

Chapter One: Introduction

1.1 Introduction

This chapter begins with a discussion of the context and rationale for the research. Then there is a statement of the problem and the research questions. The rationale and significance of the problem are explained, and this is followed by a discussion of the assumptions, limitations, and key terms and definitions of the study. The chapter concludes with an outline of the chapters of the study.

1.2 The problem and its context

The advocacy for the inclusion of children with disabilities into the regular or mainstream educational settings has taken place worldwide and is currently being debated for its appropriateness and implementation. Some countries provide a choice of inclusive settings that range from segregation to integration (Forlin, 2007; Kivirauma, Kiemela, & Rinne, 2006; Marchesi, 1986; Poon-McBrayer, 2004). Despite the debate, changes in legislation and policy have led to children with disabilities being placed in mainstream school (MS) settings in many jurisdictions (Foreman, 2007; UNESCO, 1999; Daniel & Garner, 1999; Haplin, 1998). Most education systems in the developed world have recognised the rights of children with disabilities to have access to better quality of education available in inclusive settings, and the rights of parents to choose the educational placements for their children with disabilities (Elkins, Van Kraayenoord, & Jobbling, 2003; Fuchs & Fuchs, 1998; Head & Pirrie, 2007).

This study emerged as a result of the researcher's interest in the limited progress of Inclusive Education given the policy mandate 15 years ago in Papua New Guinea (PNG). What is 'inclusive education' in the context of this study? There are two definitions provided here where the first is a general definition and the second is the focus of this study:

Definition 1: Generally, educational programs catering for identified needs of diverse learners regardless of human origin, political, economic, educational, cultural, religious and including physiological and psychological differences in an inclusive environment or institutionalised context (adopted and adapted from UN, 1994) based on Geneva and Salamanca conference/articles).

Definition 2: Educational programs catering for identified needs of diverse learners including children or persons with disabilities in the mainstream

schools and tertiary institutions (Adopted and adapted from Friend and Burzuck (1999) & UN, 1994).

PNG, prior to political independence and in the post-independence era, had a very brief history of recorded events about special education, people with disabilities and how they were cared for. However, oral history showed that traditional and contemporary PNG communities provided moral and physical support. The following is a brief review of the special education context of formal/informal education systems prior to the current reformed education system.

Firstly, the education system in PNG had a policy that concentrated solely on the provision of general education for normal children (*National Special Education Plan, Policy and Guidelines (NSEPPG)*, 1993). The argument was that the education system was unable to provide full primary education, and any additional activities such as Special Education were given a lower priority. This education policy did not attempt to provide any significant or official assistance with regular schools in the community and was only supported by the National Board for Disabled Persons (NBDP) and the Ministry of Community Development in terms of financial grants and material resources.

In addition, the Government had to rely on the selfless assistance of private and religious agencies, charitable, local and international organisations, including the Red Cross, Lions Club International, Rotary Club International, Catholic Disability Services (Callan), Cheshire Homes International, Mount Zion Centre of the Blind by the Catholic Church, Saint John's Centre for the Blind, and the support of International Organisation such as Christofel Blinden Mission.

Recently, the PNG Philosophy of Education (Matane, 1986), based on the National Constitution (1975), the Education Sector Study (1991) and with regard to various international agreements, emphasised the need for 'holistic' human development of all PNG citizens. This required the National Department of Education (NDoE) to re-examine its policy towards the provision of 'Special Education' in an inclusive setting in the MS system. The shift in policy began in 1993 and the '*NSEPPG*' was put in place by the then Education Minister – the Honourable Mr Andrew Baing. The

new policy guidelines recommended 12 policy guidelines (see details in Appendices):

1. Philosophy and Goals; 2. Definition and Scope; 3. Teacher Preparation; 4. SERCs and Units; 5. Identification, Screening, Assessment and Evaluation of Children; 6. Enrolment and Organisation of Classes; 7. Curriculum, Instructional Strategies and Materials; 8. Physical Designs of Schools and Monitoring of Progress of Special (Inclusive) Education; 9. Parent Education and Community Involvement; 10. Linkage and Collaboration; 11. Public Information and Awareness; and 12. Funding. (*NSEPPG*, 1993, pp. 21 -27).

Given the above 12 policy guidelines it is also significant to understand the basic structure and delivery processes of the National Special Education Plan and Policy Guidelines as briefly depicted in the Figure 1.1.

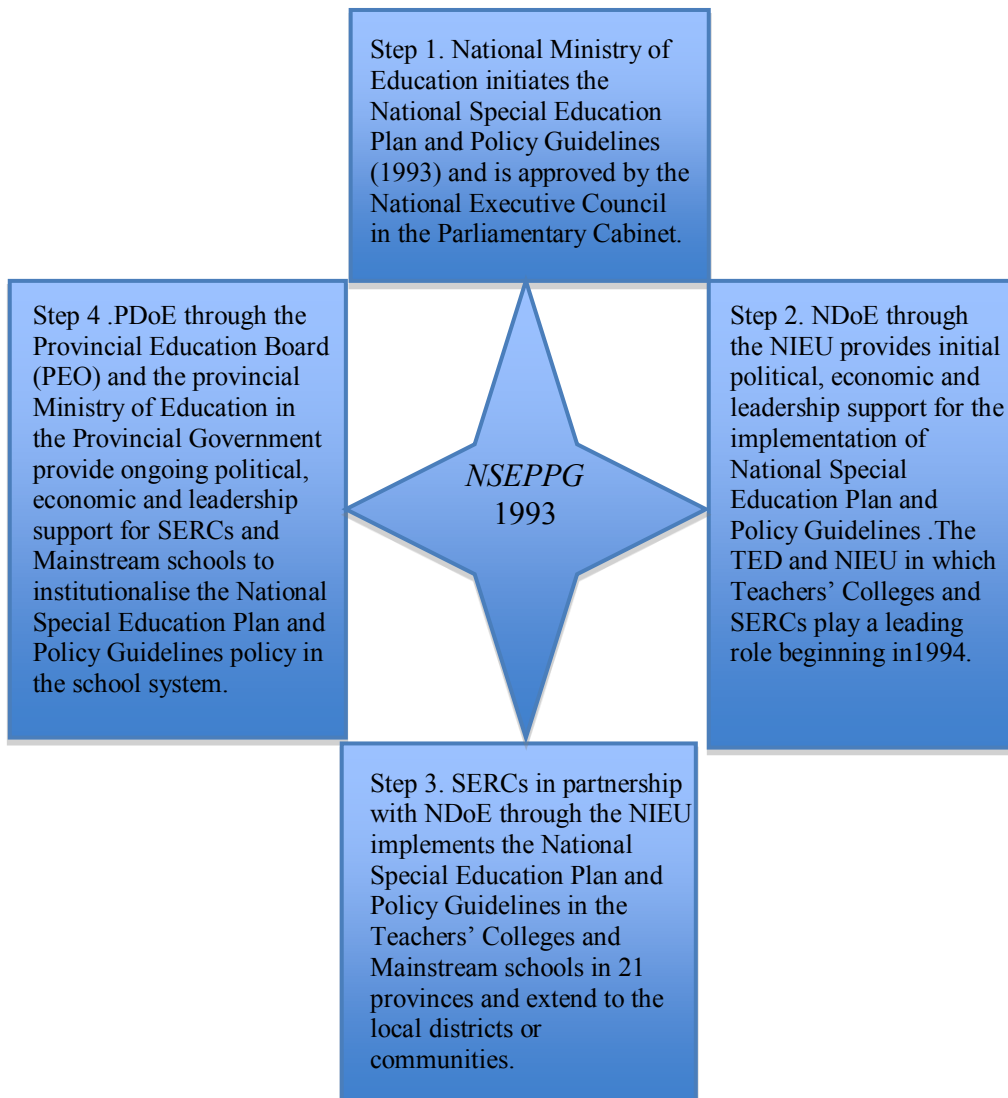


Figure 1.1 Inclusive Education: Policy Structure and Delivery Process

To begin with there are four key stages of how The National Special Education Plan and Policy Guideline was initiated and implemented before being institutionalised as a normal ongoing service delivery process in the education system. As stated above, since the inception of the National Special Education Plan and Policy Guidelines in 1993, the first ‘political support’ as well as the ‘economic and leadership support’ were made and were to be implemented over four to five year period. During this implementation period, selected Teachers’ Colleges’ and existing SERCs were given the mandate to commence Special Education training. From 1993 to 2011 the number of SERCs has increased from the initial four to the twenty-four currently across the four regions of PNG.

Having developed the framework of the National Special Education Plan and Policy Guidelines in 1993, a new review was done in 2001 (Frost, 2002) to engage a more inclusive practice in the education system. This shifted the 1993 Special Education policy focus towards an Inclusive Education focus because the practice of teaching children with disabilities (CWDs) or persons with disabilities (PWDs) has also shifted from integration to inclusive practices in the Mainstream schools system. The concept of Inclusion was derived from an International Conference called the ‘Salamanca Conference’ in Paris in 1994.

Inclusive education refers to the following: Education for everyone where various roles and responsibilities, cultural beliefs and values, traditional practices of ethnic groups, and social structures are merging and affecting the process of including everyone in ‘integral human’ development by the United Nation’s (UN) (Salamanca Statement, 1994). All children, young and older people are given equal access and opportunity to educational development to improve the quality of their lives. Educational development refers to the opportunity to learn at social institutions such as public and private schools, and special or specialised schools in formal or informal settings, and having access to special and relevant services based on identified needs (UN Salamanca Statement, 1994). By the year 2001, the emphasis on an inclusive education policy focus allowed all children including children or persons with disabilities to be educated in the PNG education system. Though there were no significant changes to the national plan and policy guidelines document its content,

delivery processes and focus in principle and practice in the school system were to be inclusive.

PNG's Inclusive Education is founded on a series of international conferences and declarations, including the Salamanca Conference (1994) in Paris, the United Nations Convention on the 'rights of the child' (UNICEF, 1991, p.85), Geneva conventions, and the Constitution of PNG. Two of the national goals and directive principles of the 'Constitution of PNG' emphasise the need for 'Integral Human Development' and 'Equality and Participation' (Matane Report, 1986). Integral human development refers to the total development in all aspects of a human being in terms of one's social / spiritual, political affiliation, cultural, emotional, mental, and physical needs in life. The development must allow the individual to participate with the rest of humanity so that one's quality of life is improved.

There are currently thousands of people especially children who have not been identified and diagnosed with sensory and psychological disabilities in PNG society. According to the UN formula for estimating the number of people with disabilities in a given population, there are approximately 360,000 disabled people in Papua New Guinea of which up to 180,000 would be under the age of 18 years, and 60,000 of these young people would have severe disability (*National Special Education Policy Guidelines*, 1993).

Approximately 500 of these 60,000 are known to be in schooling situations. Of those not in school, many are educable and could well be in school. Surveys carried out by the private agency schools or institutions in Mt. Hagen, Rabaul, and Wewak indicated that those with hearing loss comprise the largest group among disabled persons. A high incidence of hearing loss among PNG children is confirmed by a review of findings by research related to hearing impairments among South Pacific children generally (McPearson, 1979; *NSEPPG*, 1993). However, the above statistics currently are not accurate, as PNG's population has escalated to in excess of 5.4 million in the last census of 2000, suggesting that the number of persons with disabilities has increased dramatically. There are no current up-to-date statistics provided by the National Statistics Office or the Department of Education and Health. The National Special Education Unit (NSEU) 1993, which is now known as

the National Inclusive Education Unit (NIEU) of the National Department of Education (NDoE), recently did not have an updated figure for disabled children in schools but has data for registered SERCs in terms of planning. These people were objectively identified as exceptional – either below or above average – and they require special programs or services to meet their identified needs (Levine, 1991). They were also required to participate and to be treated equally as human persons; however, this has not been the case currently throughout PNG. This is due to the fact that the majority of the people have less access to services available in terms of basic education and training in human development (*NSEPPG*, 1993).

In addition, there is a need for equal opportunity to provide for these persons to improve the quality of their lives. The state governments and non-government agencies should provide affordable services that are beneficial in the formal and private institutions in PNG, to address the needs of these marginalised people. This forms a firm basis for this research project which seeks to put into a proper perspective PNG's Inclusive Education plan based on people's constitutional rights and policy.

In proceeding with this policy, the Government of PNG provided a timely response to existing growth in the provision of service to children with disabilities in PNG (provided by non-government organisations). The UN international conference took into account the National and International pressure for new and special education services to be more integrated and inclusive than the segregated special schools and institutions of the past (Salamanca Conference, 1994). Endorsement and implementation of the *NSEPPG* (1993) and a review in 2001 have led to a rapid development of PNG Inclusive Education services infrastructure.

According to the *NSEPPG* (1993), the NDoE through the Teacher Education Division had to set up the NIEU that was to organise and articulate the policy and with its initial implementation in PNG's education system. The significant development led to the progressive establishment of Special Education Resource Centres (SERCs), which are by definition, a charity or nongovernment organisations with a partnership with the NDoE to provide special education in inclusive settings in the mainstream schools of PNG. Parallel to this development, the previous nine of

the current eleven Primary Teachers' Colleges and the University of Goroka and Divine Word University worked in partnership to train and deliver Inclusive Education in the school system. This was a significant beginning that the government of PNG has provided as an initial national government support for the first three to four years of implementation. However, between 1993 and 2010 anecdotal evidence from schools suggests that the former special education policy and now inclusive had not been implemented effectively by the four regions as which had 22 provinces in the PNG education system. There could be a number of reasons that have hindered the effectiveness of the implementation process.

Generally, the *NSEPPG*, 1993 noted that according to Special Education Resource Centre (SERC) educators, the remoteness and the geographical nature of PNG was a big hindrance to the implementation of Inclusive Education policy in the country. In addition, the need for transporting children to larger centres was a major issue affecting the population of people with disabilities, especially children (NSEU, 1993). The other issue observed was related to the social and cultural factors that impede PNG communities, of which very little research has been done to verify and validate its current existence (NSEU, 1993). In addition, there is a very inadequate amount of literature on the social and cultural factors that hinder human development of the disabled population in PNG and other developing countries (Miles, 1984; UNESCO, 2005). Therefore, the need for research into the social and cultural aspect of PNG communities and other critical factors is relevant and significant for providing current data for critical development of inclusive education in PNG.

