploratory purpose (Oppenheim, 1992) is useful when researchers frame questions for eliciting answers to issues that researchers are aware of, but do not know the answers to, so rely on the respondents to tell them (Seidman, 2006). However, Kerlinger (1970) observes that despite research purposes guiding the content of the questions, the sequence and wordings are left to the interviewer's discretion. As such, a structured interview involves the interviewer organising the content and procedures in advance by means of a schedule (Cohen et al., 2007) or an interview guide (Flick, 2006). Thus, this study used an interview guide with focused questions to probe the views of the two participating teachers and principals (Appendices 1 and 2).

Literature reveals that three types of questions can be used in the construction of schedules for research interviews (Cohen et al., 2007). These are: fixed-alternative questions that require a 'yes/no' answer, open-ended questions that require more descriptive answers from the respondents, and scale-type questions which guide interviewees to select an answer which represents a position on a scale. The open-ended questions allow the interviewer to probe an issue in depth, and give respondents the opportunity to share their knowledge in their own words (Figure 3.1). Kvale (1996) recommends using themes as a way of planning interview questions. As such, the questions designed are either direct or indirect based on the themes guiding the question's development. Hence, this study used themes as per the research questions to generate ten open-ended questions for the interview guides for the principals and for the post observation interview with the two English teachers (Appendices 1 and 2). The time used in the interviews (approximately 15 minutes for principals and ten minutes for the teachers) was sufficient as I had also gathered information that was on each school's record. Furthermore, I was also mindful that the principals and two English teachers were working within scheduled time (Bernard, 2002) so I did not want to take up more of their time than was necessary.

Cohen et al. (2007) stress that there are advantages in using interviews in qualitative research. Interviews enable the researcher to enter the participants' world, and engage with them in interaction for purposes of constructing knowledge that emphasises contextual situations. This helps the researcher understand and interpret key aspects of their world (Kvale, 1996). Interviews are suitable for projects when interviewees are accustomed to efficient use of time (Bernard, 2002) in structured institutions. Therefore, I had to apply courtesy and research protocols which are a PNG cultural element (Narokobi, 1983) and also abide by the schools' routines so as "to operate on other people's schedule" (Neuman, 2006, p. 397), and not to affect their daily routines. Therefore, a structured interview was considered appropriate for this study.

However, Nueman (2006) highlights that there are also limitations to using interviews. Three issues are: information from respondents can be biased; poorly reconstructed information may be recounted by participants; or even inaccurate accounts may be provided despite interviewees being well informed of the phenomenon. To avoid these issues I corroborated structured interview data with my other three data sources (focus group discussions, observations and documents) through the process of triangulation (Stake, 1995). As pointed out by Glesne (1999), an interview can be used on its own "or in conjunction with data from participant observations and documents" (p. 68). Thus, individual structured interviews were used here as a means of gathering data from participants (Figure 3.1) to ascertain feelings, realities, behaviour and perceptions of respondents (Burns, 2000; Patton, 1990).

Figure 3.1: Sample interview data

Interview with P2 – S2

Q: What can you tell me about the training workshops that were conducted to help teachers use the new curriculum?

P2: In my opinion, it was not really helpful in a way (T). The subject itself (OBE) was new. It was a new approach and to conduct the course in a short time (P), teachers did not really get to the bottom of it (E). So there was insufficient time given to teachers to practice this outcome-based teaching (C).

3.5.2 Focus group interview

Literature reveals that a focus group interview is another form of qualitative method (Cohen et al., 2007). It is sometimes called group interviews, group discussions or focus groups (Kitzinger, 1994). A number of people make up a group to discuss issues related to the researcher's topic of investigation - called an organised discussion (Flick, 2006). Neuman (2006) notes that a focus group discussion lasts about 90 minutes. Focus group interviews can be conducted as a highly structured discussion or as a less structured one. The former involves the researcher having a predetermined set of questions and using them to guide the discussion. Alternatively, the latter is conducted in a less structured manner where the investigator facilitates the discussion, by introducing the topic and then letting the group determine the flow and process of questions and answers. The researcher only intervenes towards the end of the scheduled activity to close the discussion (Litchman, 2010).

A focus group often consists of between 6 to 12 people (Patton, 1990). In this investigation, I had conducted a structured focus group discussion in both research sites (Appendix 3). In each group, there were three English teachers per case (school) involved in the discussions. Thus, there were a total of six participating teachers for the focus group discussions. According to Litchman (2010), if the number in a focus group is less than six there may be insufficient interaction. However, this did not eventuate, as there were sufficient one hour interactions seen from the transcripts of both group discussions, despite each group only having three teachers. The small number of participants in each of my focus groups was due to the reluctance of others who had been nominated by their English department heads to take part. The reluctance may have been due to other commitments at the time of the discussion although some may have preferred not to participate.

Because there were three teachers in each focus group, I was able to remember their names and made connections to their voices as the discussions were audio-recorded and later transcribed. The length of the discussion lasted approximately one hour; some commentators of

qualitative research have indicated that a focus group discussion lasts between one and two hours (Patton, 1990). The focus groups' discussions were also used to check on issues raised by the principals who were interviewed individually as they were the links between the DOE (the change agent) and the teachers (schools' implementers) (Fullan, 2007). Data from the focus groups were coded into themes and triangulated against the other three data sources (single interviews, observations, and document analysis).

Cohen et al. (2007) reveal that a focus group interview provides an opportunity for arguments or issues to be balanced out. Patton (1990) describes it as an efficient technique for collecting data, as participants provide checks and balance in their discussions. Participants are a group of people who have been working together for some time, and given the opportunity, they will share and respond to comments, ideas and perceptions in a non-threatening environment (Litosseliti, 2003). Focus group discussions generate a range of responses, and are more time efficient than individual interviews (Cohen et al., 2007). Further, a focus group discussion is also a useful approach to understand the world views of teachers and make sense of their work to provide the contextual detail (Borg, 2006). Doing that enabled me to interpret participants' attitudes, values and opinions (Robson, 2002). Therefore, the explanation provided here supports the use of focus group discussions in my exploratory study that sought to probe the experiences of a curriculum innovation process through the individual teachers' views and experiences.

Literature states that focus group discussions also have limitations (Patton, 1990). Watt and Ebbutt (1987) argue that vocal participants in a discussion may discourage individuals who have different opinions from speaking out. Furthermore, data from the focus group may be difficult to analyse succinctly, and the number of topics covered may be limited. Hence, this may cause indistinct analysis which means that findings may not be real interpretations for generalisations to be made for the context (Cohen et al.,

2007). Therefore, it is suggested that to collect focus group data involves the researcher having careful management, and facilitating discussion skills, as that will ensure that all participants have equal speaking turns (Nueman, 2006). The questions for my focus group were structured in a way that it enabled equal speaking turns, as Figure 3.2 illustrates.

Figure 3.2: Sample focus group data

Focus group interview – Case one

Q: What are your reflections on the Outcomes-Based Education?

FGT1: I understand OBE as being the facilitator (C). I don't do a lot of talking. I only provide what they need to have and students go out and do what they want to do, how they understand it, to collect your own information (T). That's how I see it and understand OBE as having a lot of group work.

FGT2: They give you the topic so you're expected to do is just go in there and write the topic on the board and then the rest is up to the students to go out there and make use of the resources available (C). To collect their own information and that's where learning will take place. You are not the one that is going to disseminate information to them now (P). That's the way I look at it.

FGT3: Some ways of looking at it but I tend to wonder because the parents are also going to be forced to do other things also in resource materials (E). It's a bit early to actually know, we just started it but it's up to the teachers to also you know get things out (C).

3.5.3 Observation

Literature shows that observation is also a methodology that is well suited to the collection of qualitative data (Cohen et al., 2007). It occurs in natural settings that already exist and not “in contrived settings” (Litchman, 2010, p. 162). It is associated with anthropology but has been used also in education (LeCompte & Schensul, 1999). Observational data are context sensitive; Cohen et al. (2007) list five features relevant to this research:

- To enable researchers to understand the context of the investigation
- To be open ended and inductive
- To see things that might be overlooked
- To discover things that participants might not reveal in interviews
- To access personal knowledge.

Patton (1990) suggests that the use of “observational data should enable the

researcher to enter and understand the situation that is being described” (p. 202). Consequently, I adhered to that and defined observation as the process of examining and recording the environment and interactions describing teachers’ and students’ activities from the classrooms. This enabled me to “gather live data from naturally occurring situations” (Cohen et al., 2007, p. 396) in an attempt to gain inside knowledge (Flick, 2006) of how the classroom practices of teachers and students occur. Morrison (1993) notes that observations enable data collection by researchers from four areas: the physical setting, the human setting, the interactional setting, and the programme setting.

In this study, three themes elicited from data formed the observation descriptions: physical, programme, and interactional (see Chapter 5). Physical refers to the tangible setting and its organisation. Programme defines the resources, and organisation, pedagogic styles, and curricula organisation. Interactional describes the verbal and non-verbal, formal or informal, planned or unplanned interactions that took place in the classrooms (Morrison, 1993).

This study adopted three techniques for direct observations (Borich, 2011). These were checklists designed to record particular behaviours (Appendix 4), audio recordings of lessons, and field notes. First, lesson observation instruments were used concurrently with audio recordings of the lessons. Next, field notes were written up from the observation notes made on the checklists. This supports what Emerson, Fretz and Shaw (1995) stress about writing field notes as early as possible provides, “fresher and more detailed recollections” (p. 40). Then the audio recordings (lessons) were transcribed to explore patterns of classroom interactions. These were done to triangulate patterns deduced from other data because communication in classrooms is a complex process as highlighted by Cazden (2001).

Literature shows that using observation for data collection has limitations (Cohen et al., 2007). Depending on the research aims, investigators need to

know what to observe once they are in the field, as observation can be daunting if there is no observation guide (Patton, 1990). Additionally, Bailey (1994) cautions that the researcher may have difficulties measuring observation, and maintaining anonymity if there is a lack of control in observing natural settings. Moyles (2002) suggests that observers need to decide on what is considered observation evidence, as observational data are context sensitive and are subjective to the investigator's interpretations and judgements.

This study used designed instruments (Appendix 4) so limited the scope of observations to predetermined areas (Litchman, 2010). I immersed myself as an observer-participant (Cohen et al., 2007) in four forty minutes English lessons (each grade nine class). In total I conducted eight lesson observations of 320 minutes. The observations of the physical, the programme, and the interactional settings from the two research sites (Figure 3.3) enabled me to make an analysis of how the ELLSS was being implemented. In other words, the observations enabled me to observe the live behaviours and interrelationships amongst people occurring naturally in the social teaching situations (Patton, 1990). Additionally, it also allowed me to collate a rich description (Miles & Huberman, 1994) about the implementation process of the two cases (see Chapter Five). As I was the main instrument for data collection, analysis, and synthesis such data enabled me to offer interpretations, insights and explanations about the curriculum implementation process in this study (Yin, 2009). Hence, Figure 3.3 illustrates a sample of an observation data.

Figure 3.3: Sample observation data

Observation notes on ET2 – S2

This is a grammar lesson on parts of speech (P). The recorded classroom talk is 37 minutes and 15 seconds of 'recalled questions' about definitions of three parts of speech: noun, verb & adjective (D). The students read through the prepared worksheet and underlined nouns, verbs and adjectives in assigned paragraphs delegated by the teacher (C). The teacher led the correction of the exercises. There were instances of wasted opportunities that could have been given to students (C) to pursue their explanation or questioning. The teacher dominated most of the talking time and the students responded with one word answers or chorus answers to the teacher's talk (E).

3.5.4 Document descriptions

The term document is used here to refer to official written texts available for public use. Documents are secondary data sources intended for specific audiences. Thus, they could be biased as they are normally predetermined before publication (Wellington, 2000). Documents are deemed social facts produced to be used in organised ways for social contexts (Atkinson & Coffey, 2004). As social products, documents can be objects of analysis making them subject to interpretations. Likewise, documents can be used with other primary data sources to corroborate evidence. According to the literature, documents such as policies are deemed more trustworthy than other sources (Burns, 2000) because of the legitimacy entwined in such documents.

However, it should be noted that document contents should not be taken as “definite findings”, but be subjected to further investigation for verification (Yin, 2003, p. 87). Nevertheless, documents have been used in case study research to verify issues. The objective was to compare interview and observation data against document intentions for curriculum implementation. Subsequently, this enabled me to draw conclusions and suggest a framework for assisting the curriculum implementation process.

3.5.4.1 Document analysis

Literature describes document analysis as a systematic approach for reviewing or evaluating documents (Bowen, 2009). Documents can include both printed and electronic materials. Wellington (2000) defines data gathered from documents as secondary sources, while observations and interviews are primary sources. Scott (1990) classifies documents into three categories: 1) pre-existing or formal official documents (reports or government policies), 2) personal or private documents (diaries or logs), and 3) popular culture printed material (books and magazines). According to the literature (Flick, 2006), other documents, which are of a multitude of forms like letters, field notes, memos, syllabi, and journals fall into any of

those three categories (Flick, 2006).

In this study official records from the PNG DOE, the schools' official documents, and worksheet documents used by the two observed English teachers were analysed to determine the extent of the policy intentions in classroom practice (see Figure 3.5). Official records included policy documents (Department of Education, 2003a; 2006) and reports (Department of Education, 2004; 2008). These records were readily available and accessible (Hodder, 1998) as public documents through the department's web site (<http://www.education.gov.pg>), and similarly through the project web page (<http://www.pngcurriculumreform.ac.pg>).

Cohen et al. (2007) stress that documents are socially created products of social institutions to serve their purposes. Hence, there may be elements of bias encrypted in documents, which may not serve well the research purposes (Ibid). Alternatively, Scott (1990) suggests four criteria for assessing the quality of documents, and these were embraced by this study:

- Authenticity – is the document legitimate and original?
- Credibility – is the document error free and has no distortion?
- Representativeness – is the document representing accurately the position of the writer (s)?
- Meaning – is there clarity and comprehension seen in the evidence?

Prior (2003) argues that documents are useful in making visible the phenomena under study, but have to be used in conjunction with other factors occurring simultaneously. Hence, one rationale for using documents is to help to validate data through triangulation (Yin, 2003). In this study, document findings were triangulated with the three other sources (interviews, focus groups and observations). Because this study probed the implementation process of PNG's mandated curriculum (Department of Education, 2003a; 2006), it is appropriate to use document analysis as one of the data sources, as there was no primary data (interview) from the PNG

Education officials due to their unavailability.

According to Bowen (2009), it is significant to understand the historical context behind the phenomenon of change and the currency of the situation in which participants live the processes involved in initiating and implementing change. Thus, document analysis is done through examining data, and making interpretations in order to deduce meanings, gain understanding and develop empirical knowledge (Corbin & Strauss, 2008). Therefore, document analysis as a research method is applicable in my qualitative case study because the aim is to portray rich descriptions of the phenomenon (Stake, 1995; Yin, 2009).

In this study, teaching aids such as worksheets produced by the grade nine English teachers were defined as personal documents. Those worksheets revealed how the two teachers view their teaching world in relation to the mandated curriculum. The aim here was to portray a detailed description of how the participants gave meaning to their implementation of the reform curriculum. All documents analysed were categorised into themes and then triangulated against findings from the other three data sources (Sections 3.5.1, 3.5.2, and 3.5.3).

Content analysis was also used for interpreting document data. According to Bowen (2009), content analysis is a sequential procedure for examining and evaluating documents in both printed and electronic forms. Therefore, it was appropriate for analysing the two policy documents (Department of Education, 2003a; 2006) as well as the other supporting documents (see Section 4.1). I applied both a deductive and inductive approach to the coding process of the documents' contents. Deductive reasoning was based on using key words or ideas from my research questions (Section 3.1). In contrast, the inductive approach employed, according to Charmaz (2006) was a weaker version of grounded theory using a micro-analysis process whereby meanings were elicited from the contents of the documents. Micro-analysis enabled me to open up the data from chunks of phrases to individual words,

to look for patterns amongst the data (see Figure 3.4), make inferential interpretations, and write up memos (Figure 3.3). By doing that I was attaching thematic findings to the coded data (see Figure 3.5).

3.6 Data analysis

This section describes the methods used for data analysis. In the context of qualitative research, data analysis is described by Bogdan and Biklen (2007, p. 159) as:

The process of systematically searching and arranging the interview transcripts, field notes and other materials ... to increase your own understanding of them and to enable you to present what you have discovered to others.

This study used six methods to organise the data analysis: coding, document analysis, case study analysis, content analysis, discourse analysis, and cross-case synthesis.

3.6.1 Coding process

Literature shows that coding is the beginning phase of an analysis process (Flick, 2006). It is the specific and concrete activity that starts the analysis when labels, symbols or tags are used as codes (Gibbs, 2007). LeCompte and Preissle (1992) offer four methodological tools to assist the coding of a qualitative analysis: analytical induction, constant comparison, typological analysis, and enumeration.

Cohen et al. (2007) define analytical induction as the primary coding process. This involves investigators scanning data with no pre-conceived themes, and allowing categories of themes to emerge from the data to form working typologies to generate theories. Constant comparison involves investigators making comparisons between newly acquired data and existing data and theories until a match occurs to generate conclusions. Typological analysis is a classification process whereby data are classified into categories based on criteria; for instance, behaviour or relationships

(Bernard, 2002). Miles and Huberman (1984) describe typological analysis as a secondary process of coding because it entails collating descriptive codes and putting them into subsets as representations of the thematic category. Enumeration involves counting the frequencies of codes, units of analysis, terms, and ideas as a means of recording data. Those four methods were used for analysing data here.

Adopting Miles and Huberman's (1994) framework to reduce data, I firstly transcribed the structured interview from the digital recorder sequentially into a written format question by question (Cohen et al., 2007), from 1 - 10. The interview transcript was then read through for open coding (Strauss & Corbin, 1998). The process involved searching through my data for regularities and patterns related to the research questions (Section 3.1) that my study investigated. Having done that, I labelled codes (Charmaz, 2006) with colours (Figure 3.4) to identify themes that rose from data. I also made comments about what those patterns meant (Bogdan & Biklen, 2007). This first stage of analysis had no predefined codes but was induced from data and coded as text samples (Ellis & Barhuizen, 2008) resulting in 57 descriptive codes (see Table 3.6).

Figure 3.4: Sample coding

Structured interview with P1-S1

Q: How did the National Department of Education introduce the outcomes-based curriculum to schools and teachers, within Port Moresby?

P1: Actually we were aware that outcome-based learning was taking place at the lower secondary (E), but we didn't know when it was going to come into the secondary schools (E). Then round about 2000 2005 and 6, there was a talk about it. It just came out in the media, as it was going to be introduced in the lower secondary in 2008 (E).

Then this was followed by a series of visits to schools by a CRIP (D) (C.R.I.P – spelled out the acronyms) inducted program. Officers from this program visited us and spoke to us briefly about this [part] (T). And they went ahead and conducted one session for head teachers and two selected teachers from schools to act within 2006 2007 to brief them on the polices about OBE (P) and then took these people as training as the team leaders to introduce outcomes base education (C) in schools, and also to read and in-service teachers or find appropriate teachers (T). That's how it came really (E).

The interview data codes (Figure 3.4) were constantly compared against data from the focus group, observation, and document analysis (Figures 3.1 - 3.3). The analysis process included counting the occurrence of codes to create a typological analysis (LeCompte & Preissle, 1992); this analysis led to the generation of themes of similar and different ideas related to the implementation of the OBE curriculum. Table 3.6 illustrates the first stage of the inductive coding process.

Table 3.6: Sample interview coding

Codes: E = Educational change, D = Developmental needs, T = Training workshop, P = Policy direction, C = Curriculum

E - National Dept of Education positive	T - Teacher cognition	C - Teacher Education & training
E - National Dept of Education negative	T - Teacher cognition negative	C - Teachers' documents positive
E - Educational change positive	T - Curriculum training workshop positive	C - Teachers' documents negative
E - Educational change negative	T - National in-service city schools	C - Students' learning positive
E - School leadership	T - Curriculum Training workshop negative	C - Students' Learning negative
E - School ownership	T - Leadership frustration	C - Teachers' taking ownership
E - Classroom environment positive	T - Teacher's three categories	C - Teachers' negative attitude
E - Relationship uncertainty	T - Lack of leadership consultation	C - Relevant education
E - Leadership experiences	T - Teacher Style Negative	C - Teaching & learning theory
E - Teacher Education & training	P - Media positive	C - Policy Intended Curriculum
D - Influence outside environment	P - Media negative	C - Policy intended curriculum negative
D - / E - Stakeholders views	P - DOE policy decisions	C - Pedagogy
D - / E - Stakeholders views negative	P - DOE functions	C - Curriculum resources positive
D - AusAID funded CRIP	P - Decision making process	C - Curriculum resources negative
D - PNG needs	P - Education Reform	C - School curriculum Initiative
D - Collaboration CRIP / DOE	P - Aid funded curriculum	C - Education Philosophy
T - Subject In-services need	P - Intervention strategies	C - Quality resources
T - Teacher experiences negative	P - Teachers' apprehension of OBE	C - Teachers' different interpretations
T - Professional development need	P - Delegation of ownership	C - Teachers mixed reactions

The codes from the interview data were compared with my three other data sources (focus group, observation and document analysis) using constant comparison, triangulation, and enumeration (LeCompte & Preissle, 1992).

3.6.2 Analysis tools

Document and content analysis were used to code the two policy documents (Department of Education, 2003a; 2006) (see Figure 3.5).

The document analysis happened after I coded the interview and focus group data. The purpose for using document analysis was based on the research aims to probe and identify policy intentions for the implementation process of a curriculum mandated change (see Section 4.3.4).

Literature reveals that content analysis is applicable in qualitative research to identify meanings, themes, or concepts in data (Bowen, 2009). Flick (2006) describes it as a systematic set of procedures for the rigorous analysis, examination, and verification of the contents of written data. Similarly, Krippendorp (2004) defines it as “a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use” (p. 18). Texts are defined as any written communicative materials which are intended to be read, interpreted, and understood by people other than analysts (Cohen et al., 2007). Hence, content analysis was also used in this study to further reduce data (Miles & Huberman, 1994) as I had a multiple data methods (document analysis, interviews, observations and focus group discussions).

According to Mayring (2004), content analysis contains five elements appropriate for analysing data: 1) It focuses on language and linguistic features; 2) It focuses on meaning in context; 3) It is systematic and verifiable (use of codes and categories); 4) The rules for analysis are explicit, transparent and public; and 5) as data are in permanent form (texts), repeating of the analysis is possible to verify the re-analysis process. Furthermore, literature states that content analysis uses both inductive and

deductive reasoning (Cohen et al., 2007) that is consistent with qualitative research.

Four final themes were elicited as representation of policy intentions:

- An expectation of change
- Statement for classroom focus
- Statement for classroom teaching
- Endorsement of change.

The findings from the analysis of the policy documents listed above, are discussed in Chapter Four and were used as pre-determined concepts (policy intentions) to guide the data analysis process of observations, interviews, and focus group discussions in the two case studies.

Figure 3.5 illustrates the document analysis process used to interpret the four themes representing policy intentions and Appendix 14 shows a detailed sample of the document analysis.

Figure 3.5: Sample document analysis

Theme 1: An expectation of change

English Syllabus (2006)	National Curriculum Statement (2003 a)
The English Syllabus places emphasis on teaching ethics, morals and values and the integration of subjects to enable students to experience real-life situations (p 5).	The National Curriculum will encourage teachers to use different ways of teaching (p. 18).
Theme 2: Statement for classroom focus	
The English syllabus enables students to demonstrate an understanding and appreciation of the values, customs and traditions of Papua New Guinea (p. 4).	The National Curriculum should enable students to: Demonstrate an understanding of the values, customs, and traditions of Papua New Guinea (p. 13).
Theme 3: Statement for teaching practice	
The English Syllabus uses a student-centred approach as a vehicle to guide and facilitate students' learning (p. 7).	The National Curriculum describes the learning outcomes for all subjects. A student-centred approach allows teachers to be more flexible in determining the most effective ways to help all students achieve these learning outcomes (p. 20).

Theme 4: Endorsement of change	
I commend and approve this syllabus as the official curriculum for English to be used in all schools with Grades 9 and 10 students throughout Papua New Guinea (p. iv: Joseph Pagelio Dr).	I approve this statement and recommend that it be used to guide the development of the national curriculum at all levels of schooling in Papua New Guinea (p. 1: Peter Baki).

3.6.3 Discourse analysis

Literature reveals that discourse analysis is also used with qualitative research (Miles & Huberman, 1994). That is, the researcher explores organisations of ordinary talk and everyday explanations with the social actions performed in them. Investigators discover patterns and themes in the discourse of textual materials. Cohen et al. (2007) define discourse as consisting of linguistic materials that are coherent in structure and content, which may enable people to construct meaning in social contexts. Put simply, discourse is language used for communication purposes (Paltridge, 2000).

Cook (1989) attests that in research, analysts use discourse analysis to search for what gives discourse coherence. When an investigator collects, transcribes, and analyses discourse data, it shows patterns in the utterances of talk which illuminates the phenomenon being researched (Edwards & Potter, 1993). Given that the focus of discourse analysis is on talk (speech) and discourse, it has links to Habermas' critical theory (1970). That is, utterances in talks are not merely simple sentences as they may appear to be when they are taken out of context, but have subjective meanings in the contexts in which they occur. Arguably, a speech situation has a dual structure, the propositional content (what was said) also called the locutionary aspect, and the performatory content (what is being done or achieved through the utterance) also called illocutionary and pre-locutionary aspects (Paltridge, 2000).

According to Paltridge (2000) discourse analysis requires careful reading and interpretation of textual materials, with support for the interpretation

coming from the linguistic evidence. Coyle (1995) cautions that because of the interactional aspect of discourse and the inferential aspect of discourse analysis there is a need for the “researcher to be highly sensitive to the nuances of language” (p. 247). As such, discourse analysis allows analysts revisiting texts after the coding of themes to further examine the discourse in order to discover intentions, functions, and consequences. Furthermore, discourse analysis enables analysts to understand real language data; for example, texts written by first and second language learners, or recordings of the spoken output of second language learners, or of the interactions between teachers and learners, or among learners themselves in classrooms. According to the literature, discourse analysis has been used in understanding classroom talk that contributes to learning processes (Edwards & Mercer, 1987). Hence, it is also considered an appropriate tool for analysing classroom observation data in my study.

Literature reveals that there are three limitations to discourse analysis (Cohen et al., 2007). Firstly, it has been criticised for lacking “systematicity” (Coyle, 1995, p. 256) because qualitative data analysis is interpretive and depends on one’s definition of the situation. Secondly, Paltridge (2000) cautions that too much emphasis may be given to the linguistic interpretation of the words in relation to creating the social reality of the text. Thirdly, the impact of the analysis may be shifted away from what is being analysed towards the process of analysis itself and risks losing the independence of the phenomenon. Hence, “discourse analysis risks reifying discourse” (Cohen et al., 2007, p. 391) leading to the suggestion by Coyle (1995) that there is a need for reflexivity by the researcher when using discourse analysis.

3.6.4 Cross-case synthesis

Literature states that cross-case synthesis in a multiple case study is useful for enabling findings to be more robust (Yin, 2003). This method allows individual case studies which have been conducted independently to have their findings analysed collectively (Cohen et al., 2007). In this investigation,

the single case studies (S1 and S2) were pre-designed as part of the same investigation (implementation process). The cross-case synthesis makes allowance for the same data collection and analysis methods for each case to be rigorously compared using analytical induction (Wellington, 2000). Respectively, the findings are then aggregated for individual findings across the two case studies to enable a separate data base to be created to answer the research questions. The cross-case analysis data were obtained from the two structured interviews with the two principals and the two grade 9 English teachers, followed by the eight lesson observations, and the two focus group discussions.

Consequently, there was a large amount of data which is characteristic of a qualitative study (Charmaz, 2006). Hence, to be able to deal with that, three possibilities suggested by Wellington (2000) were used to manage data in this study: using pre-determined categories (deductive) from the document analysis findings; applying inductive coding whereby concepts emerged from data; and combining both the deductive and inductive approaches for conceptualising ideas. This study adopted Miles and Huberman's (1994) framework for reducing data: data reduction, data display, and drawing and verifying conclusions.

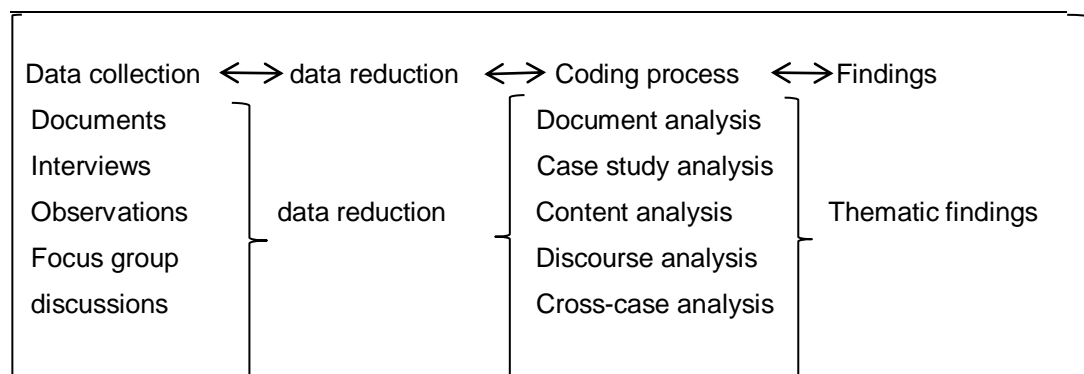
Cohen et al. (2007) outline five ways for organising and presenting data analysis that may be used in a cross-case synthesis. 1) Report findings by groups; 2) Findings are presented per individual responses; 3) Present all the data that are relevant to particular issues; 4) Present findings according to the research questions; and 5) Report results by the instruments used. All these strategies have implications in the first and second stages of the data analysis process for this study. That is, I coded data from individuals before the group data, which also included the type of instruments that were used to collect the data. I transcribed the individual interviews and focus group discussions for further analysis. Then the interview transcripts were read through for open coding (Strauss & Corbin, 1998).

This process involved searching through my data for regularities and patterns as well as topics my data covered. I also made comments about what those patterns meant (Gibbs, 2007) through the processes of content analysis (Cohen et al., 2007) and discourse analysis (Paltridge, 2000). This analysis had no pre-defined codes but arose from the data and is described as an inductive approach (Bogdan & Biklen, 2007). I also further reduced codes into main themes through a deductive approach whereby the themes were pre-determined by the literature review, the research questions, and the findings from the document analysis.

3.6.5 Summary of data analysis

This interpretative study uses an integrated data analysis approach involving both inductive and deductive reasoning for analysis purposes within the framework of data analysis, data reduction, data display, and conclusion (Miles & Huberman, 1994). Document, content and discourse analysis are used to build theoretical propositions, including cross-case synthesis that includes direct interpretations and aggregation of instances (Stake, 2006). The analysis process allows for themes, concepts, meanings, interpretations, and explanations of the data to support and answer each research question.

Figure 3.6: Data analysis process



3.7 Validity and reliability

This section discusses the notion of validity and reliability drawing upon the writings of Cohen et al. (2000; 2007), Creswell (2007), Hall (2007), and Miles and Huberman (1994).

My interpretive study asked the questions, (“What”? and “How”?) to ten participants to describe their experiences of a PNG mandated curriculum reform (Section 1.4).

Creswell (2007) argues that validity is the strength of a qualitative study because it suggests that the findings are representations of meanings from the researcher, the participants, or the readers of the study. Cohen et al. (2007) point out that validity entails trustworthiness so that the results of a study can be relied upon. Similarly, Hall (2007) and Cohen et al. (2000) attest that validity concerns the coherence of the research design for capturing the intentions of research; in other words, the design should be ‘fit for purpose’ for answering the research questions. A key component of the validity for this study is the construction and content of the research instruments (Appendices 1 - 4) designed for data collection (interview, observation, post-observation interview, and focus group guides). These were designed to ensure that the research questions were comprehensively covered in the four instruments.

Hall (2007) points out that in an interpretive study, validity of the research design includes several elements. These are: the research questions; the use of appropriate data collection techniques; analysis methods; clarity and detail of the information given of the research process; evidence of appropriate or reasonable interpretations; and clarity of the reporting of the results. A study is deemed to be valid or trustworthy when the researcher adheres to the systematic procedures described here (Creswell, 2007).

According to the literature, two key concepts are important for describing validity in an interpretive study (Hall, 2007). These are: credibility and transferability. Credibility focuses on the plausibility of the results described in the study as evidenced through the 'thick' description of the research data and processes (Ibid). This study used four elements that resonate with the notion of credibility:

- Use of triangulated multiple data sources (document analysis, observations, interviews and focus group discussions).
- Use of member-checking whereby an outside person or persons examines the research process and products (my supervisors examined my field notes, analytical coding schemes, and descriptive write ups).
- Use of negative case analysis (looking for evidence that challenges interpretations).
- Use of peer debriefing to enhance the accuracy of the study (this process involved me presenting at six internal seminars within Victoria University Wellington and two international conferences in 2010. Furthermore, I published two chapters related to this study (Joskin, 2011; 2012) as parts of two edited books that went through peer review processes).

Hall (2007) asserts that the notion of transferability in an interpretive study depends on researchers providing 'thick descriptions' of the research and its findings. That is, the researcher describes the phenomenon investigated in detail, illustrating the information in either writing, tabular forms, or illustrations (Miles & Huberman, 1994). This enables readers of the study to decide if the findings or aspects of the results fit their own context (Cohen et al., 2000). My study attempts to demonstrate the notion of transferability by providing a 'rich, thick description' of the PNG OBE curriculum implementation process (Chapters One - Eight).

According to Hall (2007) the term reliability in the context of research focuses on the notion of 'accuracy' and covers attention to detail throughout all stages of the research. For instance, in an interpretive study it concerns the accuracy of observations, coding, data analysis, interpretations, and reporting of the study. This chapter has outlined the various systematic procedures used in this research; these procedures were peer reviewed during the research proposal stage (see Section 3.8).

Hall also emphasises that unlike quantitative research, which uses measurement and statistical analysis to determine reliability, qualitative research uses an 'audit' approach to evaluate reliability. This study provides details of all aspects of the research so that readers can decide for themselves if the study can be "depended upon" for providing accurate information. In other words, readers can audit the processes used to decide for themselves the extent to which the study can be relied upon for providing accurate information.

As noted above the notion of 'accuracy' in an interpretive study is operationalized as 'dependability' (Hall, 2007). That is, if a research follows sound procedures, provides evidence of attention to detail, includes triangulation of coding from different data sources, and makes use of member checks, then evidence exists that the results from the study can be 'depended on' for their accuracy. Furthermore, both Cohen et al. (2000) and Hall (2007) stress that it is impractical to conduct replication studies within the interpretive paradigm as the phenomenon or the respondents may change over the study, or cases may be unique ones, or the focus of the study is very local – the analysis of a problem specific to a given situation or context. My case study is a contextually situated curriculum implementation study (PNG) which adhered to the above procedures discussed here.

3.8 Ethical consideration

In compliance with Victoria University of Wellington's Human Ethics Committee guidelines, approval was sought from the PNG Education Ministry before field work commenced (Appendices 7 and 8). Informed consent was obtained from all participants (Appendices 9 - 12). They were advised of the voluntary nature of their involvement in my study and were given the opportunity to withdraw at any stage. The participants were given anonymous identity in this study (Section 3.3.4). Data from the structured interviews and lesson observations were collected via audio recordings and field notes of assessment items. All data have been stored on my lap top and office computer which are only accessible through my passwords. Additionally, there are hard copies of the data locked in a filing cabinet which only I have access to. According to the Victoria University of Wellington Ethics guide lines, following a suitable period of five years, and after the completion of my thesis, the data will be destroyed.

3.8.1 Research protocols

The instruments for structured interviews and lesson observations went through three screening processes for obtaining approval before field work began in 2009. First, a research proposal was submitted to the Victoria University of Wellington Education Faculty's Research Committee in March 2009 and approved in April (Appendix 5). Then it was presented as a Human Ethics application to the University's Education Ethics Committee in April 2009. Approval was granted on July 13th by the Education Ethics Committee for field work in Port Moresby, PNG (Appendix 6). Thus, I had to be sensitive and considerate and apply approved research protocols in the field work for this study. Finally, the proposal of this study with a copy of the Human Ethics approval from Victoria University Wellington was submitted to the Administration and Policy Division of the DOE (Figure 2.4) for approval to conduct research in the two state schools (Appendix 8). Approval was given on the 9th June 2009 in principle, from the Education Ministry (Appendix 7), because I was already in Port Moresby, PNG and awaiting the Ethics clearance from Victoria University. Field work commenced from July to

October 2009. Copies of the Ethical approval from Victoria University of Wellington and the PNG Ministry of Education are in the attachments (Appendices 6 and 7).

Prior to conducting classroom observations, the structured interviews (Appendices 1 and 2), focus group discussions (Appendix 3), and observation instruments (Appendix 4) were drawn up as check-lists (Borich, 2011) to give me directions on what to look for in the teachers' and students' interaction during observations and participants' interviews. This aligns with the cautions that Good and Brophy (2003) and Borich (2011) made when they advise that observers may not be able to understand classroom behaviour and interview behaviour unless there is a direction for collecting information; that is, knowing in advance what behavioural patterns to look for and having a framework to guide analysis. Additionally, a research schedule was produced for this study (Appendix 15) as it was significant for management of planning and movement purposes.

3.9 Limitations of study

In any study there are bound to be problems and limitations. This study uses multiple sources for data collection. Consequently, it impedes on data collection schedule times (Blaxter, Hughes & Tight, 2001) which were at the discretion of my participants. The challenge came when scheduled times had to be re-scheduled because the participating English teachers had last minute administrative duties to perform for the school which took precedence over my advance planning for lesson observations and interviews.

Another issue regarding timing was the need to synchronise my research schedule into the PNG school terms. Due to the time taken to obtain ethics clearance from Victoria University and the PNG DOE, my field work commenced in term three, despite my planning for it to be done in term two, which was my oversight. Hence, to overcome the issues of schedule timing and researcher's position in the study, I had to intentionally re-schedule

sessions for data collection, as I was aware that I was a visitor into the participants' world (Glesne, 1999). In brief, my time management, and interpersonal skills as a researcher helped me build relationships in my research context (Cohen et al., 2007) to get me through the challenges.