With this research focus in mind, the shift from the national policy and guidelines from special education to inclusive education became the focus of all mainstream schools in the education system. The implementation of Inclusive Education may be the only alternative and the potential to maximise service delivery across PNG. While PNG's inclusive education policy is 15 years old, and small in national and international terms, it has made some progress according to the NSEU, or now changed to the National Inclusive Education Unit (NIEU) in 2001. However, since 15 years have gone by since the inception of the Inclusive Education policy, a critical investigation into the barriers and facilitators of the Inclusive Education policy and practices by key stakeholders is overdue. It is the researcher's passion and heartfelt

desire to verify and validate processes and factors that are barriers and facilitators of institutionalisation of Inclusive Education in the education system, and to provide social justice through legislation and quality education for all children including children with disabilities and their families inclusively in PNG.

1.2.1 Statement of the research problem

Understanding the gap in the knowledge of the barriers and facilitators that have impacted the institutionalisation of PNG's Inclusive Education would be one way to progress toward the provision of 'social justice' for all children including marginalised disabled children. The study investigated the barriers and the facilitators of institutionalisation of 'inclusive education' in the light of existing approaches and the policy that supports them. While the need for improved educational opportunities – social justice in education for students with disabilities – has been clearly established in the *NSEPPG* (1993) and it seems that there has been limited progress in the implementation of this policy. The problem then is to understand why this might be the case; and in identifying possible barriers and facilitators impacting on the process of institutionalisation.

1.2.2 The research questions

This study's research questions are composed of a key research question followed by two sub research questions:

Key research question 1. *Why has there been only limited progress towards inclusive education since 1993 in PNG?*

Sub-research questions 1.1 *To what extent do key stakeholders (teachers, special education personnel and education personnel) understand and implement inclusive education in the mainstream schools?*

Sub-research question 1.2. *What are the barriers and facilitators of structural and leadership dynamics impacting on the institutionalisation of inclusive education in mainstream schools?*

1.2.3 The rationale of the study

This study was undertaken because it is very important to do the following:

- a) Explore and identify the extent to which a number of barriers and facilitators have impacted on the institutionalisation of 'inclusive education'; and to determine the

positive and negative implications that are crucial to further service improvement in PNG. There is limited research in this area of focus in PNG, so such a study will provide contemporary findings to verify and validate the success and limitation of this human development focus and its existence.

- b) Provide a foundational knowledge base for ‘inclusive education’ in the light of the limited research literature available and identify its existing need for future institutionalisation research and advancement. Importantly, educational institution at various levels of the education system can build on this study for further research and development in PNG. There is very little research done on inclusion and there has not been any generalisation made across the four regions of PNG.
- c) Promote inclusive teaching and learning by first understanding current beliefs and value systems that key stakeholders have about disabilities and how inclusive education can be institutionalised. PNG is culturally diverse and this is a very big challenge when it comes to working out how educational administrators, teachers, and parents of able and special children can be included in the mainstream schools.
- d) Support the goals of ‘integral human development’ and ‘equality and participation’ that had been stipulated in the PNG philosophy of education. Thus, teachers and professionals at various levels of the education system can understand that Inclusive Education is one of the many ways to achieve these two goals in PNG.

1.2.4 Significance of the study

The study is significant and appropriate because it is grounded on the principles of social justice for human development. More particularly, it is the first major investigation to provide research data drawn from the various levels of the education system since 1993. These levels are the following: Mainstream schools and SERCs in the school level; the ‘Ministry of Education’ at the Local/District level; the Provincial level; and the National Level. This research will significantly add to the knowledge of Inclusive Education policy and practices in the field of special education for all marginalised children, including children with disabilities in PNG.

The higher levels of implementation are important, however, they are only generic and common across organisations. The lower levels are the focus as student outcomes are measured and more sensitive to individuals. Having provided these research data, appropriate Inclusive Education support mechanism can be identified and appropriate, practical, home-grown institutionalisation structures, processes and practices can be recommended.

1.2.5 Limitations of the study

The primary limitation of the research is the identification and interpretation of barriers and facilitators in the institutionalisation of 'inclusive education' which are determined by research timeframe and the availability of respondents. The analyses of how the barriers and facilitators of the institutionalisation of Inclusive Education policy and practice are limited. The variations of key stakeholders and their responses to the investigation process at the policy and institutionalisation level are also limited. Therefore, social justice for all children including the marginalised disabled children and the adult population cannot be totally visible and guaranteed educationally. Teacher education institutions in the country could not be targeted because of funding limitations to visit research sites and potential participants.

Moreover, the study is limited by the representation of research participants drawn from 24 SERCs, the actual number of Mainstream schools engaged with each of the SERCs respectively, and educational officers from the national, provincial and district levels. Additionally, the research is being undertaken by one who has in the past two decades worked with SERCs and a few of the Mainstream schools as a classroom teacher and teacher educator on special education. The raw data that has been collected and reorganised through the analytical process may have encountered personal and participant biases, therefore, attempts are made to minimise these as much as possible by engaging a pilot study to ensure that the credibility of the study is not compromised.

1.2.6 Definitions of terms

The key terms and words used in the project are defined below in consultation with approved research literature, and not confined to a particular context. It is hoped that appropriate understandings will enlighten interested professionals and individuals in

using this project for personal and professional development. These understandings are the following:

Centre Coordinator for SERC: A leader and manager of the SERC whose sole role is to ensure that the day to day functions of the Centre is done according to set and agreed policies, and the operational structure, process and practices are based on institutional goals (NSEPPG, 1993).

Culture: is defined as ‘the ideations, symbols, behaviours, values and beliefs that are shared by a human group’ (Banks & Banks, 1993, p. 357).

Child and young people – includes the range of ages of persons found in schools below 21 years of age (NSEPPG, 1993, p: 30).

Children with disabilities (CWDs), or persons with disabilities (PWDs) – non schooling, elementary, primary, secondary and post-secondary learners who differ from the average child or learner in any one or more of the following: I) mental characteristics; II) sensory abilities; III) physical characteristics; IV) social adjustment; V) multiple handicaps; VI) specific learning disability; and VII) a significant development lag (NSEPPG, 1993 p: 30).

Inclusive Education - Definition A: Generally, education programs catering for identified needs of diverse learners regardless of human origin, political, economic educational, cultural, religious and including physiological and psychological differences in an inclusive environment or institutionalised context (adapted from UN 1994) based on Geneva and Salamanca conferences/articles).

Inclusive Education -Definition B: Educational programs catering for identified needs of diverse learners including children or persons with disabilities in the mainstream schools and tertiary institutions (Adopted and adapted from Friend and Burzuck (1999) & UN, 1994).

Institutionalisation –making a mandated bureaucratic, social and academic change in a public or private institution and continuing to sustain the change to become a normal mandated activity (Adapted from Fullan, 2001).

Integration – see mainstreaming.

Leadership– the ability to lead for individual, groups and organisation to achieve common goals that lead to effect change that is sustainable and benefits everyone associated with (Fullan et al, 2000).

Mainstreaming– the placement of a child with special needs in mainstream schools. Has the same meaning as integration (*NSEPPG, 1993* p: 31).

Mainstream Schools – Public or private schools practicing Inclusive Education for children with special needs who are educated alongside their non-disable peers.

Medical Specialist/worker: a nurse or doctor from hospital or Health Clinics assisting with medical treatment of children with special needs such as physical, visual, hearing and related health problems while receiving Individual Education Plan (IEP) in schools and at home.

Paraprofessional – a specially trained assistant (local, non-local or different nationality) assisting a professional in a SERC.

Professional – an expert (local, non-local or different nationality) who works with disabilities in special education field such as a deaf educator, blind teacher, learning disabilities educator and etc... (*NSEPPGs, 1993*).

School-principals – principals of mainstream schools implementing inclusive education policy through IEP.

Schoolteachers – teachers in mainstream schools working with SERC to implement IEP.

Social – something of human society, its organisations, or quality of life. For example, unemployment and education etc... (*Longman Dictionary of Contemporary English -New Edition, 2000, p. 1000*).

Socio-cultural – A particular society’s approved behaviour pattern that gives rise to regularities of individuals and groups’ feelings, thoughts and predispositions to act towards some aspect of his or her environment (Secord & Beckman, 1964, p, 100).

Special Education Resource Centre (SERC)

A centre of a non-government organisation and having a partnership with the state providing Inclusive Education for children who are educable but have a special need, such as a learning disability, physical disability, partial or total

hearing loss, partial or total visual loss, mild to moderate behaviour, or are mentally challenged (*NSEPPG*, 1993).

1.3 The structure of the Thesis

Chapter 1 examines the context of study. The chapter includes the research problem, the context of the study, the rationale, limitations and structure of the thesis, and the definitions of key terms used in this study. Chapter 2 reviews the literature on key factors that play an important role as barriers or facilitators of the institutionalisation of Inclusive Education which include socio-cultural and historical links, economic and leadership support, political support and issues, and environmental factors that relate to this thesis. Chapter 3 focuses on the theoretical framework of the study and continues to review the literature on educational change literature from the six different schools of thought - behaviourism, constructivism, progressivism, pragmatism, organisational theory and Professor Fullan's pragmatic model of educational change.

Chapter 4 reviews the research paradigm, research methodology and design that have underpinned the study. The chapter also examines methods and the issues of validity and reliability in survey and document analysis, trustworthiness and authenticity in using interview, and the procedures adopted for collecting data using these techniques. Quality control and ethical considerations are also discussed. The sampling method used and the manner in which the collected data was processed using different computer software are also discussed.

Chapter 5 presents the analysis for the survey using the SPSS software and the interview and documents using Leximancer qualitative software. The analyses are organised in line with the general and sub-research questions accordingly. The analyses begin in the following manner: data reduction – reducing quantitative data (e.g. descriptive statistics) and qualitative data (e.g. predetermined and exploratory thematic analysis). First the survey analysis data are further reduced from the tables and texts and summarised to a manageable level using Statistical Package for Social Science (SPSS).

For the interview transcripts and documents are analysed and presented using the Leximancer computer software for qualitative data analyses. These analyses are referred to as barriers and facilitators of inclusive education policy and practice at different levels of education. These analyses involve ‘data display – reducing and summarising quantitative data.’ Given the nature of the survey analyses graphs, other appropriate diagrams or a variation of Tables are used to reduce and summarise the amount of data presented for the study. Various data representations helped to address key factors that impacted on the institutionalisation of inclusive education at different educational levels and data transformation.

The survey and interview data are combined under the themes that were pre-organised in the survey and interview instruments. These were socio-cultural and historical links, political support, economic and leadership support and environmental factors. These factors would determine the barriers and facilitators of the Inclusive Education, briefly in the pilot study and in-depth in the main study and data comparison – comparing quantitative data with qualitized data. Given the nature of the data analyses the comparison of the survey and interview data are done for participants of different levels to determine differences in survey, interview and document analysis for interpretation with research question(s), data consolidation and data comparison – combining and comparison of three data types to create new or consolidated variables or data sets.

The consolidation of the survey, interview and document data analyses is done to see the developmental process of the knowledge on inclusive education policy and actual practices, and how each participant and their institution perceived institutionalisation occur at different levels. In doing so, comparable differences of the three data types helped to identify the barriers and facilitators of institutionalisation of inclusive education and data integration – all data are integrated into a coherent whole through data consolidation and comparison to stage integration in a coherent manner. This leads on to triangulation in Chapter 6. Triangulation, as defined in Burns (1997, p. 324), refers to the use of two or more methods of data collection and validation in the study of institutionalisation of Inclusive Education to explain the reality of its occurrence at different levels of the education context in PNG.

Chapter 6 addresses the barriers and facilitators of the institutionalisation of Inclusive Education policy and practices at the various levels of education. Based on the theoretical framework developed and the three data sources (survey, interview and document analysis) key macro and micro factors are identified and interpreted to answer the key research question and the two sub-research questions employed in the study. In addition, participants' suggestions for longer-term solutions are presented. Finally, Fullan's organisational change theory is verified and validated in the study.

Chapter 7 presents conclusions, implications and recommendations with discussions on the research question(s) providing possible answers, reasons or explanations, including reflections on the appropriateness of Fullan's Theory and model of educational change in the PNG education context. The implications of conclusions and further research are highlighted. This is then followed by two sets of key recommendations.

Chapter Two: Review of Literature

2.1 Introduction

The review of the literature focuses on the context of inclusive education, and inclusive education as an organisational change from a global perspective beginning with international trends in the developed countries and concluding with developing countries. First, inclusive education and change is defined, and then the major processes and factors that impact on educational change are considered.

2.2 The context of inclusive education and organisational change

A majority of contemporary federal and state governments of the developed and developing countries have recognised the significance and appropriateness of special education and inclusion in their policy initiatives. What are ‘inclusion’ and ‘Inclusive Education’? According to Mittler (2000), a widely accepted understanding of the general notion of ‘inclusion’ is that “it ... is based on a value system that welcomes and celebrates diversity arising from gender, nationality, race, language of origin, social background, level of educational achievement or disability”. Given this wide ranging definition, the focus of Inclusive Education in this research is especially on the inclusion of children with disabilities where they are taught wholistically with their non-disabled peers in the public and ‘mainstream schools’ (Mainstream schools) setting. The Mainstream schools are regular elementary, primary and secondary schools, and they work with ‘special education resource centres’ (SERCs) that have professionals who provide special education support for disabled children and their teachers. The significance of this human development focus requires all education systems to transcend the voices of the marginalised disabled population as mandated by the United Nations Salamanca Declaration in 1994, and later by the governments of member countries in their Millennium Development Goals (MDGs).

The ‘UNESCO Salamanca Framework for Action’ (1994, section 7)) sets out the key idea in these terms:

The fundamental principle of the inclusive school is that all children should learn together, wherever possible, regardless of any difficulties or differences they may have. Inclusive schools must recognize and respond to diverse needs of their students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnerships with their

communities. There should be a continuum of support and services to match the continuum of special needs encountered in every school.

Given this principle, a brief analysis of ‘Inclusive Education’ policy implementation and institutionalisation literature begins with international trends and Inclusive Education as a change in the education context, followed by factors impacting on Inclusive Education in the developed countries, developing countries and, finally, in PNG. Before proceeding with the discussion, it is significant that the term institutionalisation and its use in the context of this study is defined. Institutionalisation refers to a particular educational policy or program that has become part of the ongoing activity or teaching and learning program offered in the school system. More specifically in Chapter 2, Fullan (2001), refers to institutionalisation as the third phase of the change process after the first and second phases (initiation and implementation). It should be understood that institutionalisation is about getting a change or innovation instituted and is supported as an ongoing educational activity which has the same treatment like another approved activity, program or policy.

2.2.1 International trends in Inclusive Education

The formulation and articulation of the inclusion policy is derived from various ‘international declarations’ concerning human rights and has been spearheaded by the United Nations (UN). The key UN documents include the following: *The Declaration of Children’s Rights* 1386/UN, 1959; *The Declaration of the Rights of Mentally Disabled People*, 2856 (UN, 1971); *The Declaration of Disabled Peoples’ Rights*, 3447 (UN, 1975); *The Declaration of SUNBERG for Disabled People* (UN, 1981); *The Salamanca Statement for Special/Inclusive Education: A Framework for Action* (UNESCO, 1994); and *The International Top Conference on Social Development and Inclusion, Copenhagen* (UNESCO, 1995). These documents make it clear that implementation of Inclusive Education Policy in different countries is a global expectation for all governments at different levels of governance – locally, nationally and internationally. However, according to Vlachou (2004, p. 3) an academic researcher in inclusive education at the University of Thessaly, Volos, Greece asserts that, ‘the magnitude of the debate towards inclusion efforts to create more inclusive schooling communities is fraught with multiple difficulties, dilemmas and contradictions that often result into piecemeal or sequential reforms’.

A number of research studies have indicated that implementation of the Inclusive Education policy has begun as a result of governments' initiatives. There is, however, a distinction that needs to be made between 'integration' and 'inclusion'. Many authors have indicated that children with disability were previously integrated or placed into mainstream schools or modified settings with some degree of support (Kaufman, Gottlieb, Agard, & Kukic, 1975; Friend & Bursuck, 1999). There were, however, significant modifications to the mainstream schools. As a consequence of the UNESCO policy developments there has been a trend towards more inclusive approaches to education. This means that education systems in the world will be more flexible in terms of support provisions, curricula and access for diversity.

However, in PNG and many other countries, despite having inclusive education policies, integration is still being practiced and the shift to meaningful inclusion has been slow (Vlachou, 2004; Fulcher, 1989; Armstrong, 2000). For example, consider the following problems related to social and academic outcomes noted by Vlachou from various researchers regarding implementation of Inclusive Education policy for children with disability globally: (a) disabled children have been denied access to public education, or, when given access, have received an education that is not equal to that given to other children (Fulcher, 1989; Vlachou, 2004); (b) In many schools, no matter the inclusion policies that should guarantee students access to the regular curriculum, disabled pupils have to demonstrate that they can benefit from the regular class before they are given a place in such classes; in other words, they must prove themselves against normate standards' (Biklen, 2000; Vlachou, 2004); (c) Decisions about education and placement of disabled children [in Greece, US, UK, and Australia] have resulted in a marginalised population that has been institutionalised, segregated, undereducated, socially rejected, physically excluded and made unemployed (Oliver, 1996; Vlachou, 1997; Carrington, 1999; Vlachou, 2004); and (d) 'disabled children in France and England are being fully or partially segregated on claims of protection from harsh and real cruel realities of mainstream schools. For instance, such included the attitudes of staff and pupils, verbal and physical abuse, lack of adequate resources, restricted and restrictive curricula, disabling architectural designs, etc' (Welsh & Brassart, 2002; Vlachou, 2004).

Slee (2001) and Valchou (2004) argue that the research on socio-cultural and academic outcomes have portrayed a radically incomplete picture of disability, disablement and impairment. Likewise, other researchers have observed that a respectful proportion of inclusive educational research stems from a special education tradition, which portrays disability and needs in a particular restrictive way (Oliver, 1990; Thomas, 1999; Vlachou, 2002). Given the lack of social and academic outcomes of inclusive policy globally, Leeman & Volman (2001, p. 367), observed that: ‘there is very little research on socio-cultural outcomes [such as belief systems, values, roles and responsibilities], and academic excellence determining the diversity of pupils’. Furthermore, they argue that: ‘an approach to inclusive education in which social cultural outcomes ... academic excellence are [to be] taken seriously and diversity is not restricted to ... pupils’ characteristics’ (p. 367). The research was done in the Netherland Mainstream schools and implies that certain barriers and facilitators impede the implementation of inclusion policy as a globally mandated change for all the children [including disabled children].

Inclusion is happening in developed and developing countries. Its implementation is complex. More research has been done in developed countries than developing countries. PNG is an example of a developing country and we know too little about the implementation of inclusion there. This and related issues are addressed in the following section, but first a brief note is needed on the formulation of the Inclusive Education policy, its initial and subsequent implementation at various levels including schools is essentially about educational change.

2.2.2 What is change in the education context?

Change is a process, not an event (Hall, Wallace, & Dossett, 1973; Hall & Hord, 2006 p. 4). Generally, introducing and managing change in an educational institution involves ‘loss, anxiety, struggle and involves the individuals within the social systems’ (Marris, 1975 & Schon, 1971, Fullan 2001). Additionally, given a wide range of literature on the nature and purpose of change certain change theorists have defined change in a number of ways. For instance, change theorists (Kurt, 1951; Lippitt, Watson & Wesley, 1958; Robins, 2003; Kritsonis, 2004-2005) also assert that the ‘evolution’, ‘roles’ and ‘responsibilities’, ‘internal and external environment’, and ‘personality’ are critical determinants of effective change. They

provide the core basis to foster change in individuals, groups or an organisation in a society. Additionally, Senge (1999) and Fullan (2001) categorically emphasised that change is a complicated process and requires all stakeholders to be part and parcel of the change process. Given that change is a broad topic, there are the change processes with the macro and micro component of change dynamics that interplay in organisational change. Firstly, the macro change processes are the following:

1) 'Initiation', which refers to 'the process that leads up to and includes a decision to adopt or proceed with a change, this involves scope of change either large or small scale, who is involved to initiate or develop the change, it takes either single or broad based authority and mandate, and is based on assumption' (Fullan, 2001, p. 50);

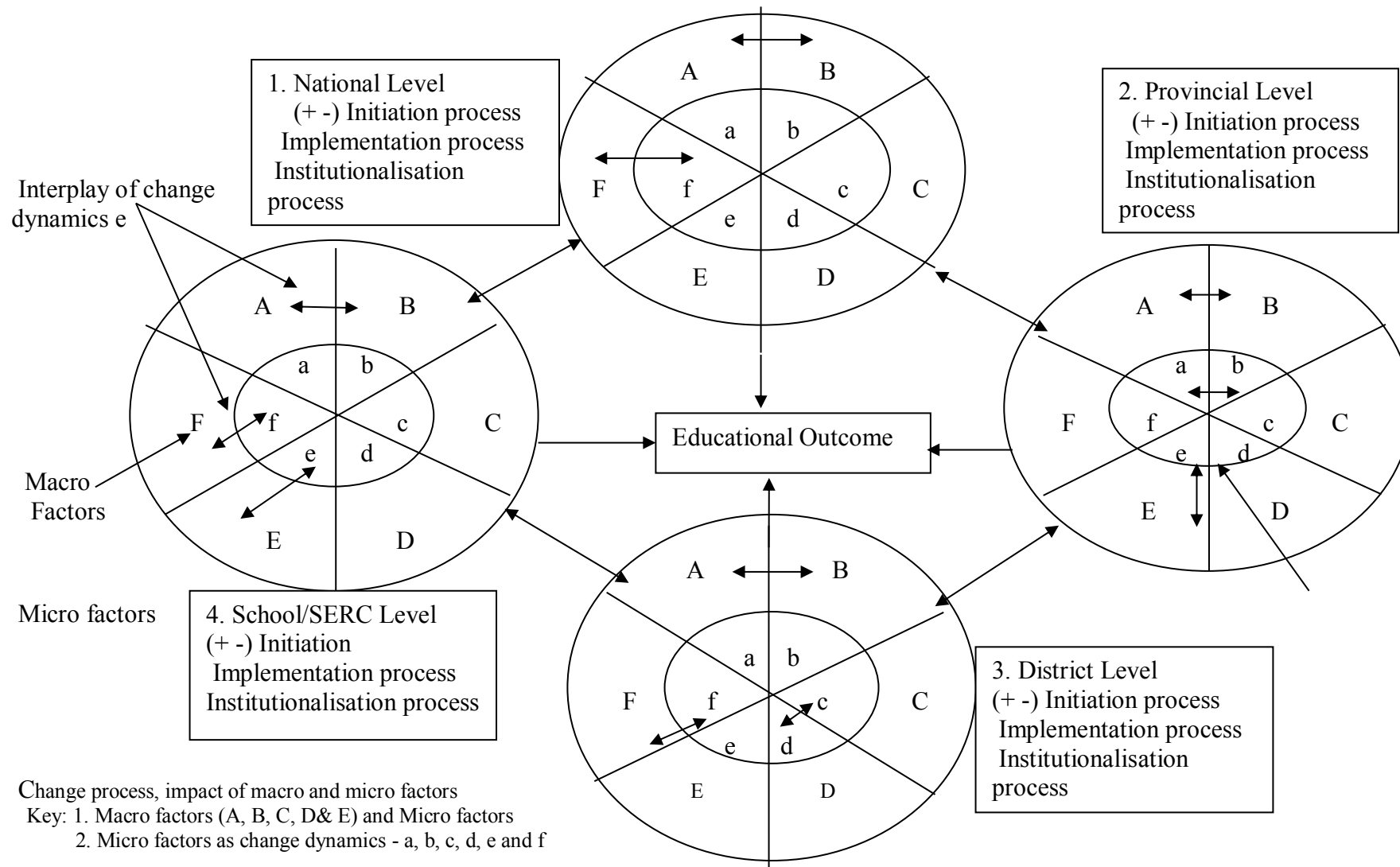
2) 'Implementation' (Fullan, 2001) 'the process of putting into practice an idea' (p, 69), and 'usually the first two to three years involves the first experience of attempting to put an idea or reform into practice' (p, 50). In this level of implementation there are both positive and negative outcomes caused by barriers and facilitators of the change.

3) 'Institutionalisation', according to Fullan (2001) it 'refers to continuation, incorporation and routinisation of change. Additionally, it refers to whether 'the change gets built in as an ongoing part of the system or get disappears by way of a decision to discard or through attrition' (p. 50). This is the final phase of making changes been accepted and is supported by all concerned stakeholders in an organisation.

Secondly, the theoretical framework of this study is introduced and does also appear in Chapter 4. The reason for this is to align the macro components (A, B, C, D, E and F) are major factors and the micro factors (a, b, c, d, e and f), which are drawn from the review of literature. The two factors are considered as change dynamics within various social systems, and both can be classified into six categories in the theoretical framework of the study (see Figure 2.1 and Figure 3.3 in Chapter 4):

1. Beginning with (A) and (a) - Socio-cultural and historical links – where there are values and belief systems, attitudes, roles and responsibilities for organisational change (Sarason, 1971; Sarason, 1990), and the influence of earlier introduced change (Fullan, 2000).

Figure 2.1 Theoretical Framework for the study.
 CONTEXT OF EDUCATION ORGANISATIONAL CHANGE



2. Then (B) and (b) - Economic and leadership support – the need for cash to pay for goods and services for a new policy or program for organisational change (Fullan, 2001, pp. 62 - 63). This involves advocacy for personnel with leadership styles and approaches that may be categorised as the following: i. Authoritarian; ii. Directive; iii Charismatic; iv. Democratic; v. Laissez faire; vi. Consultative; vii. Distributive; viii.Participatory; ix.Situational; x. Transformational; and xi.Collaborative in organisational change.

Leadership scholars and researchers have argued that various leadership styles and approaches are determined by an organisation's culture and its overall purpose of existence (Coates, & Anderson, 2008; Mulford, Silins & Leithwood, 2004; Fullan, 2000; Fullan, 2004; Yukl, 2002; Leithwood, 1994). For instance, in the field of education all educators in various learning institutions have a culture to transmit relevant knowledge, skills, values and attitudes to all potential learners. Thus, the overall purpose of educational leadership is the making and articulating of choices, and the location of one's self within the cultural struggles of the times as much in the cultural battles of the school in the wider society (Bates, 1992).

3. Followed by (C) and (c) - Political support – how the federal, provincial and local level governments address policy issues (of institutionalisation needs) for organisational change (Fullan & Hargreaves, 1999; Fullan, 2000). Through the various government agencies in the different levels of the hierarchy, legislation, advocacy and operational structure determine and support the implementation of an educational change.

4. Then (D) and (d) - Environmental (internal/external) – how the natural and man-made environment cater for organisational change, producing positive or negative outcomes (Mintzberg, Ahlstrand & Lampei, 1998). This involves the feasibility and the impact of change within the local community, and includes major and minor issues that arise as a result of the interplay within the different stakeholders affected by the change.

5. The next (E) and (e) - Work place structures and management functions, settings and behaviour of educational institutions to accommodate educational change for the better or worse (Sarason, 1971; Owens, 1991).

6. Then finally, (F) and (f) - Other relevant issues such as research and development in Inclusive Education in the developing countries in comparison to the developed world such as the critical need for inclusive culture (Whyte, 2005; Carrington, 1999).

The 'institutionalisation' of 'Inclusive Education' is about 'organisational change' that carries with it major challenges and implications. First, inclusion is a 'policy change' that has resulted from previous policies and practices of education that ignored marginalised groups of children throughout the world (UN Salamanca Statement, 1994). For instance, in the context of educational change (in regular or mainstream schools), children with disabilities were educated in separated or segregated educational settings apart from their able peers. However, this educational setting has been debated for its academic, social injustice, socio-economic, environmental and political support in providing appropriate education in a 'least restrictive environment' or LRE (D'Alonzo, Giordano, & Cross, 1995; McNulty, Connolly, Wilson, & Brewer, 1996). The debates on inclusion by various academics, researchers, parents, teachers, communities, the state and the federal governments in different countries such as the United States (US), Australia, New Zealand and United Kingdom (UK) have paved the way for organisational change that is currently known as Inclusive Education.