Unfortunately, a gap in the data collection procedure was the omission of interviews with Education Ministry staff. My failure to interview any Education Ministry staff was due to the key personnel being out of Port Moresby during my time frame for data collection. Hence, there was no interview data from policy makers. However, to rectify that omission in my data management, I used published Education Ministry documents (Department of Education, 2003a, 2006) and others (see Section 4.1) to identify policy perspectives on the design and implementation of the OBE curriculum.

3.10 Summary

This chapter has presented the research paradigm, epistemological approach, theoretical perspective, and the methodology that were used in this study. It gives a detailed description of the case study methodology and multiple case studies it used. Four data collection techniques were highlighted including the process of managing data. The data analysis section also outlined the tests used to interpret data and construct themes. Issues of validity and reliability, ethics, and the researcher position were raised. Lastly, problems and limitations of the methodology were discussed.

The next chapter presents an analysis of the policy intentions.

CHAPTER FOUR

Policy Documents and their intentions

“The national curriculum principles should influence what students learn and how teachers teach” (Department of Education, 2006, p. 4).

Introduction

This chapter presents descriptions and intentions from two main policy documents from the PNG Department of Education (DOE). The focus of this chapter is investigating policy intentions for the curriculum implementation process for English teaching at the lower secondary school level. This will help to answer research questions 1 (a), 2 (a) and 2 (b). These seek to: probe how the OBE curriculum was introduced to teachers, to identify the model of curriculum change applied in the PNG context, and to develop a curriculum implementation model for the PNG Melanesian context. The findings from the policy documents were compared against the participants’ data (Chapter 6), and the observations (Chapter 5) to draw conclusions on the implementation process of the policy curriculum in the PNG secondary school context.

This chapter has seven sections. Section one is the introduction, section two defines the policy concept while section three describes the two policy documents. Section four discusses four thematic findings as the policy intentions, while Section five discusses policy implications and Section six concludes the discussion. Section seven summarises the whole chapter.

4.1 Defining policy

Two documents define the policy curriculum in this study. These are The National Curriculum Statement (NCS) (Department of Education, 2003a), and the English Language Lower Secondary Syllabus (ELLSS) (Department of Education, 2006). The two policy documents provided the backdrop for

teaching and learning English in the PNG lower secondary schools – grade nine. Hence, the document data for this study were obtained primarily from those two policy documents.

Literature revealed that the PNG education reform is well documented. Seven other DOE publications listed below were also analysed to provide support to determining policy intentions:

- The Education Sector Review (1991)
- The National Education Plan A (1996a)
- The National Education Plan B (1996b)
- The Ministerial Brief (2001)
- The National Assessment and Reporting Policy (2003b)
- The National Education Plan (2004)
- The Education Report (2008)

These documents provided support and triangulated policy intentions elicited from the two main publications. Similarly, two other related documents were reviewed (Matane, 1986; Tololo, 1975). The former was responsible for directing policy change for the current PNG education reform (1990s), and the latter provided historical insights about the argument for curriculum change.

4.1.1 Approval of policy curriculum

It appears that a top-down approach was used to introduce curriculum change in PNG (Section 2.10.3). According to Maha (2009), there were four stages involved in the policy making and distribution of the NCS (Department of Education, 2003a) and the ELLSS (2006). Maha, an educator who was closely associated with the reform of primary school curriculum project, outlined four steps taken to introduce the curriculum change.

- (i) The Curriculum Development Division (CDD) approved and recommended the OBE curriculum to the DOE's top management

team.

- (ii) The DOE recommended the OBE curriculum to the National Education Board (NEB) for approval.
- (iii) The NEB submitted the OBE curriculum to the Parliament for the National Executive Council's (NEC) approval and endorsement.
- (iv) The CDD published and dispatched the OBE curriculum to schools.

(Maha, 2009, p. 36)

4.2 Policy Documents

4.2.1 The National Curriculum Statement

According to White (1988), a curriculum is an important document fundamental to the operation of any education system. Hence, the PNG Curriculum, termed the NCS is centred on the principles of an OBE model that was recently adopted in 2000 (Section 2.10.4). The NCS published in 2003 and circulated to state schools lists 17 learning aims for secondary education (Department of Education, 2003a, p. 10 – 11). Thus, it guided development of specific subject syllabi.

As earlier discussed (Section 2.10.4.2), the development of the NCS in PNG was made possible through the support of AusAID. In principle, the DOE and AusAID worked in partnership to develop the NCS. The venture was termed the Curriculum Reform Implementation Project (CRIP). The CRIP was a five year project (2000 – 2005) for developing elementary and primary school curricula (CRIP, 2004). However, the CRIP had to extend its tenure ship or “life span” (Maha, 2009, p. 33) at the end of 2005 to develop the secondary school syllabi (Department of Education, 2006). Policy revealed that the contributions for developing the NCS were sought from the PNG educators, community, and church representatives including non-government organisations (Department of Education, 2003a). Hence, the DOE deemed

that there was equal representation from all stakeholders involved in the curriculum development.

According to the literature (Department of Education, 2003a), the CDD developed the NCS. However, the CDD reports to the MOE (Figure 2.4) which suggests that a top-down (power-coercive) strategy (Section 2.9.1) was involved in the development of both policy documents. Despite the Education Ministry's involvement, the CRIP consultant and the local counterpart as curriculum advisers (CDD) led the project.

In summary, the development of the NCS eventuated as a collaborative project between the DOE and AusAID. It was developed with the financial and technical support of CRIP, an AusAID Project. Having a NCS paved the way for developing subject syllabi such as the English Syllabus for lower secondary schools.

4.2.2 English Lower Secondary Syllabus

The PNG English Language Lower Secondary Syllabus (ELLSS) was published in 2006 (Education of Department, 2006). The approval and processing of the ELLSS went through similar procedures as the development of the NCS (Sections 4.1.1 and 4.2.1). The ELLSS development eventuated three years after the publication of the NCS, and the circulation to schools followed after. According to the National Education Plan 2005 - 2014, "all lower secondary reform materials were distributed to schools by 2007" (Department of Education, 2004, p. 66). The implication here is that all schools were adequately resourced with appropriate materials for secondary English teaching.

The ELLSS is also designed from the principles of OBE (Department of Education, 2003a). The ELLSS has three aims: "knowledge", "skills", and "attitudes" (Department of Education, 2006, p. 10) contained in the curriculum design. Furthermore, the English content for the secondary level is: speaking and listening, reading and viewing, and writing skills

(Department of Education, 2006, p. 11 - 12). According to the policy, the ELLSS builds on the content that students learn in primary school (Department of Education, 2006). Thus, the ELLSS lists broad learning outcomes that identify what students are to learn and demonstrate by the end of grade 10. Hence, the long term outcome is for students to be functionally literate (Ibid).

The ELLSS emphasises that English needs to be taught in meaningful contexts, “English has different language requirements such as vocabulary and grammar which must be explicitly taught in relevant contexts” (Department of Education, 2006, p. 9). Both the NCS and the ELLSS name three relevant contexts for teaching purposes: text-based approach, thematic – or integrated teaching, and student-centred learning. Consequently, policy makers were of the view that this would enable students to develop their language skills close to that of a native speaker. This thought is captured by, “fluency in and an understanding of English is critical for students in PNG” (Department of Education, 2006, p. 3). To have fluency in the English language indicates that students should have knowledge of English, and the ability to speak, listen, read, and write the language exceptionally well. The word, “fluency” implies linguistic performance. That is, how students can practically use English for the purposes of being able “to communicate well with others” (Department of Education, 2006, p. 7).

Additionally, both policy documents envisage that students need to have an understanding of English (Department of Education, 2003a; 2006). Understanding refers to the knowledge gained from classroom teachings. Consequently, the interactions form students’ competency in English. Competency is the knowledge one subconsciously possesses about how to use language through linguistic functions. This thought resonates with Chomsky’s view that learning a language is determined by an inbuilt grammar system, or a language acquisition device (Shrum & Glisan, 2005). Policy indicates that learning English entails learning grammar and other

skills (previous paragraph). Having an understanding of English will enable students to contribute to nation building for PNG (Department of Education, 2003a; 2006). This thought is reiterated by the country's 2050 Vision Statement (National Strategic Task Plan Force, 2009) and the MDGs (World Bank, 2005). In short, the ELLSS emphasises that students should have competency in English to be able to function in society.

The policy documents (NCS and ELLSS) findings are presented next.

4.3 Findings - Policy Intentions

4.3.1 Theme 1: An expectation of change

“The National Curriculum will encourage teachers to use different ways of teaching”

(Department of Education, 2003a, p. 18)

The selected quote above is representative of the first theme, “an expectation of change”. The quote suggests that the NCS is the instrument of change for the PNG education system.

The indication for change implied in the quote is consistent with other PNG documents (Department of Education, 1991), historical arguments (Tololo, 1975), and Section 1.2 (Research problem). Interestingly, what is seen could be interpreted as a marketing strategy whereby the DOE was appealing to teachers to be receptive to the curriculum change. This assumption also relates to the use of communication as the medium between person A, who knows about the innovation, telling person B in order to convince him/her to adopt the change (Section 2.2). The physical action of the DOE in developing and publishing a policy document showed its seriousness for advocating change through the means of a specific policy (NCS).

Two interesting points elicited from the first theme are discussed. They are: (1) the change model and strategy for introducing change; and (2) the quality of the infrastructure.

The first issue raised from the quote indicates the model of change and the strategy that the DOE thought was significant for introducing change. The underlying meaning extracted here is that the DOE had used its systemic functions of a policy framework to mandate change. This assumption is also supported to by the participants' views (see Section 6.2). Hence, the DOE as the provider of public education endorsed the "The National Curriculum", so the endorsement implies a sense of legitimacy and support from the government. This interpretation resonates with the discussion on policy motivating implementation processes (Section 2.6.2).

Nevertheless, the tone entwined in theme one (an expectation of change) sounds optimistic as the phrase, "will encourage" shows. This indicates the degree of importance bestowed onto the curriculum, which was deemed as a beacon of hope to be offered to teachers. Further, the optimism also resounds in the words, "use different ways of teaching" which resonates with Section 4.3.3 (Teaching practices). Nonetheless, the idea here suggests that when teachers use the NCS, they need to use a variety of teaching approaches, apart from a traditional teacher-centred method (Department of Education, 2003a; 2006). Having done that would prepare students for nation building as implied in the word, "National" from the example quote. Therefore, it is argued here that education is intended to be used as a tool for society building consistent with PNG's Vision 2050 (National Strategic Plan Task Force, 2009) .

Furthermore, the DOE's action in naming the policy document ("The National Curriculum") implies the model and the procedure it had used for instigating change. It alludes to a CPM of change (Section 2.8.2) and a top-down power-coercive strategy (Section 2.9.1), which were deemed significant for introducing change. Thus, the DOE's written declaration that applying the curriculum would promote, "teachers to use different ways of teaching" (Department of Education, 2003a, p. 18), implies an expectation of change. Interestingly, however, there was opposition to the OBE curriculum from the public (Post Courier, 2003; The National, 2007), but the curriculum

change still eventuated.

However, does changing curriculum effectively support change? The question to ask is why did the DOE use policy to initiate and introduce change? Was that done for the convenience of the DOE rather than for the recipients? (see Section 6.3). If so, then it demonstrates that the DOE's goal for an expectation of change was achieved. The CPM of change and power-coercive approach are contained in the word, "national". It connotes an interpersonal relationship and operational structure of a social organisation – DOE. That is, decisions were made at the top of the hierarchy then delegated to teachers at the edge of the decision making process. This assumption resonates with the discussion in Section 2.6 on policy and implementation. Moreover, it can be argued that "national" also infers ownership, power, and control – traits often reflective of relationships in highly centralised systems as observed in PNG (Bray, 1984). The PNG DOE is a highly structured organisation (Figure 2.4) functioning within a centralised country; it used a CPM of change drawing on a power-coercive strategy to introduce curriculum change to its stakeholders. This assumption is also supported by the discussion in Section 2.10.4.4.3.

The second underlying observation elicited from the quote: "The NCS will encourage teachers to use different ways of teaching" alludes to the systemic preparation supposedly done for embedding the mandated curriculum change (Hall & Irving, 2010). This assumption resonates with Section 2.10.4.2 discussion, that systems adopting the OBE would need holistic changes for successful implementation. For instance, policy requires "teachers to use different ways of teaching". Different ways of teaching alludes to pedagogical changes in teachers' world views. The policy appealed to teachers to use other teaching approaches (student-centred, thematic / integrated, or text based approach) (Department of Education, 2003a; 2006). These are processes that teachers need to demonstrate (Hall, 2005b) for classroom implementation (Section 2.5.1). For teachers to change their teaching approaches, purposeful intervention strategies (see Table 6.1) are

required to prepare teachers to change their world views of teaching (Section 2.5.2).

However, the underlying message elicited from the quote suggests that there was insufficient preparation for teachers. This assumption is also supported to by the participants' views (see Section 6.6), and another PNG study (Nongkas, 2007) which described the educational change as having an "inadequate infrastructure" (p. 250). Arguably, the DOE had a weak infrastructure prior to introducing the OBE curriculum as there is little clarity as to how teachers were prepared for the curriculum change. Findings from participants (see Table 6.1) revealed that the purposeful interventions provided by the DOE were insufficient for a large scale curriculum reform. Hence, weak infrastructure is defined as not adequately catering for the processes needed for preparing teachers to successfully implement the OBE curriculum.

According to Markee (1997), curriculum change involves changes to: teaching materials, pedagogical values, knowledge of theory for practice, and assessment factors (Section 2.4.1). These things contribute to having appropriate infrastructure in place for change to thrive. Thus, the question to ask here would be whether any or all of those factors were adequately addressed before, and after the curriculum change was introduced? Maha (2009) suggested that there was little intervention during the processes for planning and managing change at the primary education level; this was not empowering for teachers. The question that this raises is whether the same issues arise at the secondary level. Chapter six examines this from the perspectives of the participants' data.

Another question to ask here is, what time and amount of preparation for teacher professional development (PD) was put into the education system prior to initiating and introducing change. If the infrastructure was lacking, then how would teachers apply policy intentions? Of course, it is possible to infer from the quote that the DOE believed that there was sufficient

preparation and infrastructure (Department of Education, 2004) in place to go forward with the curriculum reform. Alternatively, it could be argued that schools and teachers supposedly had to take responsibility for curriculum implementation at respective school levels. This assumption is supported too by Nongkas (2007) who observed that primary teachers colleges had to be pro-active in training student teachers to be able to accommodate the education reform. Again, the data in later chapters looks at this issue.

Another related issue would be whether teachers were sufficiently prepared for the curriculum change? There was intervention strategies conducted (see Table 6.1), which arguably from the DOE's perspective were considered appropriate for endorsing the policy ("National Curriculum"). The implication here would be that the NCS was to be used by teachers, who would probably have to discover ("will encourage") and navigate ("use different ways") their own PD and learning of instructional strategies ("different ways of teaching") as suggested by the policy framework. Hence, the DOE intended that schools and teachers take ownership of the NCS.

If this is the case, it could be argued that change in the context of this study does not represent a collaborative partnership between the initiators of change and the change recipients, but rather a top-down approach. A top-down approach is inherently problematic (Hall, 2005a) as it relates to projects focusing more on their objectives than on human resource factors (Section 2.1.2). Hence, a possible consequence that may arise from the introduction of the new curriculum would involve PD issues for teachers. Appropriate PD, as suggested by Hall and Irving (2010), may enhance teachers taking ownership of the NCS. Consequently, this would help to align classroom practices with policy expectations, and so aid sustainability of the curriculum (Section 2.5.2).

In conclusion, the DOE used a CPM of change (Section 2.8.2) and a top-down approach (Section 2.9.1) to introduce curriculum change. As a result of both the CPM and top-down approach, coupled with a lack of PD, it could be

anticipated that curriculum ownership would be an issue with subsequent consequences for sustainability purposes. Clearly, this would contradict the spirit of the curriculum reform.

4.3.2 Theme 2: Statement for classroom focus

“The English Syllabus places emphasis on teaching ethics, morals and values and the integration of subjects to enable students to experience real-life situations”

(Department of Education, 2006, p. 5)

The selected quote above is representative of the second theme, “Statement for classroom focus”. The underlying meaning elicited from theme two pertains to suitable teaching content.

According to the policy, the DOE believes that certain life issues are relevant for classroom teaching (Department of Education, 2006). That is, policy intends for a more holistic approach to education; learning is constructed by learners through a student-centred teaching and learning approach (Section 2.10.4.4.4). Arguably, education is intended to be relevant to PNG, and the wider contexts as the words “real-life situations” in the quote imply.

Two underlying issues are deduced from the second theme. These are: (1) Education in PNG is seen as a tool for meeting the country’s needs; and (2) PD is left to the responsibility of schools.

The first interpretation elicited from theme two gives an indication that education in PNG is viewed as a means of achieving the country’s developmental needs. This is indicated by the words “ethics”, “morals”, and “values”. It is possible to conclude from these that developing acceptable behavioural practices for PNG citizens is a current goal of education. That is, students need to learn social standards of behaviour. Hence, this supports the assumption that education is a tool for meeting the country’s developmental needs reiterated by the country’s Vision 2050 Statement

(National Strategic Plan Task Force, 2009); that is, to educate students to be functional and productive members of society, a learning outcome of the OBE curriculum.

According to the Philosophy of Education (Matane, 1986), the former curriculum was considered inappropriate for the contemporary PNG context. Thus, viewing education as a social tool indicates curriculum developers' aspirations in stating the focus for teaching and learning. It is possible to infer that a curriculum, such as the former one (objective based) catered only for academic oriented subjects with no allowances for civic education. The explicit inclusion of the terms "ethics", "morals", and "values" signal that these aspects were probably non-existent previously, and would need to be interwoven into the fabric of teaching and learning with the new curriculum. Hence, the ELLSS (Department of Education, 2006) seems to be reiterating a change of focus for teaching. The message articulated is a declarative statement highlighting the importance of the ELLSS as implied in the word, "emphasis". Here the DOE is providing a list of cross-cutting curriculum issues ("ethics", "morals" and "values") deemed appropriate to use for teaching and learning programmes.

For instance, "ethics", "morals", and "values" infer the significance and importance of civic education for PNG. However, it is not clear if teachers share the same meanings for civic education as the curriculum developers, as this may affect the content programmes for classroom teaching. This will be examined from the participants' data (see Sections 6.4.4 and 6.5.4). The phrase (...to enable students to experience real-life situations) indicates the policy's expectation that changing the teaching content would benefit students. For example, as students learn issues, they self-discover ("experience") knowledge, which becomes meaningful and relevant ("real-life") to them based on contextual learning. This thought is also captured in one of the curriculum learning aims for students to, "value education as a continuing lifelong process" (Department of Education, 2003a, p. 4). Hence, policy intends to educate students about social issues prevalent in society,

and to equip learners with appropriate strategies to deal with social issues for the betterment of society.

Furthermore, the word, “experience” is mentioned in conjunction with “students”, as per the quote, and this may connote a process of individual learning for both students and teachers. This meaning is contained in, “They (curriculum principles) should also influence what teachers teach, how they teach and how students learn and apply their learning throughout their lives” (Department of Education, 2003a, p. 12). Therefore, it is in this respect that policy intends for a change of classroom content. This offers support to the first assumption raised under this theme: that education in PNG is seen as a tool to meeting the country’s needs.

The second issue deduced from the second theme (statement for classroom focus) relates to PD. That issue is contained in the phrase, “integration of subjects”. Integration implies a process of acquiring knowledge from different sources and drawing this knowledge together. This implies that some form of professional learning for teachers is needed to accommodate policy’s intentions. Hence, having PD is necessary because, as Rogers (1995) asserts, communication is important between people introducing change and potential recipients. Such communication is deemed vital as teachers have their own world views about teaching based on their training and work experiences (Section 2.5). Thus, teachers would need convincing to change mind-sets so as to embrace the policy intentions for teaching practices (“integration of subjects”) (Department of Education, 2006).

Furthermore, the issue of PD is also deduced from the word, “subjects” (Department of Education, 2006, p. 12). The word “subjects” in its singular form denotes a branch of learning for a course of study. Linking that to the notion of PD, it seems that the DOE is asking schools (teachers) to take responsibility for their PD, so that they could enhance implementation of the policy curriculum. However, what the DOE is not clearly saying within the two policy documents is how they would collaboratively work with, and

assist schools and teachers in the area of PD. This assumption is supported by the participants' findings (see Chapter Six) which reported that there was no clear indication of continuous support from the DOE, despite the initial interventions provided (see Table 6.1).

Additionally, the phrase, "places emphasis", also has implications for PD. Arguably, the DOE appears to be suggesting that teachers at secondary level of teaching need to be well read and versed in other academic disciplines. Such knowledge would support teachers to be aware of other subjects' contents so that they could make cross references ("integration of subjects") between subjects when teaching. Hence, that behaviour would demonstrate that schools are aiming for "integral human development", one of the learning aims of the Curriculum Principles (Department of Education, 2003a, p.4).

Theme two stresses the focus for teaching and suggests that teachers take responsibility for their PD in respect to the OBE curriculum. Analysis of the documents shows the notion of PD was a weak link in this PNG change context, see also later discussion in Section 6.6.1. Therefore, it is argued in this discussion that PD is an area that needs to be a priority for stakeholders in this context (Section 2.5.2). Appropriate PD would help the embedding of the curriculum so that policy intentions could be realised in classrooms (Hall & Irving, 2010).

In summary, the second theme identifies the policy's intentions for the classroom focus in relation to teaching. Two issues are indicated in this theme: education is for serving the country's priorities, and teachers need to be pro-active for their own PD. How the latter is to be achieved is questionable as there does not seem to be consideration of how the DOE would assist in that process.

4.3.3 Theme 3: Statement for teaching practice

“The English Syllabus uses a student-centred approach as a vehicle to guide and facilitate students’ learning”

(Department of Education, 2006, p.7)

The selected quote above is representative of the third theme, “Statement for teaching practice”. The quote identifies the type of pedagogical approach that the policy assumes to be appropriate for the PNG education system. The policy documents advocate for a student-centred approach as the required classroom practices for secondary schools (Department of Education, 2003a; 2006).

Two underlying meanings are deduced from the statement regarding teaching practices. These are: (1) the expected teaching and learning view, and (2) PD needs.

The first meaning deduced from the quote indicates that the policy considered a “student-centred approach” relevant for secondary teaching and learning. By naming the particular approach, the policy suggests that this particular approach needs to be used (“a vehicle”) for classroom practices. For instance, the phrase, “student-centred approach” places emphasis on students being pro-active in their learning processes. It also serves notice to teachers that this is the intended view for teaching and learning (Section 2.10.4.4.4). Participants also reported that a student-centred method was the policy requirement (see Sections 6.4.5 and 6.5.5). However, there were multiple interpretations of what constitutes a student-centred approach (see Sections 6.4.1 and 6.5.1). This assumption supports the literature (Hall & Kidman, 2004) and the discussions in Section 2.10.4.4.4 which stress the importance of understanding the context of student-centred learning.

According to the ELLSS, a student-centred curriculum needs realistic teaching and learning contexts for students to construct meanings from their lessons (Section 2.10.4.4.4). The policy identifies teaching strategies considered appropriate for the student-centred curriculum (OBE). For instance, the policy states that the instruction of English “must be explicitly taught in relevant contexts across the curriculum” (Department of Education, 2006, p. 9). The policy identifies three strategies that are relevant for the curriculum: text-based learning, thematic / integrated teaching, and student-centred learning (Department of Education, 2003a; 2006).

The strategies discussed above all entail teaching and learning English relevantly in context. For instance, ‘domestic violence’, a social issue prevalent in PNG, could be incorporated into English programmes; this would enable students to, “read and explore the concept and issue” (Department of Education, 2006, p. 26). Students would be seen to be engaged in constructing meaning based on realistic societal issues in line with the policy framework. This discussion resonates with Hall and Kidman’s (2004) map of teaching and learning (Section 2.10.4.4.4) which contextualises the key elements of an effective classroom programme within a framework that recognises external influences on teaching and learning; these influences may lie within institutions or in the wider environment.

A text-based approach is described here as using texts of any type for classroom instruction with the aim of focusing on the interpretation and / or creation of new knowledge. The policy stresses this particular teaching strategy as: “English is explored using a range of texts” (Department of Education, 2006, p. 1). The policy also describes a thematic and integrated teaching strategy as teachers reorganising their teaching programs by taking content from different syllabi, and combining the contents into teaching themes for the four annual academic terms. According to the policy: “relevant and meaningful teaching and learning experiences for lower secondary students can be best provided by integrating subjects” (Department of Education, 2006, p. 9). This quote makes known the

intention for a thematic / integrated teaching strategy.

Lastly, a student-centred learning is defined as not being a teacher-centred lesson (Department of Education, 2003a). The policy describes a student-centred learning as students constructing knowledge in the teaching and learning processes. Hence, the policy (Department of Education, 2006, p. 7) deems that using a student-centred teaching and learning approach would enable students to have “creative-thinking, problem-solving, decision-making as well as a range of practical skills and knowledge”. The quote shows the intended learning outcomes that the PNG OBE curriculum developers have for the new curriculum (Section 2.10.4.4.2).

The question to raise here would be whether the teachers’ personal teaching views for the classrooms are similar to the student-centred approach intended by the policy? This is valid to ask because it could impact on the classroom implementation of the curriculum. Policy intentions for teachers changing their teaching practices are indicated in two words from the quote, “the” and “uses”. “The” appears before the words, “English Syllabus” and from that placing, “the” as a definite article (Ellis, 2008) signifies attention to the noun that it (the) is referring to (English Syllabus). This supports the assumption that the policy intended that teachers change teaching strategies when in “use” of the OBE curriculum.

What the policy also alludes to is that the previous teaching practices of a traditional teacher-centred learning were not providing students with the appropriate knowledge, skills, and values required for the contemporary PNG context (Section 2.10.4.4.3). The explanations provided above support the third theme induced from the policy documents (change of teaching practices). However, it should be noted that critics contest that the student-centred approach is incompatible with the OBE curriculum if students are coached and trained for high stake national examinations (Hall, 2005b).

Another indication from the quote shows that the DOE was informing teachers about the change (“The English Syllabus”). The tone of the example quote is persuasive, and that is captured in the word, “uses”, which indicates that policy is providing a linear road map to the type of learning process intended for the PNG context. The DOE figuratively describes a student-centred approach as being similar to a “vehicle”, which illustrates the assumption that students’ learning will be successful when “a student-centred approach” is used. This provides support for the third theme relating to the need to change teaching practice in the PNG education system.

The second underlying meaning elicited from theme three alludes to the issue of PD. The phrase, “to guide and facilitate students’ learning”, indicates the policy’s intention for teachers to use “a student-centred approach” (Department of Education, 2006). The approach demonstrates a certain philosophy of learning for classroom implementation, so to meet the policy intentions for changing teaching practices. The phrases, “to guide and facilitate”, are clear consistent descriptions for a student-centred belief system, and consequently, these phrases are dependent on teachers’ interpretations (see Sections 6.4.1 and 6.5.1). Being open to interpretations raises the issue of non-alignment of policy intentions with classroom practices (Hall, 2005b). This study argues that schools and teachers need PD to be able to take ownership for understanding the OBE curriculum (Section 2.5.2).

Conducting PD would be appropriate to appeal to teachers’ views for embedding the mandated OBE curriculum. This assumption is also supported by the participants’ data (see Sections 6.4.5 and 6.5.5) and the literature, which argues that systems need sufficient planning in the design stage to be able to embed the OBE model (Crowl & Hall, 2005). Thus, the question to ask the policy makers here would be: How would teachers be prepared, supported and resourced to put into practice the “student-centred” curriculum? This supports the argument raised here that there is

an urgent need for teacher PD in this contextual study to enable satisfactory implementation of the OBE curriculum.

In summary, the third theme deduced from the document analysis intends for a change in teaching practice. Two issues: (1) Changing teaching and learning views, and (2) the need for PD needs to be addressed as they impact on the embedding of the curriculum change process.

4.3.4 Theme 4: Endorsement of change

“I approve this statement and recommend that it be used to guide the development of the national curriculum at all levels of schooling in Papua New Guinea”

(Department of Education 2003a, p.1)

The selected quote above represents the fourth theme, “Endorsement of change”. The quote illustrates the official introduction and implementation of change processes within the secondary school context. This part of the change process indicates policy endorsement for the classroom implementation phase. Consequently, the words (“I approve this statement”) (Department of Education, 2003a, p, 1) demonstrate the implementation stage of the diffusion of innovation process (Section 2.2.2).

Two issues: (1) The type of change model used in this PNG context, and (2) the need for collaborative PD are elicited from the above quote.

The first underlying meaning talks about the change model used by the DOE. One possible interpretation is that a CPM of change was used. The assumption for the CPM of change is elicited from two key terms: “national curriculum”, and “Papua New Guinea”.

The phrase, “national curriculum” implies unity – use of policy as an instrument of governance in society. This assumption is supported by the discussion in Section 2.6 which illustrates that policy is entwined with governance. It is argued here that through the behaviour of using a policy

framework, a power-coercive strategy was employed by the DOE. This claim is also supported in an earlier discussion (Section 2.10.4.4.3). The use of a power-coercive strategy (Section 2.9.1) runs parallel with a CPM (Section 2.8.2).

Furthermore, the country's name, "Papua New Guinea" implicates that the country's needs should drive education goals. This implies that the DOE had applied a development model for introducing change into its local context. That is, the type of education provided needs to serve the national interest. In this regards, it is argued here that a CPM of change was used by the education providers to introduce change through a policy curriculum funded by donor partnership (Department of Education, 2003a). This argument resonates with reasons motivating change (Section 2.10.3), and the PNG's Vision 2050 (National Strategic Plan Task Force, 2009) framework advocating for nationhood building.

The use of the first person pronoun, "I", by the Education Secretary at that time, Baki (Department of Education, 2003a, p. 1) resembles legitimate representation from the DOE hierarchy. It rather personalises the appeal by the DOE to educators to accept the policy curriculum as something of worth and value ("recommend") for use in its education system. This illustrates a decision making process at the top of an organisation by bureaucrats and passing it down the rank and file to teachers at the edge of the decision making process (periphery). The conclusion made here is based on my insider's knowledge of the education environment in PNG which has made the underlying meaning visible to me as a PNG educator.

Additionally, the word, "recommend" supports the interpretation raised here that the CPM of education change was used in the PNG secondary education context. Recommend implies someone's judgement which is yet to be tested by another person before a conclusion can be drawn. For instance, in this study, "recommend" implies that the DOE's agenda was biased because of the decision making processes for instigating change based on its

goals and visions. Hence, the DOE was appealing to the judgement of the teachers.

Another possible meaning could be that the DOE was conveying the official message for the curriculum change. The declaration and the approval of the statement have the intentions of the policy makers entwined as shown also in the word, “statement”. The endorsement from the Education Secretary suggests that the process of introducing change into the education system was satisfactory (“approve”) as described in the National Education Plan (Department of Education, 2004). Hence, the first underlying meaning derived from theme four, talks about the change model that the DOE used to facilitate change - a CPM (Section 2.8.2).

The second underlying meaning deduced speaks of a need for collaborative PD. This thought is inherent in “guide the development of the national curriculum at all levels in Papua New Guinea” (Department of Education, p. 1). This relates to the implementation process of practically applying policy intentions in classroom situations. For effective classroom implementation of the “national curriculum”, teachers need to align practices with policy intentions. The call for PD was previously implied in the first three themes (Sections 4.3.1, 4.3.2 and 4.3.3). Arguably, the need for PD now appears four times (Section 4.3.4). This supports the assumption by this study that the policy intended the use of collaborative PD, as that underlying meaning is consistent in the document analysis findings.

Hence, what is interpreted here seems to indicate that the DOE acknowledges that there would be issues to be dealt with by all stakeholders despite its approval for classroom implementation. In analysing the cited words from the quote these possible meanings given below show explanations for a collaborative PD culture to be nurtured by all stakeholders.

Firstly, “guide” could mean here that the DOE intends for the policy documents to be the major influences for teaching and learning directions. Likewise, it also implies an indirect element of control and power for reaching a destination, which in this case refers to the type of education deemed appropriate for PNG. Furthermore, “guide” also implies a feeling of cooperation between participants and the person / thing leading an activity. For instance, on a tour guide, there is a mutual relationship between the person leading the tour and the participants. Hence, when applying that analogy to the quote in theme four, the DOE is seeking a collaborative effort between teachers as users (participants) of the policy documents, which is the guide (“national curriculum”) to teaching and learning in the PNG education context. This explanation supports the idea for PD as elicited from theme four.

Secondly, the word, “development” connotes a meaning of an incomplete process of something/someone. Alternatively, it could also imply a complete process that denotes growth of something/someone. In this study, both interpretations are possible in terms of the congruence between teachers’ views and the curriculum developers’ thoughts. This assumption is also supported by observation data (see Chapter Five). There were contrasting results of curriculum ownership in the two case study classrooms. One English teacher (ET1-S1) had adopted the ELLSS, whilst the other (ET2-S2) was still teaching from the old curriculum (see Sections 5.2 and 5.6). Hence, the word “development” implies that the “national curriculum” is completed - as being published and delivered to schools, but is not saying that there is further space for improvement. Hence, this provides support to the notion of PD needed for teachers, as uncovered in theme four.

Thirdly, the word, “national” also implies social identity, culture, behaviour, practice norms, and people of a country. Similarly, “national” could also be interpreted as a meeting that brings together people with similar experiences to be involved in an activity of some sort. In this instance it could refer to the call for collaborative in-service sessions which describe

the needed PD for teachers. This explanation provides support to the underlying meaning for PD elicited from theme four.

Fourthly, the word “curriculum” connotes the issue that is to be the focus for teachers’ PD. Literature reveals that changing curriculum entails more than one issue to be dealt with (Markee, 1997). These include: teachers’ world views for teaching and learning, pedagogical values, knowledge for the measurement, and evaluation of students’ outcomes, teaching resources and other infrastructural elements need consideration (Section 2.7.1). Arguably, having a new curriculum is multi-dimensional and as such, all participants need to be aware of those factors. Lastly, the phrase, “at all levels of schooling in Papua New Guinea” is instructive about the imbedded meaning for a call for a collaborative PD involving all stakeholders to ensure that the new curriculum is sustained and policy intentions are realised and aligned with practice.

To restate, two meanings were deduced from the fourth theme, ‘endorsement of change’. That is, the DOE used a power-coercive CPM of change, and, a need for a collaborative PD between all stakeholders to ensure that policy aligns with classroom practices.

4.4 Policy implication

This section discusses the implication consistently elicited from the four themes depicting policy intentions in this study. The findings indicated that PD need was a constant issue implied in the policy intentions.

4.4.1 Professional development need

According to Cohen et al. (2007) PD is described as any intervention such as training, resources, and assistance provided to teachers for the purposes of enhancing their knowledge base. The aim for PD is for capacity building that aspires for “change and improvement at the local level” (Cohen et al., 2007, p. 297). To conduct PD to enhance the OBE curriculum implementation

resonates with Rogers' (1995) continuation phase of the diffusion of innovation theory (Section 2.2.3). In the context of this study, PD will help embed the curriculum change as intended for by policy (Section 2.5.2) and support literature discussions of PD embedding education policy reform (Hall, 2005b).

Policy infers that all stakeholders in PNG would have to take responsibility for sustaining implementation of the OBE curriculum at the school level. Arguably, PD would be the pathway for sustainability purposes as indicated from the policy findings (Sections 4.3.1, 4.3.2, 4.3.3, and 4.3.4). The meaning for a collaborative PD is also captured in this quote: "The national curriculum requires the integrated involvement of all the agents of education such as the home, church, school, and community" (Department of Education, 2003a, p. 15).

The above quote is instructive about the need for a collaborative partnership between all PNG stakeholders for the purposes of teachers' capacity building so as to achieve the aim of sustaining the OBE curriculum at the school level. For instance, the word, "The" in the quote directs attention to something important, which is the "national curriculum". The NCS is the tool for change in this contextual study. Consequently, policy is asking stakeholders for cooperative behaviour as elicited from the word, "requires". This implies that the policy demands purposeful action and joint partnership, as indicated in the phrase, "the integrated involvement" from stakeholders, which is described as, "all the agents of education", so that policy intentions could be realised at the local level. Hence, this study argues that the underlying meaning elicited from policy intentions is the need for collaborative PD between all stakeholders.

4.5 Conclusion

In conclusion, this study argues that the DOE employed a CPM and a power-coercive strategy to introduce curriculum change. However, this could be viewed as problematic as the model and change strategy used resonates with a developmental view. Consequently, two main issues were elicited: a weak infrastructure and a call for collaborative PD. These highlighted a need for improvement so that policy intentions could be aligned with classroom practices, or vice versa, for sustaining the reform agenda.

4.6 Summary

This chapter presented descriptions of the National Curriculum Statement and the English Lower Secondary Syllabus; two policy curriculum documents that framed the teaching of secondary English in PNG. Four main concepts emerged as policy intentions. These were: an expectation of change; a statement for classroom focus; a statement for teaching practice; and an endorsement of change. Intentions of the policy implication were also discussed with two underlying issues. The findings in this chapter are triangulated with data from participants' views (see Chapter Six) and observations (see Chapter Five).

The next chapter presents the observation findings.

CHAPTER FIVE

Observation Findings

Introduction

This chapter presents observation findings from the two cases investigated by this study in two urban Port Moresby secondary schools. The observation is discussed according to three themes: physical, programme, and interaction. Each of the three themes' descriptions is necessary for providing an understanding of the implementation process. It focuses on probing how the reform curriculum in PNG was implemented for teaching grade nine English. The observation findings will attempt to answer research question 1 (c) of this study that explored how teachers implement the curriculum in their English lessons. The observation findings were compared against the participants' data (Chapter 6), and the policy intentions (Chapter 4) to draw conclusions on the implementation process of the policy curriculum in two PNG secondary schools' contexts.

There are seven sections in this chapter. Section one gives the introduction, while Section two defines the observation contexts. Section three discusses case study one findings while Section four gives a conclusion for case study one. Section five presents case study two findings, while Section six presents the conclusion for case study two. Section seven outlines the summary of the whole chapter.

5.1 Defining observation context

According to the literature, observation enables researchers to collect "live data" from naturally occurring situations (Cohen et al., 2007, p. 396). Moyles (2002) recommends to researchers to take field notes of physical and contextual settings for observation purposes. Hence, the observation data

for this study were collected from classroom 1 (C1) in case study one, and classroom 2 (C2) from case study two (Table 3.2). As earlier stated, observation in this discussion relates to three themes: physical, programme, and interaction. Creemers and Rezig (1996) describe the physical setting as referring to the classroom environment and its organisation (this includes the social system, the atmosphere, and norms and values). Morrison (1993) defines the programme setting as relating to the pedagogic styles, resources, and the curricular organisation; whilst the interaction setting refers to interactions (verbal, non-verbal and visual) that occur inside the classrooms (Ibid). Those three observation themes were necessary for portraying a detailed description (Patton, 1990) of the curriculum implementation process pursued by this study.