2.3 'Inclusive Education' as a change in developed countries

This sub-section discusses the various factors that impact on the implementation and institutionalisation of Inclusive Education in the developed countries. These countries are mainly Western countries, namely, the US and members of the Commonwealth of Nations including Australia, New Zealand and the UK.

2.3.1 Socio-cultural factors and historical links

Sapon-Savin, Frattura, and Villa, (cited in UCEA, 2006, p.11) have emphasised the need for understanding the big picture by connecting social justice and inclusion through an 'essential belief [value] system' (a socio-cultural factor). Based from the segregation to that of liberation for CWDs in the US, these academics assert that prior teacher training and experience of practicing teachers were focused on a particular mindset and value system that teaching and learning was appropriate in *segregated* and *partial integrated* settings. However, in a way that is consistent with

the 'inclusive education' policy, researchers saw that this particular value system was the medical view of a person with disability. This practice lacked a holistic, integrated and meaningful learning environment, and thus strongly recommended a more inclusive approach to teaching and learning (UCEA, 2006). In addition, the medical view of children and persons with disability and their education was to be replaced by the social view of disability to be educationally inclusive.

The fundamental principle of inclusive education is that all children (including disabled children) should have the opportunity to learn together (Miles & Singal, 2010). The notion of inclusion is underpinned by values, particularly values of social justice and citizenship that promote equity, participation, respect of diversity, compassion, care and entitlement (Ainscow, Booth, & Dyson, 2006). Inclusive education is informed by a social model of disability and acknowledges that disability and differences are socially constructed and influenced by cultural values.

Given the social and medical view of inclusion, the fundamental principles of the 'Salamanca declaration focused on an inclusive society. It took into consideration the social and medical definition of disability and inclusion which were previously interpreted differently by experts, groups, the local community, federal and state governments from different conceptual mindsets and belief systems' (Peters, 2003). According to some researchers, this mindset has created a belief and value system that is undesirable concerning the potential of persons with disabilities to pursue their full human potential (Foucault, 1967; Oliver, 1990; Hughes & Paterson, 1997).

Moreover, when such a belief system prevails, the disabled children and adult population will have limited access to a fair share of the society's wealth and service delivery. For instance, the Global Monitoring Report (UNESCO, 2002; Welsh & Brassart, 2002) has observed this limitation in terms of funding, curricula, support systems, personnel and resources provided by various human agencies for disabled people. On a more specific note, an example of a shift in belief or value system in inclusion is seen in New Zealand's policy for institutionalisation (Mentis, Quinn, & Ryba, 2005; Ministry of Education, 1999a; UNESCO, 2000).

According to Whyte (2005), New Zealand in the last decade has begun to shift from the *segregated* to *inclusive* educational setting by recreating a new socio-cultural context that promotes diversity in an existing school culture. In order to meet the diverse needs of all students, Whyte (2005) and Carrington (1999) have argued that there was a critical need to develop a more individual 'inclusive school culture that would reflect the character of the community. In respect to earlier change studies, Professor Michael Fullan has also asserted that when the community is not prepared to accept change for the institutionalisation of 'inclusive education' policy this becomes an impediment for this educational change. Thus, New Zealand has adopted two positive approaches to the institutionalisation of 'Inclusive Education' policy in its education system. The first approach is taking the 'accommodation' pathway, which attempts to accommodate the cultural and student diversity within the existing school cultures. In this instance, the schools are required to work toward identifying the cultural and student diversity in the community and develop appropriate activities in their existing programs. The second approach is the "reculturing" pathway, which is an attempt to change the existing school culture. Stoll (2000) asserts that 'within this approach inclusive schools are based on cultural aspirations, preferences and practices ... in diverse communities as multicultural'. Furthermore, the school environment is also considered as a wider school culture connecting to the external environment (Hargreaves, 1999; Prosser, 1999).

2.3.2 Economic and leadership support

The need to improve funding for economic support Inclusive Education has been recognised and positive plans have been put in place by various federal and state governments in the developed countries. Prior to the federal and state governments' recognition of this need studies have been done to verify and validate is current status and context of implementation. As a result, some key challenges have been identified where 'Inclusive Education' requires more time for teachers to develop new skills, to plan collaboratively, and to differentiate the curriculum, strategies and assessment (O'Donoghue & Chalmers, 2000). The provision of additional time requires extra teachers, support staff, resources, equipment, technology and/or a reduction in class sizes, all of which necessitate substantial funding (Prochnow, Kearney, & Carroll-Lind, 2000). Such scenarios portray critical barriers and facilitators of 'inclusive education' policy in terms of political and economic support

to provide professional development for teachers and supported by learning resources to aid their teaching.

A study in public schools of New South Wales (NSW) has revealed that 83% of experienced teachers were concerned about integration because they believed resources [and funding] were inadequate (Watson & Hatton, 2002). The Australian Vinson Report (2002, p. xxiii) concluded that ‘the majority of teachers are in full support of inclusion and integration for many students, but only if, in their words, adequately resourced’. Feedback from the *Review of Educational Services for Students with Disabilities in Government Schools* (2001) indicated the following: ‘teachers doubted that students with disabilities would ever be adequately resourced while observing; acceptance of the principles was high; but there appeared a level of scepticism regarding the likelihood of funds being sufficient to implement the principles’ (Crosby, 2002, p. 5). Additionally, teachers raised their concerns about the deterioration in their work conditions, loss of salary relative to other professions, and low morale in their status – their cynicism was evident (DEST, 1998; Lingard et al., 2000).

Despite the setbacks in funding and resource capacity needed for schools in US, Australia, UK and New Zealand, federal and state governments have and continue to provide funding and conducted reviews through further research. For instance, a recent ‘Ministerial Task Force Submission’ by the Queensland State Government (2004) has targeted specific inclusive education strategies derived from its ‘Ministerial Task Force Review’ in Queensland schools. The task force has developed a vision for ‘inclusive education’ that makes this statement: ‘quality education is made available to; accessed by all Queenslanders; and underpinned by respectful relationships between learners, teachers and parents/caregivers’ (Queensland State Government, 2004, p. 5).

In the US, federal law P.L 105-107 categorises various disabilities and within these categories, funding and resource capacity is determined for ‘inclusive education’ services (Friend, & Bursuck, 1999). Additionally, Friend and Bursuck explained that more and more disabled children will continue to receive education in less restrictive environments, often in general education [or MS] classrooms. According to Friend

and Bursuck (1999), what is most clear is that “federal, state, and local education agencies must continue to commit financial and other resources to ensure that students with disabilities receive a high quality education in the least restrictive environment” (p.17). However, as discussed earlier on the case of the Vermont Mainstream schools and including other states, Mainstream schools funding seem to be a barrier to pay for paraprofessionals for a successful institutionalisation of ‘inclusive education’ services (Suter & Giangreco, 1999, 2000). Personnel and leadership are two related factors that affect the institutionalisation of an educational change such as the ‘inclusive education’ policy (Sergiovani, 2001; Hargreaves & Hopkins, 2005). These are related to the role of the principal. Personnel and leadership roles and responsibilities are carried out by MS principals and teachers, and SERCs’ coordinators, professional and paraprofessional support personnel. Additionally, the SERCs’ professionals are those regarded as having expert knowledge and skills, including the psychologists, psychiatrists, physiotherapists and speech therapists (Gargiulo, 2003), while paraprofessionals are support personnel working with the professionals.

In Canada, a widely accepted value for Inclusive Education for disabled children and their peers has shown great potential in addressing leadership for diversity in institutionalisation research (Timmons, 2003). According to Mittler (2000, cited in Timmons 2003, p. 3), ‘a school climate that promotes inclusive practice will not develop without leadership; the kind of leadership that sets up [an] enabling climate with mentorship and collaborative opportunities for staff’. However, this may not be the case as a number of researchers have identified key issues and challenges in this regard.

Pijl, Meijer and Hegarty (1997, p. 70) noted that ‘creating an inclusive school system requires visionary leadership in overall program and policy’. While, Deal and Peterson (1999) have argued that visionary leaders ensured that they understood the school’s patterns, the purpose they serve and how they came to be in the position they occupy. This implies that leadership in the various structures of the school should collaborate and work to achieve a common goal. However, this may not always be the case as school situations differ in their types of personnel and leadership approaches. For instance, a survey in Australia conducted by Powers,

Rayner, and Gunter (2003) identified unfavourable personnel and leadership types in 'inclusive schools' by [MS] principals, teachers, school unit heads and SERCs. The findings revealed mixed reactions as to who would lead and provide personnel support in the school operational structure, which meant that collaboration and coordination were lacking. The teachers admitted that they needed professional development to assist and manage disabled children enrolled in the schools. In other words, the situation implied the need for advocacy for consultative, distributive, participatory, situational, transformational and collaborative leadership in Mainstream schools. The various leadership types are worth consideration so that teachers as well as policy makers and other key stakeholders collaborate to address inclusive practices in schools.

Furthermore, a study was carried out on exploring the personnel and leadership of 92 SERC professionals and 36 [MS] administrators in 19 Vermont schools in the US. The study revealed that personnel and leadership for school administrators, teachers and paraprofessionals service delivery in inclusive-oriented schools have revealed major challenges (Suter and Giangreco, 2009). Their findings indicated that:

a) many special educators have large caseloads, b) there are substantially more [less trained] paraprofessionals than special educators, and c) more than half of all paraprofessionals are assigned to students with disabilities one-to-one. Combined, these factors indicated that schools employed models of service delivery for students with disabilities that are substantially supported by paraprofessionals, thus raising concerns about students' access to a free appropriate public education (Suter and Giangreco, 2009, p. 81).

Given the state of leadership roles and responsibilities of the Vermont Mainstream schools and 92 SERCs paraprofessionals, Suter and Giangreco also noted that 'nearly 60% of the leadership and existing personnel of the US employs more "inclusive education" paraprofessionals in full time equivalency or referred to as "FTE"'. This indicated an over-reliance on particular school support personnel without even providing them with appropriate training and remuneration. This finding is consistent with other studies done in other states (Giangreco, Edelman, Luiselli, & McFarland, 1997; Marks, Shrader, & Levine, 1999; Downing, Ryndak, & Clark, 2000; Giangreco & Doyle, 2007). In addition, Suter and Giangreco (2009, p. 82) further noted the following negative consequences experienced by students with disabilities:

(a) physical and programmatic separation from classmates, (b) unnecessary dependence, c) interference with peer interactions and relationships, (d) interference with teacher engagement, (e) stigmatization, (f) loss of personal control, (g) loss of gender identity, (h) provocation of behaviour problems, and (i) increasing likelihood of being a target of bullying.

This particular scenario does reflect the need for better advocacy for personnel and leadership support in both the Mainstream schools and the SERCS. Suter and Giangreco (2009, p. 92) suggested that, “it is the number” [referring to disabled children and personnel with leadership of both Mainstream schools and SERCS professionals] that counts and [having systematic reviews] is a starting point to prepare well for the institutionalisation of ‘Inclusive Education’ policy.

2.3.3 Political support

The ‘political’ support for the institutionalisation of ‘inclusive education’ has been evident in the developed countries. The federal and state governments’ support for inclusion have resulted in a dramatic increase in the number of disabled children included in Mainstream schools (Schools Productivity Commission, 2003). In Australia, an outcome of regular reviews of this increase in student enrolment is the need for professional development for all stakeholders, increased resources and reformed curricula (Department of Education and Training WA, 2004; Forlin & Bamford, 2005). This finding implies that political support for teachers is critical, and proactive measures have been taken by the Ministry of Education to address these barriers. There are also further implications supported by other research reports, as well as senate and state government reviews during the last decade that the inclusion of students with disabilities in schools has proved challenging (Department of Education Western Australia 2001; DEST, 1998, 2002; Ministerial Task G Force, 2004; Ford, 2007; Hay & Winn, 2005).

Furthermore, the rapid increases in the numbers of students in regular classes and the slow response of the education sectors created parental and teacher frustration. Their frustrations have led to reviews on inclusion for all states in Australia and the British Commonwealth over the last decade (Angus, Olney, & Ainley, 2007; Department of Education of Western Australia, 2001; Department of Education Tasmania, 2000; DEST, 2002; McRae, 1996; Meyer, 2001; Ministerial Taskforce, 2004; Nitschke &

McColl, 2001; Parkins, 2002; Vinson, 2002). Teacher and parental frustration implies that there also exist barriers created by facilitators of the 'inclusive education' at the national (Federal) level, provincial (State) level and the district level. Fullan (2001) again make this point clear that the institutionalisation phase of educational change is proceeding at a slow pace.

2.3.4. Environmental support

The internal and external school environment needs to be considered as part of the wider school culture that influences inclusive education (Webb-Hendy, 1995). Webb-Hendy argued that changes made to the school environment allowed for the enrolment and placement of children in the inclusive classrooms. There is a close relationship between how schools encourage students to be enrolled in schools and which classrooms or school contexts to fit them (Carrington, 1999; Flavell, 2001). That means once children are enrolled, their placement needs are to be considered on a case-by-case basis in order to meet the individual child's needs at school and at home. Fullan makes it clear that the district, or local level of institutionalisation of 'inclusive education' policy change must include both the internal and external agencies and the community at large (see conceptual framework, Figure 2.1).

According to Smith, Polloway, Patton and Dowdy (2004), in order for children with disabilities to be given the maximum learning opportunities, a typical inclusive school environment must be developed in ways that foster easy access to classrooms, resource rooms, playing fields, and of course the toilets and the library. Producing findings that may well be indicative of the situations in other developed countries, New Zealand research has shown that the way the school environment is restructured and recreated can have a huge impact on institutionalisation, especially for disabled children. This means that the buildings, stairways, walkways and other physical features of the school have to ensure children with disabilities are accommodated within Mainstream schools (Peterson & Hittie, 2003; Zionts, 2005). These changes, if made to the school environment, will surely have an impact on the way the needs of children with disabilities are met in inclusive environments (Villa & Thousand, 1995; Webb-Hendy, 1995).

Moreover, Mitchell (1999) also argued that the physical environment and the school

climate are the biggest barriers and facilitators for full inclusion to take effect. McNary, Glasgow and Hicks (2005) further argued that the biggest barrier that one could find in inclusive schools is a system that does not accommodate children with disabilities, but rather rejects them – this is especially true of the physical setting. Nevertheless, Clough and Corbett (2000) cautioned that the adaptation and access to the physical environment would not be possible if the teachers and the school administration at large were not proactive to the environmental changes that are required in order to accommodate children with disabilities in the regular schools [or Mainstream schools].

2.3.5 Summary

In the major developed countries reviewed above, the facilitators to the institutionalisation of ‘inclusive education’ have been identified in terms of socio-cultural effects, historical links, political support and environmental support for schoolteachers and principals are critical to promote equality and participation through holistic and inclusive pedagogy for disabled students. The barriers have been in the areas of limited economic support for funding teachers working conditions, school infrastructure, incentives and salary increment lack of advocacy for personnel and leadership building for SERCs and Mainstream schools such as extra teachers, support staff, and a reduction in class sizes. The above findings indicate that, developed countries have made a lot of progress on the institutionalisation of ‘inclusive education’. Given the progress and challenges reported in the developed countries, in this literature review, it seems timely to investigate progress and challenges in a country like PNG.

2.4 Inclusive Education as a change in developing countries

This sub-section discusses the various factors that impact on the implementation and institutionalisation of Inclusive Education in the developing countries. These countries are mainly in the Caribbean region, Africa, Asia/Pacific region and India. One of the universally acknowledged concerns about transfer of information and human development strategies from the developed to the developing world is the appropriateness of change application (Thorburn & Marfo, 1994). There are instances where the adaptations of change for the receiving country are not made and these scenarios are consistent with Fullan’s notions of barriers and facilitators of

change (Fullan, 2001). There is rather a great deal of evidence that the models for service delivery, for example, by health care and education systems have been adopted without much consideration for unique socio-cultural and economic contexts. As discussed above, the UNICEF (2003) and UNESCO (2005) studies have confirmed this claim from global and regional studies. Therefore, the results of change for human development (in this case 'Inclusive Education') have being far from desirable (Thorburn and Marfo, 1994; Fullan, 2001). The discussion now focuses again on the following factors: socio-cultural effects such as desirable belief or value systems; historical links; economic means, including cash, goods and services; personnel and leadership; political support; environmental support; and other support systems for inclusive education institutionalisation in some developing countries

2.4.1 Socio-cultural factors and historical links

Similar to developed countries' research, findings of research two decades ago on education change in the developing world, such as Bangladesh, Guyana, Jamaica, Pakistan, Tanzania, and the Caribbean, focused on the effects by socio-cultural factors and historical links on two premises. In premise one there are few studies that do indicate factors that influenced the attitudes of persons towards the need for change in 'special education' delivery (Thorburn et al., 1994). There are either positive and negative attitudes or perceptions on 'special education' change that are determined by historical links and socio-cultural contexts. In particular, certain traditional belief systems have been practiced. For instance, traditional and superstitious beliefs (involving ancestral curses, breaking of traditional taboos by parents, religious beliefs, and practice of sorcery and witchcraft activities) prevented support for persons with disabilities (Zaman & Rahman, 1984; Leavitt, 1988). Furthermore, many children and adults were kept in isolation and this diminished the chances of rehabilitation by health and education workers. Therefore, the care and provision of services to educate and rehabilitate children and adults with disabilities were very limited in the Mainstream schools and SERCs; or were non-existence in a number of communities.

In premise two, there have been major studies conducted by UNESCO since the UN Salamanca declaration (1994). These studies have solely concentrated on general

inclusion policy implementation on a regional scale targeting socio-economic needs, disability statistics and prevention, and medical support systems (UNESCO, 1999b; UNICEF, 2003). According to Vlachou (2002) and Miles and Singal (2009), there is need for more studies on socio-cultural barriers and how they affect inclusion and institutionalisation. One example of such a study is the one conducted by Kuyini and Desai (2007) on principals' and teachers' attitudes on inclusive teaching in Ghana. The study suggested that 'successful inclusion hinges on developing and sustaining positive attitudes, increasing educators' knowledge of inclusion through professional development, and providing clear expectations of inclusion for educators' (Kuyini & Desai, 2007, p. 10). More studies are still needed, especially on the impact of socio-cultural factors on inclusion to provide a better comparison of the institutionalisation progress in developing countries.

2.4.2 Economic and leadership support

Apart from socio-cultural factors, some research had been done in personnel and leadership in Africa, the Caribbean and Bangladesh prior to 1994 (Marfo & Marigold (1994b). One study in Tanzania gave some evidence about the professionals and paraprofessionals working with disabled children through community-based rehabilitation programs, but leadership support for parents at home was lacking (King & Myers, 1983; Ministry of Education, 1984). Due to lack of advocacy for personnel and leadership by the education agencies, the SERCs and Mainstream schools, there was evidence of inadequate institutionalisation support provided for school children and families (Eklindeth & Sennaro, 1983). Given this apparent lack of transparent advocacy for personnel and leadership, there is an apparent gap for studies to investigate the barriers and facilitators that impede the institutionalisation of special education policy since the 1980s and early 1990s. Therefore, research on collaborative, authoritative and free rein leadership as potential facilitators and barriers of institutionalisation are yet to be investigated in these above instances.

However, a number of studies on 'educational change' in the early 1990s and the early 2000s, have observed that the above developing countries have progressed with the support of various international organisations like UNESCO, the WHO, UNICEF, Canada International Development Agency (CIDA), and governments of other countries (Porter, 2001). These studies were based on the inclusive ideology of

inclusive societies through the millennium development goal 'Education for all' approach (UN Salamanca framework, 1994).

Moreover, UNICEF (2003) carried out a major study on the implementation of 'inclusive education' policy in Bangladesh. One of the major observations was the lack of, and the need for, better-trained personnel for Mainstream schools and SERCs. A Canadian leading inclusive educator who spearheaded the study identified several important problems:

inadequate administration provisions to ensure proactive leadership; limited coordination of social and economic agencies with schools; limited accessibility and provision for physical/staff support; inadequate school and classroom support for diverse learners; [and] inadequate training and retraining of teachers (Porter, 2001, p.13).

These factors indicate that there were certain barriers as well as facilitators for the institutionalisation of 'Inclusive Education' by school personnel and its leadership, and internal and external agencies. This finding by UNICEF further reflects Professor Fullan's notion of change complexity and resistance in organisations. The main reason for this is because all stakeholders had not been part and parcel of the change process (Fullan & Hargreaves 1992; Fullan, 2001). Additionally, other UNICEF's studies and their findings have also been evident in developing countries such as in Latin America and the Caribbean regions (Porter, 2001), and the Asia/Pacific countries, such as India, Nepal, Thailand, Sri Lanka, Bhutan, Fiji, Solomon Island, PNG and Vanuatu Island (UNESCO, 2005). Prior to the UNICEF and UNESCO studies in 2001 and 2005, Skrtic (1991) emphasised the need for advocacy for personnel and leadership to focus on the 'ad-hocratic' process of problem solving. He further argued that schools were institutions where the work is always unique. Thus, the teacher needs to create new and unique strategies to meet the needs of a diverse population attending the school on an ongoing basis.

Blanco (1999; UNESCO, 2005, p. 20) also identified a key weakness in personnel and leadership for [SERCs and Mainstream schools] training in the regions: 'formation has not translated into significant modification of teaching practices ... teachers trained in isolation, failed to produce significant transformation [in the Mainstream schools]'. Blanco and Duk (1995) further pointed out that 'if inclusion

of disabled children is to be successful, educational managers need to ensure that there is varied and systematic support available to the teacher'. Blanco (1997) and Porter (1991) also proposed that collaborative working schemes among teachers, teachers and specialists (MS personnel and SERC professional and paraprofessionals), teachers and parents, and among the students themselves were critical. Thus, institutionalisation change processes/factors on advocacy for personnel and leadership are relevant and needed in this context of institutionalisation (see Figure 1.1).

2.4.3 Political support and environmental support

The institutionalisation of 'inclusive education' needed both political and environmental support in terms of legislation, policy and funding to boost the governments' support systems and the educational institutions architectural infrastructure by external (non-government) and internal (government) agencies (UNESCO, 2003). Major studies by UNESCO (2003, 2005) in Latin America, the Caribbean, and Asia Pacific countries such as India, Nepal, Thailand, Sri Lanka, Bhutan, Fiji, PNG and Vanuatu revealed an enormous need for adequate funding for resources to meet the diverse needs of institutionalisation. The CIDA observes that 'The WHO estimates that 'only 15% of disabled children had access to support or services, while less than 2% attend schools in their country' (CIDA, 2000). This has reflected the low socio-economic state and the limitation of political support system in these countries". Therefore, the institutionalisation of 'inclusive education' policy is far less than is desirable.

2.4.4 Other important issues – continued research and development

While considering the implementation of Inclusive Education policy, there exists evidence of critical barriers and facilitators. It is then fair to suggest that the institutionalisation of Inclusive Education policy demands far greater consideration for further development. This is illustrated, for instance, by the limited research literature that is available from developing countries.

2.4.4.1 Summary

Given the above outline, this summary categorises the identified barriers as well as facilitators of 'inclusive education' policy into four categories. The barriers are: (a) socio-cultural factors and historical links are evident such as negative attitudes

toward disabilities by lack of community support and different belief systems; (b) there is need for more research on these factors from non-western contexts; advocacy for personnel and leadership such as lack of transparency, variability and uncoordinated leadership support, limited and no ongoing training and professional development for Mainstream schools and SERCs, and no joint leadership support from external agencies; (c) there is need for more research on these factors from non-western contexts; and (d) economic and political support systems such as evidence of inadequate funding and the limitations of governments' administrative support systems for special education for charity organisations.

The facilitators are the various stakeholders such as the local communities, the SERCs, the Mainstream schools and the various levels of government authorities and the international organisations such as the UN. The developing countries have done the 'initiation' phase and initial implementation phase of the 'inclusive education' policy change. The institutionalisation phase has begun but at a very slow pace. What is it like then for PNG after 15 years of trying to institutionalise inclusive education? This is the focus of the following section.

2.5 Inclusive Education as a change in PNG

This sub-section discusses the various factors that impact on the implementation and institutionalisation of Inclusive Education in PNG. The following discussion focuses again on the following factors: socio-cultural effects, such as desirable belief or value systems; historical links; economic means like cash, goods and services; personnel and leadership; political support; environmental support; and other support systems for Inclusive Education institutionalisation in PNG.

2.5.1 Socio-cultural and historical links factor

PNG is made up of 820 plus different languages and diverse cultural groups with various belief and value systems (Foley, 1986). Currently, the prevailing foundation of societal beliefs and values are very much influenced by the Christian Churches in PNG (PNG Council of Churches, n.d); certain traditional beliefs on taboos that relate to food, ancestral curses, sorcery and witchcraft (Pokana, 2008); and contemporary knowledge of birth complications and child deformity through infectious diseases (Werner, 1977) such as malaria, poliomyelitis, and sexually transmitted diseases, and

drugs (medical, commercial and illegally produced). Given these aspects of socio-cultural understanding, there is insufficient literature to verify and validate these beliefs and value systems to provide positive approaches to understanding inclusion and institutionalisation.

2.5.2 Political support

PNG's 'Inclusive Education' policy was derived from the 'Philosophy of Education' which was based on the Matane Report (1986, the *National Constitution* (1975), *The Education Sector Review Study* (1991) and various 'International declarations', 'articles' and 'chapters' by the UNs. The *NSEPPG*, 1993 was based on the goals of 'integral human development' and 'equality and participation'. This then gave impetus to the National Department of Education (NDoE) to re-examine its existing policies to incorporate the provision of 'Special Education' services in 1993.

The inception of the *NSEPPG* (1993) began in 1993 and the following guidelines were drawn:

- (a) where feasible disabled children should attend regular schools along with normal children;
- (b) grants should be given to the non-government organisations that conduct school for the disabled;
- (c) the government providing support for the service of special schools or institutions of higher education should take all reasonable steps to cater for physically handicapped students who otherwise meet the normal entry requirements;
- (d) all teachers, including those already in the service, should receive effective and practical training in dealing with handicapped children with their normal class children; and
- (e) as about 2.5% of student are disabled, that same proportion of the total expenditure on education should be devoted to special education of children in that capacity (Ministry of Education, 1993, p. 2).

In addition, given the PNG context, there are currently thousands of people, especially children, who have not been identified and diagnosed with sensory and psychological disabilities.

2.5.3 Economic and Leadership support

However, there is some progress in PNG resulting from limited economic support with personnel and leadership. The PNG federal government, state governments and non-government agencies have begun partnerships and have increased the number of ‘SERCs’ in the country from eight in 1994 to 24 in 2010 for the four regions of PNG. In PNG the Teacher Education Division (TED) and the Special Education Resource Centres (SERCs) were mandated to implement and institutionalise the Inclusive Education policy and its practice in the MS system. The ‘SERCs’ are ‘non-government’ organisations that work in partnership with the NDoE and are provided with government ‘funding’ and a number of ‘teaching positions’ to help deliver ‘inclusive education’. The SERCs are established and registered include the Red Cross, the Saint John’s Ambulance, the Cheshire Homes, the Callan, which is a Catholic Church service for disabled persons, and the Madang Self-help Centre. The SERCs and Mainstream schools currently have the front line responsibility for the institutionalisation of the inclusive education policy. In addition, the Ministry of Education and the local/district governments, provincial governments and the national government personnel are mandated to regulate the institutionalisation of Inclusive Education policy (see state government’s administrative system with its structure).

2.5.4 Environmental support

Drawn from the researcher’s teaching experience in the highlands and coastal schools of PNG, the environmental support for children with disabilities is very limited, especially the key infrastructure and community support systems in the local communities. The only means of support are the hospitals, medical clinics and the SERCs that operate within each district or province. Given, the geographical nature of PNG, many children and adults with disabilities have no access to hospitals and medical centres as road systems, sea transport, difficult terrains and longer distances from urban areas are hindrances to a better quality of life (*NSEPPG*, 1994). However, more in-depth research in this area is critical to evaluate the progressive nature of service delivery mechanisms in this regard.

2.5.5 Other key issues influencing Inclusive Education

In my 29 years of classroom teaching and lecturing experience in Teachers' Colleges and the University of Goroka, and in my informal interviews with SERCs and Mainstream schools personnel and school inspectorates, I have seen that there is limited knowledge and experience on factors impeding institutionalisation of the inclusive education policy. Additionally, there are questions that have been raised by the state government, the national government, tertiary institutions and members of civil society as to how effective the leadership is, and if the resources and financial capacities provided by SERCs, Mainstream schools, and the Ministry of Education at the local, provincial and national levels are adequate.