Conducting observations was valuable for this study, as the focus for this thesis was investigating an implementation process of an outcomes-based English curriculum. The curriculum in this context is considered a social product (Flick, 2007) for teachers' and students' interactions within the PNG secondary education level (Department of Education, 2003a; 2006). This study aimed to explore and understand meanings from concerned teachers in a social context (Creswell, 2009), as individuals, or groups who ascribed to the PNG policy mandated curriculum. Hence, observation was necessary for this study to show social representation of the curriculum implementation.

Furthermore, undertaking observations enabled this study to triangulate findings from participants' interview data (Chapter Six), and compare against policy intentions (Chapter Four) to give a thick description of the curriculum implementation process. According to the literature, the strength of observation is the provision of "a reality check" (Cohen et al., 2007, p. 396), as sometimes what people say they do may actually differ from what they really do (Robson, 2002). This study used a structured observation guide during the periods of observations, and used both an inductive and deductive approach for extracting ideas during the coding process (Section

3.5.3). Both content analysis (Morrison, 1993) and discourse analysis (Tsui, 1992) were the tools used for grouping coded observation data based on common patterns. Hence, the three themes: physical setting, programme setting, and interaction setting are representatives of meanings elicited from observations in the two cases studied. Case study one is discussed before case study two.

5.2 Case study one findings

5.2.1 Theme 1: Physical setting

The first theme, physical setting refers to the inside and outside features that comprise the environment of the classroom observed.

Classroom one (C1) is one out of five different grade nine classes within the first case studied (Department of Education, 2009). The modern block of buildings that housed the classroom looked pleasant from the outside because it was painted in the school official colours. On the ground there were neatly trimmed flower beds growing around the building block. C1 is located in a double storey classroom on the top left that has a staff working office in the middle separating another classroom to its right and two classrooms on the ground floor which were also separated by another staff office. Access to the classroom is up the stairways. There are forty five students in this class with 19 females and 26 males as per the head count in class.

Literature describes the term classroom settings as referring to the organisation of the classroom environment; these include physical or visual things (Borich, 2007). The seating furniture of C1 consisted of movable student desks and plastic chairs. This is synonymous with the rest of the other classrooms in this school environment. The desks and chairs are joined together so that there are two students sitting close to each other and facing the chalk board and the teacher's table at the front as in a traditional classroom setting. The students' seats are arranged into four rows of two

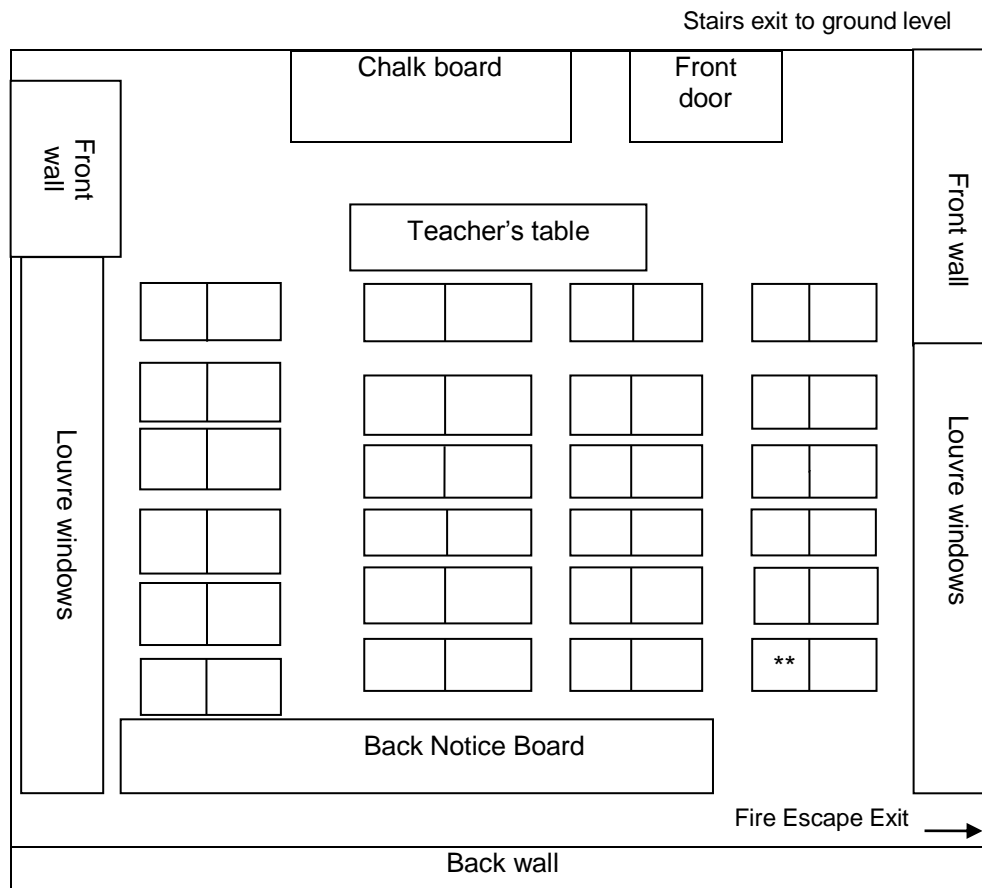
tables conjoined as one. This gives a breakup of six doubled tables and 12 chairs in each of the four rows (see Figure 5.1).

However, contrary to the first impression of the layout of students' seating, there is flexibility in seating arrangements in C1. Students move their portable desks and plastic chairs around depending on the type of lesson that the teacher would be teaching. This is described as creating classroom climates for interpersonal sharing and communication (McGee & Fraser, 2008). Accessibility for doing group work which requires more than two students is easy within this classroom. Likewise, the same is said for re-organising seating for a whole class lesson because of the easy portability of the seating. There is a notice board at the back of the classroom that is used for putting up notices for students to read. The atmosphere of C1 during observations depicted likeability between teacher and students as noted in the humour and laughter seen in the lessons. Generally, this classroom looked neat and tidy. The students' tables and chairs were of the same grey colour which gave the classroom an attractive look against the brown timber walls. This also contrasted well with the students' uniform colours which helped to brighten up the interior of C1.

The last feature noticeable was the classroom's ventilation. There is a natural flow of cool breeze from the outside which flows in through the open windows and supplements the indoor ceiling fans that cool the room. This observation context is in the tropics where the temperature is always over 30 degrees Celsius. There is good electric lighting in the room and it also catches the sun's rays. Despite being in a block of buildings, noise from other classrooms is kept at a minimum and is not a major obstacle to learning. The walls are not sound proof but the classrooms displayed respect for their neighbouring classes by minimizing noise as seen during observation periods. The physical features of the classroom layout described above give an impression of C1 as part of an institution that is well managed by the school administration and teachers (researcher's insider knowledge). Thus, the physical setting portrayed an orderly social relationship.

However, despite the portable seating arrangement in C1, successful implementation of the OBE curriculum according to policy intentions is not guaranteed.

Figure 5.1: Classroom 1 Map – Upstairs Classroom



** Observation Point

5.2.2 Theme 2: Programme setting

The second theme, programme setting, refers to two concepts: teaching practice, and teaching content in this discussion. These two concepts are discussed to illustrate the implementation process of the outcomes-based curriculum in C1.

5.2.2.1 Teaching practice

According to Borich (2011), the concept teaching practice refers to the teacher's ways of doing things in the classroom. Three issues define teaching practice in this study: lesson structure, whole class teaching, and group discussion. These are described to illustrate the teaching practices noted in C1.

5.2.2.1.1 Lesson structure

The description of the lesson presentations sighted in C1 is listed below.

Table 5.1: Classroom 1 lesson structure

Week	How lesson started?	How lesson developed?	How lesson ended?
1	Homework correction of grammar exercise	Delivery of new content - Argumentative writing Whole class	Revision questions asked on content delivery & setting homework based on content
2	Revision of previous day's lesson	Explanation of Argumentative Essay Support paragraphs Students worked in small groups	Students worked in groups till the end. Completion of group task for homework. Support paragraphs
3	Revision of previous day's lesson & introduction of new content – writing skills	Explanation of concepts related to new writing task - conclusion paragraph Group work	Students worked in groups till the end. Completion of group task for homework.
4	Correcting grammar home work	Direct & Reported Speech grammar exercise Whole class	Setting exercises from the direct / reported speech for home work.

The lesson structure of C1 shows three segments: introduction, body and conclusion. This pattern is consistent in all four observed lessons. The teacher begins with either correcting homework or revising learned concepts from a previous day's work, then moves onto the introduction of

the topic for the day's work and follows on with the teaching of the lessons before ending off with corrections of exercises and setting new homework. The lesson structure seems to reveal the teacher's cognitive knowledge on teaching methods acquired from her teaching training, and from her professional work experience. The knowledge base of the teacher is her personal belief system for teaching, which is a characteristic that may influence (Borg, 2006) her acceptance of the new curriculum.

The lesson structure of C1 reveals that the teacher seems to have both a direct transmission belief about teaching, and a weaker version of student-centred teaching. Her view of the former is manifested in the physical arrangement of the lessons' structure, while the group work activities in week 3 and 4 illustrate the latter. For instance, the policy states that, "Students should work as individuals and in groups" (Department of Education, 2003a, p. 18). Hence, this shows that the teacher's thinking resonates with policy intents, whilst still holding onto a direct transmission view of teaching.

Direct transmission belief means that the teacher's role is to communicate knowledge in a clear way, to explain, correct solutions, to give answers to solving students' problems, and to maintain calm and concentration in class (Organisation for Economic Co-operation Development, 2009). In contrast, group work entails students working collaboratively with each other and the teacher to create knowledge for themselves. The direct transmission teaching view describes teachers as teaching facts to students, and how much students learn depends on the amount of background knowledge that they have (Ibid). In brief, a direct transmission resonates with a teacher-centred approach to teaching, and group work activities leans towards supporting a student-centred approach.

The teaching views elicited from the lesson structure in C1 seem to both support and contradict the policy intentions discussed in Section 4.3.3. The policy (Department of Education, 2003a; 2006) advocates for an integrated

or holistic teaching practice that is underpinned by a constructivist view. This thought is indicated in the quote, “relevant and meaningful teaching and learning experiences for Lower Secondary students can be best provided by integrating subjects” (Department of Education, 2006, p. 9). As deduced from Table 5.1, there were weaker versions of integrated teaching through essay writing. That is, the teacher had used the topic – ‘Corporal Punishment’ from the subject, ‘Personal Development’ for addressing student discipline in schools.

The above discussion demonstrates that the C1 teacher adhered to policy intentions (Section 4.3.2) by teaching issues prevalent in society as seen in this quote, “The English Syllabus is underpinned by integral human development” (Department of Education, 2006, p. 5). In contrast, the grammar exercises were not taught in context, thus demonstrating that policy intents were not adhered to. Therefore, as highlighted here, there is both a clash and acceptance between policy and practice noted in C1. Acceptance shows a weaker version of policy intentions, while the latter shows the teacher’s own curriculum.

The C1 finding here indicates that teaching seems to be organised around segments of topics which revealed a different approach to the teaching and learning of English as a second language (L2). For instance, in grammar teaching there were specific features of verb tenses taught in part of lesson one in the first week, and then the direct and reported speech in week four observation. Similarly, the writing lessons for the argumentative essay were taught sequentially from the introduction in the second part of lesson one to the support paragraphs in the second, then finally the conclusion in the third lesson. It must be stressed here that those examples from the lesson structure did not illustrate student-centred teaching as required (Section 4.3.3) and did not eventuate from a teaching moment due to a need arising from the English lesson, but seemed to be pre-determined topics according to the teacher’s curriculum.

In closing, C1's lesson structure showed that the teacher had two views of English teaching and learning practices. It showed that the teacher had not yet embraced a holistic approach to teaching as required by policy, but had interpreted the curriculum illustrating her version of the policy intention.

5.2.2.1.2 Whole class teaching

Literature defines a whole class teaching as a teacher-centred lesson where the teacher delivers a lesson to the class, and speaks for at least two thirds of the lesson's duration (Dillon, 1990). Hence, students' participation is restricted because of the way the classroom talk is structured (Long, 2007).

Examples one and two taken from two different C1 observations are representatives of whole class teaching. The letters T –is the teacher and Cl – for chorus answers from two or more students.

Example one

136. T: Now for this afternoon we are going to look at or study what they call argumentative
137. Cl: Writing, essay
138. T: Yes, essay or
139. Cl: Writing
140. T: Yes. writing. Now argumentative writing the same principles apply to what we learnt about propaganda.

Example one is taken from week one observation lesson on the topic of argumentative writing. It was a period six lesson on the 6th August, 2009 from 11:40 am – 12:20pm. The quote exemplifies a whole class teaching strategy and that specific lesson was a teacher dominated lesson (30 minutes of teacher talk noted on the transcript recording) and pupils only responding with one word answers to the teacher as illustrated in lines 138 and 139 above.

Example one is an introductory lesson to writing an argumentative essay. The teacher initiated talk in line 136 by setting a boundary marker to set the direction for classroom teaching and learning for the lesson, and the boundary is inferred to the word, "now". The word, "now", in the teacher's

utterance in line 136, serves as an: elicit / confirm speech function (Tsui, 1992). Utterance is used here to describe talk in the classroom. This means that the teacher was soliciting support for students' concentration for the lesson on an argumentative essay. As further seen she gave a slight pause for students to complete her talk as shown in line 137 and 139 by providing the answers, "essay" and "writing". Example one shows a five "turn taking" dialogue which was rigid with no space for further talk between the class and the teacher. A turn in discourse analysis refers to each occasion that a speaker talks and ends when a new speaker starts talking (Coulthard & Brazil, 1992).

The quality of the students' responses from the dialogue (example one) was questionable as it did not cater for meaningful talk. The less time given for students to reflect on learning concepts in the lesson (example one) contradicted policy intentions for students to be active participants in the classroom learning process (Department of Education, 2003a). The practice of a one word answer does not show deep thinking by students, but gives an implication of a guessing game for answers. Therefore, this raises the question of the teacher's questioning techniques as a means of probing students' involvement in the classroom teaching. The effect of less student talk in class restricts their participation in the classroom learning process. This finding resonates with Young's description (1992) of "guess" what the teacher thinks and does not seem to reflect student-centred learning as required by policy.

Guessing what the teacher thinks as illustrated in example one, shows the exchange structure between students and the teacher. The students' voices were only heard when they were providing required answers like a one word answer as examples from lines 137 ("writing", "essay") and 139 ("writing"). The practice of providing one word answers that were required by the teacher was seen 50 times in lesson one (transcript). Similarly, limited students' answers were also noticeable in the C1 fourth observation. The whole class teaching finding also revealed a three part structure of

classroom talk known as the initiation – response – evaluation / feedback (IRE) pattern (Sinclair & Coulthard, 1975) which is discussed in detail in Section 5.2.3.

The finding of a whole class teaching strategy in C1 demonstrates contrasting results to policy expectations for a student-centred approach (Section 4.3.3). The policy curriculum advocates for student-centred teaching as repeatedly stated in both the NCS, and the ELLSS (Department of Education, 2003a; 2006). Despite policy acknowledging that there are allowances for whole class teaching, this lesson exemplifies that the teaching practice of the teacher is still deeply rooted in the teacher-centred approach, as week four lesson in C1 was also delivered entirely as whole class teaching.

The teaching behaviour deduced from example one implies that the teacher (ET1-S1) has not yet changed her teaching approach as policy requires (Section 4.3.3). Furthermore, the teacher reported that there was no PD for preparation of the OBE curriculum. For instance, “There’s no in service been given in our department, no way are we making up anything” (ET1-S1). This reflection supports the notion from Hall and Kidman (2004), that “you can’t change knowledge if you don’t have the knowledge” (p. 341). This study argues that PD is necessary for aiding teachers harmonising the notion of a student-centred learning as pointed out by Hall and Kidman.

The ET1-S1 actions as described above could imply two things. The teacher lacked understanding behind the theoretical framework of the OBE curriculum as an instructional strategy (Section 2.10.4), or Spady’s model of OBE has in-built tensions (Section 2.10.4.4.3). Thus, the teacher could not implement according to policy intentions (Section 4.3). Hence, this raises the argument that there is need for subject specific PD for teachers at the secondary level of the contexts of this study. This assumption is supported by earlier discussions (Section 2.10.4.4.3), policy intentions (Section 4.4) and the literature (Hall & Irving, 2010).

Example two shows another whole class teaching practice between the teacher (T), class (Cl)-more than two students, and a student (St) - individual response.

Example two

206. T: so the actual words that you use in your conversation are the direct speech that is being given. Now obviously reported speech is the exact opposite of that, isn't it?
207. Cl: yes
208. T: yes
209. T: so reported speech is what?
210. Cl: Unintelligible sounds
211. T: one person
212. St: actual words spoken by many
213. T: okay restating what someone said

Example two is taken from C1's week 4 observations on a reported speech lesson. The citation is from the 11th minute of the lesson where the teacher is explaining the content for the day's learning.

The teacher's talk from the example does not infer genuine teaching purposes but information check as she already knew the answer to the question she was asking. The speech structure from example two displays, elicit / information (Tsui, 1992). The teacher is supplying information to the students with which she is already competent in (line 206). She did two things in line 206, define the direct speech and then asked students to give meanings of the reported speech. Line 207 shows students' agreeing with the teacher's comment ("yes") and line 208 gives an indication that the teacher was satisfied ("yes") that the students agreed with her explanation ("reported speech is the exact opposite of that"). This interaction implies that the teacher was checking students' recall of meanings, and not creating new knowledge as policy intends.

Furthermore, the teacher repeated her question in line 209 but no student took the speaking turn in line 210, so the teacher again asks students to give the answer repeatedly in line 211. It is interesting that her question is worded in a phrase, but there was a questioning tone at the end of "person" which made it clear to students that she wanted answers. Hence, one student

responded in line 212, by providing an answer, which is defined as a recall answer, and not a high thinking order answer, according to Bloom's categories of questions (Anderson & Krathwohl, 2001).

The interesting thing from example two is the use of the negative question tag, "isn't it?" in line 206. The spoken utterance in line 206 has an: elicit / agree function (Tsui, 1992). The teacher already knew the answer, but still asked with a question tag at the end which influenced the answer she was looking for. The tag had a falling intonation when spoken by the teacher, which indirectly gave the clue for students to provide the chorus answer, "yes" in line 207 that the teacher was after. This practice of questioning is described as the teacher manipulating the question ("isn't it"? line 206) in order to get students agreeing with her answer ("yes", line 207). That questioning behaviour did not give allowance for pupils to think beyond the teacher's question which resonates as a recall question that is just testing knowledge. Thus, when this practice is compared against the Bloom's Taxonomy category that ranks thinking skills from the lowest to the highest domain (Anderson & Krathwohl, 2001) the implication here is of a low order learning that does not challenge students' thinking. This finding is in opposition to policy intentions for a student-centred learning (Section 4.3.3).

Example two highlights that the choices of the teacher's spoken words and her teaching strategy are linked to her pedagogical beliefs (Wells, 1994). For instance, the C1 teacher believes grammar is important for learning English as stated during the post-observation interview.

Q: *What was the expected learning outcome from the lesson on direct and reported speech?*

ET1: The expected learning outcome would be that they would be able to report back statements and questions correctly the next time.

For instance, the actions of the C1 teacher in programming the direct and reported speech indicates her pedagogical belief. Likewise, when the teacher defined the learning outcome for the programmed lesson, she demonstrated

her view to learning English in these words - “report back statements and questions correctly next time” (ET1-S1), which is grammar teaching. Hence, the teaching behaviour noted here contradicted policy intentions (Department of Education, 2003a; 2006) which advocates for grammar to be taught in context. Therefore, the discussion of whole class teaching strategy noted in C1 provides support for the argument of a mismatch between policy intentions and classroom practices of the new curriculum.

5.2.2.1.3 *Group discussion*

Cazden (2001) describe group discussion as the social interaction of classroom talk that enables cooperative learning amongst students when placed together with three to four peers in classroom situations. Policy requires group discussion to be used for classroom teaching by stating that, “Students should work as individuals and in groups” (Department of Education, 2003a, p. 18). The advantage of group work is that it gives an opportunity for the shy and introverted pupils to speak up in small groups who would not be able to do so in a whole class teaching situation (Ibid). Hence, this observation indicates that the teacher in C1 has embraced a particular policy intention.

Group discussions in C1 were noted as a teaching strategy in weeks two and three lesson observations (Table 5.1). Example three shows a group discussion between four students.

Example three

44. S1: Cool ah! You are going against it and we are going for it.
so like you know you have written something different from ours.
45. SB: Hum gosh it's not just writing
46. S3: What was the first one again?
47. S2: [.....] controls behaviours. And the second one was
48. SB: Humanitarian Rights
49. S1: Oh we are going for it ah?
50. SB: Yeah but I have to elaborate
51. S1: Going against?
52. Unintelligible sounds

Example three exemplifies active student talk. There are more students' voices discussing the topic in group work as compared to a whole class teaching (Section 5.2.2.12). Example three shows students negotiating for meaning in group discussions. The aim for the activity is for students to list down three-four supporting arguments with elaborations and examples of the topic, 'corporal punishment'. The students' arguments had to support the group's view about the prospect of encountering corporal punishment in schools. The students were given five minutes by the teacher to do the task but it took all groups about 21 minutes to get the required task done. The activity consisted of pupils' discussions of ideas, elaboration of their assertions and citing specific examples to assert their arguments. The finding here resonates with policy intentions for students to create meanings out of learning situations (Department of Education, 2003; 2006).

Example three shows students' leading the group discussions after the teacher's instructions for that teaching and learning activity. S1 initiated talk in her opening stanza by highlighting the two opposing views. That speech act by S1 set the direction for the discussion. The speaking turn was given to SB who reacted to the remarks made by S1 in line 45. The student's utterance in line 45 is an interesting observation because it illuminates the meta-linguistic awareness (Coulthard & Brazil, 1992) of the student (SB) in the L2, and further infers his understanding of the meta-statement framing his arguments as stated in line 48 ("humanitarian rights").

Meta-linguistic awareness refers to the student's competent performance in English (Cazden, 2001). SB appropriately pointed out to S1 that, "It's not just the writing", which indicated that he was confident of what he had written. However, SB understood that he was not only going to report what he had written, but needed to argue and defend his propositions as seen in line 50 ("Yeah but I have to elaborate"). SB was assertive and ready to share his views with the group. This finding resonates with policy intention that "As students listen to, speak about, read, view and write a range of texts, they will make meaning" (Department of Education, 2006, p. 1).

Meta-statement defines the student's main argument. For instance, line 48 highlights SB's main argument. The student understood that he had to "elaborate" his argument, which meant he had to unpack the big term, "Humanitarian rights" into specific support points. This would realise the policy intentions for students to "learn to teach each other and to learn from each other" (Department of Education, 2003a, p. 18). SB used the group discussion as a means of transferring his view to the other students. This finding in the example demonstrates cooperative learning amongst students working in a small group and negotiating meaning for their understanding of the content work set by the teacher in C1.

Furthermore, the finding from example three also implies that the student's (SB) thinking is beyond the low order comprehension classification according to Bloom's taxonomy. He did not give his interpretation because S3 took the speaking turn in lines 46 then asked a question in which her friend responded in line 47. This prompted SB to bid speaking rights in line 48 to offer his counter argument. The interaction illustrates that the girls had silently teamed up against the boy in this phase by not allowing him to present his views (line 50) which would have enabled them to hear the other side of the argument. For instance, S1 comes in the conversation in line 49 by re-iterating the female students' arguments and also seems to be seeking re-assurance from her two friends whether they were still on the same side of the argument. This meaning is heard in the tone of the word "ah" (line 49) which has a questioning tone? in the PNG Tok Pisin language, thus, the interaction has the meaning of, "Are you still with me?" (line 49).

The reaction from S1 (line 49) was brought on by SB's counter argument "Humanitarian rights" (line 48). Hence, the student group discussion in example three illustrates a highly interactive and collaborative dialogue exchange (Sonnenmeier, 1993) between these four students. This group participation contrasts with the performances noted in whole class teaching (Section 5.2.2.12). The involvement of students during group discussion leans towards policy intentions for students taking active roles in creating

their own meanings based on classroom teaching. The quality of students' talk noted in example three resonates with policy intentions that students need to create meanings from classroom knowledge based on real life situations (Section 4.3.2).

The findings from example three demonstrate two things. Firstly, the implication here is that the teacher's knowledge of pedagogic styles is similar to policy intentions for group work; here there is evidence of the teaching strategies required for a student-centred approach as discussed in Section 4.3.3. Furthermore, example three demonstrates that the teacher has interpreted the OBE curriculum according to her experiences, and this supports what Stoller (2009) defines as applying a weaker version of the original intended curriculum as noted in the programming of group discussions here. Therefore, as Stoller (2009) concludes, when a teacher's practice is congruent with the new curriculum, there is a high possibility of an adoption process to the new curriculum.

In summary, the concept of teaching practices in C1 was revealed through three things: lesson structure, whole class teaching, and group discussion. These three strategies demonstrate the implementation process of the outcomes-based curriculum. However, the underlying issue noted from the three teaching practices reveal that there is a need for PD to enhance alignment of policy intentions with classroom practices. The assumption raised here supports the policy implication (Section 4.4) and the literature (Hall & Kidman, 2004).

5.2.2.2 Teaching content

The second concept identifying the theme, 'programme setting' is teaching content. Literature describes teaching content as programmed topics that are taught and learned in the classroom (Cazden, 2001). Two types of teaching content noted in C1 observations are: grammar and argumentative writing skills. These topics are described to illustrate the concept of teaching content noted from the OBE implementation in C1.

5.2.2.2.1 *Grammar*

The first teaching pattern noted in C1 data is grammar teaching. Azar (2009) defines grammar as the structural rules and the study of those rules regulating formation of sentences, words and phrases in a language. Example four is representation of C1's grammar teaching.

Example four

- 142. T: not are it should be
- 143. St: were
- 144. Cl: were
- 145. T: because when you report back something then verb or the tense of the verb obviously
- 146. Cl: changes
- 147. T: changes therefore, this serves as an introduction to our session for this afternoon which is on
- 148. Cl: reported speech

Example four is from the fourth lesson observation that demonstrates characteristics of a grammar focused teaching. The grammar aim resonates in lines 145, 147 and 148, which illustrates the point of teaching rules about specific language features of the direct and reported speech of the English language. The teacher correction of errors is another grammatical feature observed in this lesson. An example is seen in line 142, and the corrective behaviour was consistently noted 16 times in the transcript. In total timing, the teacher spent 30 minutes in total from the forty minutes lesson explaining rules of direct and reported speech.

The underlying meaning elicited from example four is that the teacher has resorted to old teaching habits. The content taught in example four was not from the English outcomes-based syllabus (Department of Education, 2006), but a topic from the old syllabus. Reverting to an old teaching topic indicated that probably the teacher here had not had the necessary PD to be thoroughly convinced of the OBE curriculum, so had resorted to familiar practices. This supports the argument from Stoller (2009) that if enthusiastic teachers receiving curriculum innovation are not supported, then there is a possibility of enthusiastic teachers reverting to old practice.

It must be stressed that the C1 teacher did attempt at taking ownership of implementing the OBE curriculum (Section 5.2.2.1.3). However, example four illustrates her reverting to the old syllabus topic possibly because of no PD and a lack of support in materials. For instance, when she was asked about the new syllabus, she stated that her preference was the old syllabus, “I like the old system much better because the OBE system makes us go out to look for information” (ET1-S1).

The above reflection from C1 indicates that she probably did not prefer to be innovative in the sense of providing her own teaching materials. Arguably, this is related to past practices where the DOE provided teaching materials for the former curriculum for teachers’ use. However, with the current OBE curriculum, the responsibility of providing for resources was left to schools. Hence, the C1 teacher’s reaction of not wanting to look for information to prepare lessons. Therefore, it is argued that the lack of resources and support not provided for her teaching context may have influenced the teacher using the old syllabus topic as deduced from example four.

Furthermore, when she was asked to reflect on an area where she could improve her teaching during the post-observation interview, she believed that grammar skills were important for learning English as an L2. For instance:

Q: *What area in the lesson would you improve?*

T: Go through the tenses with them before I look at reporting questions or statements (ET1-S1).

The self-reflection by the teacher gives an implication of the direct transmission view (Organisation for Economic Co-operation, 2009) that she has about teaching and learning of English. She talks about verb tenses which are grammar skills to be imparted to students. It does not give an indication of how the teacher would involve pupils for future improvement of the lesson but revolves around the teacher’s agenda for teaching purposes. It projects an image of the teacher as the only source of knowledge

and as needing to pass that information to students. This is contrary to what is deemed appropriate in the policy curriculum - teaching grammar in context through a student centred approach (Department of Education, 2003a; 2006).

The teacher's belief about grammar as being a requirement for learning English is justified, as Ellis (2008) argues grammar is necessary for studying an L2. Likewise policy also acknowledges that grammar is important for learning English in this PNG secondary school context. The idea is contained in this quote, "English has different language requirements such as vocabulary and grammar" (Department of Education, 2006, p. 9). However, policy requires the teaching of grammar to be in meaningful contexts. This thought is indicated as, "relevant and meaningful teaching and learning experiences for Lower Secondary students" (Department of Education, 2006, p. 9). The observed grammar lessons in C1 were not contextually taught but were presented as learning the rules and doing exercises of the rules.

In summary, the C1 English teacher has a teacher-centred grammatical approach to teaching English as an L2 in which the teacher is considered the primary source of the L2 knowledge and students' are mostly silent recipients of the L2 (Cazden, 2001).

5.2.2.2.2 *Argumentative writing*

Argumentative writing is the second teaching content noted in C1. Literature describes argumentative writing as texts that have purposes of convincing readers to support the writers' assumptions, share values, and ultimately to concur with stated conclusions (Markee, 2001).

Example five shows the teaching of argumentative writing. The goal for that lesson was for students to write a group conclusion for their argumentative essay. The extract was from week three lesson observation (Table 5.1) between the teacher (T) and an individual student (St).

Example five

1. T: We have just written on corporal punishment.
Now a brief revision on the introductory... Now most times even in these quotations from sources which may take up to one sentence and the maximum is...
2. St: 7 [got answer from the hand out]
3. T: 7 sentences, good

Example five shows the teacher revising the previously studied structure of an introduction paragraph to an argumentative essay. From the example, it is noted that the teacher did the most talking through purposes of transferring information to students, which lasted about 17 minutes. The revision illustrates the teacher's attempt at using scaffolding through questioning as a means to give students a build up from previous to current work (Cazden, 2001). The goal for this particular lesson was for students to write supporting statements to their arguments and to use references to support their stance.

An interesting point to note from example five is that the teacher had prepared worksheets for students to read and follow through while she revised the structure with students. As seen in line 1, the teacher gave a detailed explanation then invited a response indirectly from students which did not require much work from students. The finding in example five infers no deep thinking in the student's response in line 2 ("7"), as the student just gave a recall answer from the hand out. This implies that the classroom talk in this context is considered meaningless as it demands students' attention, but does not stretch their mental capacity for critical thinking (Hall & Walsh, 2002). From the recorded sound file and transcript, this lesson showed approximately 23 minutes teacher explanation, and 17 minutes were taken up by students in their small group discussions. Despite being a writing lesson it was dominated by the teacher's explanations which signals that the teacher has a world view of teaching writing in a linear manner which can be problematic as not all students learn writing this way (Walling, 1987).

One underlying meaning extracted from example five data indicates that the teacher has accepted the policy curriculum as seen from her teaching of a writing skill. Policy indicates on page 24 that writing is a programmed skill (Department of Education, 2006), thus confirming the teacher's actions were in compliance within policy intentions. However, despite teaching writing, the teacher had taught her own "implemented curriculum" (Adamson & Davison, 2008, p. 15). This meant that the topic was not conducted according to the writing programme for term three, when this observation was conducted. Term three topics list, "write narratives based on local and personal experience of living in PNG using appropriate content, language structures and strategies" (Department of Education, 2006, p. 28). This illustrates that the policy curriculum is different from the actual teacher's implemented curriculum in the classroom, providing support to other studies that argue teachers may implement their own curriculum in classrooms (Chan, 2002).

There are two ways to interpret the teacher's behaviour from example five. Firstly, it indicates that the teacher has taken ownership of the curriculum by teaching writing skills as required (Section 4.3). By doing that, the teacher created her own interpretation known as a weaker version of the original (Stoller, 2009) policy intention. However, the teacher's action also infers that she could not make sense of the writing topic listed in the outcomes-based syllabus so resorted to familiar practices (Chan, 2002). The policy required narrative genre to be taught in term three (Department of Education, 2006), but the teacher programmed argumentative genre. This finding suggests that teachers need PD to offset any confusion that they might have regarding the implementation of the outcomes-based curriculum (Section 2.10.4.4.3).

Example five also reveals that the teacher's belief system of teaching writing is not aligned with policy intentions. The policy requires three teaching strategies: student-centred, thematic / integrated, and text-based (Section 4.3.3). The teaching strategy used by the teacher resonates with a linear

approach that involves teaching skills in segments till the whole component is covered (Walling, 1987). This finding resonates with the finding of the lesson structure in Section 5.2.2.1.1. The teaching behaviour in C1 indicates the teacher's world-view of teaching acquired from teacher training and professional experiences built over her teaching career. Thus, if change in the teaching approach of writing is to be realised, then there is a need for PD in this secondary school context to enhance the teacher's knowledge to align with policy intentions (Section 2.5.2).

5.2.3 Theme 3: Interaction setting

The last theme, interaction setting refers to the type of classroom talk. Cazden (2001) describes interaction as both the verbal and non-verbal communication between teacher and students in lessons. As such, classroom talk has links to language teaching (Hall & Walsh, 2002).

5.2.3.1 Classroom interaction

C1 observation data revealed a three sequence structure of classroom talk during the teaching and learning activities. That is: initiation, response and evaluation (IRE) (Sinclair & Coulthard, 1975; Tsui, 1992).

There is one underlying issue elicited from the classroom interaction data: teacher's world views to teaching, and that is discussed after the discussions on the IRE pattern.

Example six is representation of an IRE sentence structure noticed consistently from C1's four observations.

Example six

21. T: I am ill. Can you report back to me that sentence that I just said?
22. St: You're ill
23. T: No! No!
24. Cl: Unintelligible sounds
25. T: Were you here during the preparatory class?
26. St: Kind of
27. T: Think before you give your answer.

Example six is taken from the topic of direct and reported speech. The elicitation category of the teacher’s talk is, elicit and inform (Tusi, 1992). The teacher’s utterance in line 21 is the initiation act and directed students’ attention to the topic for the day’s lesson (Sinclair & Coulthard, 1975). The language function for the teacher’s talk in line 21 is giving an instruction to students to change her spoken words into the reported speech. The instruction is testing students’ ability in that grammar topic (elicit). This seems to be her hidden message for this lesson. The clue for the teacher’s underlying meaning is indicative in the word, “can” in line 21 which was uttered with a high intonation. ‘Can’ is an interrogative word that has a meaning of asking one to demonstrate one’s ability (Tsui, 1992). Lines 21 – 23 are placed in Table 5.2 to illustrate the IRE structure.

Table 5.2: Sample of classroom 1 talk

Data	IRE pattern	Elicitation category	Sentence structure	Language function
Line 21. T: I am ill Can you report↑ back to me that sentence that I just said?	Initiation	Elicit: Information	Interrogative	Instruction
Line 22. St: You’re ill	Response			
Line 23. T:No↑ No↑	Evaluation			

Key - ↑ High intonation

However, line 22 shows that the student did not understand the teacher’s meaning implied by the word ‘can’ and provided a response (“you’re ill”), without recognising clues in the teacher’s utterance (line 21). The interaction from this transaction indicated a barrier to communication between the student and the teacher. Another example illustrating the miscommunication is noted in the performative verb –“report” (Paltridge, 2000), that was also a clue to the teacher’s intended meaning that set the direction for the day’s lesson. It implies that the student misunderstood the

meaning of the teacher's instruction and hence the response, "you're ill". This was not the answer that the teacher required, which prompted her negative feedback, "no" repeatedly (line 23) as an evaluation to the student's response (line 22).

The evaluation from the teacher ("no", "no") was uttered with annoyance in response to the wrong answer given by the student. The emotion in the evaluative remark is deduced from the stressed high intonation in the teacher's voice signalling 'annoyance'. That response brought on talking described as unintelligible sounds as an extended response from students trying to work out the teacher's expected answer in line 24. The atmosphere from line 24 was like a quiz situation where there was a buzz between students murmuring answers to give. The teacher continued with the conversation in line 25 by having an extended turn at talking described here as an extended evaluation in an interrogative form (Tsui, 1992).

The utterance by the teacher in line 25, "Were you here during preparatory class?" is an extended evaluation (Tsui, 1992) of her talk that provides support to the assumption that the teacher was annoyed with the student in line 22 for providing the wrong answer to her instruction. The student's response in line 26 ("kind of") has both meanings of uncertainty and humour attached. The meanings were deduced from the low intonation of the phrase ("kind of"). The teacher does not pick up on that illocutionary act (Paltridge, 2000) from the student and gives her final evaluation in line 26, "Think before you answer". The teacher's final evaluation in line 27 illustrates the purpose of her questions to the class. Therefore, this explanation shows that the IRE pattern used by the C1 teacher in this contextual study was for purposes of checking students' linguistic abilities in the direct and reported speech, and not for enhancing students' learning.

Example six illustrated that the C1 interaction consisted of the three part classroom talk of the IRE pattern (Sinclair & Coulthard, 1975; Tsui, 1992). So what does this mean for the focus of this study? Data findings revealed that

the use of the IRE structure restricts students taking active participation in their learning. This finding contradicts the policy curriculum requirements for students to be active participants in their learning (Department of Education, 2003a; 2006). Furthermore, the IRE patterns seem to give the teacher control of the quality of talk occurring in the classroom. Hence, students' talk in this C1 lesson looks meaningless with no construction of knowledge because the teacher exerts control of what is discussed in classroom situations (Cazden, 2001).

Example seven is also representative of more IRE classroom structured talk noted in one argumentative writing lesson between the teacher (T), class (Cl) for chorus answers, and an individual student (St).

Example seven

- | | |
|---|-----------------------|
| 185. T: Now what do you put in the first section? | (Initiation) |
| 186. Cl: Title | (Response) |
| 187. T: No | (Evaluation) |
| 188. St 1: Title | (Extended response) |
| 189. T: Listen. | (Extended evaluation) |

[Teacher goes on to explain the answer for the first section]

Example seven demonstrates that the IRE pattern in C1 talk is used for testing recall and knowledge thinking (Anderson & Krathwohl, 2001). The recall / knowledge thinking defines the type of talk noted in C1 as being meaningless. The talk did not provide students' opportunity for critical thinking or a moment for discussion of the lesson content. This finding relates to the type of lesson programme that the teacher designed for teaching. For instance, the teacher's utterance (line 185) set the direction for teaching (example seven).

The teacher uses the word "now" (line 185) as a boundary marker (Sinclair & Coulthard, 1975). The function of 'now' is to set the tone for discussion. Hence she expected students to give the correct answer, as she had given them a hand out previously to read. The implication of the teacher's intended meaning was heard in the stress of the word, "now". The teacher's

question was checking on whether pupils had read the worksheet and understood the parts to structuring an argumentative essay and therefore she expected the right answer. When the desired answer was not forthcoming from the class in line 186 the teacher gave a negative response (“no”). The teacher did not anticipate the response in line 186 (“title”) as she assumed students shared the same meanings as her for naming the parts of an essay structure. Another student said the same answer in line 188 (“title”) which seemed to irritate her because she took a speaking turn in line 189 and issued a command to the class to “listen” to her, and she went on re-explaining what was written in the hand outs. Interestingly, this indicates that students did not read the handouts nor understood the question that the teacher asked in line 185. The discussion here has shown that quality of talk is restrictive when the teacher uses the IRE pattern (Tsui, 1992).

5.3 Conclusion

To conclude, the observation of the C1 English teacher showed her cognition, beliefs, and attitude (Borg, 2006) to the OBE curriculum. The teacher’s personal view resonates with teaching grammar skills to enable students to learn English, and this was demonstrated in the classroom teaching (Section 5.2.2.2.1). On the other hand, the C1 teacher could also be described as an innovator or adopter of change (Rogers, 1995), because she reacted favourably by programming writing skills (Section 5.2.2.2.2) as per policy intentions. However, the teacher taught another genre (argumentative) for teaching, and not the one (narrative) intended for by policy. The C1 teacher’s action is argued here as teaching a weaker version (Stoller, 2009) of the policy intention. Therefore, the C1 teacher would need support in the form of PD (Section 4.4) to align her practice with policy requirements (Section 4.3).

5.4 Case study two findings

This section presents the discussions of three observation themes: physical, programme, and interaction noted in Classroom two (C2).

5.4.1 Theme 1: Physical setting

C2 is a co-educational secondary school like C1. C2 is one of eight different grade nine classes of the second case studied (Department of Education, 2009). The modern block of buildings that accommodates C2 looked pleasant from the outside because it is painted in the school official colours. C2 is located in a double storey classroom on the right hand side on the ground floor that has a teacher's working office in the middle separating another classroom to the left. There are two classrooms on the top floor which are also separated by a staff office. Access to the classroom is only through the front door.

Located on the ground floor, observations noted that C2 is easily disturbed by passer-by noises that interfere with learning within. Likewise, noise from the other adjacent classrooms is also intrusive. The noise interference seems to be a management issue as it may have implications for students' maximum learning opportunity in the classroom (Organisation for Economic Co-operation Development, 2009). It was noticed during observation that when the school bell rang after recess or lunch breaks, other students passing by outside did not minimise their noise in consideration to the C2 lessons that were already in sessions. The intrusive noise is described as an attribute of the school climate (Harris & Chrispeels, 2006), which may contribute directly or indirectly to students' learning outcomes.

During observations, there were forty five students in the class with 19 females and 26 males. C2 has a traditional setting according to its physical features. The classroom resonates with the description provided by Edwards and Westgate (1994) that a traditional classroom consists mainly of the teacher's table out in the front and desks in rows enclosed in the four walls of a classroom. C2 seating furniture consists of three rows of heavy wooden

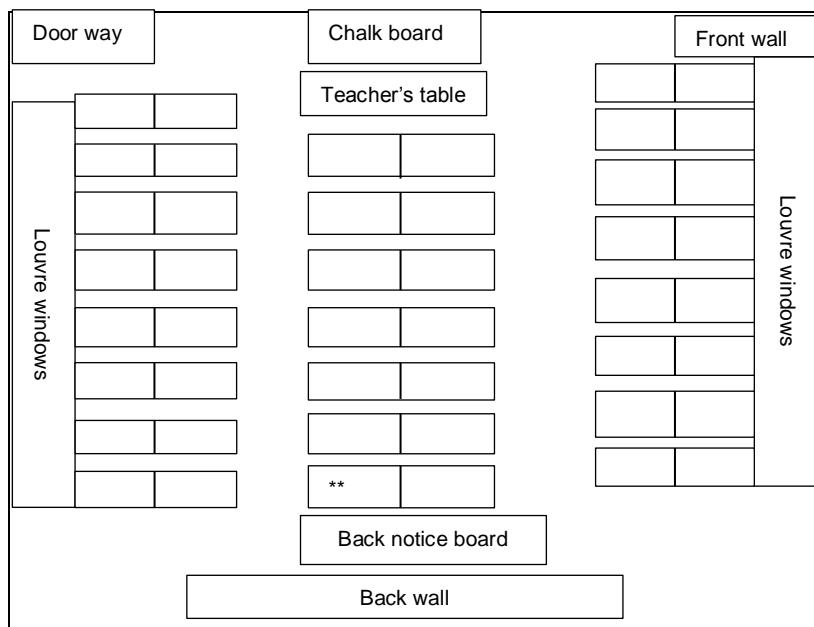
desks systematically organised one after the other. There were two rows of eight desks, and one row of seven which accommodated two students per desk. The description given defines C2 as having a traditional classroom setting.

From the observation point at the back of C2, two rows of desks on either side of the middle row were positioned into the wall (see Figure 5.2). The placement of the desks caused little room for the teacher to move around and check the students' work. Similarly, the C2 desk layout made it difficult for easy access by students who sat towards the wall to go into their seats as entry was only one way. Nevertheless, the seating arrangements made pair-work in that classroom conducive, however, did not cater for group work including more than two students. The seating arrangement in C2 resonates with the term organisational climate (Borich, 2011) which means to set out a classroom according to how one desires learning to take place.

The C2 physical features include a notice board at the back of the room for putting up homework and other notices. There is generally a good circulation of breeze coming in from the outside which cools the classroom interior. This makes it comfortable for student learning as this classroom is in a tropical environment where daily temperatures are over 30 degrees Celsius. Similarly, there is sufficient lighting from the ceiling lights and from the sun. In summary, C2 has a teacher-centred classroom layout of wooden desks facing the teacher's work station which is consistent with a traditional classroom definition (Borich, 2011).

Figure 5.2 on the next page shows the C2 map.

Figure 5.2: Second case study - Classroom 2 Map (Ground level)



** Observation Point

5.4.2 Theme 2: Programme setting

The second theme, programme setting discusses the observed C2 teaching practice and the teaching content.

5.4.2.1 Teaching practice

Borich (2011) describes teaching practice as the teacher's ways of doing things in the classroom. Lesson structure and whole class teaching are discussed to describe the notion of teaching practice noted in C2.

5.4.2.1.1 Lesson structure

The four weekly lesson observations sighted in C2 had a similar structure to C1 findings of introduction, body, and conclusion.

Table 5.3 on the next page illustrates the C2 observations.

Table 5.3: Lesson structure for classroom 2

Week	How lesson started?	How lesson developed?	How lesson ended?
1	Correcting grammar home work	Introduced new content (Spelling exercise) from the old syllabus text book. Correction of spelling exercise.	Grammar exercises given for home work.
2	Correcting grammar home work	Grammar exercise on parts of speech, nouns, verbs and adjectives from a prepared worksheet. Peer discussion & whole class correction.	Completion of worksheet exercises for home work.
3	Correcting grammar home work	Introduced new content from text book – Cloze passage. Whole class instructions. Textbook exercises & Corrections of exercises.	Grammar exercises in the text book given for homework.
4	Correcting grammar home work	Introduced new content from text book: Verb tenses – past and present. Whole class instructions. Text book exercises. Corrections of exercises.	Grammar exercises in the text book given for homework.

The underlying meaning elicited from C2's lesson structure reveals the teacher's pedagogical knowledge on teaching methods acquired from her teacher training and professional work experiences (Carless, 2001). Her beliefs about teaching as contained in the lesson structure reveals segmented teaching, or sometimes defined as direct transmission beliefs about teaching (Organisation for Economic Co-operation Development, 2009). The contrasting beliefs deduced here shows a mismatch with policy intentions. Policy advocates for a holistic approach to teaching grounded in the constructivist views of teaching and learning (Department of Education, 2003a; 2006), while the lesson structure reveals a direct transmission belief.

The lesson structure finding shows that the teacher's view on learning English is oriented towards a segmented teaching methodology where the teacher teaches facts to students. How much the students learn through a direct transmission approach depends on how much background knowledge students have (Organisation for Economic Co-operation, 2009). On the other hand, a constructivist view (policy intention) advocates for students to be active learners by creating meanings (Creswell, 2009) from all teaching situations. Because, of the differing view resonated in the teacher's structure of the English lessons and policy intentions, there is a need to align the differences so that policy expectations are met. This assumption is supported by earlier discussions (Sections 2.5.2 and 4.4) and the literature (Hall & Irving, 2010).

The other finding deduced from the lesson structure gives an indication of the teacher's reactions to the outcomes-based curriculum. The teacher seems to be threatened by change as she resonates with the status quo (Stoller, 2009) of the school as being the head of the English Department. The teacher has probably made a conscious choice not to adopt the curriculum. Hence, she seems to be making a political statement (Bakalevu, 2009) by refusing to use the new curriculum, despite it being a policy.

The objection to the new curriculum by the teacher is based on her personal decision making choices. When asked to comment on the outcomes-based curriculum, she said: "I am not using the new curriculum in the classroom" (ET2-S2). Her admission of not using the curriculum demonstrates that the C2 teacher was personally resisting change (Rogers, 1995) at the classroom level. It must be stressed that this teacher is the head of the English department in the school and thus made a personal decision in her teaching programme not to use the OBE curriculum. Therefore, this study argues that the C2 teacher seems to be resisting change at the classroom level because of her personal decision making choices (Markee, 1997).

5.4.2.1.2 Whole class teaching

Whole class teaching is the second teaching practice noted in C2. The finding of whole class teaching resonates with C1 (Section 5.2.2.1.2). Cazden (2001) describes a whole class teaching as involving a traditional teacher-centred lesson. C2's four weekly observations (Table 5.3) were delivered using a whole class teaching strategy.

Example one shows C2 representation of a whole class teaching moment between the teacher (T), a student (St), and the class (Cl) – more than two students.

Example one

6. T: What about? [Continues reading from the textbook passage]
What about the last two? Liatah? *
7. St: Growth
8. T: Growth and
9. St: Counselling
10. T: And counselling
11. Cl: Unintelligible sounds
12. T: What a lot of words. Good for correcting

* Pseudonym

Example one is a fill in the blank exercise from week 3 observation. The lesson is from the old syllabus material, 'The Create and Communicate' Book 3, that the teacher in C2 was still using. This teacher had not yet adopted the outcomes-based curriculum, so all her programmed teachings were based on the old syllabus material. Hence, all the four observed lessons in C2 were delivered using a traditional teacher-centred strategy of whole class teaching. The underlying issue elicited from the noted teaching behaviour indicates that the teacher training and professional experience influenced the C2 teacher in her teaching strategy (Section 2.5). Arguably, despite the policy change of a new curriculum advocating for a student-centred teaching approach, this teacher had not adhered to policy intentions and was demonstrating resistance to change (Markee, 1997) at the classroom level through the use of the teaching strategy and the old syllabus.

The C2 teacher's resistance of policy is captured in this remark: "We are not using the new curriculum in the English Department" (ET2-C2). As seen in the use of the third person pronoun ("we"), the teacher had situated herself in a position that defines her positional power as the head of the English Department at the school to share her view about the practical application of the curriculum. On the other hand, her actions of not implementing the new curriculum could also mean that she was delaying the adoption process (Rogers, 1995) to see how curriculum changes in other schools fare before embracing policy intentions. Furthermore, it could also imply that she was not confident to use the OBE curriculum because of not having received PD. Arguably the descriptions given here illustrate the teacher's personal decision making process which forms her attitudes and beliefs (Stoller, 2009).

Furthermore, the finding (example one) also illustrates that a whole class teaching strategy restricts students' participation (Cazden, 2001). This finding resonates with C1's finding (Section 5.2.2.1.2). Because of the way the lesson was programmed and delivered as text book exercises (Table 5.3), students' do not have active speaking roles that could cater for critical thinking. For instance, the one word recall answers ("growth" and "counselling") in lines 7 and 9 were responses to the teacher's question ("What about?") from line 6; this interaction was restrictive and did not require further thinking from students. Consequently, students' answers were specific and did not allow for interactive exchanges (Sonnenmeier, 1993). Hence, the lack of students' active participation contradicts policy intentions (Department of Education, 2003a; 2006) for students to create meanings in learning situations. The descriptions given in this discussion indicate the type of teaching strategy that the C2 teacher deemed appropriate for teaching English at this secondary level.

A second example depicting whole class teaching is illustrated below. The dialogue is between the teacher (T), an individual student (S), and more than two students (Cls).

Example two

200. T: Okay spell the correct word! [Instructions]
201. Cls: Unintelligible sounds
202. St: A- d-o-l-e-s-c-e-n-t [spelling of adolescent]
203. T: Is that correct then?
204. Cls: No, No! [Said it with a stress]
205. T: If that is wrong then yours is wrong!

Example two is part of a spelling exercise from week 1 observation. The teaching of spelling indicates that the C2 teacher believes that spelling as part of language functions is important for learning English. The teacher delivered the lesson using a whole class teaching strategy. The teacher's action here illustrates her views to learning English, thus resonating with policy intentions that, "English has different language requirements such as vocabulary" (Department of Education, 2006). Vocabulary relates to spelling because students need to spell words to form their vocabulary knowledge base.

Despite the similarity of the teacher's view to policy intentions elicited from example two, there are contrasting views to the type of teaching strategy required. This finding is consistent with C1 finding (Section 5.2.2.1.2). Policy intends for a student-centred approach to teaching language in context (Department of Education, 2003a; 2006) through strategies of: student-centred learning, text-based approach or integrated/thematic teaching (Section 4.3.3). However, example two shows a teacher-centred lesson not conducted in context, but according to the teacher's aims for students' learning.

For instance, line 200 ("Okay spell the correct word") in example two indicates the teacher's goal for that lesson. The lesson's aim is contained in the word, "okay" which as a boundary marker (Sinclair & Coulthard, 1975) sets the direction for the learning activity. Hence, the student's spelling of adolescent in line 202 confirmed the assumption made here about the teacher's aim for the lesson. Interestingly, the teacher's aim was again indicated twice in her utterances in line 203 ("Is that correct then?"), and in

line 205 (“If that is wrong, then yours is wrong”). The utterances of lines 203 and 205 re-confirm the assumption made here that it was the teacher’s goal for students’ learning of English that motivated classroom teaching. Hence, the description given here illustrates that the teaching of spelling in example two is not in context as per policy intents, but according to the teacher’s aim.

The contrasting teaching approach between policy and practice in example two, could mean that the teacher’s world view to teaching was incompatible (Wang & Cheng, 2005) with the student-centred approach advocated by the OBE curriculum. Therefore, the C2 teacher’s action was seen to be resisting policy intentions (Section 4.3.3) at the classroom level. Furthermore, it could also imply that the teacher lacked understanding of the OBE theoretical framework (Section 2.10.4). Arguably, because of a lack of knowledge of the new OBE curriculum, the C2 teacher held on to familiar teaching practices (teacher-centred) acquired from teacher training and work experiences (Section 2.5). Hence, the discussion here indicates that there is a gap between policy intentions and practice, so this study argues that there is a need to have specific subject PD for teachers at the secondary level in relation to the contexts of this study. This assumption is supported by discussions from the literature that argue that PD is necessary for embedding policy reform (Hall and Irving, 2010) and Sections 4.4 and 2.5.

In summary, a whole class teaching practice in C2 resonates with the findings in C1. Three issues in C2 stood out: a whole class teaching strategy restricted students’ participation; the teacher followed a direct transmission approach to teaching/learning, and the teacher resisted policy intentions at the classroom level.

5.4.2.2 Teaching content

Teaching content describes the C2 programme setting theme. Grammar and spelling were noted content topics in C2 observations (Table 5.3).

5.4.2.2.1 Grammar

The finding of teaching grammar in C2 is consistent with C1 (Section 5.2.2.2.1). Example three and four show representations of a grammar teaching content from C2.

Example three

19. T: Okay what are nouns or what is a noun?
20. S7: Naming word.
21. T: Did you write it down?
22. S7: No
23. T: Naming words. So perhaps that is correct?
24. S7: Yes

Example three is from a 40 minutes grammar lesson (present and past tense) from week 2 observation (Table 5.3). The teacher is reviewing students' understanding of the meaning of a noun. "Okay", in line 19 is a boundary marker (Tsui, 1992), and as such, sets direction for the lesson's aim. The teacher's goal is to get students to regurgitate facts such as the meaning of a noun (line 19), which is said to be a pattern for learning an L2 (Ellis, 2008). Example three shows a traditional grammar instructional method of teaching (Hinkel & Fotos, 2002). Therefore, the finding here indicates that the prerequisite for learning the L2 in C2 is through the studying of rules (Lightbown & Spada, 1999) from written text.

The teacher's opening utterance in line 19 ("Okay what are nouns or what is a noun?") is a simple recall question (Anderson & Krathwohl, 2001) that did not entail much thinking from students. Consequently, student S7 correctly responded in line 20 ("naming word") which brought on an extended utterance (Tsui, 1992) in the form of a question from the teacher in line 21 ("Did you write it down?"). Notice here that the teacher is testing facts of information as her query of line 21 indicates her underlying meaning (Paltridge, 2000). Her question in line 21 was not genuine in the sense that it did not directly address the student's answer in line 20, but implied her preferred grammar way for learning the L2. That is, she probably wanted to check whether the student had remembered the meaning, or whether the

student wrote it down earlier and was reading from notes. Furthermore, the teacher's response could also indicate that what the student uttered in line 20 ("naming word") was not the definition that she had provided in earlier lessons. When the student responded in line 22 ("no"), the teacher further extended her talk sequence in line 23 ("naming words". "So perhaps that is correct?").

Interestingly, the utterance in line 23 shows the teacher's questioning skills. The teacher asked a question that required either a 'yes' or 'no' answer. Cohen et al. (2007) describe such questions as 'closed' because of the structure that does not allow students room for descriptive explanation. Hence, the student's response in line 24 ("yes") to the teacher was uttered according to the question ("So perhaps that is correct?"). However, the utterance in line 23 could have also been a teaching moment for the teacher to probe the student on his understanding of nouns to illustrate that the student knew the concept. The lack of probing in lines 19 ("What is a noun?") and 23 ("So perhaps that is correct?") indicates that the teacher's questioning technique is at a recall level (Anderson & Krathwohl, 2001) so would need improvement because policy (Department of Education, 2003a; 2006) requires students to be active participants in the learning process. Example three was delivered as a whole class lesson and the use of the teacher's questioning skills in that lesson resonate with her teacher-centred teaching strategy.

Example four is a grammar lesson from C2's week 4 observation (Table 5.3). The dialogue is between the teacher (T), and an individual student (S).

Example four

- | | | |
|-----|-----|---|
| 10. | T: | It's a verb.
Any others in that sentence? |
| 11. | St: | explaining. |
| 12. | T: | explaining?
Good. Make that become a verb. |

Example four is taken from a lesson on tenses (past and present verb). The interesting point for discussion here is that the lesson is from the old syllabus. Retaining the use of the old syllabus indicates that the C2 teacher has not adopted the new OBE curriculum, but is still holding on to past practices indicating personal resistance to change (Markee, 1997) at her level. Furthermore, example four illustrates that the lesson preparation did not entail much effort for material preparation from the teacher. The lesson was for students to read and do exercises from the English 'Create and Communicate' text book. The lesson structure as discussed in Section 5.4.2.1.1 included teacher explaining what students were to do, then the students did the grammar exercises, followed by a whole class correction to the exercises (Table 5.3).

The teaching of verb tenses as illustrated in example four shows that the C2 teacher believes students should learn verb tenses (grammar) to be able to learn English in school. Grammar teaching shows the teacher's pedagogical and cognitive knowledge of teaching English. Stoller (2009) describes it as teachers having attributes that complement the innovation. Policy deems that grammar needs to be taught in context (Department of Education, 2003a; 2006). In the case of this study, the observed grammar lessons were not taught in context. Therefore, this could mean that the teacher's holistic knowledge of teaching English would need enhancing so that policy intentions could be aligned with classroom practices in the form of PD (Section 2.5.2).

In closing, the finding of grammar teaching and the manner of how it was delivered as content in C2 is similar to C1. The C2 English teacher illustrated a teacher-centred grammatical approach to teaching English as an L2.

5.4.2.2.2 *Spelling*

Spelling is the second content noted in C2 observations. The dialogue is between the teacher (T), a student (St), and the class (Cl) – more than two students.

Example five

- 29. T: What's the next word there?
- 30. St: Disturb
- 31. T: Disturb. All agree?
- 32. Cl: Yes [chorus answer]
- 33. T: Good

Example five is from a spelling exercise from week one observation (Table 5.3). The elicited meaning from the example, demonstrates the C2 teacher's teaching view. The language function from the teacher's utterance is using questions for interrogative purposes of correcting a "fill in the blank" exercise. The teacher's opening remark in line 29 ("What's the next word there?") shows that the question is a low order according to Bloom's categories of questions (Anderson & Krathwohl, 2001). From line 29, the context for discussion has been set, and there was no room for students to wander from the direction set by the teacher's opening remarks. The use of low order questions was noted 24 times from the transcript of the audio-recorded lesson. Hence, the pattern indicates that the teacher's view of teaching and learning is teacher-centred.

Example five illustrates that the teacher believes that broad language functions like spelling are important for learning English. The finding here resonates with the policy's acknowledgement that English is a subject that has many requirements (Department of Education, 2006). On the surface, there seems to be harmony between policy and the teacher's belief of language functions being appropriate for learning English. However, an interesting aspect would be the approach of how spelling is taught. Policy requires teaching in context either through a student-centred learning, text based approach, or integrated / thematic (Section 4.3.3). The noted teaching of spelling in C2 was done as a teacher-centred lesson. Hence, the observed difference of a teacher-centred lesson as opposed to the intended student-centred indicates that the C2 teacher has not adopted change at the classroom level, despite her teaching spelling as part of language functions.

In summary, the second theme: programme setting revealed that grammar teaching and spelling topics from the old curriculum were taught as the C2 lesson contents. It implies the teacher’s resistance to change at the classroom level possibly because of a lack of PD.

5.4.3 Theme 3: Interaction setting

Observation data in C2 revealed similar a finding to C1 (Section 5.2.3.1). The C2 classroom talk is consistent with initiation, response, and evaluation (IRE) (Sinclair & Coulthard, 1975). Example six shows the teacher initiating talk in the classroom. The finding is put in a table form to show the IRE structure.

Example six

25. T: single and ? [inviting responses from students]
 26. Sts: single and small [chorus answer]
 27. T: single and small. Good

Table 5.4 Sample of IRE pattern

Data	IRE Pattern	Elicitation Category	Sentence Structure	Language Function
L.25. T: single and ↓	Initiation	Elicit: Inform	Interrogative	Questioning
L.26. Sts: single and small	Response			
L.27. T: single and small good	Evaluation			

Key ↓ Low intonation

Example six is taken from week 1 observation (Table 5.3). According to the literature, in a classroom talk that has an IRE structure, most times the teacher initiates talk for purposes of teaching and learning (Cazden, 2001). For instance, in line 25 the words, “single” and “and” show the teacher’s opening utterance. The function of the teacher’s talk is to elicit answers from the students. This finding illustrates that the teacher is only after one piece

of information (answers) from students. The teacher's question is directed to no one in particular, and thus, enabled a chorus answer from the students ("single and small"). The students picked up the clue from how the teacher voiced her utterance. She spoke with a falling intonation in the word, "and" which gave signal for students' responses in line 26. Hence, students were able to complete the teacher's talk because of the contextual clue (Tsui, 1992) provided by the teacher.

The finding from example six illustrates the C2 teacher's teaching view. That is, she seems to have a direct transmission view to teaching and learning (Organisation for Economic Co-operation Development, 2009). The view considers teachers as sources of knowledge and students as passive recipients in the learning process. Hence, the IRE structure noted in the C2 talk restricts students' active participation (Cazden, 2001). The lack of students' active involvement in C2 lessons were also noted in Sections 5.4.2.1.2 and 5.4.2.2, and this section. Hence, this study argues that the C2 lesson observations illustrates limited student participation and the finding contradicts policy intentions for students to be co-partners in the learning process (Department of Education, 2003; 2006).

Furthermore, example seven also illustrates the IRE pattern, but shows a student and not the teacher initiating classroom talk. Lines 29 – 31 in example seven are discussed (Table 5.5) to show the IRE pattern, while lines 32 – 36 are described narratively.

Example seven

29. T: The first word to write down is 'relieved'.
After copying for some time, he felt a bit of relief
30. St: Or he was relieved?
31. T: Relieved, either word to use.
32. St: Ah?
33. Tr: He was relieved. Or the main point.
34. Cl: Unintelligible sounds
35. Tr: After putting down the book he felt relieved.
36. Cl: Unintelligible sounds

Table 5.5: Sample of classroom 2 talk

Data	IRE Pattern	Elicitation Category	Sentence Structure	Language Function
L.29 T: The first word to write down is relieved ↑	Initiation	Elicit: Inform	Declarative	Statement
L.30 S: ↑Or he was relieved? ↓	Response	Elicit: Confirm		
L.31.T: Relieved, either word to use.	Feedback	Elicit: Agree		

Key: ↑ High intonation

↓ Low intonation

Example seven is part of a listening and oral spelling activity from week three observation (Table 5.3). The activity consisted of the teacher dictating 15 words for students to write into their exercise books. The goal was to test students' listening and spelling skills and she had used the words in sentences to provide contextual clues to assist students in working out the answers.

An interesting observation noticed in the opening stanza in line 29 shows the initiation of talk by the teacher. The talk has two parts to it, and it was ambiguously dictated by the teacher. Her intended word for line 29 is "relieved" ("the first word to write down is relieved") which is a verb. Her intention is also supported by her actions of stressing the -ed suffix at the end of the word when dictated in line 29. Then in the second part of her first speech act comes the contradiction, when she was providing the contextual clue, she used the word in a sentence as a noun – "relief" ("after copying for some time he felt a bit of relief"). This showed confusion in students' listening. One attentive student picked this up in line 30 and made amendments ("or he was relieved?") to the teacher's contextual clue (line 29).

Line 30 finding illustrates that the student initiated talk in the classroom and not the teacher because of the teacher's utterance from line 29. From the analysis in example seven, it shows the, elicit / confirm category of talk (Tsui, 1992). Elicit defines the student (line 30) who required the addressee (C2 teacher) to confirm his assumption. The elicitation is deduced from the rising intonation in the word "or" and a falling intonation at the end of "relieved" (line 30). He initiated talk by responding in line 30 ("or he was relieved?") which was a grammatically correct phrase for that which the teacher had supplied in line 29. Interestingly, the student's response in line 30 had a questioning tone, and so that brought on the teacher's remarks in line 31 ("relieved either word to use"). The teacher defended her use of the word relieved, without acknowledging the student's query (line 30).

Here we see a missed teaching opportunity for the teacher to explain the difference between relieved / relief as parts of speech. If she had taken up that teaching moment, then it would resonate with what policy aspires for teaching grammar in context (Department of Education, 2006). The student's response in line 32 ("ah") had a questioning tone in it (PNG Tok Pisin) and so probably suggested that the student did not understand the difference between relieved and relief which was a sign that an explanation from the teacher was needed. However, the teacher did not pick up on the questioning tone in the pupil's response, or alternatively chose not to address the query. This is described as using power as the teacher to dictate talk in the classroom (Cazden, 2001).

In line 33 the teacher then extended her talk with two ideas contained within the utterance ("he was relieved" "or the main point"). This speech act again reiterated the word she was after (relieved). However, the second part of that utterance ("or the main point") is ambiguous because it really referred to the students earlier use of 'relieved' in line 30 and the response in line 32. Hence, what is noted here is that the teacher's utterance could be misleading to students in understanding the meaning that the teacher uttered. Finally in line 35 she used the word "relieved" again for the fourth

time indicating that this is the answer that she wanted, hence giving more clues for students to write down the one word answer in line 36. The IRE pattern was consistently seen in C2 as examples six and seven highlight, and also was a noted feature in C1 (Section 5.2.3.1).

In closing, the third theme, interaction setting revealed that the classroom talk in C2 has similar results to C1. The classroom talk consistently noted from the four weekly observations is the three structure talk of: initiation, response, and evaluation. This particular pattern is restrictive as it does not allow students active classroom discussion, and furthermore, the classroom interaction sighted has implications relating to teachers' pedagogical knowledge.

5.5 Conclusion

To conclude, the observation of the C2 English teacher indicates her thinking, beliefs, and attitude (Borg, 2006) about the OBE curriculum. The assumption is supported by discussion in Section 5.3. The C2 teacher is described as a resistor to change (Markee, 1997) because of teaching from the old syllabus and has not yet adopted the curriculum change, despite policy endorsement (Section 4.3.4). Furthermore, the teaching practices and content noted in C2 indicates the teacher's views to teaching English which resonates with a direct transmission approach. The findings from C2 observation illustrates that practice does not align with policy intentions. Therefore, this study reveals that there is a need as highlighted in Section 4.4 to align policy and practice so that the spirit of the curriculum change is realised through professional development (Section 2.10.4.4.4).

5.6 Summary

This chapter has presented observation findings noted from the two case studies. There were three main thematic categories: physical setting, programme setting, and interaction setting. Results showed different responses to the ownership of the new curriculum. The C1 teacher had adopted the outcomes-based curriculum in the classroom implementation to some extent, while at the same time displayed behaviour resonating with past practices. In contrast, the C2 teacher two resisted adopting the OBE curriculum at the classroom level, despite policy endorsement. Nevertheless, the adoption of the curriculum in case study one revealed weaker versions of the original intentions while case study two indicated that the teacher's world views were entrenched in old practices.

The next chapter discusses the participants' views on the implementation process of the OBE curriculum.

CHAPTER SIX

Participants' Voices

Introduction

This chapter presents findings that represent views from eight participants interviewed from the two cases investigated by this study. The descriptions of the two cases are provided in Sections 3.3.2.1 and 3.3.2.2. The focus of this chapter is the interpretation of the participants' views of the implementation of the OBE curriculum for the teaching and learning of English at a secondary level of education in PNG. This will help to answer research questions 1 (a), 1 (b), 2 (a) and 2 (b). Those questions seek to: investigate how the outcomes-based curriculum was introduced to teachers, determine teachers' beliefs and understandings of the curriculum, define the model of curriculum change applied, and propose a model for assisting curriculum implementation for this context. The findings from the participants' views are compared against the observation data (Chapter Five), and policy intentions (Chapter Four) to draw conclusions on the implementation process of the policy curriculum in the PNG secondary school context.

This introductory section sets the background for this chapter, while Section one sets the definition of context. Section two describes collective findings from the first theme, top-down culture, while Section three reports joint findings from the second theme, teachers' reaction to mandated change. Section four discusses the third theme, participants' perceptions for case study one and Section five presents the same theme findings for case study two. Section six presents collective findings to the fourth theme, issues affecting implementation, and a summary of the chapter's discussion is presented in Section seven.

6.1 Definition of context

To understand the notion of curriculum change in two Port Moresby secondary schools' teaching contexts in PNG, the views of eight staff that lived the experience of the educational change were sought. The participants are from the two cases studied, both of which are urban secondary schools. Descriptions and profiles are presented in Section 3.3.4. At the analysis stage, themes were generated both inductively and deductively from participants' data. The quotes chosen for findings in the discussions of this chapter are representative of the four themes drawn from the coding process of the interview, post observation interview, and focus group discussions. The four themes are:

- Top-down culture
- Participants' reactions to the mandated change
- Participants' perceptions of the implementation process, and
- Issues affecting implementation.

Themes one, two, and four (top-down culture, participants' reactions and issues affecting implementation) are discussed collectively as findings were consistent from both case studies, while theme three is discussed separately for each case study.

6.2 Top-down culture

The first theme, top-down culture, was consistently perceived from both case studies' data; both schools were part of a larger national reform (Section 2.10.2). Three underlying issues are elicited from the first theme. These are: definition of change, systemic functions, and change strategy.

6.2.1 Definition of change

Findings reveal that the curriculum change in the context of this study was motivated by policy. This supports the findings in Sections 2.10.4.4.3 and 4.3.1. Change instigated by policy is defined as using systemic power to

support change. This finding resonates with Section 2.6.2 that argues that policy motivates implementation of something for achievement of social goals in society. When asked to identify what caused change in their teaching contexts, participants aptly named, “The Outcomes-Based Education policy” (FGT3-S2) as the policy that instigated change.

The use of the word “policy” exerts power from a decision making process within a system. In this study, it refers to the DOE, the provider of public education in PNG. Similarly, by naming the policy “Outcomes-Based Education” indicates participants’ understanding of the exact thing influencing change in the education system. Hence, this type of change is described as a top-down approach because of the policy attachment (Downey, 1988). The naming of the policy was unanimously perceived by teachers as the process used for initiating change within all levels of the national education system including secondary schooling, the focus of this study. For instance, the participants clearly describe the changes in the education system as, “the reform that they are trying to bring about in our system” (FGT1-S1).

Significantly, the idea of associating change with “reform” as seen in the above quote infers that the dialogue about changes in the PNG education system had been around for some time. The “they” in the above quote implies a decision making process situated at the top of an organisation, then spiralling downwards to the subordinates, which in this scenario refers to teachers as stakeholders. Thus, the discussion here provides evidence of a perceived top-down approach used by the DOE. In summary, participants’ identifications of both the “Outcomes-based Education Policy” and the “reform” give indications that change in this study was motivated by the bureaucrats using systemic functions. Hence, this finding also supports Section 2.10.2 outlining the PNG education policy.

6.2.2 Systemic functions

The second issue extracted from theme one, hints that the DOE used its systemic functions to assist the introduction of curriculum change.

Firstly, it is attested that the DOE used policy to effect curriculum change. For instance, one participating principal said: “We are aware that it is a policy that is going to be here” (P1 – S1). Hence, the use of “policy” within the education system legitimised the reform process, hence, conforming to a top-down manner of change (Section 2.6.2). This use of “policy” is also supported in Section 4.3.4 discussions that named the NCS as the instrument for change in the PNG education system. As discussed earlier, the introduced PNG curriculum change was of a large scale and based on the OBE principles (Section 2.10).

Secondly, it seems that the DOE did inform schools about the curriculum change. For instance, “So we had to go ahead and implement it because our superiors said so” (FGT2-S1). This showed an organisational structure of a top-down style of communication and leadership (“superiors”). Hence, as inferred here, teachers are at the end of the decision making process (“we had to go ahead”) for the curriculum change (“and implement it”), and therefore, are perceived as silent recipients of change in this context. The first, “so”, from the quote indicates that teachers could not do much as decisions for change were imposed by the DOE (Figure 2.4), and as such, teachers just had to adhere to the changes. This assumption resonates with the discussion of curriculum as a policy intention (Section 2.7).

Lastly, the DOE utilised one of its core decision making personnel, the Secondary School Inspector (SSI), to inform schools about the changes. The SSI’s actions of going to inform schools about the changes resonate with systems theory, where change managers coordinate communication between participants and bureaucrats (Section 2.3). One participant stated, “The inspector carried out a number of projects or workshops in schools just outlining the Basic Outcomes - Education” (P2 – S2). The above reflection is

from the principal of S2, so this implies that the communication process from the SSI was a one-sided delivery of information (“just outlining the basic”) which may not have benefit to the teachers in the schools.

The above discussed finding could suggest that the inspector himself was insufficiently grounded in the theoretical basis behind the OBE curriculum to deliver effective training sessions to schools. This would have implications for the classroom implementation process. For instance, there could be a lack of understanding from teachers as to the appropriate procedures for classroom implementation (see Sections 6.4 and 6.5). Furthermore, this finding resonates with the earlier discussions about the need for PD (Section 2.5) and the literature arguing for a co-construction effort from all stakeholders to successfully implement radical policy reforms (Hall & Irving, 2010).

6.2.3 Change strategy

The third underlying meaning extracted from theme one (top-down culture) resonates with the type of change strategy and change model used to introduce curriculum change.

As previously discussed (Section 4.3.1), the producing of a NCS demonstrates the type of change model and change strategy used to introduce curriculum change in this study; a CPM and a top-down approach. The NCS is regarded by participants as the significant tool for introducing change: “The OBE policy has got an influence on this” (FGT3-S2).

The word “this” from the quote refers to changes for the participants’ teaching contexts. Because participants defined the OBE as “policy”, it indicates that a CPM (Section 2.8.2) and a PCS (Section 2.9.1) were employed. Such a model and strategy are said to be both closely related to a top-down approach (PNG) for initiating change (Section 2.10.4.4.3). Participants from both cases here were able to corroborate this finding consistently. For instance, “Booklets were sent to schools like this one here,

'Curriculum National Statement' by the PNG Department of Education" (P2-S2). The distribution of the NCS to schools, gives an indication of the intervention processes undertaken by the DOE to prepare teachers for curriculum change (see Table 6.1).

However, the question to ask here would be whether teachers understood the NCS and found it to be user friendly for classroom implementation purposes. Findings here indicate that despite the circulation of the NCS, there was uncertainty amongst teachers as to how classroom implementation would occur. The thought is expressed as, "I think that there was inconsistency with understanding implementation" (P1 - S1). This finding portrays a degree of confusion that may be detrimental to realising policy intentions and this assumption is supported by observation discussions in Sections 5.2.3 and 5.4.3. The lack of teachers' understanding may have been because of a lack of PD (Section 2.10.4.4.4) as the OBE curriculum is a new concept. Hence, this assumption reinforces the argument that a CPM and a PCS were used to introduce change for serving the DOE's purposes, and thereby creating questions for teachers about the implementation process.