Furthermore, very little research has been done to adequately address the factors that have impeded the institutionalisation of the inclusive policy in PNG. In fact there have been very few, and no in-depth, research studies on inclusion in PNG since its early implementation and institutionalisation. For instance, a recent study by Rombo (2007) and another by Le Fanu (2009) focused on Inclusive Education on school cultural features and practices and inclusive curriculum. Rombo's study in four schools of the Southern Highlands province of PNG revealed that teachers and school administrators appeared to have limited knowledge and understanding about what constitutes special education practices. However, Rombo could not generalise the results of the research because they could not reflect to a greater extent the practices in other schools of the nation.

Another study in PNG was a brief assessment of national curriculum incorporating inclusive teaching and learning was conducted by Le Fanu (2009). The study indicated that hierarchical, homogenisation, segmentation, and routinisation of teaching and learning were evident. The study noted the need for more congenial, feasible and comprehensible inclusive curriculum for teachers. This means that inclusive curriculum is not incorporated into the existing curriculum so that it can target the needs of disabled children who are enrolled in the MS. Since, teachers are not trained to develop a needs based inclusive curriculum they continue to teach the generalised school curriculum where nondisabled children only benefit, whilst the disabled children miss out.

The two studies were limited in scope, and in their generalisability to establish a better understanding of potential barriers as well as facilitators impacting on Inclusive Education, but both do touch on relevant issues. It would be worth building on these limited findings to establish a more in-depth study like the research proposed in this dissertation.

Given the literature on change context and factors influencing inclusive education, as discussed above, it is argued that institutionalisation is not well grounded and its influence cannot be precisely determined. Both the theoretical and practical realities are very minimal and thus reflect a critical imbalance of human development and societal implications. Therefore, the implementation of inclusive education has begun, but more needs to be known about its institutionalisation as an educational change.

2.6 Summary of the literature review

Given the findings of research in the developed world, inclusive education has been institutionalised to a certain degree yet there are both positive and negative implications that have been identified. The implications have affected the work of general education practitioners, special education teachers, professional and paraprofessional and School administrators for inclusive education. Federal and state governments, policy makers, international organisations and researchers in the US, Canada, Australia, UK and New Zealand have collaboratively testified to the need for continued research and development in inclusive education and capacity building on prior and current investigations.

The focus for the developing countries considered in this review, however, has been on barriers and facilitators such as socio-cultural factors and factors, political factors, economic factors, environmental factors and other key issues affecting inclusive education. Unfortunately, not much is known about the situation in PNG. A study of Inclusive Education in PNG is critical and there is a need to explore the factors that have impeded and facilitated its institutionalisation. PNG, as an aspiring nation with 14 years of Inclusive Education has done very little empirical investigation into the institutionalisation of this policy in line with PNG philosophy of education. Given my background as a schoolteacher, special educator and a teacher educator for the

last 29 years, I have observed at first hand this critical need for ongoing and in-depth research as one of the approaches to enhance social justice for the marginalised disabled children in PNG.

Chapter Three: Theoretical Framework

3.1 Introduction

This chapter further describes the theoretical framework introduced in Chapter 2 and how it is used to investigate the barriers and facilitators for institutionalisation of inclusive education in the PNG school system. The chapter is divided into three sections. The first section discusses briefly the basic ideas about organisational change in general. The second section provides some insights into the various schools of thought and their influence on organisational change in education institutions. The third and final discussion focuses on the selection of Fullan's change model and its redevelopment into a theoretical framework for this study.

3.2 The basic ideas about 'organisational change'

What does 'organisational change' mean? In order to understand what organisational change means, the terms 'organisation' and 'change' need to be defined. First, from a sociological perspective organisational comes from the word 'organisations' and refers to big organisations, with unique groups and individuals, that a society establishes for its own survival to achieve their goals (Macionis & Plummer, 2000). There are two groups which are referred to as utilitarian and normative.

The individuals and groups in utilitarian organisations work for an income, those in the normative organisations are voluntarily based, while the coercive organisations are involuntary based on having forced membership (Macionis & Plummer, 2000, p. 132). However, the above definition only provides a general understanding. The definition does not identify organisations that are very distinct in their structures and functions, such as educational institutions. It may be more helpful to draw on a definition that would reflect a systemic understanding of an organisation, especially in the field of education. According to Owens (1991, p. 57), in classical systems theory:

An organisation is an integrated system of interdependent structures and functions. An organisation is constituted of groups and groups consist of persons who must work in harmony. Each person must know what the others are doing. Each one must be capable of receiving messages and must be sufficiently disciplined to obey.

These two definitions put together provide a better understanding where an educational organisation is seen as an integrated system of interdependent structures and functions, with individuals and groups with specific roles and responsibilities working to achieve shared educational aspirations. Educational organisations are considered as utilitarian organisations because they are composed of income-earning individuals and groups such as; planners, policy makers, superintendents, principals, teachers and school boards. Generally, the organisations in education are highly structured and integrated as federal and state institutions with structural levels in a hierarchical manner to perform their specific functions, roles and responsibilities enacted by federal and state government regulations (Owens, 1999). Such an organisational arrangement is often termed a 'bureaucracy' (Weber, 1914; Macionis & Plummer, 2000, p. 139; Owen, 1991, p. 7). Bureaucratic organisations in education with their established institutions are highly structured where workers perform and interact according to specialised functions and roles.

Now we can consider the second term, 'change'. Change in a generalised sense means to make different or alter the conditions of a phenomenon by natural forces or human intervention. In human organisations, theorists have defined 'organisational change' as a complicated process of making and altering an organisation's roles and the responsibilities of its workers, its internal and external environment, and the personalities of the people affected (Kurt, 1951; Lippitt, Watson & Wesley, 1958; Fullan, 1993; Senge, 1999).

Fullan et al. (2001) explains that 'organisational change' in education institutions are initiated by policy makers, and they were then implemented and institutionalised by implementers usually with either positive or negative outcomes. With this generalised understanding of organisational change, this study is focused on how 'inclusive education' became an organisational change and was implemented and institutionalised in PNG. Specifically, the research questions in this study have raised issues of how 'inclusive education' became a change when it was initiated in 1993. What implementation and institutionalisation barriers and facilitators have occurred in the PNG education system? And why has there been only limited progress in inclusive education since its policy inception in 1993 for PNG? These are key issues that this study will endeavour to investigate so that social justice for inclusive education can be promoted and actualised.

3.3 Different schools of thought on organisational change

Different schools of thought have influenced significant organisational change from different natural and social sciences' perspectives such as history, philosophy, psychology, social-psychology, sociology, anthropology, archaeology, politics, economics and religion (Macionis & Plummer, 2001). Specifically, philosophical thinking and theories have enabled and guided Western education systems to change over time. Of the many schools, five were chosen to provide insights into this study, namely behaviourism, constructivism, progressivism, pragmatism, organisational theory, and Fullan's perceptions about educational change. All have contributed immensely to educational organisations' development between the 17th century and the 21st century.

According to Lucas (1972), between 1776 and 1937, the foundation of formal Western schools of thought was established by their founding fathers in the disciplines of philosophy, psychology, social psychology and sociology for societal institutions including education. In addition, the work of other social scientist had a great impact on the nature and purpose of organizational change namely: Adam Smith, 1776; Augustine Comte, 1789; Woodrow, 1887; Max Weber, 1914; Fredrick Taylor, 1911; Henry Foyal, 1916; Habermas, 1929; Pierce, James & Dewey, 1839, 1959) and others.

Behaviourism was one of the many earlier schools. Behaviourism was based on the proposition that all the things that all people do, including acting, thinking and feeling should be regarded as behaviours, and that psychological disorders were best treated by alternative behaviour patterns or modifying the environment (Lucas, 1972). Psychologists and social-psychologists that influenced behaviourist thinking were Ivan Pavlov, who investigated classical conditioning; Edward Lee Thorndike and John B. Watson, who rejected introspective methods and sought to restrict psychology to experimental methods; and B.F. Skinner who conducted research on operant conditioning (Lucas, 1972). However, critics of behaviourism argued that human beings were not programmed like animals and only responded to stimulus in their natural settings. Humans were able to learn by thinking and surviving as they continuously interacted with their environment through a series of changes in behaviour. Thus, behaviourism in the human context is about changes in behaviour.

Contemporary constructivist theory had its roots in cognitive theory in the 1960s. Cognitive theory became a revolution with great dominance that challenged behaviourism. Cognitive theory focused on inner mental activities – opening the ‘black box’ [the human brain] it believed was valuable and necessary for understanding how people learned (Bandura, 1986; Hergenhahn, 1988). Mental processes such as thinking, memory, knowing, and problem solving needed to be explored. Knowledge was seen as schema or symbolic mental constructions. Learning was defined as change in a learner’s schemata (behaviour). Lev Vygotsky, Jean Piaget, John Dewey, Jerome Bruner and others were original contributors to the formation and application of human social and psychological basis of learning and development (Hergenhahn, 1988). From the school of behaviourism to cognitivism further development in terms of concepts of what resembled truth, as well as what brought happiness to people in a progressive democratic societies, paved the way for the schools of progressivism and pragmatist philosophy (Lucas, 1972).

Progressive philosophy originated as an ‘ideology of human movement for social, political, and economic amelioration, founded on a belief in the power of human intelligence to affect human progress’...(Lucas 1972, pp. 527-535). Many educational organisations at this time were based on human energy driven by critical scientific methods that made changes to people and institutions to realise their full potential (Lucas, 1972). Additionally, progressivist educators used the work of behavioural scientists such as Hall, James, Thorndike, Binet, Watson, Gesel and Piaget in 1962 and 1967 (Lucas, 1972, p. 528) for human and organisational development through significant scientific experiments. This progressive view of education was further critiqued and supported by philosopher John Dewey using the pragmatic view of education as: the review and rearrangement of teaching and learning experience will help to promote further growth and overcome past failures experienced by all implicated in the education process (Lucas, 1972).

Given this notion of progressivism, educational organisations were seen as the means to achieve such rational views of progressive organisational change in education during the late 19th and the 20th centuries or ideal Western democratic societies.

Pragmatism (Bailey, Barrow & McCarthy 2010) became a philosophical movement (between years 1893 and 1914) that originated with Charles Sanders Peirce and came

to fruition in the early twentieth-century philosophies of William James (between years 1842 and 1910) and John Dewey (between years 1859 and 1952). Most of the thinkers who described themselves as pragmatists considered practical consequences or real effects to be vital components of philosophy. These thinkers found the value of philosophy to be its application in diverse disciplinary fields and refused to separate the components of human intellectual reasoning from practical concerns.

Peirce conceived pragmatism not as a doctrine, but as a methodology to clarify the meaning of concepts, and contributed primarily to semantics. James developed pragmatism particularly as a theory of truth, and Dewey further developed pragmatism as a theory and method of inquiry, also known as instrumentalism or experimentalism (Lucas 1972, p. 529). Dewey's work on 'School and Society, and Democracy' influenced educational organisations to change for the common good of the America people (Bailey, Barrow & McCarthy 2010, p. 105). A number of thinkers, such as Richard Rorty (1980), Hilary Putnam (1993) and Robert Brandom (1994) further developed philosophical views that represent later stages of the pragmatist tradition. This then led to the emergence of other theories of which organisational theory began to influence organisational change.

According to Hodgetts & Kuratko, 1988 and Owen's (1991), organisational theory originated from the classical and behavioural change schools that became a movement in educational administration that focused on scientific management from 1920 to 1930, and the contemporary period from 1960 to 2005. The work of Fredrick Taylor, Henry Foyal in 1916 and Max Weber in 1940 (Owens, 1991b, pp. 5-8) were milestones in which they defined the functions of administration of first modern scientific organisations. Weber was famous for developing ideas about 'bureaucracy management' and Taylor developed four principles of scientific management: 'scientific measurements and task analysis, scientific and systematic methods in training, responsibility of management and workers, and ...discipline and goal setting' (Owens, 1991, p.7). Foyal, on the other hand, developed five administrative principles, namely (1) planning, (2) organising, (3) commanding, (4) coordinating, and (5) controlling (Owens, 1991; Hodgetts & Kuratko, 1988). He then developed the functions into workable principles that involved the span of control, unity of command and management, administrative hierarchy, and order and stability (Hodgetts & Kuratko, 1988, pp. 36-37).

Furthermore, professors of educational administration constructed the architecture of school organisation with Taylor's and Foyal's ideas and later used the work of other change theorists: Lyndall Urwick in 1943); Luther Gulik in 1948; Mary Parker Follett in 1924; Elton Mayoh in 1933; Chester Barnard in 1938; Robert Bales in 1950; Chris Argyris in 1958; Douglas McGregor in 1960); Rencis Likert in 1961; and others (Owens, 1999). The above classical and behavioural schools of thought have contributed significantly to thinking about organisational change during and after the industrial revolution in America and Europe.

Contemporary educational change theorists in the 1960s, however, critiqued organisational theory in public education and identified certain weaknesses. Specifically, educational institutions could not be administered, they argued, like factories, or a bureaucracy because schools systems were different in their goals and aspirations. This resulted in both theoretical and practical changes in organisational theory, which lead to a combination of systems theories and contingency theories in public education. According to system and contingency theories they complemented each other to provide theory and practice through contingencies in approach (Owens, 1999). Owens (1991) summarised three basic propositions that underlie the contingency approach to structured systems and organisational behaviour: that education organisation and administration is multidimensional in nature, different context requires different approach for effectiveness, and is based on ongoing critical evaluation and solutions for better growth and achievements (Owens, 1991).

This notion of organisational theory implied that educational organisations were undoubtedly far more organisationally complex and cannot be exclusively administered like a bureaucracy. Two outstanding factors in determining effective educational administration were identified as organisational leadership style and workplace culture. The recent substantial and growing body of empirical evidence in educational research has identified these two factors as critical for organisational change or reform. This led to the formation of many contemporary change theorists promoting newer and contemporary organisational change theories and practices focussing on organisational behaviour/culture, ecology and learning communities (Perrow, 1970; Mintzberg, 1979; Deming, 1982; Schein, 1997; Leithwood, 1999;

Senge, 1999; Fullan & Hargreaves, 1999; Fullan, 2000, 2001). Give the preceding discussions on various schools of thought; the twentieth century saw the emergence of newer theories that originated from the former ones such as that of Fullan (2001).