According to the participants, there were intervention strategies provided to assist with the classroom implementation. These included circulation of the NCS, and a one week of training trainers' workshops among others (see Table 6.1). These interventions are described as purposeful acts to prepare teachers for the OBE curriculum implementation. Interestingly, the training sessions were general education workshops, and did not also encompass specific subjects which would have been beneficial for participants in this study. That dilemma is highlighted thus: "there's no in-service been given in our department" (FGT2-S1). Interestingly, this shows that there is a gap for specific subject (English) PD at the secondary level, and the short training did little to help, especially for large scale curriculum changes (Goh & Yin, 2008).

Furthermore, participants argued that the intervention strategies provided by the DOE were minimal and ineffective for PD purposes. They perceived that the workshops failed to equip them competently with the appropriate knowledge and skills required by policy to make real its intentions (Section 4.3). This predicament is highlighted in this quote: “It was a new approach and to conduct the course in a short time, teachers were not really able to get to the bottom of it. So it was insufficient time given to teachers to practice this outcomes-based teaching” (P2 – S2).

The message here is that short training sessions similar to a cascade model (Gilpin, 1997) of extensive training in a short period of time is not feasible. That is, training clusters of teacher trainers to be experts in the OBE curriculum and then returning to schools to re-train colleagues failed in this contextual study. This finding also supports Section 2.8.2, that talks about short training programmes for large scale curriculum changes that fail to convince teachers about taking ownership of curriculum changes. Alternatively, literature argues that a co-construction effort is needed from all stakeholders to embed radical policy changes (Hall & Irving, 2010) such as the OBE.

To summarise, three characteristics from the participants’ views defined the change as being top-down. These were: the use of a macro-level reform agenda consistent across government organisations in PNG (of which the DOE is part), use of systemic functions, and the application of a policy framework (NCS).

Table 6.1: Types of interventions used in PNG

<ul style="list-style-type: none"> • National Curriculum Statement (2003a) • English Syllabus, Lower Secondary School (2006) • Official notification • Secondary school inspector’s visits • Train of trainers’ workshop • Curriculum personnel school visits

6.2.4 Conclusion

The findings indicate that the PNG DOE used a Centre-Periphery Model (CPM) and a Power-Coercive Strategy (PCS) for introducing curriculum change. The conclusion is drawn from the decision making processes for instigating change that was imposed by the DOE bureaucrats on teachers at the edge of the decision making process (Figure 2.4).

6.3 Teachers' reactions to the mandated change

The two studied cases elicited mixed responses to the top-down curriculum change. This finding is consistent with other literature on educational change which notes that during initial periods of commencing changes of any sort into a social context, there are different responses from those for whom change was intended (Fullan, 2007). This study found that there were three groups of teachers' responses to the OBE curriculum. The meaning is captured in the remark: "Since the OBE implementation till now, I as the principal have seen that there are three categories of teachers involved" (P1-S1).

As explicitly described above by P1-S1, there are three categories of teachers' reactions to the curriculum change. This resonates with the descriptions of people's characteristics towards change as described in the literature (Markee, 1997). Hence, this study adopts the terms and describes the reactions as: resistor of change, late adopter, or adopter of change (Ibid) based on teachers' initial reactions to the OBE curriculum.

6.3.1 Resistors of change

According to the literature, teachers' reactions to curriculum change are linked to their attitudes and beliefs (Kennedy & Kennedy, 1996). Objection to the curriculum change was the first reaction from participants here. They disliked the idea of the change being imposed upon them. The quote below captures the emotions of opposition found in a top-down culture (Section 6.2.3) that had clearly failed to convince teachers to share policy intentions for change: "We resent the change but then we have no choice in it" (FGT2-

S1).

The above quote represents the thoughts of participants who resisted the change (“resent”) that was propelled by policy. “Resent” indicates opposition to something, and in this study the emotions are directed to the curriculum change. Hence, the teachers who resent are characterised as laggards or resisters to change (Rogers, 1995). One possible explanation is that teachers took that stance as a result of not being involved in the beginning phase of the introduction process. Alternatively, as discussed earlier (Section 6.2), the resentment may also have been a result of the changes being enforced upon them from the outset without effective PD to enable a harmonisation of the curriculum embedding (Hall & Irving, 2010).

Arguably, policy played a significant part in introducing and convincing teachers to embrace change for this particular context (“we have no choice in it”), and therefore there was resistance. The use of policy indirectly forces teachers as recipients of curriculum change to accept the change agenda, but does not critically consider teachers’ perspectives, or what the consequences may be (see Section 6.6). But, does this really promote sustainable change in the classroom to meet policy intentions? (Section 4.3). The answer is most likely to be negative as the observation data (Chapter Five) revealed a mismatch of classroom practices with policy intentions.

Furthermore, the example quote above also captures the relationship between the DOE and teachers. It clearly shows the employer as the change agent at the top of the hierarchy of this government institution (Figure 2.4). Consequently, it imposed reform onto the teachers who are outside of the decision making processes. This top-down approach sometimes known as the PCS (Section 2.9.1) used in making curriculum changes in institutions has also been described as having links to a CPM of educational change (Markee, 1997). In closing, the first finding of participants’ reaction from

this study revealed resentment towards the OBE curriculum change.

6.3.2 Late adopters

Secondly, two participants from the two cases studied reacted to the policy change in words only (principle) but not their actions. They thought the new curriculum was workable in schools, but were yet to test their theories: “I think Outcomes-Based Education is a good idea but I haven’t tried it yet” (FGT2-S2).

The quote demonstrates a surface adoption of the curriculum change. That is, participants agreed in principle only to accept the new curriculum. This surface acceptance of change was not yet a reality because behaviour has not yet changed. Similarly, it could be argued that beliefs of teaching practices for the classroom were still entrenched in old practices. Furthermore, these two participants were not using the OBE curriculum during the time of interviewing. The assumption of late adopter(s) is supported by findings from C2 observations (Section 5.4.2). Thus, teachers here were showing lip-service acceptance; this does not qualify as teachers physically adopting the curriculum innovation, but it does define them as mentally adopting it. Hence, they may, in time, fit Rogers’ definition of late adopters (Rogers, 1995).

It is likely that such participants were playing out a waiting game to see how other teachers in their schools progressed with the new curriculum before they began embracing it. Another possible explanation for the delay tactic could be that teachers in this category lacked the knowledge and skills for competently applying the OBE curriculum in the classrooms (Section 2.10.4.4.4). The question to ask here would be why such participants had not adopted the change immediately, despite it being a policy endorsement. This delaying of adoption may indicate a lack of understanding of the theory underpinning the OBE curriculum (Section 2.10.4.1), or that teachers’ worldviews of teaching were still entrenched in their past practices. The latter finding is supported to by observation findings (Sections 5.2.2.2.1 and

5.4.2.2.1). Arguably, there is a need for PD training to build the capacity of teachers in this context so that the OBE curriculum implementation is possible in practice (Section 2.10.4.4.3) as few participants have in principle accepted OBE.

6.3.3 Adopters of change

The third reaction elicited from findings indicates acceptance towards the curriculum change. This finding is supported by observation findings (Section 5.2.2.2.2). Three teachers embraced the curriculum change as per policy intentions. Those teachers are termed innovators (Rogers, 1995). Innovators are said to be receptive to change, and do not need further convincing from others (Markee, 1997), and made conscious decisions immediately to be change agents in the classrooms. A representation of an innovative teacher is visible in this quote: “I tried to sort of adopt new ideas” (FGT3-S1).

This reflection resonates with personal decision making processes (“I’ve tried to”) that characterises participants as innovators, or people who are quick to adopt change (“adopt new ideas”). These teachers could be identified as being liberals and open minded. They appear to display empathy with policy developers in accepting the OBE curriculum. This personal decision making process gives an impression of teachers who attempt things, by personal choice or by motivation from other factors. This interpretation supports discussions of teachers’ characteristics, attitudes and beliefs that have influence on a diffusion of innovation process (Section 2.5.1).

The interesting point about the finding of the third group of teachers here is that their immediate adoption of change demonstrates personal choices. It infers that the process of adopting change shows their developmental process, related to their attitudes and beliefs (Borg, 2006). However, literature reveals that teachers who fit into the category of innovators create their own interpretations of the intended curriculum (Stoller, 2009). This

assumption is supported by findings in Section 5.2.2.2.2. However, this does not imply that their interpretation is right or wrong, but they would need PD to collaboratively support sustaining the OBE curriculum (Section 2.5.2).

To summarise, this study revealed three groups of participants' responses to the top-down policy approach of curriculum change in the PNG secondary school context. These groups are described as resisters of change, surface adopters, and innovators; this supports literature on the diffusion of innovation process (Markee, 1997).

6.4 Participants' perceptions - case study one

Participants in S1 comprised the school principal and three English teachers. There are four participants and they all have more than five years teaching experiences. The number of interviewees gives a fair representation of gender with two males and two females (including the principal).

This section discusses the theme, participants' perceptions of the implementation process of the OBE curriculum. Five issues are raised from the theme and these are: different interpretations, functional literacy, teaching methods, examination influence, and student-centred learning.

6.4.1 Multiple meanings

Findings revealed case study one participants had various interpretations about the teaching aspect of the OBE curriculum. These subjective meanings derived from teachers' understanding of the NCS are in relation to teaching and learning situations. This finding resonates with the assessment that educational change is subjective depending on how one views it (Fullan, 2007). According to the data, there are three distinctions as to how classroom teaching and learning took place. The principal articulated this explicitly by stating that: "There is a wide variation of OBE" (P1-S1).

P1-S1 spoke from his experiences of conducting lesson observations on teachers within his school. The message indicates that P1-S1's

interpretations of teaching the OBE curriculum are different from his teachers. He clearly stresses the differences of meaning from the tone of his answer and the way he recounted that point in the interview. The words, “wide variation” indicate a gap that has consequences for successful outcomes of the “OBE”. Likewise, P1-S1 seems to indicate that the knowledge, skills, and thinking of teachers in relation to the theory of teaching and learning embedded in the OBE curriculum have yet to be fully realised by teachers in S1. Therefore, it would be appropriate to state that there is a need for continuous PD for this context because of the subjective OBE interpretations (Section 2.10.4.4.3). The assumptions of different interpretations raised here are also supported by the C1 observation findings (Section 5.2.22).

The second underlying interpretation elicited from the theme, ‘multiple meanings’, implies that there is a lack of understanding about the theoretical underpinnings of OBE as a theory of education, and as an instructional approach. This assumption resonates with the discussions in Section 2.10.4. The lack of understanding is alluded to in this quote, “Kids want to see practical and the theory side of it. It’s important. It balances both sides” (FGT3-S1).

The meaning contained in the above quote infers that preparation of something was missing. In this study, it would indicate a lack of empowerment for participants as contained in the quote, “Kids want to see both practical and theory”. Indirectly, the participants were voicing their concerns for assistance with the theory underpinning practical applications of the OBE curriculum. Having done that would enable teachers to assertively teach students using the OBE curriculum. The indication is that there is a need for teachers to have PD in OBE (“practical and theory”) to acquire knowledge of OBE as a theory of education, and as an instructional approach for classroom practices (Section 2.10.4). The remark by the participants is both a call for help and also offers support to the view that there is a theoretical framework behind any set of teaching assumptions.

Thus, teachers here understand that they have to be well versed in theory for any application. The discussions provided here denote that there seemed to be a gap in participants' understanding of OBE.

Students' participation is the third underlying meaning extracted from the theme, multiple meanings. Students' participation can affect delivery of lessons using the OBE curriculum. Participants believed that students' level of motivation to learn is also an important component, saying, "Basically it's to do with how receptive the students are" (FGT2-S1). Receptiveness in this discussion relates to motivation and the relationship of interaction between learners and teachers in the classrooms. Arguably, policy requires students to have "the opportunity to participate" (Department of Education, 2003, p. 19) in the learning process, so this argument by FGT2 is valid if it was to be compared with one of the policy intentions. This reflection also provides support to an earlier observation by the principal that teachers in the school attributed different meanings to OBE. Furthermore, the argument that students' reception was necessary for learning confirms the observations discussed in Section 5.2.2.13 of students having motivation to discuss issues with each other. Similarly, the finding also supports Hall and Kidman's (2004) assertion that student and staff rapport is important for understanding learning such as a learner-centred process.

The finding of multiple interpretations in S1 showed that there was confusion during the introduction process of change, and this could impede the implementation of the OBE curriculum. The discussions above show clearly that there was no shared meaning between classroom implementers and the developers of the policy curriculum. Thus, there is a need for PD so that meanings could be aligned for policy and stakeholders.

6.4.2 Functional literacy

The second finding from S1 is that participants believed English classroom practices need to reflect purposeful teaching and learning. The overwhelming consensus was that teaching of the language outcomes-based

curriculum should equip students with required functional literacy skills. Participants defined functional literacy as using English as a language for interactive purposes. For instance, “I think that English is a very important subject in terms of communication” (FGT1-S1).

FGT1-S1 is pointing out a learning outcome of English as an L2 expected for the PNG secondary school context. This showed that teachers’ views here concur with policy intentions as learning outcomes for English. The issue elicited from the quote indicates that students need competency (communication) in English to equip them with functional skills so as to function in society. Knowledge of the English language includes having the cognition that would influence the performance ability of students. This interpretation supports learning aims stated on page 10 in the ELLSS (Department of Education, 2006). Hence, the discussion above shows the participants’ beliefs for a functional literacy approach to teaching English at the secondary level.

Secondly, the teaching of grammar skills is also considered important. Participants believed that grammar should be incorporated into the teaching and learning of English. This finding supports observation findings of grammar lessons noted in Section 5.2.2.2.1. Participants spoke passionately about grammar being important to teaching English as an L2 in this PNG study. For instance, “I would like to see my students speaking confident English, grammatically correct English and be able to write good English” (ET1-S1).

The above quote shows teachers’ beliefs about the teaching of grammar skills being essential to enable learners to be functionally literate in speaking, reading, and writing English. The interpretation of the example quote relates back to the overall aims of learning English stipulated in the policy curriculum (Department of Education, 2006). Therefore, it is implied here that teachers support the use of grammar skills to teach English as an L2 when using the new curriculum. In accordance with policy, it is stated

that English is a subject that has many learning forms. That acknowledgement is contained in the following statement: “English has different language requirements such as vocabulary and grammar” (Department of Education, 2006, p. 9). Therefore, both the policy document and teachers deemed that grammar is a requirement for teaching English.

However, the interesting issue to examine is the type of approach used for teaching grammar as expected by policy and teachers. Policy requires grammar to be taught in meaningful contexts in classrooms (Section 1.2.4). Participants in case one did not explicitly describe, nor say how they believed grammar should be taught, or how they taught it. Interestingly, observation findings from S1 revealed that grammar lessons were taught using a whole class teaching strategy (Section 5.2.2.2.1). This implies that participants have not yet made sense of policy intentions of how grammar should be taught in classrooms but used old teaching approaches to teach grammar.

In summary, the second finding from S1 reports that functional literacy and grammar skills should be the focus for teaching English as an L2 in this context.

6.4.3 Teaching methods

The third finding from S1 discusses participants’ views of their teaching methods in comparison with the OBE curriculum’s requirement.

Findings suggest that the outcomes-based curriculum has suitable teaching methods implicit within its design for practical subjects and not so applicable for examination subjects like English. This was alluded to by the principal of the S1 when he described the curriculum as, “working well with the task core subjects” (P1-S1).

However, the focus of this study is the teaching of English, but the principal does not mention that subject. This could imply that he has not been observing his English teachers, but relied on the subject department head to do so and, consequently, could not account for that particular subject's teaching methods when asked. Thus, the message elicited from the principal's thinking is that the teaching methods framing the OBE curriculum are workable with practical rather than nationally examined subjects. This finding also resonates with literature that reveals that OBE encourages behaviourist rather than constructivist teaching in systems where high stake examinations are deeply entrenched in the system (Hall, 2005b). Therefore, the inference here was that there were no changes to English teachers' approaches to lesson presentation.

Additionally, participating English teachers gave a similar account to that of their principal. They overwhelmingly alleged that they had not changed their teaching methods much in response to the outcomes-based curriculum, as seen in the following exchange in a focus group discussion:

Q: Have you changed your teaching methods?

A: Not for me. There are not many changes being done. I basically look at the topic and then I try to integrate the two teaching approaches, the old teaching method and a bit of OBE now and then (FGT2-S1).

Firstly, the finding here could mean that according to the world-views of teachers, there was a similarity ("there are not many changes being done") between their current teaching behaviours and their perceptions of what the policy curriculum intended them to do; therefore, they felt they were already applying the requirement. Consequently, they made deliberate decisions not to alter their current practices to any great extent ("I try to integrate the two teaching approaches"). This finding is consistent with characteristics of curriculum innovation which suggest that when innovations of change resemble past practices of teachers, they are seen to be compatible, and those concerned are likely to embrace the change without major changes to

teaching practices (Stoller, 2009). Consequently, teachers' practices which are compatible with the new curriculum do not guarantee that change is effectively implemented as teachers can resort to familiar practices. This assumption is supported by case study one observation findings (Section 5.2.2.2.1).

The findings that participants' teaching methods had not changed indicate that there are different interpretations between policy intentions and practice. This could be detrimental to successful classroom implementation as per policy intentions. To align policy with practice, S1 would need to work collaboratively with the DOE and other stakeholders in the process of unpacking the outcomes-based curriculum. This has links to the notion of 'learning in tandem' suggested by Crowl and Hall (2005) for all stakeholders to learn from each other so as to embed the curriculum change (Section 2.10.4.4.3). Having done that would encourage the idea of curriculum ownership.

Secondly, another suggestion of why there is no change in teaching methods links to teachers' attitudes and beliefs. These attributes make up characteristics of individuals (Markee, 2001) which also shape their internal decision making processes. For instance:

For me it's a slow transition. I suppose I'm still in the old system. But it will be a slow transition because I feel this OBE was frankly just chucked into our faces and some of us just don't know what to do with it (FGT1-S1).

The meaning deduced from the quote indicates resistance to change ("I'm still in the old system") and a lack of confidence ("Some of us just don't know what to do with it"). This finding supports earlier discussions about resisting change (Section 6.3.1). Furthermore, the reflection in the quote also supports the assertion from others (Li, 1998), that the human nature ("I suppose") of teachers here influenced them not to alter their teaching methods ("I'm still in the old system"). Another meaning elicited from the

above quote indicates characteristics of the participants as being conservative. Consequently, they do not want to change teaching practices (“For me it’s a slow transition”) which implies that the participants do not accept the new curriculum (“I feel this OBE was frankly just chucked into our faces”). These teachers have a fixed mind set about the practices that they are used to and see change as threatening. Alternatively, it could also imply that the change was poorly introduced by the DOE causing teachers not to embrace the curriculum change (Section 2.10.3).

Hence, teachers here who resisted change are described as laggards according to the diffusion of innovation theory literature (Rogers 1995). These teachers are deemed stubborn in attitude and did not entertain the idea of change as proposed. In short, the findings from data in this study validate the stance that change is problematic for some and those teachers’ personality traits were possibly influential in their decisions about embracing or rejecting change. Hence, this finding shows a gap between the intentions of policy for change and teaching practice in classrooms (Section 4.3.3).

To summarise, findings from case one revealed that there were no major changes to the teaching methods of participating English teachers.

6.4.4 Examination influence

The fourth issue derived from case study one participants’ thoughts is the importance of national examinations’ influence on teaching. This they believed also determined teaching approaches. However, this finding contradicts what the policy intended as a statement for classroom teaching (Section 4.3.3).

Findings here reveal that passing national examinations are considered important in classroom teaching. Case one has been consistent in academic performance based on national examination ratings in the whole of PNG (Insider knowledge), and thus teachers in this school are well aware of the

effect of this on their classroom practices. This finding also resonates with literature on the inherent tensions of OBE in a western context dominating classroom teaching for examination purposes (Hall, 2005b). The meaning for academic pursuit in teaching is captured in the quote below:

Last year we did very well in the written expression.
We had two students who got 21 and one who got 22 and
that was really satisfying and all efforts to remedial and lots
of writing and so forth (FGT1-S1).

This quote reveals the importance of examinations (“written expression”) or academic performance (“...two students who got 21...one who got 22”) (out of 25) as a motivating factor driving classroom teaching and learning in this context. It depicts the preparation and coaching (“remedial”) that teachers do to get students ready for examinations. The quote recounts the 2008 grade 10 written expressions examination results for case one, and it also captures a reflection of job satisfaction (“that was really satisfying”) that relates to the teachers’ beliefs and attitudes (Dorman & Zapf, 2001). The exam is out of 25 and has two different writing genre questions testing students’ abilities to write essays. Two external examiners mark each student’s script and then results are totalled by MSU (Figure 2.4) to give the national mean rating index for all PNG schools.

Passing examinations seems to be the ulterior message here and this could also be related to descriptions of a hidden curriculum (Adamson & Davison, 2008). In other words, the teachers’ curriculum forms participants’ belief systems for teaching students to pass national examinations, and maintaining the school’s academic performance nationally. Because teachers have had a few years of teaching in the school, they have assimilated the academic expectations and emotions (“that was really satisfying”) that arise from examination results. This revelation indicates a consequence of having a highly structured system (DOE) where high stake examinations still strongly influence classroom practices. Hence, so long as national examinations are part of this education system, teaching for examinations

will continue to be done as literature reveals that the examination backwash has effects on teaching (Hall, 2005b). This finding resonates more with behaviourist practice and not the constructivist practice of teaching that underlies the intended OBE curriculum of PNG (Section 2.10.4.4.4).

Furthermore, this finding reveals a discrepancy between policy intentions and the participants' thinking. According to policy, there should be a change in classroom teaching (Section 4.3.2). The intended curriculum (Department of Education, 2003a; 2006) vaguely touches on assessment features but does not explicitly give indications of how classroom teaching should include examination teachings. Subsequently, teachers here resorted to old practices in classroom teaching. Accordingly, these participants acknowledged that they have not altered teaching practices greatly (Section 6.4.3). Nevertheless, this result highlights the need for all stakeholders within the education system to work collaboratively for a 'learning in tandem' approach to embed the curriculum change (Crowl & Hall, 2005); That is, schools working with the DOE's divisions such as the Curriculum Development Division (CDU) and MSU (Figure 2.4).

6.4.5 Student-centred learning

The last concept emerging from S1 data was participants' understanding of a student-centred teaching advocated by the outcomes-based curriculum. Participants gave four points as portraying their interpretations to the concept of student-centred learning: group work, active learners, sufficient resources, and less student-teacher ratio.

Firstly, participants are aware that a student-centred learning underpinned the policy curriculum. According to the participants, a student-centred lesson consisted of using group work. For instance:

Now that they [DOE] have turned it around to encourage more group work to be student centred. So the question is whether students will learn more? (FGT3-S1).

The quote demonstrates that participants here have knowledge of the theoretical assumptions (“group work”) behind the teaching and learning approach of the OBE curriculum. However, there seems to be doubt also intertwined in this quote (“whether students will learn more”). This illustrates that there appears to be confusion in the teachers’ minds regarding the application processes of the curriculum. The finding also highlights participants’ reminiscences of past teaching practices (“now they’ve turned it around”) which may have been habitual, and embedded in these teachers’ world-views. The finding also indicates the possibility that these participants may have a surface understanding of student-centred learning as group work. This supports the argument for collaborative PD to help clarify any confusion that might arise (Section 2.104.4.4).

The second interpretation of student-centered learning refers to students being active learners and taking responsibility for their own learning. This particular meaning is best captured in this quote:

I don’t do a lot of talking. I only provide what they need to have and students go out and do what they want to do and how they understand it. To collect your own information, that’s how I see it and understand OBE (FGT1-S1).

The quote implies that participating S1 teachers have read the policy curriculum and know that student-centred teaching is required (Section 4.3.3). However, there also appears to be confusion regarding the pedagogical instructions as to how a student-centred teaching would be practised by participants. The hint of this confusion is captured in the word “only” (“I only provide what they need to have and students go out and do what they want to do and how they understand it”). While policy indicates that teachers have to let students be active learners it does not, however infer that teachers’ do less teaching. On the contrary, the OBE curriculum requires teachers to manage their teaching programmes (Section 2.10.4.3). This finding supports earlier discussions on the confusion between policy and practice that arises due to multiple interpretations (Section 6.4.1).

The third definition of student-centered learning elicited from the data relates to having sufficient resources to enable successful implementation of the required teaching approach. A good example emphasising this view is:

It will be more enjoyable when we have the resources available.

(FGT2-S1).

The underlying message from participants is that a lack of teaching resources (“when we have the resources available”) could impede policy intentions (“It will be more enjoyable”). They are bringing to light issues that are not new but relevant in any curriculum change. That is, teaching resources are pre-requisites and should have been provided by the DOE and also according to their school’s budget capacity. The inference here is that because there was a lack of resources, teaching student-centred lessons in this context was challenging and problematic and most likely not to be occurring in classrooms. This finding contradicts Spady’s (1994) OBE theory. Spady argues that governments adopting OBE have responsibilities to provide sufficient resources and an appropriate organisational structure within which teachers can implement OBE (Section 2.10.4.4.2), which does not seem to be the case for this contextual study.

The fourth identified attribute of student-centered learning applies to infrastructural considerations, in particular student-teacher ratios. In a PNG classroom context, there are usually over 40 students in each class. The dilemma that this provides for classroom teachers is simply exemplified as: “To teach a real outcomes-based student-centred lesson at times is a bit difficult because of the large number of students in class” (P1-S1).

The message elicited from the above quote indicates that there are issues (“large number of students in class”) restraining the successful implementation of student-centred learning (“To teach a real outcomes-based student-centred lesson at times is difficult”) in case study one. This finding resonates with the notion of learner-centredness which according to

the literature involves teaching quality, student and staff rapport and staff knowledge of content (Hall & Kidman, 2004). Arguably, the high student-teacher ratio could impede effective classroom teaching and learning.

In closing, the findings from case study one revealed a surface understanding from participants about the notion of a student-centred approach. Four different factors (teachers' perceptions of group work, teachers' perceptions of active learners, the availability of teaching resources, and issues of infrastructure) are identified to show teachers' interpretations of a student-centred lesson not being practical in the context of S1.

6.4.6 Summary - Case one findings

Section 6.4 has discussed the S1's teachers' perceptions. It examined their views with reference to teaching and learning as per policy intentions. Findings here revealed that there is no shared meaning between participants' views and policy as to the definition of an outcomes-based curriculum, what constituted changing teaching methods, and influence of examinations on classroom teaching. The only alignment of agreement noted is that both policy and participants acknowledged the importance of teaching grammar skills. However, policy required grammar to be taught in context and the data from participants showed otherwise.

6.5 Participants' perception – case study two

This section presents case two participants' perceptions of the implementation process of the OBE curriculum. As in case one, case two participants include the school principal and three English teachers. The teachers consisted of two females and one male, they are all familiar with teaching at a secondary grade nine level and all have more than five years teaching experiences. Again the interviewees are two males and two females.

Five underlying issues from theme three, participants' perceptions in case study two are discussed. These are: different definitions, past teaching experiences' of teaching methods, examinations influence, and definition of a student-centred approach. Findings from case two will be compared with case one (cross-case analysis) and then used to answer research question 1 (b).

6.5.1 Different definitions

The first underlying issue elicited from the theme 'teaching and learning' in the second case study relates to participants' interpretation of the new curriculum.

6.5.1.1 Individual ownership

Participants do not specifically give a distinct definition of the classroom implementation of OBE but generally reported that individuals worked on their own to create their own meanings during the implementation of classroom practices. The thought is captured in this example remark:

Teachers find their own way through it [OBE] to try to get hold of the teaching part of it (P2-S2).

The quote does not pin-point a particular teaching approach but gives an indication of the dilemma that secondary school teachers in this context had faced in the initial stages of accommodating the curriculum changes. This finding is similar to case study one. The implication from the text is that the PNG DOE as the change agent had not done enough to help teachers' preparation for classroom implementation. The finding reveals a picture of struggles ("Teachers find their own way through") of a process ("teaching part").

Alarming, this raises questions as to how successful the policy intentions for the classroom would turn out to be ("the teaching part of it"). This assumption is supported by findings in Section 5.4.2.1 that showed the ET2

from case two teaching from the old syllabus. As indicated here, the teachers' attempt to gain curriculum ownership appears to be a laborious task within this teaching context. Furthermore, the finding here also highlights areas such as a need for PD as seen in the quote, "Teachers find their own way through". Hence, the discussions here indicate that there is no shared meaning between policy and practice which may have caused challenges for participants in trying to interpret and implement the OBE curriculum.

6.5.1.2 Teaching strategy

Participants also identified practical learning as a relevant teaching and learning strategy that could be used when programming the new curriculum. The following quote represents that meaning.

One teaching strategy we use is from known to unknown (FGT1-S2).

The quote shows an overview of what these participants believe should occur for the teaching and learning ("teaching strategy"), of subjects ("from known to unknown"). Participants seem to define practical experiences as the teaching methodology underpinning the OBE curriculum. The message also captures the intentions of the curriculum developers which were to make learning in the classrooms relevant to "national and local needs and is community oriented" (Department of Education, 2003a, p. 3). Furthermore, the finding also indicates that there is an element of compatibility between the new curriculum and participants' old practices ("from known to unknown"). This indicates the pedagogical knowledge held by participants. Hence, this finding is advantageous for enhancing adoption and implementation of the OBE curriculum. This possibility resonates with discussions on factors influencing implementation (Section 2.5).

The message evolving from the above example quote indicates participants have a fair idea about the teaching part, but does not elaborate on the specifics of how students would learn practically. It portrays a generalisation

(“One teaching strategy”) of what is to be done (“from known to unknown”), but not how it would be done as the rest of the transcript showed. So what does this tell us about the teachers’ knowledge of the curriculum? It may imply a surface understanding of teaching practices required for the OBE curriculum. Likewise, it could also be emphasising that the processes put in by the DOE and schools for preparing teachers for curriculum changes were not empowering teachers for the classroom implementation (Section 2.10.4.4.3). Hence, in the context of this study, the argument is that there was insufficient preparation given to teachers for enabling successful implementation so an effort for collaborative PD is suggested for countering the noted deficiency (Section 2.5.2).

On the other hand, it is possible to deduce from the quote that participants do show agreement with policy intentions. Policy requires learning to be grounded in realistic experiences and data supports that by stating that teachers have a belief in teaching, “from known to unknown”. However, as argued in preceding paragraphs, there remains the need for collaborative PD so that there would be shared meanings which could help to alleviate the challenges of “teacher-centred learning” (FGT2-S2) which was noted in the S2 classroom (Section 5.4.2.1.2). The inference here is that teachers are holding onto practices of teacher-centred learning that they are familiar with and, consequently, this may hinder the adoption and implementation of the new curriculum. An example of that behaviour was captured in the remark, “I am not using the new curriculum” (ET2-S2). This depicts that behaviour is still in rooted in familiar practices so may be an obstacle to implementing the OBE curriculum as observation findings from S2 revealed (Section 5.4).

In summary, findings presented in Section 6.5.1 show that S2 teachers worked in isolation to attempt implementation of the OBE curriculum. This finding is similar to S1 (Section 6.4.1). Case two participants define working from the known to the unknown as a common teaching strategy, and this revelation resonates with policy intentions. Because of conflicting responses shown by comparing policy with participants’ thoughts, the data imply the

necessity for cooperative PD to align practices with policy aspirations (Section 2.5.2).

6.5.2 Influence of past teaching experiences

The second issue elicited from data resonates with the idea that influences from past learning actions have implications for any teaching changes. This finding is similar to other studies (Borg, 2006). There are two areas of concern deduced in this study: effects of past influences, and the need for PD. These topics are discussed sequentially.

Firstly, findings here indicate that previous teaching practices that teachers were taught as students or encountered in their careers may influence current teaching practices. The gist is captured in this quote:

I was taught in a different way so I sometimes do my teaching as to how I was taught in the classroom (FGT3-S2).

This quote is a representation of the belief system of these participants. It highlights that past teaching practices, including how teachers themselves were taught (“I was taught in a different way”), influences teachers’ perceptions of the OBE curriculum. One meaning deduced here is that if the teaching method underpinning the OBE curriculum is similar with current teaching practices, then the possibility exists that teachers will implement the new curriculum, as inferred from the phrase “so I sometimes”. On the other hand, it also appears that participants disagree with the teaching approaches underlying the new curriculum as implied in the quote, “taught in a different way”. Hence, teachers probably through a conscious effort resort to habitual practices, “do my teachings as to how I was taught”.

Findings here also reveal that teachers’ views resonate with a behaviourist lens of learning. This is contrary to the descriptions of the constructivist lens supposedly underpinning the PNG OBE curriculum (Section 2.10.4.4.3). For instance, “remedial teaching” (FGT1-S2) is identified as a prior encounter

that S2 participants were exposed to during their student days and consequently has become part of their current practices. Similarly, one S2 participant stated: “When I was in grade 10 in school, teachers did most of the coaching in the afternoons, and if I was teaching grades 9 or 10, I had to make sure that when looking back at the exam questions these ones should come like this” (FGT1-S2).

This quote captures a past teaching experience (“coaching”) that has shaped current practices (“if I was teaching grades 9 or 10”) in regards to teachers preparing students to be able to answer grade 10 national examination questions. Hence, this example gives a hint of one feature comprising participants’ teaching beliefs. Therefore, it is argued that the experience of a past practice (behaviourist) influences the teaching of the OBE curriculum (constructivist). The interpretation raised here supports the discussion of the effects of examination backwash from the literature (Hall, 2005b) and earlier discussions (Section 2.10.4.4.4).

Secondly, the issue of PD sessions seems to be the other idea implicit within past teaching experiences. For instance, “We are still using the old content of the subject and there is no change for students and teachers to see” (P2-S2). This admission by the principal of S2 seems to indicate that this context has not yet accommodated the changes (“We are still using the old content”), despite it being a policy. Additionally, this judgement is triangulated by the S2 English lesson observations (Section 5.4.2). Furthermore, the finding also re-iterates the assertion (Section 2.5.2) that there is a need for training workshops (“there is no change”). Hence, the implication here that there is necessity for PD (“for students and teachers to see”) so the content and pedagogical development for academic subjects like English (the focus for this study) could be discussed collaboratively for purposes of aligning practice with the policy curriculum (Section 2.10.4.4.3).

As repeatedly argued, S2 participants’ teaching beliefs are deeply entrenched in former experiences. Therefore, past mind-sets of teachers

would need to be altered in the hope that there could be accommodation with policy intentions (Section 4.3), and one such way that would make it a reality could be through PD workshops (Section 2.5.2). Findings from this context suggest that the proposed workshops would need to embrace a ‘co-construction’ effort (Hall & Irving, 2010) from all stakeholders so that there could be ‘learning in tandem’ (Crowl & Hall, 2005) to help embed the OBE curriculum.

6.5.3 Teaching methods

The third issue concerning teachers’ perceptions relates to evaluation of individual teaching methods. Two responses stood out as representations from S2 in relation to whether teachers have adjusted their teaching methods as per policy intentions (Section 4.3.3). The discoveries reveal no alterations and adaption. Interestingly, these findings from case two are similar to case one (Section 6.4.3).

Two participants from S2 alluded to the issue of not using the outcomes-based curriculum. Arguably, if one was not using the new curriculum, then it would indicate that there were no changes to one’s teaching methods. The meaning is extracted from this quote.

I don’t know how to teach outcomes-based education
in schools now (FGT1-S2).

The findings here indicate that these participants probably do not have the knowledge to teach OBE at the classroom level. For instance, “I don’t know how to teach outcomes-based education in schools”. This finding resonates with Hall and Kidman’s (2004) assertion that if one does not have the knowledge, then one cannot do it. Hence, the underlying message is that there were no changes to teaching methods from these participants. It is argued that teaching practices for these teachers are still embedded in old methods. The assumption to that is also supported to in the case two observation finding where the teacher was still using the old syllabus (Section 5.4.2). The actions of these participants contradict policy intentions

(Section 4.3.3). Therefore, these participants who have not changed teaching methods could be described as resisters to change at the classroom level because they made conscious decisions not to adopt the OBE curriculum probably because of the poor introduction of OBE into the system (Section 6.2).

So what does the above discussion portray about the policy requirements for practice? The finding here illustrates that changing teaching practice for some participants (“I don’t know”) in this context is a slow process (“how to teach outcomes-based education”) inferred by the word “now”. The use of “now” gives clues to a time-frame of events that occurred in the past and has consequences for the present, and for the future. In this study, the cause and effect resonates with the diffusion of innovation theory (Section 2.2) describing the process of initiating, implementing, and continuing the process of curriculum change in a social context. Hence, in this situation not all participants understood the OBE curriculum, and so it was not being received and responded to according to policy expectations. The argument from the example implies that those teachers are delaying change at the classroom level.

Four possible explanations are offered for why participants delayed. First, this could have been a consequence of them not making alterations to their beliefs about teaching. Second, resistance could have resulted from not being convinced of the potential that the new curriculum had to offer. Third, it may indicate that participants’ beliefs and attitudes have influence on their decision making processes about the reform curriculum. Finally, another possible explanation is that participants lacked knowledge of the theoretical and practical underpinnings of the new curriculum. Whatever the explanation, the action of not using the curriculum portrays some form of resistance to changing the status quo. Teachers such as these could be described as stubborn and conservative in character (Rogers, 1995) because they do not want to embrace the change – which would have ramifications for the classroom – despite it being a policy. Furthermore, the resistance

could have been a reaction to the top-down manner used for introducing change (Section 6.2).

The second meaning deduced from data is that, despite a slow acceptance of the OBE curriculum in S2, there is also evidence of individuals who had adapted their practice and embraced the change concept from the policy. One participant indicated that she had altered her teaching methods. This action leans towards adhering to the required policy intentions that advocated for change to teaching practice (Section 4.3.3). The message is captured in the following comment.

I think it is similar to outcomes-base education, they call it thematic as planning lessons on bride price or compensation (FGT3-S2).