Fullan's perspectives on educational change are progressive and pragmatic. His works (1992, 1993, and 1994) provided a late 21st century perspective that very much reflected the educational thought of the 19th century American philosopher John Dewey. Beginning with a pragmatic view of education, Dewey established a theory of progressive education that: the review and rearrangement of teaching and learning experience will help to promote further growth and overcome past failures experienced by all implicated in the school curriculum and the education process (Lucas, 1972).

In parallel with this synthesis of a pragmatic and progressivist philosophy or theory and its view of education organisational change, Fullan's theoretical and practical views are evident in his educational research publications and books. They are, specifically, *Successful School Improvement* (Fullan, 1992), *Change Forces* (Fullan, 1993) and *The New Meaning of Educational Change* (Fullan, 2001). From these key sources specific theoretical elements have been identified and are discussed accordingly.

The progressive element, showing concerns for human benefit through scientific action can be understood of what change can be and its progress that: educational assessment and evaluation of change is significant in order to determine its success or failure and the underlying reasons for particular outcomes (Fullan, 2001).

A pragmatic element in Fullan's writing, which emphasises the practical consequences of action, can be understood when change is implemented, the factors and processes that affect the change, how prepared are those implicated and the context of change (Fullan, 2001).

Fullan's pragmatic view on the practical consequence of action echoed Dewey's pragmatist educational thought on what it was meant then about 'reconstruction and reorganisation of experience.' Both Dewey and Fullan's notion of educational thought were more or less directed at continued research and development. These thoughts became the key to those people who provide and receive education to

identify the best theoretical and practical bases of human and institutional development in a democratic society. Fullan (et al., 2001) describes a new meaning of educational change or organisational change. He claims that this is new because it is; multifaceted, there are both positive and negative views rationally determined, here is continued debate to solve problems or misunderstandings of the model, content and process of change (Fullan, 2001)

Fullan's notion of educational change seem to imply that educational or organisational change is a complex process and demands a careful analysis of collective efforts to organise and manage organisational change. This is a fact that contemporary organisations have become complicated in their structure, processes and practices in human and physical environmentally created systems.

The preceding discussion has identified a common thread in the schools of thought that have influenced recent thinking about education and educational change. The common thread was the proposition that change could occur collectively for the common good of the society. The various schools of thought, such as behaviourism, constructivism, and progressivism, contributed to the view of organisational change through scientific inquiry of human cognition, and progressive contextual and behaviour change.

However, as Fullan (2001) has stressed, the importance of understanding organisational change processes cannot be overemphasised. Even, if an educational innovation is introduced which is of most benefit to humanity, the process of change must be considered if the innovation is to succeed in practice. As shall be discussed below, the current study is an example of such a change, one that has the potential to be of great benefit to a proportion of the population, but one in which the pragmatic aspects of institutionalisation require attention.

Of particular significance are the contextual variables in this institutionalisation of innovation. The understanding of the historical, philosophical, theoretical, epistemological and ontological focus of educational change has been mostly of a Western societal context and may not be applicable in the PNG Melanesian context. From the above review, Fullan's educational change theory is depicted in a model,

which synthesised several preceding theories, and it has been chosen to provide the theoretical basis to guide this study.

3.4 Educational change and Fullan's change theory and model

Fullan's theory, as a synthesis of other theories, is current and applicable in the developed and developing world. Furthermore, it has provided a wealth of research-based knowledge on education organisational change. Specifically, in this study Fullan's change model is used to examine change processes, factors and dynamics that have been defined and aligned to the theoretical framework for the study.

Given Fullan's perspective on organisational change in an educational context, change is associated with 'loss, anxiety, struggle, [success] and affects individuals within the social systems' (Fullan, 2001, pp. 30-31). Educational research literature has shown that in organisational change there are change elements that impact upon changes. They are referred to as change processes, and within these processes there are macro and micro factors that interplay as change dynamics in educational change (Fullan et al., 2001; Hall & Hord, 2006).

According to Fullan (et al., 2001) implementation of educational change involves 'change in practice' and can be linear top down process, beginning from the policy makers to implementers at learning institutions, or non-linear, meaning that it goes from the school/classroom to policy makers at local/districts, provincial/state/regional and finally reaching federal government level (Fullan, 2001). For example, in the PNG education context, the process of monitoring implementation of national education policies is linear, that is, a top down process. The provincial or regional education divisions through the district education offices and school principals/boards develop school-based policy and plans to accommodate national policies. This involves practices where innovations are specifically initiated at the federal policy level, then implemented and institutionalised in educational institutions.

Fullan (2001) continuously affirmed and made the distinction that in any of the levels change was and is complex given its nature, processes and dynamics that interplay to produce a successful or an unsuccessful outcome. The complexity of defining and

accomplishing actual change was identified not as a single entity such as an innovation in a classroom (Fullan, 2001). Innovation as an organisational change was seen to be multidimensional and he identified at least three components or dimensions at stake when implementing any new innovation as a program or policy:

Underlying a particular innovation or program; [a] new teaching strategies or activities, [b] the possible alteration of beliefs [for example,] pedagogical assumptions and [c] theories underlying particular new policies or programs (Fullan 2001, p. 39).

All three aspects of educational change in the past and the present were necessary because they all achieved a particular educational goal or set of educational goals (Fullan, 2001). However, the major failures were due to a number of factors affecting implementation at the institutional level. For instance, as was observed in the early 1980s, the implementation of the PNG Rural based skills training, was well intentioned and implemented in the initial years of 1980s as rural high schools based innovation (NDoE, 1980; Vulliamy, 1981).

During the implementation phases, class teachers under the supervision of senior teachers, school principals and the school inspectors failed to provide clarity and likely implications on academic and skills training assessment, inspectorate requirements and parents and citizens' views (Vulliamy, 1981). The end result was a failure where teachers, parents and the local communities rejected the continuity of the innovation.

This is a classic example of change in practice and was affected by teacher beliefs, the teaching approaches, the writing up of the curriculum and professional support for teachers. Innovations, whether they be a success or failure, are very much dependent on the organisational context. Fullan et al., (2001, pp. 45 - 46) categorically summed this up:

The purpose of acknowledging the objective reality of change lies in the recognition that there are new policies and programs 'out there' and that they may be more or less specific in terms of what they imply for changes in materials, teaching practice, and beliefs.

Educational change researchers have also studied approaches to change at various levels and have identified significant change elements and their implications. Fullan's work and his core change researchers have identified key change elements that either facilitate change or create barriers to change namely:

- (a) change processes – initiation, implementation and institutionalisation; and
- (b) major and minor factors that interplay as change dynamics.

Below are three interrelated change models that depict Fullan's change conceptual framework. The first model depicts Fullan's original model (see Figure 3.1), and this is then redeveloped into a second model (see

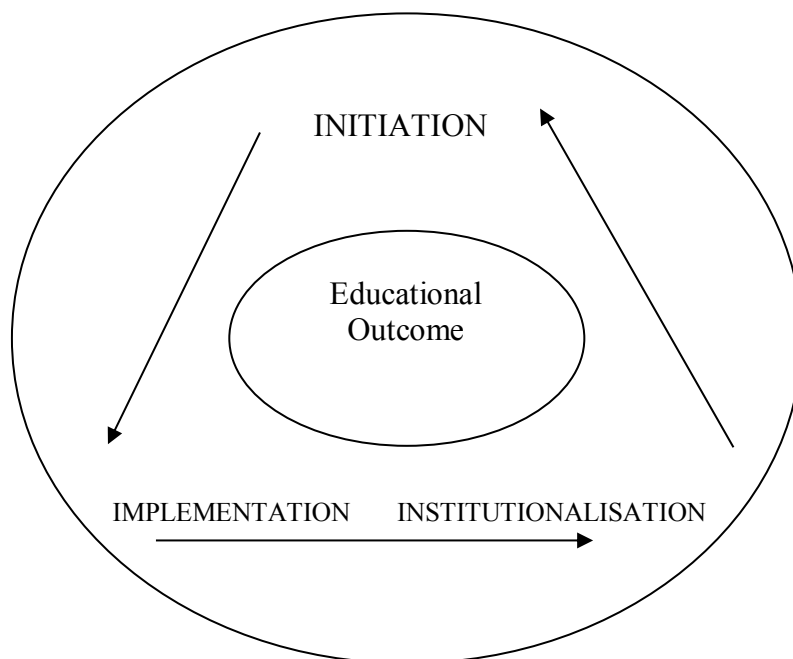


Figure 3.1. Fullan's Model of Educational Change (2001, pp. 50-51)

Figure 3.2) because other key elements were not included as identified in Fullan's work 'The New Meaning of Educational Change (Fullan, 2001, pp. 50 -51). The first model (Figure 3.1) depicts an overall conceptual framework that illustrates three elements as three phase processes through which educational change occurs. The 'initiation phase' of change is based on identified needs, the 'implementation phase' of the change to meet the needs to get it started, and finally the 'institutionalisation phase' of change is where change becomes part of an institution or is discarded for various reasons.

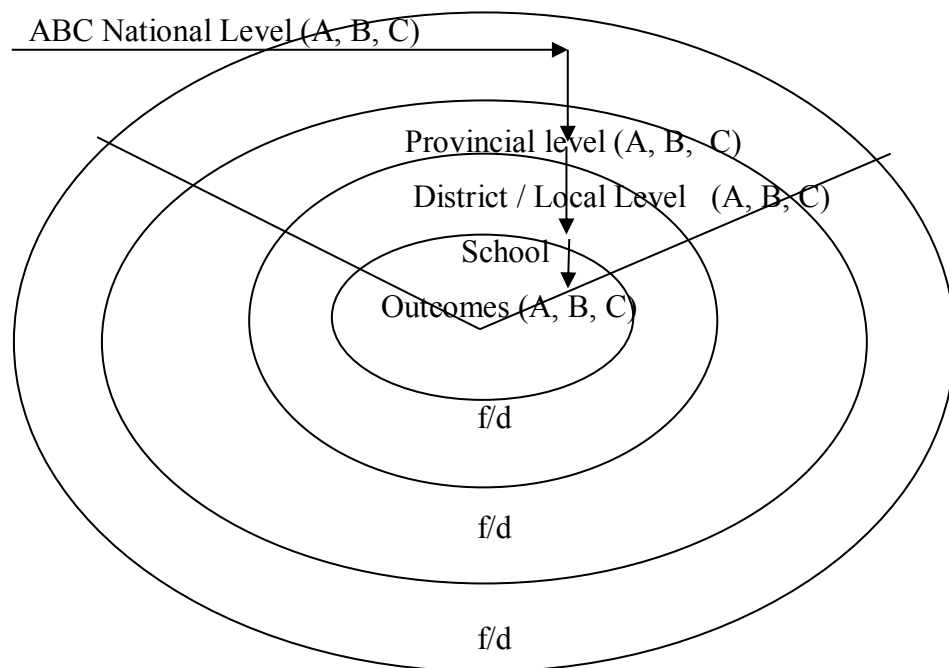


Figure 3.2 Initiation, Implementation and Institutionalisation process (redeveloped)
 (Adopted from Fullan, 2001, pp. 50-51)

This model in Figure 3.2 illustrates how a policy goes through changes processes namely: 1. the change processes are followed by the horizontal and vertical arrows indicating a linear process; 2. the four ellipses represent the different levels of education; 3. the letters A, B and C indicate the three major change processes that occur at the various levels in an education system which is represented by the four cycles; and 4. the lower case letters f/d at the bottom part of each circle represent the change factors and dynamics that impact on change at different levels of education. Finally, from the two models a theoretical framework (see figure 3.3) for this study is developed.

In line with the above models, Fullan identifies and explains additional key elements and the kind of impact they have when change occurs at the school or institutional level. The elements altogether include three broad phases of the change processes – initiation, implementation and institutionalisation; and macro or micro factors that interplay as change dynamics in any given educational change context (Fullan 2001, pp. 54, 17, 115). These are further explained below.

Initiation phase:

the process that leads up to and includes a decision to adopt or proceed with a change, this involves scope of change either large or small scale, who is involved to initiate or develop the change, it takes either single or broad based authority and mandate, and is based on assumption (Fullan, 2001, p. 50).

In this process, there are macro factors and micro factors that interplay as change dynamics. They are namely: 1. Existence of and quality of Innovations; 2. Access to innovation; 3. Advocacy from central administration; 4. Teacher Advocacy; 5. External change agents; 6. Community pressure and support/apathy; 7. New policy - funds (federal/state/[provincial]/local); and 8. Problem solving and bureaucratic orientations. All these factors interplay in the decision making process (Fullan, 2001, p. 72).

Implementation phase:

Initial use (usually the first two or three years of use) involves the first experience of attempting to put an idea or reform into practice ... [it] is the means to achieving certain outcomes (Fullan, 2001, pp. 50, 52).

In this process there are macro factors and micro factors that interplay as change dynamics of which are: A. Characteristics of change 1.1 Need, 1.2 Clarity, 1.3. Complexity, 1.4 Quality/practicality; B. Local characteristics – 1.5 Districts, 1.6 Community, 1.7 Principal, 1.8 Teacher; and C. External Factors – 1.9 Government and other agencies. All these factors interplay to affect implementation (Fullan, 2001, p. 72).

Institutionalisation phase:

Called continuation, incorporation, routinisation or institutionalisation – refers to whether the change gets built in as an ongoing part of a system or disappears by way of a decision to discard or through attrition (Berman & McLaughlin, 1977; Huberman & Miles, 1984; Fullan, 2001).