The finding indicates that certain reflections are made on individual teaching practices (“similar to outcomes-based education”). The example illustrates the participant’s knowledge of common cultural themes (“bride price or compensation”) across the PNG context that could be used as a teaching strategy. The participant is reflecting on the policy requirements that teaching and learning are relevant to real life experiences, thus indicating an understanding and adoption of the policy curriculum (Department of Education, 2003a; 2006). When the DOE championed its case for change, policy highlighted thematic teaching as one approach among others (Section 4.3.3). Therefore, this quote indicates that FGT3-S2 is taking ownership of the curriculum as per policy intentions. Clearly, as this example shows, there are individual teachers adopting the policy despite others not responding favourably. This finding is consistent with the finding in case study one. Hence, FGT3-S2 could be described as being an adopter of change because she has attempted the policy teaching methods.

To summarise, there were contrasting reactions to S2 teachers’ classroom implementation of the OBE curriculum. As attested by the principal in Section 6.5.1, teachers were working individually to make sense of the

implementation process. As a result, there were minimal changes to the teaching practice, or none at all, nor was there an attempt at taking ownership of the curriculum.

6.5.4 Examination influence

The fourth issue for discussion about teachers' perceptions relates to the importance of national examinations' influence as a focus for teaching. This finding in case two is consistent with the finding from S1 (Section 6.4.4). Policy gives little description of the PNG examination process in the NCS (Department of Education, 2003a), but highlights ethics, morals and values and integration of subjects among other factors as aspirations for classroom teaching (Section 4.3.2). Contrary to that, data suggest that classroom practice is still subject-driven and examination-focused.

The underlying message from the participants is that the academic component of learning is more important than other aspects like social, political, and spiritual (ethics, morals, values). This meaning is deduced consistently and explicit in this comment: "It all goes back to the exam, whether it is grade 12, 10, or 8" (FGT1-S2). The three national examinations ("12", "10" and "8") described previously in Section 2.10.4.4.4 indicate teachers' beliefs for what should be the focus for classroom teaching ("It all goes back to the exam"). This illustrated that teachers had a different viewpoint to the policy intentions (Section 4.3.2), and deemed examination teaching as a need for students' learning which supports evidence from a Singaporean study (Goh, Zhang, Ng, & Koh, 2005) and Hall (2005b) that the pressures of examination results influences classroom teaching.

The policy promotes a holistic view of education (Section 4.3.2) but the finding from this S2 shows a direct contrast with teachers' views. There was no shared meaning between participants and policy about the focus for classroom teaching and learning. The impression is that teachers' views are still firmly rooted in the culture of examinations which has been a systemic practice for the DOE since its inception in the 1970s. Hence, these

participants have been part of the old regime of exam-focused practices and it denotes that they would continue examination-focused teaching in their classrooms.

The second underlying message from data is that all stakeholders and systemic units within the DOE need to work collaboratively to ensure that the education reform is realised consistently. According to the finding here, the curriculum section (CDU) and the exam unit (MSU) (Figure 2.4) need to work in partnership with schools to enable positive results for the reform agenda of the DOE. The message is contained in this remark, “There are no studies to determine successful outcomes of the OBE in terms of testing and so on for the country” (P2-S2).

The comment denotes that joint efforts from all stakeholders, both external and internal are required, if the curriculum reform is to succeed in schools. The finding confirms the result from Apelis’ (2008) PNG-based study. Apelis stressed the necessity for the primary schools’ inspectorial unit and teachers to work together to ensure quality education was delivered. Hence, findings from this study are consistent with the message from Apelis and Hall (2005b) from the western context that all stakeholders should work in partnership to realise the reform agenda, in this case for secondary level English language teaching.

In closure, findings from this study demonstrated that participants’ views about the focus for classroom teachings differ from policy. Policy requires a constructivist approach to teaching and learning whilst S2 findings consistently portrayed behaviourists’ thoughts. That is, deeply rooted beliefs, influenced by the backwash effects of national examinations, are considered a priority for classroom teaching and learning; this supports the findings elicited from S1 as well.

6.5.5 Student-centred learning

The last finding describes participants' interpretations of the term student-centred learning. Student-centred learning is one of three teaching strategies that the policy deemed appropriate for the teaching of English at the secondary level (Section 4.3.3). Similar to case one findings (Section 6.4.5), participants from case two also had their versions of the policy's intended approach. Two underlying issues are elicited from data in reference to teachers' understandings. These are exploratory learning, and the need for PD.

The first elicited meaning reveals that participants in S2 have a fair assumption as to the type of teaching approach intended by policy. They labelled the practice of student-centred learning as, "teachers guiding the learning process," (FGT3-S2). The identification of a specific teaching strategy such as exploratory learning ("teachers guiding learning") was indicative that participants here had a definition of policy requirement. Furthermore, it showed that participants' thoughts concurred with policy that students had to be active participants in their education (Section 4.3.3). This understanding is captured by this observation, "Explore things for themselves which is a good idea" (FGT2-S2).

However, participants did not mention specific examples of how exploratory learning could occur. This was also perceived in case one (Section 6.4.5). When participants were asked about their views of student-centred learning, a claim is made that teachers do not have to teach but only to facilitate learning: "Teachers only become facilitators" (FGT1-S2). This comment suggests misperceptions between policy and practice about how teaching should be conducted. This finding is similar to case one (Section 6.4.5). The finding here raises questions about the design and implementation of the OBE curriculum. That is, the PNG OBE model has three features: intended outcomes, processes, and actual outcomes (Section 2.10.4.4.3). The discussions here suggest that there has been a lack of attention to the processes component of this three step sequence.

The findings described above have implications for the curriculum implementation process. This study argues that these two similar results - indicating that teachers do not have to teach but only guide learning - from both cases implies confusion in teachers' minds about their roles in the process of implementing the OBE curriculum. The responses suggest a surface understanding of the policy intentions, especially of how to practically apply student-centred learning. Therefore, it is inferred that a lack of understanding about classroom implementation could impede the policy's aspirations.

The second underlying point of discussion refers to a need for teachers' PD. As in case one, case two findings also indicate that practice needs to be aligned with policy. This is depicted in the following remark: "How will students do self-learning?" (FGT1-S2). The elicited message in that quote gives an indication of the lack of understanding in the teachers' practical applications of the teaching strategy. Interestingly, when considered against the previous finding - that teachers had an understanding of WHAT the policy required in terms of individualised, student-centred learning - this quote reveals that they are less certain about the HOW. The call for PD is embedded in the question raised by T1 ("How will students do self-learning?"). Participants are raising concerns as to their professional abilities in effecting policy (how?). The word "how" captures the need for PD sessions for secondary level teaching. This assumption supports earlier discussions (Section 2.5.2) about the use of PD to embed policy reforms.

To summarise, S2 participants identified one strategy for student-centred learning (exploratory), compared to policy requiring three strategies (text-based approach, thematic teaching, and student-centred learning). Consequently, participants' views contradicted policy intentions, so this identifies a need for professional development for all stakeholders in the PNG DOE.

6.5.6 Summary - Case two findings

The discussions in Section 6.5 presented S2 teachers' views about the curriculum implementation process of an OBE curriculum. The focus was on eliciting their interpretations of what the policy intended and comparing these with actual policy intentions. Findings revealed that there is very little alignment of practice with the policy aspirations for change. This implies that change is not yet embedded in these teachers' world-views, but is only scratching the surface. Results showed that teacher perceptions of what should be the focus for classroom teaching contrasted with policy expectations. Similarly, policy intended for a change from teacher-centred lessons to student-centred teaching in classrooms. However, participants had varying ideas about how student-centred learning should occur; this finding triangulated with lesson observations (Sections 5. 2.2.1.2 and 5.4.2.12).

Section 6.6 presents collective findings about issues arising from the two cases.

6.6 Issues affecting implementation

“The blind leading the blind” (FGT2-S1; FGT3-S2)

This section presents collective findings from the two cases as the results were similar and consistent. The cases are both part of a major re-structure and curriculum reform process in PNG (Section 2.10.2).

Issues affecting curriculum implementation is the last theme derived as the underlying meaning from data. Findings revealed that weak infrastructure – particularly related to the availability of teaching resources and provision of professional development – was perceived as impeding implementation.

6.6.1 Weak infrastructure

In relation to this investigation, weak infrastructure refers to the lack of planning, resources, and training to prepare teachers in advance to use

the new curriculum. The meaning for the definition is deduced from the observation: “Preparation was inadequate” (FGT1-S2).

Firstly, “preparation” as used in the quote refers to a process of organisation and management. In the context of this study, it refers to both teaching resources and training. The former is the first issue for deliberation while the latter is discussed later. The statement clearly expresses the dissatisfaction that participants from both cases felt about the curriculum change in their context: that is, that the change agent (DOE) did not provide sufficient teachers’ resources. Hence, this suggests poor management of change by the DOE. Furthermore, another implication is that the DOE expected schools and teachers to take responsibility for executing change at the micro-level (schools) once it had been mandated at the macro-level. Whatever the DOE’s intentions, participants have summed up the change process for their context as “preparation was inadequate” (FGT1-S2).

Therefore, the argument presented here is that a lack of teaching resources characterises poor infrastructure in the secondary context of the education system investigated by this study. Another comment by a participant from case one provides support for this argument: “Teaching guide and all, there’s nothing” (FGT3-S1). Participants in this study viewed the teachers’ guide to be a resource material separate from the syllabus and curriculum (Department of Education, 2003a; 2006) which were circulated earlier (Table 6.1). Participants believed that they should have been provided teaching guides by the DOE, as it had done so for the previous curriculum (objective based). It seemed here that teachers were used to old practices of having teacher guides provided by the DOE, and did not embrace the idea of curriculum ownership immediately.

Findings revealed that participants perceived that the change process for these two secondary schools’ context was rushed through by the DOE. Consequently, teachers who were already overloaded by classroom duties would continue to maintain old practices and forgo policy intentions. For

instance:

The new curriculum hasn't got enough information for me to use. So what I do is I get the topic from there but I go back to the old text book and old teachers' guide (FGT3-S2).

If this reflection is indicative of how secondary school English teachers were embracing the new curriculum, then this could contribute to the possibility of policy intentions not being realised in classrooms. Therefore, this finding supports the argument presented by this study that a lack of teaching resources identifies the need for greater infrastructure to cater for curriculum change during implementation. Additionally, due to the consequences of inappropriate resources, teachers were stretched in their implementation attempts. This predicament was noted in the comment: "We are struggling here" (FGT1-S1).

Several issues are contained within this simple quote. However, for this discussion it refers to teachers' participation as change agents in the classroom. It seems that they were merely silent recipients at the end of the decision-making process for curriculum change in the PNG education system (Figure 2.4). Teachers were just told to put into practice decisions made by a small core of people who were in power in the DOE. Hence, due to a lack of teaching resources, classroom implementation was problematic (Sections 6.4 and 6.5).

Furthermore, schools felt the impact that their teachers had experienced ("we are struggling here"). One principal voiced the difficulty as, "Probably the education department could come up with new designed text books" (P2-S2). This was indicative of calls from all participants for appropriate resources to be provided to schools so that the policy intentions could be met. The lack of resources noted in this study supports an earlier PNG study which described education reform implementation in PNG as having an inadequate infrastructure (Nongkas, 2007). Nongkas argued that the actual implementation of change was left

to schools after the DOE had set its policy benchmarks; consequently, policy intentions were not effectively realised in classrooms because the policy did not envisage problems that schools would encounter.

The second underlying argument related to weak infrastructure highlights the need for teachers' PD (Sections 6.2, 6.4, and 6.5). This issue was continuously stressed by all the eight participants from the two case studies. PD is described as "In-service and training" (P1-S1). The argument inferred from data shows that there was a lack of training workshops for the purposes of PD; this is characteristic of a weak infrastructure, the main issue according to participants' views. Findings from this study continuously identified the need for collaborative training sessions between the DOE and all stakeholders. This assumption is also supported by the policy implication (Section 4.4) and the literature (Hall & Irving, 2010) that PD will aid embedding policy reform such as the OBE changes in this study.

Furthermore, findings here indicate that participants are over-worked and did not have time for familiarising themselves with policy documents. For instance:

They were telling us to read, read, read and disseminate the information. We cannot do that because we do not have the time (FGT3-S1).

This quote captures teachers' feelings ("We do not have the time") about the added responsibilities ("Read", "read", "read") for taking ownership of the OBE curriculum ("disseminate the information"). The argument emerging from the findings is the need to create a space for teachers to get together with others for collaborative PD workshops. Findings also suggested that the DOE and teachers' understanding of implementation were not in harmony. That is, the DOE expected teachers to take curriculum ownership, but participants felt that they did not have time to do research as they were already overloaded with teaching and other school duties. Hence, the discussion here shows that classroom implementation of the OBE

curriculum is challenging for participants.

Another point inferred from the data relates to teachers' knowledge of the new curriculum. It appears that participants from this study are lacking appropriate knowledge and skills ("disseminate the information") required for implementing the new curriculum. Hence, cooperative training workshops involving all stakeholders would help enable policy intentions to be realised in practice. This finding also resonates with the literature on PD (Hall & Kidman, 2004) for a collaborative effort from all stakeholders. Thus, this study argues that there is a need for more PD to enhance curriculum implementation for policy intentions to align with practice.

6.7 Summary

This chapter has presented findings from the participating teachers and principals from the two case study schools investigated in this study. Findings revealed that a top-down policy approach was used by the PNG DOE to introduce its large scale curriculum change into the secondary school context. Likewise, consistent results from both cases studied illustrated that there was little shared meanings between policy intention and participants' thoughts. Classroom teaching methods were not altered according to the participants, despite the policy's aims. Similarly, there was a difference in the treatment of topics that should comprise the focus for teaching. Consequently, as a result of the differing views between participants and policy, this discussion has highlighted that there is a need for collaborative professional development sessions between the Education Department and all stakeholders.

The next chapter discusses the findings.

CHAPTER SEVEN

Discussion of findings

Introduction

This chapter presents discussions on three conceptual themes that emerged from the cross-case analysis from this study. The themes are discussed in relation to the diffusion of innovation theoretical framework and the literature. The themes are: Lack of alignment, reasons for lack of alignment, and suggestions for improvement. The three findings will help answer the two main research questions of this study. That is, it sought to establish how practices of a new OBE curriculum relate with policy, and to develop a framework for implementing an English curriculum as per this specific PNG experience.

This introductory section sets the background for this chapter. Section 7.1 presents the first conceptual theme, lack of alignment, while Section 7.2 discusses the second conceptual theme, reasons for lack of alignment. Section 7.3 gives a conclusion of the key issues from 7.1 and 7.2 while Section 7.4 suggests a working framework to assist curriculum implementation for English education as per this study's findings. Section 7.5 outlines issues that may impede the suggested framework and, lastly, Section 7.6 gives a summary of the whole chapter.

7.1 Lack of alignment

The first conceptual point for discussion in this study was a lack of alignment between practices and policy intentions. This issue shows an important lesson for others in organisations that use policy processes to instigate change (Fullan, 2007). The discussions here have uncovered the complexity and the messiness involved in policy processes mandated at

higher levels for practical applications at lower levels of social institutions (Markee, 1997). Three issues from this study have demonstrated a mismatch with policy and practice. They are: teachers' views of teaching and learning (Chapter Six), focus for classroom teaching, and classroom practices (Chapter Five). They were identified because of their relationships to the research purpose which sought to determine how the OBE curriculum was applied for English teaching and learning purposes.

7.1.1 Teachers' views of teaching and learning views

The first issue defining a lack of alignment between policy and practice is the views held by teachers of teaching and learning. This study consistently discovered that teachers from the two schools investigated (Chapters Five and Six) held different views from the policy expectations (Sections 4.2.2, 4.3.2, and 4.3.3) about 'HOW' to teach English as a second language (L2). For instance, two contrasting viewpoints - fluency versus accuracy, and student-centred versus teacher-centred approaches - are discussed to show the differences between policy and practice in this study.

7.1.1.1 Fluency versus accuracy

Findings from this study revealed that there were differences of views between policy and practice on how grammar should be taught. Table 7.1 illustrates what three participants said in response to the policy's intended 'fluency' approach (Department of Education, 2003a; 2006).

Table 7.1: Fluency versus accuracy

Policy	Participant View
Fluency in, and an understanding of, English is critical for students in PNG (Department of Education, 2006, p. 3).	Having to get it right, grammatical structures and all those things. (ET1-S1)

While the development of a new OBE curriculum in this study looked encouraging for PNG, there was no shared meaning between the change initiators (DOE) and the recipients of change (teachers). The DOE used policy, a systemic function, to instigate educational change at a macro-level with implications for micro-level practices in this study (Sections 4.3.4 and 6.2.2). Hence, the curriculum is, as defined, an innovation (Markee, 1997; Rogers, 1995) because the DOE describes the OBE curriculum as something new being introduced into the PNG education system to improve the quality of education (Department of Education, 2003a; 2006).

However, the curriculum change needed a deliberate effort from teachers receiving it to change their practices and thinking (Fullan, 2007; White, 1988); Table 7.1 shows the differences between the policy (intentions) and practice (teachers' views). Subsequently, the difference ultimately affects the teachers' classroom curriculum (Goh & Yin, 2008) as the observation findings here revealed (Sections 5.2.2.2.1 and 5.4.2.2.1). Thus, the curriculum developers' perspectives here do not necessarily sound the same as teachers' interpretations. So what does this mean according to the literature and the diffusion of innovation theoretical lens?

The finding here reveals that the diffusion process (Section 2.4) of introducing curriculum change in this study was not systematically and effectively managed (Everard & Morris, 1990; Murray & Christison, 2009) by the DOE. Findings indicate a difference in pedagogical viewpoint between policy and practice. Studies in curriculum changes for English education (Carless, 2001; Chan, 2002; Winterbottom et al., 2008) show that teachers' pedagogy affects their classroom beliefs of teaching and learning. In this study, the observation findings support the literature argument, as teachers' pedagogical views of a teacher-centred approach (Sections 6.4.3 and 6.5.3) corroborate with the observation findings (Section 5.2.3 and 5.3.3) and do not relate with policy intentions (Section 4.3.3). Hence, this study uncovered two different views towards teaching and learning English, 'fluency' and 'accuracy'. The former being the policy's aim, while the latter was derived as

representing the participants' commentaries (Table 7.1).

The meaning deduced from the policy quote (Table 7.1) infers that when students have an understanding of English, which is internally driven from their cognitive abilities, of creating meanings, then they will be able to function effectively in the contemporary PNG society and abroad. For instance, acquiring appropriate skills and knowledge in English whilst at school may entail students entering tertiary studies, the workforce, or returning to their community settings as productive and functional members (Department of Education, 2003a). The word, 'fluency' refers to how students perform language functions in society, while 'understanding' refers to the students' competency levels. This interpretation resonates with Chomsky's competency notion arguing that learning a language includes knowledge of rules of an innate grammar system that guides the performance of one's language functions (Shrum & Glisan, 2005). Hence, policy intentions of the OBE curriculum resonate with a constructivist view of learning in which the characteristic of 'fluency' is situated (Section 2.10.4.4.3).

The policy intention for teaching grammar also relates with the notion of a balanced language teaching programme (Macalister, 2011). That means when teachers are programming the skills of speaking, listening, reading, viewing, and writing (Department of Education, 2006), grammar is included in those skills. A balanced teaching programme according to the literature requires: meaning focused input, language focused learning, meaning focused output, and fluency development (Macalister, 2011). This supports the policy intention for teaching grammar in meaningful contexts; it is also a focus that should be accommodated into PD sessions to support policy intentions.

In contrast, five participants had a different view of teaching English. They viewed grammar 'accuracy' as important for teaching English. The meaning for grammar is contained in this remark, "Having to get it right, grammatical

structures and all those things” (ET1-S1). The commentary gives an impression of the teaching view of the participants’ beliefs. That is, participants deemed that learning rules of the L2 was the approach to being competent in the English language. The teachers’ views resonate with a grammar translation method that focuses on rote learning the rules of English as learning the language (Lightbown & Spada, 1999; Long, 2007). There is no denial that grammar as a skill is necessary for learning an L2 (Ellis, 2008). However, in this context, the view of grammar teaching from participants differed from the policy intentions about ‘how’ to teach it. Participants’ grammar teaching (accuracy) resonates with a behaviourist view to learning as there is a narrower view to teaching which does not involve students creating meanings (Sections 5.2.3 and 5.4.3). This contradicts the policy intention of a constructivist view of students creating meanings (Sections 2.10.4.4.3 and 4.3).

Arguably, some participants’ here have not shifted their pedagogical knowledge (Adamson & Davison, 2008) towards the ‘how’ process that policy requires (Section 4.3.3). Evidence from the observation findings of grammar lessons (Sections 5.2.2.2.1 and 5.4.2.2.1) support this argument. This study revealed that the process of introducing change from a macro-level (policy) to be implemented at a micro-level (school) was problematic for this particular context because of a lack of shared meaning (Table 7.1). This finding validates the assertion by Fullan (2007) that there has to be a shared meaning by the tri-levels of society (national, district, and school-community) for a change agenda to be successfully implemented such as the OBE curriculum change here.

Findings here reveal that participants had not yet altered their teaching views according to the policy intentions for grammar teaching, so this behaviour is deemed problematic. Policy requires grammar to be taught in meaningful contexts such as student-centred learning, thematic / integrated teaching, or text-based (Section 4.2.2). However, evidence here illustrated that grammar teaching was not conducted in meaningful contexts (Sections

5.2.2.2.1 and 5.4.2.2.1). Hence, teachers' beliefs for teaching grammar here were still entrenched in their old practices (Stoller, 2009), and so this indicates that there is a need for PD to overcome the differences of 'HOW' grammar needs to be taught in the classrooms. For instance, when one principal was queried as to how schools have helped teachers with interpreting the OBE curriculum, the response was less favourable indicating that there was need to sustain the implementation process. The meaning is contained in this quote, "Teachers sort of find their way through it to try to get a hold of the teaching part of it" (P2-S2). The reflection from P2-S2 summarises the argument for participants' PD here as there is a lack of alignment of policy intentions with practice.

In summary, despite differences of views, both policy and participants agree on the importance of grammar for teaching (Ellis, 2008). Policy requires grammar to be taught meaningfully in context (Sections 4.2.2 and 4.3) while participants viewed grammar teaching (English) as learning rules and doing exercises (Sections 5.2.2.2.1 and 5.4.2.2.1).

7.1.1.2 Student-centred against teacher-centred approach

The next finding representing a non-alignment between policy and practice concerns the teaching methodology. Policy intends for a student-centred teaching approach (Section 4.3.3) but the observation and participants' findings revealed teacher-centred practices (Sections 5.2.2.1.2, 5.4.2.1.2, 6.4.3, and 6.5.3). Table 7.2 illustrates a representation of the different views.

Table 7.2: Teaching approach

Policy	Observation finding
A student-centred approach allows teachers to be more flexible in determining the most effective ways to help all students achieve these learning outcomes (Department of Education, 2003a. p. 20).	All four observed lessons from C2 and two from C1 were all teacher-centred, grammar lessons taught in isolation (Field notes).

The process of implementing a mandated curriculum change is complicated as there are various interpretations involved (Fullan, 2007; Kennedy, 1996). Two opposing views concerning teaching methodology were uncovered here. Policy articulated for a student-centred approach (Section 4.3.3), while participants described in principle 'WHAT' policy required as the teaching method (Sections 6.4.5 and 6.5.5), but indicated that there was no change to their teaching practices (Sections 6.4.3 and 6.5.3), which bore resemblance to teacher-centred practices (Table 7.2). Furthermore, observation findings triangulated that classroom teaching was not student-centred (Sections 5.2.2.1.2 and 5.4.2.1.2). Hence, the discussions here show lack of alignment between policy and practice.

Policy defines student-centred learning as placing students' needs in the middle of the teaching and learning process rather than teachers as the source of all knowledge (Sections 2.10.4.4.3 and 4.3.3). The policy's view of student-centred learning resonates with curriculum design (Nation & Macalister, 2010) for preparing teaching programmes based on students' learning needs (Table 7.2). The policy implies that students have intrinsic knowledge, and it is up to the teachers to nurture students' learning (Mamary, 1991) via the curriculum. The argument is contained in, "Help all students achieve these learning outcomes" (Department of Education, 2003a, p. 20).

The new PNG curriculum is designed on the principles of OBE (Section 1.2.3). Accordingly, the OBE theorist, Spady (1994) argues that OBE is applicable as an instructional strategy (Section 2.10.4.3), thus, resembling a student-centred learning, the approach supposedly underpinning the PNG OBE curriculum (Section 2.10.4.4.3). Policy asserts that students have to be active participants for creating meanings during teaching and learning (Section 4.3.3). For instance, the policy describes student-centred strategies as working together in group interactions to negotiate meanings by learning and teaching each other, working individually, and in collaboration with the teacher for creating new knowledge (Department of Education, 2006). There

was evidence of student-centred lessons sighted in case study one (Section 5.2.2.1.3), but not in case study two.

In contrast, a teacher-centred lesson as defined from the literature is a traditional approach of teacher 'talk and chalk' confined within a boundary of four walls (Edwards & Westgate, 1994). Arguably, a teacher-centred lesson is structured differently from a student-centred one. Teachers are deemed sources of knowledge and they would have to transfer the knowledge through systematic teaching of facts (Cazden, 2001). This lens resonates with a direct transmission teaching view that describes the teacher's role as communicating knowledge clearly, providing correct solutions to problems, and resolving students' problems, with an underlying aim of maintaining calm and concentration in class (Organisation for Economic Co-operation Development, 2009).

Findings here showed lessons did represent direct transmission of facts and these were noted in the grammar lessons from both case studies (Sections 5.2.2.2.1 and 5.4.2.2.1). Arguably, a teacher-centred lesson marginalises students' participation, and signifies the teacher at the centre of the learning process, and not the students (Killen, 2000). For instance, the three part structure of classroom talk - initiation, response and evaluation (Sinclair & Coulthard, 1975; Tsui, 1994) - discovered in both cases (Sections 5.2.3.1 and 5.4.3) contributed to more teacher talk and less student participation (Cazden, 2001). Hence, how much students learn in a teacher-centred lesson depends in part on the amount of background knowledge that they have (Hall & Walsh, 2002), which is not deemed appropriate for this secondary school context according to the policy (Department of Education, 2003a; 2006).

The contrasting view-points discussed earlier (student-centred / teacher-centred) provide support for the argument of a lack of alignment between policy and practice. The issue further highlights that stakeholders in this study have different lenses for defining teaching beliefs. Policy indicates a

constructivist view of teaching and learning, as captured by the quote, “Students will make meanings” (Department of Education, 2006, p. 1) from teaching and learning experiences. Findings of policy intentions showed that student-centred learning was the preference for the PNG education system (Sections 4.3.3).

Constructivism asserts that knowledge and meaning are created from social contexts. In this study this refers to the students’ and teachers’ interactions in the classrooms (Chapter Five). For this to eventuate there would need to be a common pedagogy shared by policy and teachers. However, the policy does not make clear any specific subject theory (English) underpinning the teaching and learning of English (Department of Education, 2003a) despite its very descriptive document which stresses “a student-centred” learning (Department of Education, 2006, p. 7).

Nevertheless, as discussed above, policy requires a constructivist view underlying a student-centred learning of English (Section 2.10.4.4.3). However, this was challenging in this OBE environment as findings from both case studies revealed that participants’ views focused on teaching students to pass national examinations (Sections 6.4.4 and 6.5.4). This teaching characteristic seems more behaviourist than constructivist (2.10.4.4.4). Similarly, this finding also supports the literature critique of OBE emphasis in the New Zealand secondary context (Hall, 2005b). Hall argues that there is narrow teaching and coaching in order to increase the number of students passing the National Certificate of Educational Achievement (NCEA) (Section 2.10.4.4.1).

Interestingly, teaching students to pass the national examination is also the aim of teachers in this study (Sections 6.4.4 and 6.5.4). The PNG education system is very much examination oriented in its focus after the reform (Section 2.10.4.4.4) as it was before the reform (Figure 2.1). Hence, the findings discussed here also highlight the notion of feasibility and relevance in the design and implementation of the PNG OBE model (Section 2.10.4.4.3).

In closing, participants' beliefs about teaching resonate with a direct transmission view of teacher-centred instructions. Findings here revealed that teachers' views (Sections 6.4.3 and 6.5.3) and observation findings (Sections 5.2.2, 5.2.3, 5.4.2, and 5.4.3) indicated that participants' behaviours were still rooted in their past practices (teacher-centred). Arguably, the OBE curriculum (policy) is not consistent with the practice. Teachers' interview data and observation findings have corroborated this assumption. Hence, there is a PD need to equip participants' knowledge so as to align their practices with policy intentions.

7.1.2 Statement for classroom teaching focus

The second issue defining the concept of a lack of alignment between policy and practice uncovered by this study refers to the focus for classroom teaching. That is, 'WHAT' should motivate the English teaching programmes in this contextual study?

7.1.2.1 Integrated teaching versus examination teaching

This study revealed that the provider of state education (DOE) and the stakeholder (teachers) have differing views about the goals of learning. The representation of the different meanings for the education goals are captured in Table 7.3.

Table 7.3: Classroom teaching focus

Policy	Participant View
"The English Syllabus is underpinned by integral human development" (Department of Education, 2006, p. 5).	The main thing it all reflects back to the exam (FGT1-S2).

The finding here confirms what others (Carless, 2001; Desimone, Smith, Baker & Ueno, 2005) have highlighted about a curriculum change having multiple factors. One such issue is a change of teachers' pedagogical knowledge (Markee, 1997) so that it becomes aligned with the new

curriculum. A failure to do that may result in teachers' views still rooted in their past experiences (Kennedy, 1996) as findings here have revealed (Sections 5.2.2, 5.4.2, 6.4.3, and 6.4.5). The policy expectation intends for 'an integrated approach' as the pedagogical knowledge behind the teaching of English (Table 7.3). Thus, policy requires teachers to shift their pedagogical knowledge (Adamson & Davison, 2008) from their previous experiences to a holistic way of teaching rooted in the principles of the OBE model (Section 2.10.4.4.3).

An integrated approach means the reorganisation of teaching programs, combining the respective academic content from different subjects into themes for teaching within a calendar year. This particular teaching, according to the policy (Department of Education, 2003a) is applicable for elementary and lower primary education in PNG which uses generalised teaching. However, the approach is not clearly stressed for secondary education, despite the intentions indicated (Table 7.3). Nevertheless, integrated teaching is one strategy that policy advocates for and deems it workable for the secondary school context. Making the strategy workable requires deliberate effort from both policy makers and teachers; policy should support teachers in their development of programs and assessment. The finding here raises again the question of feasibility in the design and implementation of the PNG OBE curriculum model.

Arguably, the findings here indicate that participants have not as yet embraced the policy goals for education. However, participants revealed that examinations play a crucial part in their teaching programs (Sections 6.4.4 and 6.5.4). This behaviour supports the argument that high stakes examinations are considered priorities in classroom teachings despite the agenda of curriculum changing (Goh & Yin, 2008). The implication elicited from Table 7.3 indicates that participants believed that teaching students to pass examinations preceded the type of teaching approaches that policy aspires for the education system (Sections 4.3.2 and 4.3.3). Interestingly, policy also emphasises the goal for students passing national examinations

(Section 2.10.4.4.4), but believes in a different instructional approach (constructivist) to teachers (behaviourist) in this study. Hence, the conflicting meanings in this discussion illustrate that practice contradicted policy intentions as policy is vague in not addressing 'how' much emphasis schools should give to examination preparation.

7.1.2.2 Findings seen through the literature lens

Three findings from this study are compared against the literature to show the differences behind the focus for classroom teaching (Section 4.3.2). These variations are: the systemic attributes, teachers' beliefs and attitudes, and the attributes of the OBE curriculum (Section 2.5).

Firstly, systemic attributes refer to fixed cultural practices within the DOE; arguably these cultural practices have not convinced teachers in this study into accepting the OBE curriculum change (Fullan, 2007). Literature revealed that cultural norms play a major influence on any innovation in a social context (Kennedy, 1988), and this study confirmed that national examinations are part of the systemic attributes here (Sections 2.2.5 and 2.10.4.4.4). The PNG DOE is a highly structured organisation (Figure 2.4) and practices of high stake examinations go back to 1970 since the inception of the DOE in the pre-colonial days (Tololo, 1975). Therefore, the backwash effect of examinations is argued here as a past cultural practice influencing participants' current teaching behaviours and this argument is also supported by the participants' assertions (Sections 6.4.4 and 6.5.4).

The finding above supports literature evidence from Goh and colleagues (2005) and Hall (2005b) who argues that the pressure from ranking schools in the national examinations creates a backwash effect on teaching. The findings from this study revealed that teachers did not change their classroom practices (Sections 5.2.3 and 5.4.3) nor their views of teaching (Sections 6.4.4 and 6.5.4) despite policy aspirations (Sections 4.3.2 and 4.3.3). This evidence also supports Kennedy's (1988) assertion that cultural practices deemed a systemic attribute may override other features (policy

aspirations) in any language education change. Consequently, examination teaching would be an invisible trait forming these participants' classroom curriculum (Adamson & Davison, 2008; Freeman, 2002) and has implications for classroom implementation as revealed here.

Furthermore, findings from the case two participants (Section 6.5.2) revealed that past teaching practices shaped current classroom teaching. This finding offers corroboration to the argument that there was a lack of alignment between policy and practice in this PNG study because teaching to the examination as a cultural practice acted as a block to the intended change. Furthermore, the lack of alignment is also argued to be due to the gaps in the policy dealing with the inbuilt tensions focusing on outcomes and, at the same time demanding teachers to be student-centred, to use facilitating teaching, to be holistic, and still to achieve the examination results. This expectation from policy contradicts earlier discussions (Section 2.10.4.4.2) that for successful OBE implementation, the responsibility is on governments and administrators at all levels in society to provide sufficient resources and organisational structures within which teachers can implement OBE (Hall, 2013; Spady, 1994).

Secondly, findings here revealed that teachers' cognition was also a factor influencing teachers' perceptions to accepting change. According to the literature, cognition is a broad term encompassing teachers' thinking, beliefs and attitudes that define their worldviews (Howard & Millar, 2008). This finding confirms other studies defining teachers' cognition (Borg, 2006; Garton, 2008). The interpretation for teachers' beliefs is captured in: "For me it's a slow transition. I suppose I'm still in the old system trying to get new ideas as much as I can by doing a lot of reading" (FGT1-S1). The commentary highlights the need for enhancing teachers' PD in the area of theory and practice about 'what' underpins the OBE curriculum and 'how' is it to be implemented? Evidence here indicates a slow process of adopting curriculum change that individuals (teachers) go through when there is little support (Table 6.1) from a top-down approach (Section 6.2).

This study argues that participants here would be able to apply the 'policy intentions' (Sections 4.2.2 and 4.3) when the processes for supporting teachers is provided (Section 2.10.4.4.2). Accordingly, literature revealed that PD could be used to support processes creating harmonisation of policy intentions with practice (Hall & Kidman, 2004). For instance, the PNG OBE curriculum advocates for student-centred learning, and this means a change in pedagogical views. Hence, focusing on students' needs (student-centred learning) would entail knowing the content of learning (knowledge and skills) and the quality of the teaching provided by the teachers (their ability to select appropriate teaching strategies and using them effectively).

In this study, teachers interpreted the OBE curriculum according to their existing knowledge, beliefs and experiences (Sections 5.2.2.1.3, 6.4.1, and 6.5.1). This result is similar to literature findings noting that teachers used personal experiences to make sense of large scale curriculum changes (Adamson & Davison, 2008; Goh & Yin, 2008; Goh et al., 2005).

Arguably, personal interpretation is linked to teachers' cognitive abilities. Teachers' cognition is the base of knowledge for teachers' thinking, beliefs and attitudes (Garton, 2008). Indeed, these were uncovered by this study to be visible features demonstrating tensions between policy intentions (Section 4.3) against participants' views (Sections 6.4 and 6.5) and the observation findings (Sections 5.2.2.21 and 5.4.2.1). Hence, teachers' cognition in this study influenced teachers' behaviours at the classroom level as supported by the findings.

Lastly, literature argues that attributes inbuilt in innovations may impede or facilitate education change (Markee, 1997). Findings from this study also uncovered that attributes of innovations may influence change. One example is the notion of 'relevance', which may be contained within the design of the OBE curriculum (Kennedy, 1988). According to the literature, 'relevance' relates to how appropriate something is. For instance, would the thing accomplish the goal for which it was developed (Markee, 1997)? In this

study, 'relevance' relates to how the OBE curriculum is likely to achieve the goals it was developed for. That is, to achieve quality education (Department of Education, 2003a).

The argument from this study is that 'relevance' has influenced participants into not embracing the 'policy intentions' related to teaching (Sections 4.2.2 and 4.3) but has indirectly caused teachers to maintain the focus on high stakes examination teaching (Sections 6.4.4 and 6.5.4). Arguably, teachers' thinking was not congruent with the attributes of the OBE curriculum and this finding supports other studies (Careless, 2001; Chan, 2002). Teachers here did not perceive the intended teaching approach (constructivist) as 'relevant' in addressing students' learning needs, which for the participants' is teaching students to pass national examinations (behaviourist).

For instance, "My aim for teaching was to get students into the next level of education and then further on to being somebody, not to go back to the village and be grassroots" (FGT1-S2). This reflection captures the meaning of teaching for examinations, as similar to policy about passing national examinations. However, the paradox is 'how' to get students to pass the national examinations; policy requires constructivist teaching but findings (Sections 5.2.2, 5.4.2, 6.4.3, and 6.5.3) show behaviourist characteristics, thus, showing a lack of alignment of policy intentions with practice.

7.1.3 Summary

The OBE curriculum change in this contextual study was only at a surface level of implementation, despite some purposeful decision making (Murray, 2008) from one observed classroom teacher (ET1-S1) to embrace change (Section 5.2.2.1.3). Change in the implementation stage of the diffusion process was challenging because of conflicting viewpoints between policy intentions (Chapter Four) as compared to the observed findings (Sections 5.2.2.12 and 5.4.2.1.2) and participants' views (Sections 6.4.3 and 6.5.3).

7.2 Reasons for lack of alignment

The second conceptual theme uncovered by this study outlines reasons for a lack of alignment between policy intentions and practices. This finding provides an insight to others managing curriculum change in institutions. The findings here revealed that teachers' characteristics and systemic attributes in society affect diffusion processes at the micro-level (schools).

7.2.1 Teachers' characteristics

This study discovered that teachers' characteristics may influence adoption or rejection of any educational change. Characteristics describe teachers' reactions to change here. Three characteristics: adopter, surface adopter, and resistor are discussed here as representations of teachers' reactions to the OBE curriculum change in this study.

7.2.1.1 Adopter of change

Findings here identified five teachers who indicated that they made some conscious decisions at the school level to accept the OBE curriculum change. Rogers (1995) and Joskin (2011) define people who are quick to accept social change in their contexts as adopters of change. The term adopter illustrates a deliberate personal choice defining one's decision of accepting an adoption process (Markee, 1997), which in this study refers to the OBE curriculum change. This finding supports the argument that accepting change is a personal decision and fits into the diffusion question/s: "Who adopts what, where, when, why, and how?" (Cooper, 1982; Markee, 1997) (Section 2.4).

For instance, the case study one English teacher (ET1-S1) did attempt student-centred lessons. From her four observations, two resonated with descriptions of a student-centred approach (Sections 5.2.2.1.3 and 5.2.2.2.2). Hence, this behaviour demonstrated ET1-S1's personal choice for adopting the policy requirements (Section 4.3). This particular behaviour is explained as having an enthusiastic teacher who is receptive of change (Rogers, 1995). Furthermore, ET1-S1 demonstrated a positive attitude towards adopting

and taking ownership of the OBE curriculum. The meaning is contained in this reflection, “The new system is adventurous and it makes us go out to look for that information” (ET1-S1).

The reflective commentary above illustrates a personal reception to change and is also in compliance with policy intentions (Section 4.3). Stoller (2009) describes the behaviour (ET1-S1) as displaying optimism towards the innovation, but cautions that teachers may become disillusioned when there is a lack of support and may resort to former practices. There was evidence of the ET1-S1 reverting to her old teaching practices (Sections 5.2.2.2.1 and 5.2.3.1) confirming what Stoller (2009) cautioned against. Similarly, Adamson and Davison (2008) noted that optimistic teachers can create their own “hybrid” (p. 21) versions, through reinterpretations of the intended policy curriculum. Findings of the ET1-S1’s teaching of the argumentative writing (Section 5.2.2.2.2) supports Adamson and Davison’s argument of the teacher’s own curriculum version. Therefore, the ET1-S1 is characterised as an adopter of the OBE curriculum and needs to be further supported with PD to sustain and align policy and practice to avoid creating different interpretations of the curriculum.

The discussions above indicated that a continuous PD support is needed for all stakeholders involved in the PNG OBE curriculum change despite individual teacher’s adoption choices. The meaning is contained in this remark: “There’s no in-service been given in our department. No way are we making up anything” (FGT2-S1). This commentary is instructive about the English teachers’ PD need to help embed the OBE curriculum and align their practices with policy intentions.

7.2.1.2 Late adopter of change

Findings here also uncovered that there were two teachers who purposefully delayed adopting the curriculum change at the school level (Sections 6.3.2 and 6.5.3) despite policy endorsement (Section 4.3.4). This finding supports literature’s description of a second group of people’s

reactions involved in change (Huberman, 1973; Rogers, 1995). Markee (1997) describes these people as late adopters, while Ryan and Gross (1943) name them late majority, because of the deliberate delay adoption by people concerned. Literature reveals that the reaction is not unusual as participants in this category bide time to see how change is implemented in their context before making adoption choices (Stoller, 2009). By prolonging the adoption of change, participants demonstrate that it is their personal belief systems and attitudes influencing their actions (Section 2.5). Hence, this reason supports the argument of a lack of alignment between policy and practice here.

The description of late adopters in this study is captured in the comment, “The second lot are those people who are willing too but they do not have the skills and knowledge of how to go about it” (P1-S1). The reflection indicated that the second category of teachers were willing in principle to adopt the OBE curriculum, however, in reality they had yet to make it happen. For instance, “I think outcomes-based education is a good idea but I haven’t tried it yet” (FGT2-S2). As articulated here, participants classified as ‘late adopters’ were only delaying the adoption process for implementing the OBE curriculum at the classroom level. The meaning is elicited from the two example quotes above. Similarly, observation and interview findings (Section 5.4.2 and 6.3.2) also confirmed that there were characteristics of late adopters identified in this study. The teachers’ choices for delaying the adoption process of the OBE curriculum change here is related to their attitudes and belief systems (Borg, 2006) which provide reasons for the lack of alignment argument between policy and practice here.

7.2.1.3 Resistor to change

This study also uncovered that there was resistance from two participants in response to the mandated OBE curriculum change. Encountering opposition to curriculum change at the micro-level (school) despite policy endorsement is not uncommon and is consistent with literature on educational change (Fullan, 2007; Markee, 1997). That is, change agenda introduced into a social

context may not be met with favourable responses. The description of a resistor to curriculum change in this study was derived from two things: interpersonal relationships and systemic functions of the organisation (DOE).

Interpersonal relationship includes teachers' beliefs and attitudes which can influence decisions of curriculum change as earlier discussed (Sections 2.5 and 7.2.1). Findings here revealed that there was resistance at the classroom level (Section 5.4.2.1 and 5.2.2.2.1) and from the interview data (Sections 6.4.4 and 6.5.4) about the implementation of the OBE curriculum, regardless of the policy mandate (Section 4.3). This finding is consistent with other studies noting participants' resistance to educational changes (Goh, 1999; Goh & Yin, 2008). Resisting change according to the literature is an attitude issue (Wang & Cheng, 2005). This study also uncovered patterns resisting the top-down innovation. For instance, the second case study English teacher did not use the OBE curriculum at all in her teachings (Section 5.4) and further revealed in this question and response:

Question: What can you tell me about the new curriculum?

Answer: We are not using the new curriculum in the English Department (ET2-S2).

The quote above highlights the teachers' display of negative responses towards the OBE curriculum change. The commentary indicated that the teacher was making a statement for her choices in resisting curriculum change at the classroom level (Rogers, 1995). The meaning of resisting change is deduced from the teacher's comments above. That is, using the symbolic interactionism lens that underpins the theoretical position of this implementation study (Section 3.2.2), ET2-S2 is described as resisting curriculum change.

Interestingly, ET2-S2 is the English department head, and as such, is part of the senior management team in case two, and should be working in line with

policy intentions. However, her actions in not using the OBE curriculum contradicted her positional role as a senior staff. Furthermore, the teacher comes from a matrilineal society in PNG where decision making and power resonate with the females (insider knowledge). Hence, it is suggested here that her socio-political and cultural worldviews (ET2-S2) may have influenced her choices. The resistance could also be a response to 'how' the curriculum change was introduced (Sections 4.3.4 and 6.2). Alternatively, she may be resisting change because she lacked the content and theoretical knowledge to implement the OBE curriculum. Hence, these premises discussed here support the interpretation of the ET2-S2 as being a resistor to curriculum change in this study.

Alternatively, the finding discussed above also supports literature describing earlier implementation stages as being susceptible to problems. Fullan (2007) suggests that the first three years of implementing innovation is challenging and this resonated here. The official implementation date for the lower secondary curriculum was in 2008 (Department of Education, 2008). Hence, participants were aware of the start of the classroom implementation phase. For instance, "The outcomes-based education was going to be introduced in the lower secondary schools in 2008" (P1-S1). This investigation was conducted in 2009, and as such, the OBE implementation was still within the early years. Nevertheless, the initial implementation phase in this study revealed that there were descriptions of resisters (ET2-S2, Sections 6.4.4 and 6.5.4) to curriculum change within the early stages, thus, supporting Fullan's assertion (2007).

Furthermore, critics argue that a top-down approach to introducing change is problematic because recipients fail to take ownership of the change (Fullan, 2007; Markee, 1997). The argument resonates with the findings here. For instance, "I feel this OBE was frankly just chucked into our faces" (FGT1-S1). This reflection captures the interpretations of a top-down, power-coercive strategy used by the DOE bureaucrats (Section 4.3.1) more for their purposes of change (Kennedy, 1987) rather than for the benefits of

the recipients (teachers) of change (Hilton & Weber, 1993). Hence, the indication from FGT1-S1 revealed that participants' status quo was probably threatened because of the uncertainty of 'how' to use the OBE curriculum, so was resisting change at the classroom level.

In summary, there were three noted participants' responses to curriculum change (adopter, late adopter, and resistor) which provide reasons for why there was a lack of alignment of policy intentions with practice in this study.

7.2.2 Weak infrastructure

This study argues that adequate systemic conditions (infrastructure) are needed at a micro-level of society (schools) prior to introducing OBE policy changes (Section 2.10.4.4.2). The finding here provides insights to others organising and managing educational change. Spady (1994), the OBE theorist, and Hall (2005b) assert that governments and administrators at all society levels have the responsibility of providing resources and organisational support for teachers before and during the adoption of the OBE model (Sections 4.4, 5.2.2.1.2, 5.4.2.2, 6.4.3, 6.5.3, and 6.6).

Weak infrastructure in this study is a broad term that defines a lack of planning, resources, and professional development. The meaning of weak infrastructure is contained in this quote:

“Firstly there was no changes on the part of the department of education in regards to teaching aids, teaching resources, books, text books, and so being designed” (P2-S2).

The word, “firstly” in the quote above, indicates a time sequence related to cause and effect. “Firstly” indicates that the beginning process of the curriculum change in this study was problematic and would affect what followed next, the implementation stage. Another example supporting the meaning of a ‘weak infrastructure’ in the PNG DOE is contained in this comment: “Infrastructure for schools was not in place” (FGT1-S2). Hence,

the above two quotes encapsulate the challenges of having to implement the OBE curriculum in the PNG system (Section 6.6.1).

Three issues elicited from the notion, 'weak infrastructure' are discussed as reasons to support why there was a lack of alignment between policy intentions and practice here. These are: lack of resources, professional development need, and the model of education change.

7.2.2.1. *Insufficient resources*

Resources in this study are defined by data, and include both concrete and abstract materials such as "teaching aids", "teaching resources", "books", and "text books" (P2-S2). Furthermore, the notion of resources also encompasses teachers' knowledge. The meaning for that is captured in this commentary: "Teachers will need some kind of continuous in service so that we know exactly what to do" (FGT3-S1).

Arguably, the lack of resources in the PNG DOE contributed to a lack of policy alignment with practices. Findings here revealed that the lack of resources experienced by teachers indicated that the decision making processes at the policy level (DOE) failed to consider the teachers' views of 'how' to address the issue of resources in the change process. This meaning was derived from this observation: "Maybe the first thing the department of education should do is to look at resources from the teachers' point of view" (FGT3-S1).

The finding above supports the view by Prapaisit de Segovia and Hardison, (2009) that three vital areas (policy influence, pragmatic consideration, and participants' reactions) are needed for managing curriculum change. It is asserted that, if the three are not addressed simultaneously, then issues are inevitable, such as the finding here of little input from teachers' views (resources). Furthermore, the earlier finding of inappropriate resources in this study (Section 6.6.1) also indicates that the pragmatic considerations and participants' reactions were overlooked during the planning stage by

the DOE. This finding illustrates poor management skills; McCaffery (2004) and Murray (2009) assert that good management requires capable leadership in planning strategically.

Literature reveals that managing curriculum change requires both involvement in the project, and having knowledge of curriculum design, instruction, and assessment issues (Markee, 1997; Murray & Christison, 2009). It is recommended that change managers need to have knowledge of curriculum theory so that they will practically support teachers undergoing curriculum change (Nation & Macalister, 2010). Having done that would enable a 'learning in tandem' process (Crowl & Hall, 2005) between all stakeholders to successfully embed the OBE curriculum in society.

The policy development for the OBE curriculum was systematically considered at the higher levels of the education system (Section 4.3). This is not surprising because the DOE is a highly structured organisation (Figure 2.4). This finding resonates with the systems theory (Everard & Morris, 1990) that explains change through a top-down management view. However, the effort at the "top level" did not include participation at the school level. For example, the systems theory approach did not explicitly indicate how resources and staff development would be catered for (the two other essential factors discussed above). Therefore, the discussions here provide support for the argument here that there was little or no pragmatic consideration given for resources and participants' training (Prapaisit de Segovia & Hardison, 2009); this appears to have contributed to a lack of alignment between policy intentions and practice.

7.2.2.2 Professional development need

Professional development (PD) need is the next issue consistently revealed by this study as contributing to a lack of policy alignment with practice (Chapters Four – Seven). This interpretation was derived from various comments from teachers, for example:

The professional development for teachers would be the way to go about it (FGT1-S1).

The above reflection is indicative of a previous activity influencing the current and future practices of something. In this study, this defines the OBE curriculum change brought on by the DOE. Arguably, there was inadequate training for English teachers to satisfactorily apply the OBE curriculum here. This finding asserts there is a need to change teachers' pedagogical knowledge from a teacher-centred approach to a student-centred that the policy required (Sections 4.3.3 and 7.1.1.2). Indeed, it is noted that teachers need the theoretical and practical PD knowledge of the OBE concept (Griffiths et al., 2008). Because if there is no support such as PD for teachers, then, as aptly described by Hall and Kidman (2004), "you can't change knowledge if you don't have knowledge" (p. 341). Therefore, there would be a mismatch for teachers' practices with policy intentions.

For instance, Griffiths et al. (2008) observed in Western Australia that systemic support from different agents of society (Fullan, 2007) had to be in place to ensure that an OBE curriculum framework for assessment purposes from kindergarten to year 10 worked. However, the difference between Griffith's group study and this one relates to the country context. The former took place in a developed state of a country, whilst the latter is in a city of a developing Pacific nation which relies heavily on donor funding for its educational programmes (Department of Education, 1996a). Nevertheless, the insight to take is that the planning and management for PD is a requirement and should not be left to chance as that may impede classroom implementation as revealed here (Sections 5.2.2.1.2 and 5.4). The next quote provides further evidence for this interpretation:

"So that we are developing this OBE curriculum at the same pace, same level, same time and there is a common understanding" (P1-S1).

The above quote is instructive about the need to have consistent PD between

all stakeholders. The finding here revealed that the systemic provision of PD is essential to enable the system's management plan to embed the OBE curriculum change (Hall & Irving, 2010). The finding here also affirms studies into teaching English as a foreign language recommending that PD is needed to empower teachers for whom English is not their native language (Burton et al., 2008). Similarly, a PNG study has also recommended PD for PNG teachers, because English is the language of instruction, but is not the teachers' first language; hence, interpretations may vary (Nongkas, 2007). Therefore, the discussion of the importance of PD here, and previously (Sections 2.10.4.4.4, 4.4, 5.2.2.1.2, and 6.6) reveals a gap between policy intentions and practice because of no "common understanding" (P1-S1) between policy and practice.

7.2.2.3 Model of education change

Findings in this study uncovered that the type of change model used by the PNG DOE also contributed to a lack of policy alignment with practices (Sections 4.3.1, 4.3.4, 5.4.2, and 6.2.3). The curriculum change model in this study resonates with a Centre-Periphery Model (CPM) change process (Section 2.8.2).

A CPM of change is defined here as top-down decision making by the Education Ministry with limited delegation to teachers at the edge of decision making processes (Figure 2.4). As discussed earlier (Section 2.10.3), a CPM of practice is common in highly structured organisations like the PNG DOE. Repeatedly, the definition of a CPM of education change is captured in this observation: "Our government did not consider the human resources training for teachers" (FGT1-S2).

The word, "government" indicates the power and decision making processes that went into mandating the PNG OBE curriculum change (Maha, 2009). This assertion is supported by the discussions in Sections 4.3.1 and 4.3.4, which revealed that a power-coercive strategy that links with a CPM was used to introduce the OBE curriculum change. Therefore, this study argues

that because of the use of policy, the PNG DOE used a CPM of change. Because of the top-down influence on the OBE curriculum change here, participants probably did not adhere to the change agenda as policy would have required. Hence, there was a lack of alignment of policy intentions with practice (Sections 5.2.2, 5.4.2, 6.4.3, and 6.5.3).

As previously discussed, the education reform adopted in the 2000s for the PNG secondary schools is an OBE model (Sections 1.2.3 and 2.10.4). OBE is a systemic developmental model of change as discussed in Section 2.10.4.2. As such, OBE also resonates with global educational issues (Coxon & Tolley, 2005), like the Universal Basic Education (UBE) championed by the UN's framework under the MDGs (World Bank, 2006). Because, PNG is a member of the UN, the obligation for administering UBE was important. Having done that would demonstrate to the international community that PNG was working towards achieving the MDGs by the year 2015 (World Bank, 1995).

Considering the factors discussed above, this study argues here that OBE is an imported educational model. In imported models the focus of the change project often emphasises more the meeting the project's objectives than human resource development (McDonald, 2005). As already noted, teaching practices uncovered by this study (Sections 5.2.2.2.1, 5.2.3.1, 5.4.2 and 5.4.3) do not align with policy intentions (Section 4.3), supporting the view of McDonald. It appears that the CPM of educational change has influenced a non-alignment of policy intentions with practice in this study.

7.3 Conclusion

The curriculum change in this study was only at the surface level of implementation during the second year (2009) after official implementation in 2008. Consequently, change has not yet been deeply institutionalised into the participants' teaching worldviews. Evidence of teachers' beliefs and attitude combined with an inadequately established system could not cater for nor enhance the implementation sequence. Findings in Chapters Five and Seven illustrated that there were gaps in the teachers' interpretations

compared with policy intentions (Chapter Four). Hence, the need for PD to assist the OBE implementation process was consistently indicated in this study (Chapters Four – Seven). PD is considered culturally appropriate for assisting the curriculum implementation process. Consequently, a framework for supporting curriculum implementation, termed the ‘Kibung Implementation Framework’ (see Section 7.4) is developed here to support the PD of teachers to align their practices with the policy aspirations of the curriculum reform.

7.4 Kibung PD framework for curriculum implementation

The Kibung PD implementation framework is a general overview for improving curriculum implementation at a local level. The notion of the ‘Kibung’ PD framework here resonates with the earlier discussions of PD as a factor for facilitating educational change (Section 2.5.2), and also as a consistent interpretation derived from findings in this study (Chapters Four – Seven).

The Kibung PD framework allows for improvement, and it is premised on the idea of a two way-communication process (Rogers, 1995), so that the notion of change for the lower secondary curriculum focuses on three key stakeholders’ relationships: policy makers’ intentions, curriculum developers’ knowledge, and the teachers’ worldviews and pedagogical practices. These are necessary to support the spirit of the curriculum reform here. The Kibung PD framework is underpinned by the principles that a continuous programme of social interaction for purposes of creating and interpreting meanings (Maxwell, 2005) is supported through PD for policy makers, teachers, and other concerned stakeholders. There is a need for all parties to get together to talk about ways to change or improve teaching practices so that they align with policy intentions (Sections 4.2.2, 4.3 and 4.4).

Kibung, pronounced /ki:bung/, means ‘meeting’ in English. It is an indigenous term in ‘Tok Pisin’, a Melanesian Pidgin (Keesing, 1988) spoken

in PNG as one of three official languages of the country (Franken & August, 2011). Kibung as a metaphor is used here to mean come together as relational people (Thaman, 2009), meet and discuss or 'toktok' issues at a central place for social purposes with the aim of improvement. Kibung involves people who are related either through social relationships or genealogy. In the PNG context, relationships are forged through family ties, work, whom you know (wantokism), education, extended families, kinship, villages, and nationhood (Narokobi, 1983). 'Kibung' is a common cultural practice in PNG and the wider Melanesian Pacific. Hence, the term, 'Kibung' is an appropriate metaphorical PD framework for supporting the OBE curriculum implementation.

Associating the idea of the 'Kibung' PD framework to the literature, 'Kibung' resonates with one of the beliefs in western policy development and implementation. That is, 'Kibung' resonates with the 'co-construction' approach of policy and implementation between government and stakeholders working together (Hall, 2005b) to understand and embed radical policy reforms (Hall & Irving, 2010), such as the OBE curriculum in this study. Literature reveals that relationships are important for common understanding (Lakoff & Johnson, 1980). Hence, the 'Kibung' framework offers a 'co-construction' approach between central administration (DOE), the experts (curriculum developers), and teachers to harmonise embedding the PNG OBE curriculum (Hall & Irving, 2010). In attempting to embed the OBE curriculum, the 'Kibung' PD framework also resonates with the third stage of the diffusion of innovation theory (continuation) to institutionalise the curriculum (Section 2.2).

Fullan (2007) argues that, for any survival of educational change agenda in institutions, a continuous PD practice needs to be inbuilt into the school environment to foster a culture of professional sharing and learning. Arguably, participants here understood that the OBE policy was an instrument of governance (Shaw & Eichbaum, 2008) in the education system, and despite their various reactions, implementation in schools was

inevitable. The meaning is contained in this quote: “It is a policy that is going to be here. So whether we like it or not we need to implement it” (P1-S1). Hence, the ‘Kibung’ PD framework is offered as a co-construction approach (Hall, 2005b) for understanding and implementing the OBE curriculum here. A physical example of a PNG ‘Kibung’ is illustrated in Figure 7.1 showing a political leader in kibung (interacting) with people.

Figure 7.1: Kibung example in PNG



Source: PNG Sharp Talk Forum on Facebook (2012)

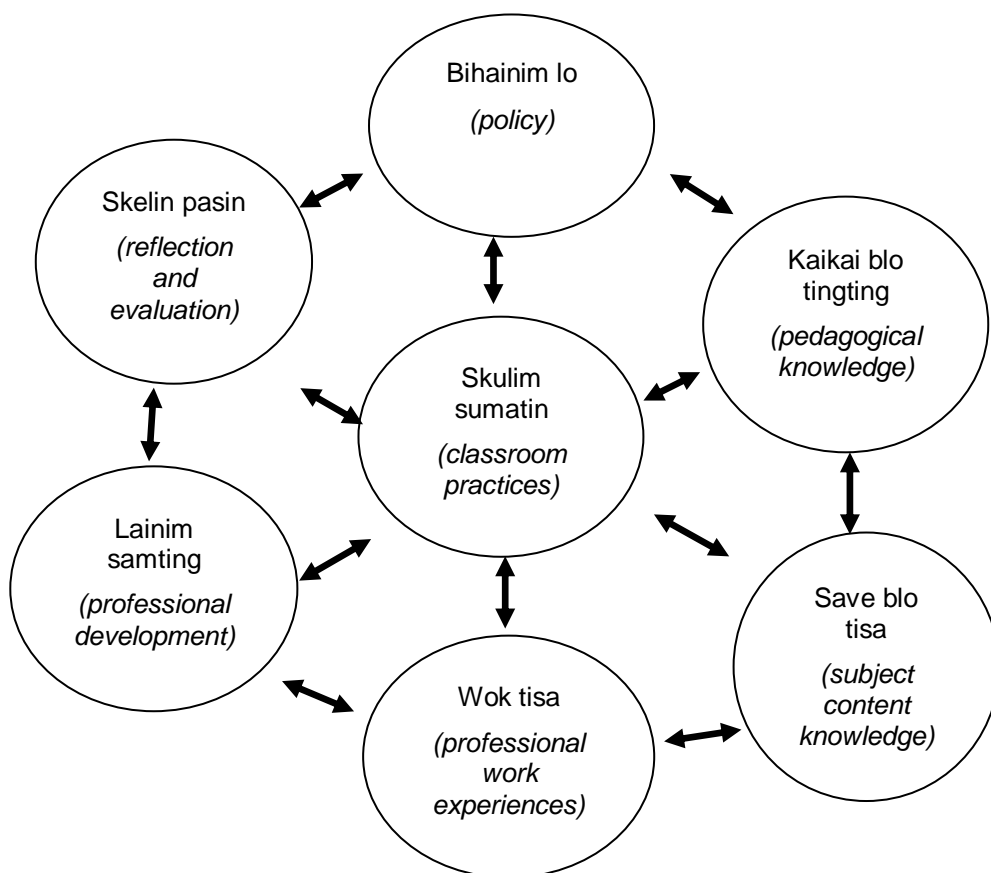
The ‘Kibung’ PD framework for curriculum implementation has seven features. They are given indigenous names with the English version in brackets. These are:

- Bihainim lo - (policy),
- Kaikai blo tingting - (pedagogical knowledge),
- Save blo tisa - (subject content knowledge),
- Wok tisa - (professional work experiences),
- Lainim samting - (professional development),

- Skelin pasin - (reflection and evaluation), and
- Skulim sumatin - (classroom practices).

The seven features of the 'Kibung' PD framework listed above resonate with Hall and Irving's (2010) adaptation of the eight descriptive PD factors (Section 2.5.2) from Mitchell and Cubey (2003, p. 81). Figure 7.2 below illustrates the conceptual idea of the Kibung framework.

Figure 7.2: Kibung PD framework for curriculum implementation



7.4.1 Kibung framework features

This section describes the seven features of the Kibung PD framework.

1. Bihainim lo - in this study refers to the policy intentions (Sections 4.2.2, 4.3, and 4.4). The principles underpinning the PNG OBE model emphasise student-centred learning and a constructivist approach to education (Sections 2.10.4.4.3 and 4.3.3). Policy intentions also include for

teachers to know the OBE theoretical framework as a theory to teaching and learning, as a systemic practice, and as an instructional strategy (Sections 2.5.2 and 2.10.4).

2. Kaikai blo tingting – refers to the teachers’ worldviews. That is, the pedagogical knowledge or the personal belief systems making up teachers’ cognitive abilities (Nation & Macalister, 2010). This feature defines the ‘WHAT’, ‘HOW’, and ‘WHY’ parts of the teaching knowledge. These may include: teaching strategies, assessment, teaching materials, curriculum design, methodological skills, and pedagogical values (Markee, 1997). The activities listed are interactive in nature and need to be approached cautiously as teachers may have different meanings to them (Fullan, 2007). For instance, ‘What’ refers to teachers being able to identify the practices that make up their pedagogical knowledge. ‘How’ entails teachers being able to explain their teaching processes, while ‘why’ encompasses the learning outcomes that both teachers and students would achieve by the end of the learning activities.

3. Save blo tisa – refers to the teachers’ academic knowledge. In this study it refers to the English subject content knowledge in relation to both the theory and practice that teachers in this PNG context need for their professional growth. These include linguistic skills, language education, and literature topics which are listed in the lower secondary English syllabus (Department of Education, 2006). Having knowledge in these areas will assist teachers to implement the policy curriculum.

4. Wok tisa – defines the worldviews that teachers have to make sense of the teaching vocation. This feature links to the teachers’ professional work experiences and knowledge that they have accumulated over their teaching years. These include responsibilities both inside and outside of the classroom. The fourth attribute here gives space for teachers to reflect on themselves as teachers and to appreciate the wealth of knowledge that they have. The work experiences shape teachers’ worldviews of teaching (Stoller,

2009) and this knowledge is deeply entrenched because it also forms their value systems. To get teachers to have a change of mind set is to get them to look deeper into their work experiences and relate them to the policy intentions (Department of Education, 2003a; 2006).

5. Lainim samting – refers to the interactive process of continuous learning by people in society. This feature is linked to PD and refers to the in-service training that includes all the seven features from the Kibung framework (Figure 7.2). The observation is captured in this reflection: “More in service and materials need to be given” (FGT2-S2). PD is a continuous process and not a one-off event as noted in Table 6.1. This section aims to give teachers the opportunity to take ownership of the OBE curriculum through purposeful discussions (kibungs). Therefore, my role as the researcher / academic will be to assist in the PD sessions using the ‘Kibung’ PD framework to the best of my ability.

6. Skelim pasin – defines one’s self-understanding to make sense of something, create alternatives, have interactions, and organise systemic concepts with the aim of improvement at the local level. This refers to reflection and evaluation skills that teachers can develop both as teachers and researchers at the classroom level. Reflection and evaluation can be conducted through action research (Section 2.8.4) by individual teachers, or as team efforts in schools. Action research contributes to individual teachers’ self-development in the comfort of their own classrooms and eventually builds a school culture of PD (Fullan, 2007).

Action research according to the literature is a powerful tool for viewing change with the intention of improvement at a local level (Cohen et al., 2007). Various strategies employed in language classrooms as part of action research have been deemed successful and could be used in the Kibung PD framework. These include: diary studies, exploratory practices, mentoring, teaching portfolios, peer-coaching and learning logs (Section 2.8.4). These strategies of action research are used as tools for improvement, thus

resonate with the problem solving method of education change (Markee, 1997), which helps teachers to take ownership of the curriculum through the Kibung PD framework.

7. Skulim sumatin – captures the subjective goals of education that define the concept of teaching. It refers to the classroom practices which comprise the teachers’ curriculum (Adamson & Davison, 2008). These take the form of teaching programmes, lesson plans, teaching materials, assessment, extra-curricular activities, classroom management, professional development, and teachers’ action research among other essential features needed for curriculum implementation at the local level. All these activities are interactive and confirm the assertion that curriculum change is complex because there are multiple variables to deal with (Markee, 1997).

In summary, the Kibung PD framework aims to be used for teachers’ PD through action and reflective classroom research as a means of building a culture of professional learning (Fullan, 2007). It is acknowledged here that not all might go according to plan, and so, there is space for improvement through reflection of action research. Hence, the Kibung PD framework is offered here as a working tool for the co-construction of policy development for purposes of achieving intended outcomes. In the case of this study, the Kibung framework is to assist stakeholders in a “co-construction” approach to implement the OBE English curriculum for the lower secondary school education. “Co-construction” is a two-way process – the DOE must also learn from the teachers and not just the teachers to learn from policy. The Kibung PD framework acts as an interactive process between schools and the DOE for providing feedback that would enhance the OBE policy and its implementation.

7.4.2 Kibung framework application

The ‘Kibung’ PD framework draws on Hall and Irving’s (2010) suggestion of eight factors that facilitate PD as cited from Mitchell and Cubey (2003, p. 8) (Section 2.5.2). These are:

- Incorporates participants' own aspirations, skills, knowledge and understanding into the learning context.
- Engages participants in analysing data from their own settings. Identification of discrepant data is a mechanism to invoke revised understanding.
- Involves critical reflection enabling participants to investigate and challenge assumptions and extend their thinking.
- Helps participants change educational practice, beliefs, understandings and / or attitudes.
- Helps participants gain awareness of their thinking, actions, and influence on others.
- Focuses on the need for inclusiveness.
- Involves engagement with pedagogy, and
- Involves engagement with theoretical knowledge and alternate practices.

(Adapted from Mitchell & Cubey, 2003, p. 81)

The Kibung PD framework sits comfortably with the diffusion of innovation theory (Rogers, 1995) and literature on change (Fullan, 2007). Four points are discussed to show the application process of the Kibung PD framework:

- Theoretical implication
- Outcomes-Based Education
- Teachers' worldviews
- Professional development.

7.4.2.1 Theoretical implications

The Kibung PD framework for curriculum implementation resonates with the third stage of the diffusion of innovation theory (continuation). The theory explains that there are three broad stages for understanding change: Initiation, Implementation, and Continuation (Section 2.2). The findings from this study have reported on stages one and two (Chapters Four – Six) of

the diffusion process of the PNG OBE English secondary curriculum. Findings revealed that the decisions and activities made in the initiation phase (Chapter Four) had consequences for implementation (Chapters Five and Six), stage two of the diffusion of innovation theory (Section 2.2.2). Hence, there is a need here to document the continuation stage of the diffusion of the OBE curriculum in this study, thus, the Kibung PD framework hopes to assist that process.

The 'Kibung' PD framework also hopes to guide and assist the implementation process of teachers' PD, as findings revealed that teachers' views were not in agreement with policy intentions in the third phase (continuation) of the diffusion process (Section 2.2.3). This would enhance classroom practices, as this is where the change has its impact on student learning (Goh & Yin, 2008). The Department of Education needs to work in collaboration with schools across the national capital district in PNG (Fullan, 2007). Consequently, this will help to ensure sustainability of its policy intentions of aligning education goals (Section 4.3) with the nation's developmental goals (National Strategic Task Plan Force, 2009) and in achieving the MDGs. The Kibung PD framework also operates as a problem-solving method (Section 2.8.4), using action research at the classroom level to improve practices.

7.4.2.2 Outcomes-Based Education

OBE in PNG was deemed an innovation (Department of Education, 2003a) because it has new philosophical orientations underlining it, as compared to teachers' previous practices. Hence, the Kibung framework resonates with the need to understand OBE in the secondary teaching context. This study argues that teachers should have an in-depth understanding of the epistemological view, theory, principles, and practice applications behind any innovations, and confirms literature on OBE from a Melanesian context (Daudau, 2010).

In depth knowledge will inform teachers' interpretations and decision making choices as classroom implementers of change. From this premise it is argued that participants here need to have the concept of OBE unpacked so that they would be able to make sense of the innovation through the Kibung framework. Upon acquiring a deep understanding of OBE, teachers would make more informed decisions about whether to either embrace or resist adoption. The hope is that after continuous PD sessions through the Kibung framework, teachers would have a change of mind-set and adopt the policy curriculum. Consequently, the outcomes-based curriculum becomes part of the school culture and the teachers' worldviews.

The Kibung PD framework accommodates the three applications of OBE, the policy curriculum; that is, as a theory of education, as a systemic structure, and as an instructional strategy (Section 2.10.4.1). Any PD session conducted through the Kibung framework will encompass those three applications, as teachers need theoretical understanding to make sense of their work and appreciate other learning views so as to build their knowledge base.

7.4.2.3 Teachers' worldviews

The Kibung PD framework aims to change the mind-set of teachers' pedagogical worldviews. This is because findings from Chapters Five and Six revealed that there was opposition towards the new curriculum. Teachers' pedagogical knowledge was still in the traditional teacher transmission of knowledge. Teachers had not yet encompassed the student-centred approach of a constructivist view whereby meaning is created by participants in the classroom context (Section 7.1.1). The Kibung PD framework proposes to advocate for and use action research for the PD sessions (Section 7.4.1). For instance, school based in-service (PD), teachers can reflect and evaluate their teaching strategies according to policy intentions. Action research allows for this and resonates with the application of the Kibung PD framework.

7.4.2.4 Professional development

The Kibung PD framework was motivated from the consistent findings from this study (Chapters Four – Six) that highlighted a need for PD. Fullan (2007) stresses that in any educational change, teacher PD is a requirement because it nurtures a culture of professional learning and thinking in teachers who have influential roles to play as classroom change agents. Therefore, this study provides the 'Kibung' PD framework to be used as a working tool to support school-based in-service activities. Having done that would enable stakeholders to co-construct policy intentions for implementation (Hall, 2005b). This would ensure that capacity building for teachers is catered for; this would be a 'win-win' situation for all involved (Verspoor, 1989). This also resonates with the cascade model of training (Gilpin, 1997) discussed in Section 2.10.3.

In summary, this study offers the 'Kibung' PD framework as a working tool to assist the curriculum implementation process for institutionalising the PNG OBE curriculum. The Kibung PD framework is premised on stakeholders meeting in a common cause in order to make improvements to the curriculum. The motivation for the Kibung framework was derived from the consistent finding of a need for professional development and also to answer research question 2(b) that sought to develop a curriculum implementation framework. The Kibung PD framework resonates with the diffusion of innovation theoretical lens as it would aim to embed the curriculum implementation in the two PNG secondary schools studied. Seven descriptive features comprise the Kibung framework: policy; pedagogical knowledge; subject content knowledge; professional work experiences; professional development; reflection and evaluation; and classroom practices. These seven features are interactive and incorporate the eight suggested points for effective PD (Section 2.5.2) (Mitchell & Cubey, 2003).

7.5 Challenges of the Kibung PD framework

There are four anticipated challenges that might be encountered for the implementation of the 'Kibung' PD framework. These include:

- The PNG government's political decision to abandon the OBE curriculum in August 2012 (see Section 8.6 – Epilogue to this thesis),
- The seeking of funds for PD training,
- The bureaucratic processes of support from the DOE, and;
- The processes of getting secondary schools involved in the 'Kibung' PD training.

However, the researcher here is a lecturer at the University of Papua New Guinea (UPNG), and as such has a community outreach obligation as part of her employment conditions to serve the communities near UPNG. Hence, it is anticipated that the 'Kibung' PD framework would be a tool for assisting secondary school English teachers through working with the Department of Education in the researcher's community outreach program.

7.6 Summary

This chapter has presented three conceptual themes elicited from research on the mandated PNG OBE curriculum change discussed in Chapters Four - Seven. The key points were: a lack of alignment, reasons for non-alignment, and a suggestion for improvement. Teachers' classroom practices and belief systems showed a mismatch with policy intentions. Likewise, an inadequate systemic infrastructure, along with the change model used by the DOE provided reasons for non-alignment of practice with policy. Hence, the development of the 'Kibung' PD framework elicited from the findings of this study is provided as a guide for assisting curriculum implementation processes within PNG and the wider Melanesian Pacific context.

The next chapter concludes the whole thesis.

CHAPTER EIGHT

Conclusion and Implications

Introduction

This chapter brings to a close the discussion of this study. Section 8.1 restates the central aim of the thesis and the methodology used to answer the two main research questions. Section 8.2 summarises the main findings from the research questions, while Section 8.3 outlines the limitations of the study. Section 8.4 gives implications for future studies, Section 8.5 gives the concluding statement and, lastly, Section 8.6 gives an Epilogue to the study.

The core argument of this thesis is that a top-down curriculum change in PNG was problematic, and thus policy intentions would only be successfully realised when there is continuous dialogue and professional development with all stakeholders in a co-construction approach to help embed radical policy reforms. Although the development and introduction of an OBE curriculum looked encouraging for PNG, it was only a superficial change at the implementation stage. The most important stakeholders in the classrooms had not been empowered sufficiently to effect policy aspirations. Weak infrastructure and lack of specific subject professional development including minimal training have had consequences on influencing teachers' worldviews for the implementation of the Outcomes-Based Education curriculum as their mind-sets were still deeply entrenched in old cultural beliefs and practices.

8.1 Central aim of thesis

The purpose of this study was to investigate how policy intentions relating to the OBE curriculum were received and practiced by teachers. It focused on three levels of the implementation process of the outcomes-based

curriculum in two PNG secondary school contexts. Additionally, the study also aimed to develop a model that could be used to assist the curriculum implementation process for language education in PNG, or similar Melanesian Pacific contexts. A case study method using two qualitative studies situated within the constructivist and symbolic interactionism paradigms (Section 3.2.2) were used to probe alignment of policy with practice. Content, discourse, and document analysis were used to give interpretations to themes resonating with the research focus; these themes were derived both inductively and deductively from data. Multiple data sources - document analysis, one-to-one structured interviews with school principals and English teachers, in depth focus group discussions, and classroom observations - were used to answer the two research questions asked by this study.

The first research question explored alignment of policy intentions with practice as seen through the implementation of the outcomes-based curriculum. Three levels of implementation were investigated to evaluate the relationship of policy expectations with practice. These were:

- Identifying the change strategy used by the PNG Department of Education for introducing the OBE curriculum to teachers,
- Discovering and comparing teachers' beliefs and understanding against policy intentions about the OBE curriculum for teaching and learning purposes, and;
- Describing and comparing actual classroom practices of English lessons against policy intentions.

The second question, examined insights related to the curriculum innovation experiences of this PNG study, which would contribute more broadly to the topic of educational change. It aimed at:

- Identifying the change model used in this PNG experience, and;
- Developing a model for a curriculum implementation process for

facilitating policy curriculum implementation in PNG or similar Melanesian Pacific contexts.

8.2 Summary of main findings

8.2.1 Change strategy used by the Department of Education

This study showed that the PNG DOE used its systemic functions of a policy framework to initiate and introduce curriculum change. The government used a power-coercive strategy (a top-down approach) to introduce curriculum change into its system. In preparation for the application for the curriculum, the DOE applied intervention strategies (Table 6.1) described as similar to a cascading model. These strategies were intensive, one-off training for selected teacher trainers, who would return to schools and train colleagues at classroom levels to be change agents. Unfortunately, the intervention strategies were not deemed helpful for teachers. Arguably, they were flooded with a lot of information and had unanswered questions which were considered little help to them being classroom implementers, used to practical experiences rather than theoretical applications given at training.

The strategies were deemed successful for the agenda of the DOE because it involved less time for planning and management and got the project off without delay. However, it was not a simple process and was challenging for the teachers in this study. Teachers were already working in a constrained education system; the introduction of OBE exacerbated an already weak systemic infrastructure. For instance, the lack of funding to schools impacted negatively on teachers' PD in relation to the curriculum implementation. Consequently, there were issues of ownership as a curriculum change is not a simple straightforward process but is complicated as repeatedly stated by educational change scholars and applied linguists (Fullan, 2007; Kennedy, 1988; Markee, 1997; Murray, 2008; Nation & Macalister, 2010). This confirms the assertion that the curriculum innovation was a challenging situation for stakeholders in this context.

8.2.2 Contrasting beliefs and understanding

There were conflicting responses from participants in respect of their beliefs about teaching the outcomes-based curriculum. The ten participants in this study indicated varying levels of acceptance and resistance for the policy change. For example, there were contrasting responses as to the practical applications of OBE. Both principals said they were supportive towards their staff and relied on senior department heads in schools to facilitate the change process in terms of professional development, training, and making arrangements for sourcing teaching resources at the departmental levels. On the other hand, the eight English teachers from both schools contradicted the principals' assertion. Two teachers did not accept the curriculum change while six accepted, and contested that departments (English) did very little to prepare them so that they could confidently use the OBE curriculum for classroom implementation.

This study noted that the design and the intentions of the introduced OBE curriculum model for PNG were not consistent with previous cultural practices; especially in relevance to teachers' examination beliefs. Change mandated through the OBE curriculum as an innovation in this study was not institutionalised in this study context. Change in the implementation stage of the diffusion process was challenging because of conflicting viewpoints between policy intentions (Chapter Four), as compared to the observed findings (Sections 5.2.2.12 and 5.4.2.1.2) and participants' views (Sections 6.4.3 and 6.5.3). This study argues that policy intentions and practice need to be aligned if the third stage of the diffusion process (continuation) is to be realised. For example the policy's view is situated in a constructivist approach to learning whereas the participants' views were deeply entrenched in a behaviourist lens, with a strong focus on students passing national examinations.

8.2.3 Contrasting classroom practices

This study found a difference in the classroom practices of teachers' actions as compared to what policy intended. Policy intended for the OBE curriculum to be used. In this study, there was evidence of both adoption of, and resistance to, curriculum change. Case study one teacher was receptive to change and had programmed her English lessons based on the OBE framework using her versions of student-centred lessons, while the case two teacher was seen to be still using the old syllabus from the former curriculum employing teacher-centred lessons.

The results here suggest that the OBE curriculum model was culturally inappropriate for the PNG education system. The existing cultural views on teaching and learning based on past practices resonate more with a teacher-centred view of learning than with the policy intention of a student-centred view of learning. The differences in classroom practices here highlight the lack of preparation that should have gone into preparing English teachers to implement the OBE curriculum. The lack of training here indicates that there is a need for a 'co-construction' effort between all stakeholders to assist classroom implementation of the policy. Overall, the impact of the OBE curriculum needs a deliberate harmonisation through PD, if not, there is risk of encouraging a 'behaviourist' rather than 'constructivist' approach to classroom teaching and learning.

8.2.4 Change model used by the Education Department

The PNG DOE applied a Centre-Periphery Model for initiating and introducing curriculum change into its national education system. This assertion is strengthened by three premises:

- The curriculum change was decided at the national level by the DOE and then imposed onto teachers at the edge of the decision making process;
- The policy was intended to change curriculum at the classroom level, and;

- The development of the curriculum statement was influenced by a donor partner.

These three points provide support for the implementation that a Centre-Periphery Model of change (CPM) was used in the PNG education system. However, CPM is deemed problematic here as it was not consistent with the theoretical underpinnings of the OBE model. For instance, literature revealed that systems adopting OBE need to provide sufficient resources and appropriate organisational structures within which teachers can implement OBE (Hall, 2005b; Spady, 1994). This study noted that the systemic preparation for teachers' implementation of the PNG OBE curriculum was challenging as the theoretical underpinnings of OBE were not adequately grasped by participants in this study. The question also arises as to whether the policy makers understood the complexities of their chosen OBE model.

8.2.5 Kibung PD framework for curriculum implementation

The second research question focused on the development of a model for assisting the implementation of the OBE curriculum innovation. Based on the findings from this study, a framework termed the 'Kibung' PD framework for facilitating a top-down implementation process of a curriculum change was developed. The Kibung PD framework resonates with a 'co-construction' approach to policy development. The model posits that all stakeholders work in collaboration with each other from the DOE down to classroom levels and vice-versa. Furthermore, the Kibung PD framework aims for teachers to take ownership of curriculum change through social interaction and action research at the classroom level. Activities for the implementation of the Kibung PD framework include:

- Stakeholder participation in school-based PD in-service,
- Stakeholder participation in national schools' in-service programmes,
- Presentation of reports to the Department of Education,
- Presentation of seminars to schools, and conferences within PNG and abroad, and;

- Publication of journal articles.

Conducting a 'Kibung' PD would involve: knowledge of policy; pedagogy and content; work experiences; training workshops; and reflective sessions that would enhance classroom practice. Consequently, the Kibung PD framework would aim to build a culture of professional development and training to support teachers as classroom implementers of policy intentions. Likewise, challenges related to resources and knowledge of theory and practice underlying policy intentions would be addressed within that framework. This approach would address the issue Fullan (2007) has repeatedly stated, that for any reform to be successful, all levels of society need to work together and build a professional culture of learning and sharing.

8.3 Limitations of this study

This exploratory case study encountered limitations. If this study was to be repeated, I would improve data collection in two areas as the people concerned were unavailable during the time of field work. The areas for improving are:

- Interviews would be conducted with Education Ministry staff, and;
- Interviews would be conducted with the curriculum development division staff.

I believe that these two areas were limitations in this study because primary data from two important groups of people involved with the curriculum change in PNG were missing. Despite that, this study analysed secondary sources of data, namely, policy documents and seven other official documents from the DOE (Section 4.1). These documents enabled the researcher to obtain a large amount of information about the policy and implementation activities that followed from the policy. The documents' information was triangulated against the participants' interviews and observation data to draw conclusions in this implementation study.

8.4 Implications for future studies

This study recommends further investigation of curriculum sustainability in language education in the PNG secondary school context to determine the timeframe for teachers adopting policy intentions. Literature on the diffusion of innovation theory (Markee, 1997; Rogers, 1995) describes three stages that new changes pass through (Initiation, Implementation and Continuation). This study focused on phases one and two only, the Initiation and Implementation processes. Therefore, there is a gap here for probing the Continuation phase of policy intentions to determine the sustainability of policy intentions in PNG schools.

8.4.1 Future research areas related to curriculum change in PNG

The four areas listed below warrant further research in relation to future curriculum change in PNG:

- The conduct of a needs analysis of teachers so that future PD programmes would be based on evidence of what will help teachers;
- The investigation of the Education Ministry's perspective on the curriculum goals of the type of education deemed relevant for PNG;
- The investigation of teacher education programmes to determine if their education courses are aligned with the national education goals; and;
- The investigation of the different education levels to determine 'how' the implementation of the OBE curriculum is being experienced.

Proposition one – implication for teachers' needs analysis.

The purpose for investigating teachers' needs is to determine 'how' professional development 'may' and 'may not' assist teachers with knowledge to enhance implementation of the OBE curriculum. As a major contribution to this, a needs analysis will inform the Ministry on the content and scope of PD that is required.

Proposition two - interview education ministry staff.

The purpose is to evaluate policy intentions of the curriculum implementation goals that the Ministry deems relevant for the PNG education system. This proposition is considered significant for obtaining primary data from Ministry staff to determine and support the policy intentions of the PNG education goals. This is important not only to understand better the former intentions of the OBE curriculum, but also to assist schools and teachers align with recent intentions.

Proposition three - investigate teacher education programmes.

The purpose of this proposition is to evaluate teacher education training programs. That is, to determine if the content and methodology of teacher education programmes are aligned with policy intentions. This is important because teacher education institutions, as stakeholders, have a significant role in training PNG teachers for field work. Therefore, there is a need to investigate if teacher education programmes are aligned with the PNG DOE goals.

Proposition four – investigate implementation at different education levels.

The purpose of this proposition is to investigate ‘curriculum implementation’ at different levels within the PNG education system. These levels cover the work undertaken by the Ministry, the interpretation and implementation of policy at the provincial/district level, and the realisation of all of this development work in schools and classrooms. The aim for investigating the different education levels would be to determine ‘how’ the implementation of the OBE curriculum is being experienced at the different levels and to make recommendations for improving policy implementation and school practices.

These four suggested areas are applicable to researchers, educators, teacher institutions, academics, and other concerned stakeholders interested in pursuing issues of improving curriculum changes in the secondary school context of Papua New Guinea. Research needs to be done in these areas to

document 'how' the different lenses of the curriculum change from PNG contributes to the issue of 'quality' in education. According to the literature, a fair stance for describing arguments about the notion of 'quality' in education is judged from three perspectives: the inputs into the system, the actual events within the system, and the outputs from the system (Spady, 1994).

8.5 Concluding remarks

I want to conclude on a positive note. Change takes time and I believe that when all stakeholders in the PNG education system work together, policy intentions for change will be realised. Hence, my contribution of the Kibung PD framework as a working tool is intended to assist in the area of curriculum implementation.

The research problem that this study examined was the implementation of an outcomes-based English curriculum. The curriculum was deemed an innovation in the PNG education system because it involved new teaching methodology, pedagogical beliefs, and assessment procedures. The curriculum change was mandated through a top-down approach using systemic functions of policy to legitimise its introduction and implementation processes. The change was considered significant because education was seen to be a tool that would help accomplish the country's developmental needs both at national and international levels.

One key question asked by this study was the amount of preparation put into the system by the DOE to get teachers ready for classroom implementation of its policy intentions. This study concluded that the top-down policy approach used by the PNG DOE was problematic because it did not have adequate infrastructure in place prior to initiating and introducing curriculum change into its system. The change agenda was initially motivated internally. However, due to financial constraints the agenda had been forestalled so developmental funding was sought from AusAID to align changes with global education issues such as the one advocated by UNESCO,

“Education For All”.

Similarly, this study concluded that the Centre-Periphery Model used by the DOE for initiating and introducing change was challenging as there were no shared meanings between the policy makers and teachers. Change was imposed by the DOE from its decision making policy onto the teachers, the intended recipients. The one week intensive training programmes that were provided were insufficient to prepare teachers for the curriculum change. The intervention strategy was not empowering for participants in this contextual study as teachers who were trained as trainers moved on to other schools, or those who remained did not feel confident to train colleagues.

Furthermore, this study noted that the curriculum developers of the PNG OBE model did not examine inbuilt tensions within the design of the OBE curriculum in order to harmonise its implementation. The inbuilt tensions included, different pedagogical lenses related to teaching and learning, past systemic and cultural practices influencing the current curriculum change, and insufficient support for schools and teachers' PD from the curriculum developers. All of these factors impacted on classroom implementation of the OBE curriculum. A system requires attention on inputs into the system, processes within the system, and outputs from the system. The PNG DOE was thorough with its input in relation to the provision of policy documents. However, the processes for supporting teachers in the system were limited and impacted on both the implementation and the outputs from the system. Hence, this study suggested the 'Kibung' PD framework to support the processes (eg., teachers' PD) within the system to aim to help improve achievement of PNG's education goals.

Nevertheless, as stated by educational and linguist scholars, change takes time and this study was conducted a year (2009) after the official inception (2008) of the outcomes-based curriculum. Four years have now passed

(2013), and given this duration, teachers may have become more familiar with the outcomes-based curriculum in their schools. Therefore, this study recommends further investigation into the sustainability of the outcomes-based curriculum to ascertain whether policy intentions can be aligned with classroom practices.

8.6 Epilogue

This study noted that the political climate in Papua New Guinea due to a change of government in 2011 did little to help the long term sustainability of the OBE curriculum change in schools. The PNG public put pressure on the government through the social media to abandon the OBE curriculum; this pressure was not based on empirical research but assumptions and generalisations. Hence, the current government rescinded the former government's decision and abandoned the OBE curriculum in 2013. This has added support to the main argument of this study that a top-down approach to introducing educational change is problematic.

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APPENDICES



Appendix 1: POST OBSERVATION INTERVIEW QUESTIONS

Title: Evaluating an outcomes-based education English Syllabus implementation in two Papua New Guinea secondary schools

We are going to review the lesson you have just taught. The purpose of this interview is for you to tell me about your thoughts of your teaching behaviour in that lesson.

1. What can you tell me about this class of student learners?
2. What was / were the expected learning outcome (s) from this lesson?
3. How would those learning outcomes benefit students?
4. Where does this lesson fit into the curriculum?
5. What do you think are the best parts from this lesson? / Why?
6. Do you think there are areas of this lesson that you could improve?
How would you improve them?
7. Do you have a preferred style of teaching? Can you tell me about it?
8. How will you know that students have learned what you hoped they would learn from today's lesson?
9. Overall how do you feel about this lesson? / Why?
10. What do you think of the new curriculum / syllabus? / Why?

Thank you for your participation

Appendix 2: PRINCIPALS' INTERVIEW QUESTIONS

Title: Evaluating an outcomes-based education English Syllabus implementation in two Papua New Guinea secondary schools

1. In what ways did the National Department of Education (NDOE) introduce the outcomes-based curriculum to schools and teachers? / Why?
2. Do you think the new curriculum (outcomes -base education) will improve students' learning? Why?
3. What do you think are teachers' attitudes and beliefs of the OBE curriculum? / Why?
4. How has your school assisted teachers to use the OBE curriculum?
5. Can you think of some positive examples of the OBE curriculum that is working in this school? Why are they working or not?
6. How do you think teachers are teaching the OBE curriculum?
7. What do you think students enjoy learning in the curriculum? Why?
8. Do you think teachers are important for teaching the new curriculum Why? / What have you notice from your teachers?
9. What areas do you think that NDOE should help classroom teachers with for them to be able to implement the OBE curriculum?
10. In your opinion, how can the NDOE and schools work together to improve student learning?

Thank you for your participation

Appendix 3: INTERVIEW QUESTIONS – FOCUS GROUP DISCUSSION

Title: Evaluating an outcomes-based education English Syllabus implementation in two Papua New Guinea secondary schools

The purpose of this interview discussion is to get you all to discuss your views on themes related to this research project.

Theme 1: Education

1. What do you recall about your experiences of learning English at school / college?
 - What approaches were used?
 - Were the English lessons interesting and why?
 - Do you feel that your own education as a student has any influence on the way you teach today?

Theme 2: Entry into the Profession and Development as a Teacher

1. How and why did you become a TESOL teacher?
 - What can you recollect about your earliest teaching experiences?
 - Were the earlier teaching experiences positive or negative and why?
 - What kinds of teaching methods and materials did you use? / Why?
2. Tell me about your formal teacher training experiences.
 - Did they promote a particular way of teaching?
 - Which aspect (s) of the course did you find most memorable?
3. What have the greatest influences on your development as a teacher been? / Why?

Theme 3: Reflections on Teaching

1. What do you feel is / are the most satisfying aspect of teaching English, and what is the hardest part of the job? / Why
2. What is your idea of a successful lesson and what would be a bad lesson?
3. Do you have preferences in the types of students you like to teach?
4. Does the school or NDOE you work for promote any particular style of teaching?

Theme 4: Reflections on the outcomes-based education

1. Tell me about your understanding of the outcomes-based education student-centred curriculum and syllabus in PNG?
2. How was the curriculum introduced to you teachers by the NDOE?
3. What are some things that you find to be working in the new curriculum? Why?
4. What has the NDOE done to develop you to implement the OBE syllabus in classrooms?
5. How have you coped with different students' needs using this OBE curriculum?
6. How do you measure students' learning outcomes in lessons?
7. What about the students? How can you describe your students? Do they generally have any preferences about the kind of work they like to do in their lessons? Why?

Thank you for your participation

Appendix 4: OBSERVATION INSTRUMENT

Title: Evaluating an outcomes-based education English Syllabus implementation in two Papua New Guinea secondary schools

Operational measures are:

1. Scaffolding - how is it used in the classrooms?
2. Collaborative learning - how is it occurring in the classrooms?
3. Culture - what cultural tools are used for teaching in classroom situations?
4. Classroom tools - what tools are used to assist and enhance learning?
5. Social interaction – what / how was it done in the classroom?

Lesson Observation Instrument

School: _____ Class: _____ Date: _____ Topic: _____ Case: _____

Indicator	Definition	Example	Classroom Description
Scaffolding	Supervision and assistance to be provided during teaching and learning	Help given through discussions, direct teaching, hinting, questioning, prompting and modelling by teachers to assist student	
Collaborative learning	Learners engage in a common task in which each individual depends on and is accountable to each other. Students work	Student-centred learning, peer work, small or large groups within the classrooms	

	together in searching for understanding, meaning or solutions or in creating an artifact of their learning such as a product between teachers and students or among students themselves.		
Culture	What students do outside of school, their subject matter as a cultural practice, classroom culture, and other social cultures.	Connect classroom activities with cultural knowledge to deliver lessons which are meaningful to students	
Classroom tools	A wide range of resources which are used by the teacher, knowledgeable adult or peers to mediate / assist learning.	Books, symbols, charts graphs, drawings, symbol systems language etc...	
Social interaction	Communicative utterances verbal or non-verbal used in teaching and learning situations to assist learning	Instructions, discussions, direct teaching, hinting, questioning, prompting and modelling	

Appendix 5: RESEARCH APPROVAL

Appendix 5: RESEARCH APPROVAL – VICTORIA UNIVERSITY

Anna Joskin

From: Sheila Law
Sent: Wednesday, 15 April 2009 1:26 p.m.
To: Anna Joskin
Cc: Kabini Sanga; John Macalister; Luanna Meyer
Subject: PhD Research Proposal: Anna Joskin

Dear Anna

Thank you for completing the revisions for your PhD research proposal. We are pleased to advise you that your proposal is approved for full registration.

Kind regards

Sheila Law
Manager, Postgraduate Office
Faculty of Education
Victoria University of Wellington
PO Box 17-310
(10 Donald Street for courier deliveries) Karori, Wellington New Zealand 6012
Tel: +64 4 463 9728
Fax: +64 4 463 9561

Appendix 6: ETHICAL APPROVAL - VICTORIA UNIVERSITY



16th July 2009

Anna Joskin
PhD Student
Victoria University of Wellington Faculty of Education
C/- School of Te Kura Māori
Donald Street
Wellington

Dear Anna

RE: Ethics application TKM/2009/18: RM 16574

I am pleased to advise you that your ethics application 'Evaluating an innovative English Language Syllabus in two Papua New Guinea Secondary Schools' with the requested amendments, has been approved by the Victoria University of Wellington Faculty of Education Ethics Committee. Please note that the approval for your research to commence is from the date of this letter.

Good luck with your research.

Yours Sincerely

A handwritten signature in black ink that reads 'J. A. Lovridge'.

Dr Judith Lovridge

Co-Convenor
Victoria University of Wellington Faculty of Education Ethics Committee



COLLEGE OF EDUCATION Te Whānau o Ako Pai
PO Box 17-310, Karori, Wellington 6012, New Zealand
Phone +64-4-463 9500 Fax +64-4-463 9649 Website www.vuw.ac.nz/education

Appendix 7: PNG DEPARTMENT OF EDUCATION APPROVAL



Department of Education

Office of the Deputy Secretary Administration and Policy

TELEPHONE: (675) 301 3529/3526
FAX: 301 3544
Email: luke_taita@educationpng.gov.pg

FINCORP HAUS
P.O. Box 446
WAIGANI 131
PAPUA NEW GUINEA

File: PR1-1-2
Date: 19th June 2009

Ms. Anna Joskin
Post Graduate Office
Faculty of Education
Victoria University of Wellington
P. O. Box 1730
Karori 6012,
Wellington
New Zealand

Dear Ms Anna Joskin

Your research proposal titled: *“Evaluating an Outcome Based English Education Syllabus in Papua New Guinea”* has been approved in principle prior to Research and Evaluation Steering Committee (RESC) next meeting.

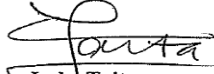
The approval in principle is given due to the urgency of your data collection and presentation of final report for the award of your nominated degree program. Use this letter as an approval for your data collection in your appointed institutions and provinces.

While your research is approved in principle to collect data in educational institution/s it is also subject to approval by the Provincial Research Committee (where applicable) and/or the Provincial Education Advisor or the principals or head teachers of your nominated institutions. It is your responsibility to ensure such is obtained prior to the field work.

In serious case of breach of ethical issues and DOE research guidelines the Department of Education reserves the right to inform the researchers home institution or sponsors directly and take necessary actions as deem necessary.

Failure to observe the above conditions may lead to the withdrawal of research approval.

I thank you and wish you good luck in your study

A handwritten signature in black ink, appearing to read 'Luke Taita', with a stylized flourish above the name.

Luke Taita
Deputy Secretary Policy and Administration
and Chairman of Research and Evaluation Steering Committee

cc. Director - REU

Appendix 8: LETTER TO THE PNG DEPARTMENT OF EDUCATION

Appendix 8: LETTER TO THE PNG DEPARTMENT OF EDUCATION

*DS - P.T.C.S. Medial
classmate
For your appropriate
action 26/5/09*



Anna Joskin: PhD Candidate
c/o Post graduate Office
Faculty of Education
Victoria University of Wellington
PO Box 1730
Karon 6012, Wellington
New Zealand

(04) 4635233 extn 9852 (Bh)
Cell 02102919125
anna.joskin@vuw.ac.nz

22 May 2009

Dr Joseph Pagelo
Secretary National Department of Education
PO Box 446
Waigani, NCD
Papua New Guinea

Digital: 7134 8052

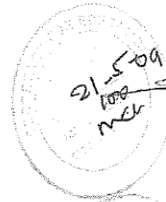
Dear Sir,

Research Protocol:
Consent to conducting research in _____ and _____ Secondary Schools

I am a UPNG staff currently undertaking PhD Education studies at Victoria University of Wellington, New Zealand. I would like to inform and get approval from your office to collect data for my Ph D dissertation from the two mentioned schools. This project has approval from the Faculty of Education's Human Ethics Committee from Victoria University Wellington.

The project that I am investigating involves describing and evaluating the new outcomes-based education curriculum in the teaching and learning of English in two grade 9 classes from two secondary schools. The study will also seek to propose a model on curriculum innovation processes in a Melanesian context.

The study is a qualitative research and data will be collected from two case studies from two selected sites, incorporating lesson observations, focus group discussions, semi-structured interviews, document reviews and content analysis.



*Manager -
Data Analysis
and Record.*



*Please assess
and take
appropriate
action on
this request.*

*Clara
26/5/09*

All data gathered will be available only to me the researcher and my two supervisors and confidentiality will be maintained at all times. Any material gathered will be kept in a safe place and destroyed within five years of completion of the research.

A copy of any publication related to this research will be sent to your office and the National Education Research Division.

If you have queries or wish to know more, please contact me at my Port Moresby address. Alternatively, my supervisors can also be contacted if needed. They are Associate Professor Kabini Sanga at: Kabini.Sanga@vuw.ac.nz or Senior Lecturer Dr John Macalister at: John.Macalister@vuw.ac.nz.

Thank you very much for your time and help towards making this study possible.

.....

Anna Joskin (Ms)

Port Moresby Contact

Anna Joskin (Ms)
University of Papua New Guinea
c/o Centre Human Resource Development
PO Box 320
University Post Office
National Capital District, Port Moresby
Papua New Guinea

Email: ajoskin@upng.ac.pg
Phone: (675) 3267352 (Bh)
Mobile: (675) 71298052

cc: Director Centre for Human Resource Development UPNG – Dr Minol
: Dean School of Social Sciences & Humanities – Professor Betty Lovai

Appendix 9: CONSENT LETTER – ENGLISH TEACHER



Title: Evaluating an Outcomes-based English Education Syllabus in PNG

Informed consent form for observed case study teachers

I agree to take part in the above project. I have had the project explained to me and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that I am willing to:

(Please tick all boxes)

- Be observed and audio recorded by the researcher.
- Be interviewed and audio recorded by the researcher.
- Make available documents relevant to the research.

I understand that:

- Any information is confidential and no information that could lead to the identification of any individual will be disclosed in any reports on the project.
- My participation is voluntary and I can choose not to participate in the project.
- I can withdraw my participation in the research at any point.
- The information I provide cannot be used except for this project and the dissemination of the project results.
- The research materials, including audiotapes, video tapes of interviews and observations, will be stored in a secure location and destroyed up to 5 years after completion of this research.
- I consent to be involved as a participant in this project.

Name:

Signature:**Date**.....

Appendix 10: CONSENT LETTER- FOCUS GROUP TEACHERS



Title: Evaluating an Outcomes-based English Education Syllabus in Papua New Guinea

Informed consent form for focus group teachers

I agree to take part in the above project. I have had the project explained to me and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that I am willing to:

(Please tick all boxes)

Be interviewed and audio recorded by the researcher.

Make available documents relevant to the research.

I understand that:

Any information is confidential and no information that could lead to the identification of any individual will be disclosed in any reports on the project.

My participation is voluntary and that I can choose not to participate in the project.

I can withdraw my participation in the research at any point.

The information I provide cannot be used except for this project and the dissemination of the project results.

The research materials, including audiotapes will be stored in a secure location and destroyed up to 5 years after completion of this research.

I consent to be involved as a participant in this project.

Name:

Signature:

Date:

Appendix 11: CONSENT LETTER- PRINCIPALS



Title: Evaluating an Outcomes-based English Education Syllabus
in Papua New Guinea

Informed Consent Form for Principals

I agree to take part in the above project. I have had the project explained to me and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that I am willing to:

(Please tick all boxes)

- Be interviewed and audio recorded by the researcher.
- Make available documents relevant to the research.

I understand that:

- Any information is confidential and no information that could lead to the identification of any individual will be disclosed in any reports on the project.
- My participation is voluntary and that I can choose not to participate in the project.
- I can withdraw my participation in the research at any point.
- The information I provide cannot be used except for this project and the dissemination of the project results.
- The research materials, including audiotapes, will be stored in a secure location and destroyed up to 5 years after completion of this research.
- I consent to be involved as a participant in this project.

Name:

Signature:**Date:**.....

Appendix 12: Consent letter – Students’ parents



Title: Evaluating an Outcomes-based English Education Syllabus
Implementation in two Papua New Guinea secondary schools

Informed consent form for students and parents

I agree to allow my child / ward: _____ of class _____
to take part in the above project. I have had the project explained to me and I have read
the explanatory statement, which I keep for my records. I understand that by agreeing
to allow my child / ward to take part means that I am willing for him / her to:

Please tick all boxes

Be observed and audio recorded in English lessons by the researcher.

I understand that:

Any information is confidential and no information that could lead to the
identification of my child / ward will be disclosed in any reports on the project.

My child’s / ward’s participation is voluntary and that he / she can choose not
to participate in the project.

My child / ward can withdraw his / her participation in the research at any
point of time.

The information my child / ward provides cannot be used except for this
project and the dissemination of the project results.

The research materials of lesson observations will be stored in a secure location
and destroyed up to 5 years after completion of this research.

I give consent to my child / ward to take part in this research.

Name:

Signature:**Date:**.....

Appendix 13: INFORMATION SHEET FOR ALL PARTICIPANTS



Title: Evaluating an outcomes-based education English Syllabus
Implementation in two Papua New Guinea secondary schools

Information Sheet for all participants

(English teachers, focus group teachers, principals, students & their parents)

Researcher: Anna Joskin: School of Te Kura Maori, Victoria University of Wellington,

I am a Ph D Education student at Victoria University of Wellington, New Zealand and I would like to invite you to be a participant in my research.

The project that I am investigating involves evaluating the new outcomes-based education curriculum in the teaching and learning of English in grade 9 lower secondary schools. The study will also seek to propose a model on curriculum innovation processes in a Melanesian context. The University requires that ethics approval be obtained for research involving human participants.

The study is a qualitative research and data will be collected from two case studies from selected sites incorporating lesson observations, focus group discussions, semi-structured interviews, document reviews and content analysis.

All data gathered will be available only to me the researcher and my two supervisors and confidentiality will be maintained at all times. Any material gathered will be kept in a safe place and destroyed within five years of completion of the research. This project has the approval of the Victoria University of Wellington Human Ethics Committee.

I would also like to ask your permission to be observed, audio recorded and interviewed by me and to report on the research and publish in appropriate educational conferences and in journals. Additionally, I would like to request access to your teaching documents and student assessment results to support other data.

Any publication of the research will contain no names; only pseudonyms will be used. Neither you nor your school will be identified. Should you give consent to this project, I will send you a copy of any publication related to the research, on your request.

I would very much appreciate your assistance in this way. Clearly your consent and participation are completely voluntary. If you agree to participate and change your mind, you are free to withdraw your consent at any time without needing to provide any explanation.

If you are prepared to participate, please fill in the consent form attached and return it to me. All information you provide on this form will be confidential to me the researcher.

If you have queries or wish to know more, please contact me at my Port Moresby address. Alternatively, my supervisors can also be contacted if needed. They are Associate Professor Kabini Sanga at: Kabini.Sanga@vuw.ac.nz or Senior Lecturer Dr John Macalister at: John.Macalister@vuw.ac.nz.

Thank you very much for your time and help towards making this study possible.

.....

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Appendix 14: Sample of document analysis process

Theme 1: An expectation of change

#	English Syllabus	National Curriculum Statement (2003 a)
1	The English Syllabus places emphasis on teaching ethics, morals and values and the integration of subjects to enable students to experience real-life situations (p 5).	The National Curriculum will encourage teachers to use different ways of teaching (p. 18).
2	The national curriculum principles should influence what students learn and how teachers teach (p. 4).	They (Curriculum Principles) should influence what teachers teach, how they teach, and how students learn (p. 12).
3	Through the study of English, necessary knowledge, skills, attitudes and values will be imparted to the students (p. 3).	Secondary students should be able to speak and write in many different situations, and for many different purposes using English and their vernaculars (p. 13).

Theme 1: An expectation of change

My interpretation

“The National Curriculum will encourage teachers to use different ways of teaching” (p. 18)

This citation highlights a social entity of society that makes its intention of something known. The phrase ‘National Curriculum’ connotes an interpersonal relationship and structure of a nation. The word national permeates ownership, power and control by a central government. Thus, the curriculum here is controlled by the government (Bray, 1984) and what is seen above is a one way communication process where the government of PNG is addressing its stakeholders (teachers and students) in one of its social institution. The tone of this message is prescriptive and ordering. The tone compels a compulsory behaviour that has to occur regardless of limitations in a specific setting for a planned consequence to result.

Theme 2: Statement for classroom focus

#	English Syllabus (2006)	National Curriculum Statement (2003a)
1	The English syllabus enables students to demonstrate an understanding and appreciation of the values, customs and traditions of Papua New Guinea (p. 4).	The National Curriculum should enable students to: <ul style="list-style-type: none"> • demonstrate an understanding of the values, customs, and traditions of Papua New Guinea (p. 13).
2	The English Syllabus places emphasis on teaching ethics, morals and values and the integration of subjects to enable students to experience real-life situations (p. 5).	The national curriculum will place an emphasis on: <ul style="list-style-type: none"> • teaching ethics, morals, and values; • integration across subjects (p. 15).
3	A relevant English Syllabus will prepare students for productive community living; integrate academic and practical education, and will provide ways to paid and unpaid employment (p. 8).	A relevant national curriculum will prepare students for productive community living; integrate academic and practical education, and will provide ways to paid and unpaid employment (p. 19).

Theme 2: Statement for classroom focus

My interpretation

The English Syllabus places emphasis on teaching ethics, morals and values and the integration of subjects to enable students to experience real-life situations (p. 5).

The second theme derived from the document analysis also indicates support for change from the PNG Department of Education (DOE). The implicated message deduced from the quote is for teachers to change teaching content or focus of classroom teaching when using the new curriculum. The underlying argument implicated by the policy makers is that the content of the old curriculum was not appropriate for the current PNG context. Hence, as derived from the citation, the policy curriculum (English Syllabus) is communicating the intention of change from the DOE. The message that is being articulated appears to be in the form of a directive, as implied in the word, 'emphasis'. It seemed that the DOE is providing ideas to stakeholders of how the contents for teaching programmes should encompass. This goes to say that when teachers use the document (English Syllabus), they would need to program purposeful teaching content and that point is indirectly emphasized in the word, 'places'. For instance, the DOE gives suggestions of: "ethics, moral, values" and

“integration of subjects” as exemplars of teaching contents that need to be the focus for classroom teachings.

Theme 3: Statement for teaching practice

#	English Syllabus (2006)	National Curriculum Statement (2003a)
1	The English Syllabus uses a student-centred approach as a vehicle to guide and facilitate students' learning (p. 7).	The National Curriculum describes the learning outcomes for all subjects. A student-centred approach allows teachers to be more flexible in determining the most effective ways to help all students achieve these learning outcomes (p. 20).
2	A student-centred approach means that teaching and learning approaches need to be flexible to cater for the individual differences and learning should be relevant and meaningful to the experiences and needs of students (p. 7).	Student centred learning recognises the fact that no two classes are alike and no two children are the same with respect to their needs (p. 20).
3	They (students) learn to teach each other and to learn from each other: to work cooperatively and to work individually (p. 7).	A student-centred classroom will usually involve students working together in small groups using activity centre set up in the classroom while the teacher works more closely with one or two students (p. 20).

Theme 3: Statement for teaching practice

The English Syllabus uses a student-centred approach as a vehicle to guide and facilitate students' learning (p. 7).

My interpretation

Statement for teaching practice

The third theme that the policy documents are advocating for is the intention for a change of teaching practice in the PNG classrooms. The policy curriculum is promoting a student-centred approach as the required teaching and learning behaviour intended for classroom practices in state schools of PNG. This is seen in the phrase, 'student-centred approach' which places emphasis on students being proactive in the teaching and learning process. The intention from the DOE is emphasized by the word, 'the' which focuses attention on the policy document (English Syllabus) that is to be used in PNG. Hence, the argument that seemed to be raised by the DOE is that previous teaching practices of maybe a traditional teacher-centred style of teaching and others that were used by teachers in the past were not working satisfactorily in the PNG context and thus, there was a need to change teaching beliefs and practices of teachers. Furthermore, another indication from the quote seems to implicate that the policy makers were in an advertising mode to market their new product (the policy curriculum) to the stakeholders (teachers). The DOE has provided a road map to the type of learning process that it deemed as appropriate for the PNG context. It had mapped out a teaching and learning process for PNG with students on the furthest right side of the spectrum, the teachers on the left side and in the middle of this marketing process is the policy which has an implication of significance according to the above quote from the DOE. As deduced here the education department has set boundaries by advocating for a set of ideas that explains an approach for teaching and learning. The theory, student centred demonstrates a certain philosophy of knowledge and belief systems that have to be taken on board by teachers.

Theme 4: Endorsement of change

#	English Syllabus (2006)	National Curriculum Statement (2003a)
1	I commend and approve this syllabus as the official curriculum for English to be used in all schools with Grades 9 and 10 students throughout Papua New Guinea (p. iv: Joseph Pagelio Dr).	I approve this statement and recommend that it be used to guide the development of the national curriculum at all levels of schooling in Papua New Guinea (p. 1: Peter Baki)
2	The English Syllabus has been designed using learning outcomes which identify the knowledge, skills, attitudes and values that all students achieve or demonstrate by the end of grade 10 (p. 1).	The national curriculum statement will guide and help educators in the provinces and institutions to understand and implement the national curriculum (p. 1)
3	All Lower Secondary Syllabuses are designed to cater for the educational needs and interests of both girls and boys (p. 6).	The Education Reform and the National Education Plan have been developed to produce an education system that meets Papua New Guinea needs (p. 3).

Theme 4: Endorsement of change

“I approve this statement and recommend that it be used to guide the development of the national curriculum at all levels of schooling in Papua New Guinea”

(National Curriculum Statement. p. 1)

The words from the former Education Secretary (Peter Baki) in 2003 to the PNG people signalled in definite terms an ownership stamp put out by the DOE in embracing the new Curriculum Statement for PNG as inferred to in the use of the first person pronoun, ‘I’. It implicates an appeal by the DOE to PNG to accept the policy curriculum as something of worthy and value (recommend) to be used in its education system. Further, it highlights the process of the DOE’s confirmation and introduction of curriculum change into her education system through the policy document (Curriculum Statement). The declaration and the approval of the statement have the intentions of the policy makers entwined in that announcement as shown in the word, ‘statement’. The endorsement from the Education Secretary suggested that the process of introducing change into the PNG education system was satisfactory (approve) as implied.

Appendix 15

Field Work Schedule - 2009

No	Date / Month	Task
1	March	Research proposal submitted to VUW Education Faculty
2	April	Human Ethics proposal submitted to VUW Education Faculty
3	May - June	Research protocol approval sought from the PNG National Department of Education.
4	July - August	Term 2 – Data collection at School 1: <ul style="list-style-type: none"> • Interview principal • Focus group discussion • Document reviews • Post observation interviews • Data coding
5	July 20 th – September 25 th	Term 3 – Data collection at School 2: <ul style="list-style-type: none"> • Interview principal • Focus group discussion • Document reviews • Post observation interviews • Data coding
6	October	Final data management: <ul style="list-style-type: none"> • Check codes and categories of data themes