In this process there are macro factors and micro factors that interplay as change dynamics and they are: 1. Teacher refers to the quality of people been recruited to teaching; 2. How organised is the workplace to energise teachers and reward accomplishments; 3. Guidelines for a principal type and his/her role: 1. Steer clearly of false certainty (there is no ready-made answers out there to the how question [of change]); 4. Base risk on security (promote risk taking but provide safety nets of supportive relationships); 5. Respect those you want to silence (incorporate and learn from dissenters); 6. Move toward the danger in forming new alliances ('out there')

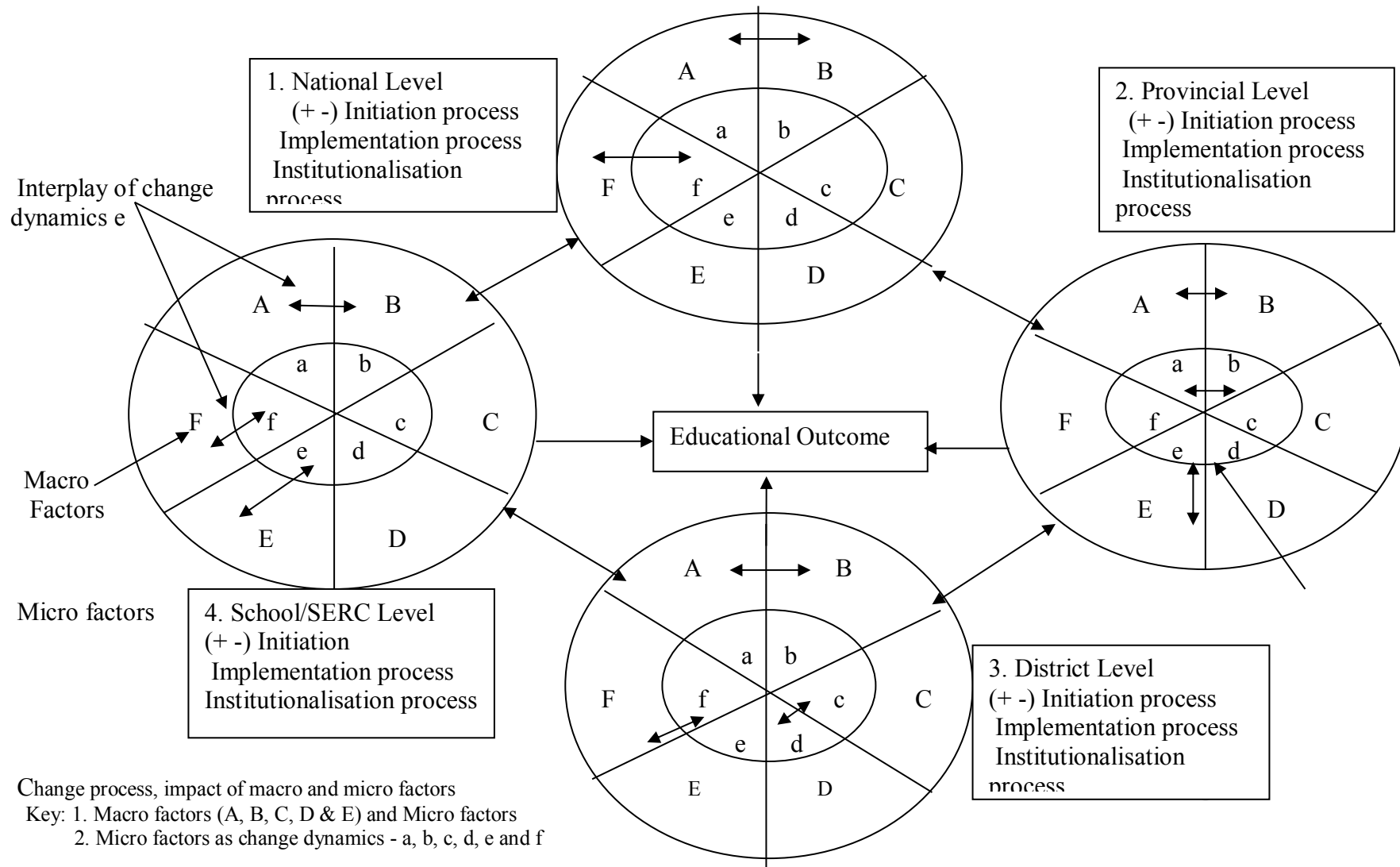
may be dangerous, but you need extra partners); 7. Manage emotionally as well as rationally (work on your emotional intelligence, do not take dissent personally); and 8. Fight for lost causes (be hopeful against the host).

From the above discussion using Fullan's models, a theoretical framework (Figure 3.3) has been developed for the study as a theoretical lens to examine the barriers and facilitators of the institutionalisation of inclusive education in the PNG Education system.

Based on Figure 3.1 and Figure 3.2, the following are key elements with their definitions and explanations aligned to the theoretical framework developed for the study. In Chapter two, the theoretical framework (Figure 3.3) was introduced in the literature review and then again in this Chapter 4. The theoretical framework has four social institutional functioning levels the national/federal, provincial/state, district/local and the Mainstream schools/SERCs. These each determine the processes of change that occur beginning with the 'initiation' of change, followed by 'implementation' of change and the 'institutionalisation' of change. As change occurs in the different levels with its due processes, two components of factors – namely the macro factors (A, B, C, D, E & F) and micro factors (a, b, c, d, e & f) - form the interplay as change dynamics. In contrast to Fullan Change model these factors are related but presented differently according to the review of literature and the design of research instruments in this study (see Appendix 1). These factors will be investigated in the PNG study contexts at different levels of the education system using the survey, interview and document analysis.

In the review of literature in Chapter 2 of this study, it was established that from the developed to the developing countries and PNG, there were five factors identified that contributed to the implementation and institutionalisation of inclusive education. These same factors are specifically termed as macro and micro factors and are explained in the proceeding paragraphs.

Figure 3.3 Theoretical Framework for the study.
 CONTEXT OF EDUCATION ORGANISATIONAL CHANGE



Beginning with 1. (A) and (a) is ‘Socio-cultural and historical links,’ which refers to patterns of behaviour for living; and where there are traditional and modern values and belief systems, attitudes, roles and responsibilities (Macionis & Plummer, 2002, p.98). Additionally, ‘culture consists of the values that members of a given group hold, the norms they follow and the materials goods they create’ (Giddens 1989, p. 31). While values are ‘abstract ideals’, norms encompass the rules or the guidelines for what is acceptable in social life. This highlights a diffuse view of culture as a shared ‘way of life’.

The emphasis is on culture as a ‘signifying system’ through which practices, meanings, and values are’ communicated, reproduced, experienced and explored (William, 1981, p.13). For instance, critical understanding of the impact of inclusive education [is the] understanding of what works or does not work in the culture of the local system (Sarason, 1990, Fullan 2001). In addition, Sarason and Doris (1979), in commenting on the endorsement of special education legislation emphasised that ‘To interpret a decision... such as a “victory” is understandable but one should never manifested in practice’ (Fullan, 2001). This provides a scenario where various patterns of cultural norms and belief systems have macro and micro components that affect policy initiation, implementation and institutionalisation.

The history of inclusive education is linked to introduced change as a result of ‘New Policy and Funds’ for organisational change (Fullan, 2001, pp.62-63). For instance, in the US the earlier segregated policy for special education was based on a society’s cultural and ‘... essential belief and value system’ (Sapon-Savin, Frattura & Villa, cited in UCEA, 2006, p. 11). However, as new disability legislation was passed the concept of inclusive education was adopted with different variations such as mainstreaming and integration, and from partial to full inclusion (UNESCO, 1994).

Given the PNG context of change, inclusive education has a history of earlier change carried out by charity organisations. Those organisations had to interact with other stakeholders of common interest to address systemic support for inclusive education both the traditional and modern support systems need a radical shift.

2. For (B) and (b) is ‘Economics and leadership support’, which refers to the need for cash to pay for goods and services for new policies for organisational change (Fullan, 2001, pp. 62–63). Funding capacity in:

Schools [or institutions] have been able to use a wide range of strategies for funding technology [infrastructure] outside of the conventional capital and operational budgets by ... the district, and taking full advantage of state and federal funding programs (Ward, 2001; Lackney, 2005, online).

In addition, there is the need for advocacy for personnel with all the leadership styles and approaches: i. authoritarian; ii. Directive; iii. Charismatic; iv. Democratic; v. Laissez faire; vi. Consultative; vii. Distributive; viii. Participatory; ix. Situational; x. Transformational; and xi. Collaborative in organisational change. According to leadership scholars and researchers, the various leadership styles and approaches are determined by an organisation’s culture and its overall purpose of existence (Coates, & Anderson, 2008; Mulford, Silins & Leithwood, 2004; Fullan, 2000, 2004; Yukl, 2002; Leithwood, 1994). For instance, all educators in the various learning institutions.

3. Then (C) and (c) is ‘Political support’, which refers to how the federal, provincial and local level governments address policy issues [of institutionalisation] for organisational change (Fullan & Hargreaves, 1999; Fullan, 2000). The various government agencies in the different levels of the hierarchy and the operational structure determine and support the implementation of an educational change. As Inclusive Education is an introduced change, the political factor plays a major role in providing policy and development support for the various levels.

4. Next (D) and (d) is ‘Environmental support’, which refers to how the natural and man-made environment caters for organisational change to happen for positive or negative outcomes (Mintzberg, Ahlstrand & Lampei, 1998). This involves the feasibility and the impact of change within the local community. Both internal and external change factor(s) impact upon the institutionalisation of inclusive education, and they determine the extent to which the educational outcome is realised. As institutions, educators, administrators, and parents interact they impact on different levels of education.

5. Then (E) and (e) is ‘Institutional’ refers to work place structures, management functions, settings and behaviour of educational institution to accommodate educational change for the better or worse (Sarason, 1971; Owens, 1991).

6. Finally, (F) and (f) is ‘Other important issues’ affecting Inclusive Education policy and practice – this refer to research and developmental needs and technological knowledge and skills supporting Inclusive Education (Whyte, 2005; Carrington, 1999).

In addition, to be consistent with Fullan’s conceptual framework in the original and redeveloped models, the macro and micro factors are integrated into the three phases of the change processes. It should be noted that within the three phases of change the six factors impact on them therefore, they are repeated below:

(a) Initiation phase

The macro and micro factors are 1. Socio-cultural factors, 2. Historical links, 3. Economic and leadership factors, 4. Political factors, 5. Environmental factors and 6. Other related issues as factors.

(b) Implementation phase

In this level of implementation, both positive and negative outcomes are caused by barriers and facilitators of the change. ‘Macro’ and ‘Micro’ factors are – 1. Socio-cultural factors, 2. Historical links, 3. Economic and leadership factors, 4. Political factors, 5. Environmental factors and 6. Other related issues as factors.

(c) Institutionalisation phase

‘Macro’ and ‘Micro’ factors are – A. Socio-cultural factors, B. Historical links, C. Economic and leadership factors, D. Political factors, E. Environmental factors, and F. Other related issues as factors.

Finally, Fullan’s original and redeveloped models have been used to construct a theoretical framework for the study in PNG. Given the overall conceptual framework

based on Fullan's perspective on educational change, the elements of change are considered as significant to provide a theoretical lens for the study.

3.5 Summary

In this chapter, the use of organisational change research literature has helped to establish the theoretical framework for the study. From the discussion of five selected Western schools of thought, Fullan's change theory on organisational change was chosen to form the basis of the theoretical framework. Given the theoretical framework, it is envisaged that the barriers and facilitators of institutionalisation of inclusive education in PNG may be exposed. In doing so, the answers for the research questions for the study can be provided.

Chapter Four: Methodology

4.1 Introduction

This chapter is divided into seven sections. The first section states the major research question and the sub-questions. The second section explains the different research paradigms and the selection of the appropriate paradigm as the theoretical consideration for the study of inclusive education in PNG. The third section focuses on the research design to explain its appropriateness. The fourth section explains and demonstrates the type of methods of research used and their validity, reliability, trustworthiness and authenticity as appropriate in the study. The fifth section describes the types of data collection procedures and focuses on the instruments. The sixth section deals with data analysis procedures and ethical requirements of the study. The seventh, and final, section addresses how these are applied in the pilot study to inform the main study, and what was learnt for the main study.

4.2 The Statement of the research questions

This study addressed the following questions in the context of the institutionalisation of Inclusive Education policy and practice in PNG:

1. Key research question:
Why has there been only limited progress towards inclusive education since 1993 in PNG?
Sub- research questions:
 - 1.1 To what extent do key stakeholders (teachers, special education personnel, educational personnel) understand and deliver inclusive education in PNG?
 - 1.2 What are the barriers or facilitators of structural and leadership dynamics impacting on the institutionalisation of inclusive education?

The questions were specifically developed to find answers based on the socio-cultural and historical, political, economic and leadership, and environmental change factors that have impacted on both policy makers and implementers in the PNG education system. Having stated the research questions for the study, the next subsection looks at the alternative research paradigms and selects one for the study.

4.3 Research paradigm

Educational research is essentially concerned with investigating and understanding phenomena, which are social and educational in nature. Questions or issues in education emerge from different conceptions and interpretations of social reality (Denzin & Lincoln, 2000; Mertens, 2005; Cresswell, 2009), and various paradigms have been developed for these reasons. The following discussion defines what a research paradigm is, discusses four major paradigms and then selects one for the study based on its ethics, epistemology and ontology as appropriate for this study. Significantly, all paradigms have to be critically examined in order to identify the one that suits the methodological design based on the research questions, context of study and accessibility to research sites and the nature of the problem under study.

4.3.1 What is a research paradigm?

A research paradigm is ‘a basic set of beliefs that guides action’ (Guba, 1990, p. 17). According to Denzin and Lincoln (2000, p. 157) a paradigm is made up of four concepts: ethics, epistemology, ontology and methodology. Ethics relate to how one can be a moral person in the world, epistemology questions how one is able to establish the reality of the world that he or she lives in, ontology questions the nature of reality and one’s existence in the natural world (p. 157) and methodology refers to the measures used in investigating the nature of the reality.

4.3.1.1 Different research paradigms

As various paradigms emerged with intensive debates on what constitutes social reality in understanding of humanity, four major paradigms became the hallmark of social and educational research, namely, positivism, postpositivism, interpretivism and transformative paradigm (Mertens, 2005).

(a) Positivism paradigm

Positivism is sometimes referred to as the ‘scientific method of science research [and] is based on the rationalistic and empiricist philosophy that originated with philosophers such as Aristotle, Francis Bacon, John Locke, August Comte, and Emmanuel Kant’ (Mertens, 2005, p.8). They emphasised observation and reason

as the scientific means of understanding human behaviour as an objective social reality in human societies. According to the French philosopher Comte, true knowledge is based on experience of senses and can be obtained by observation and experiments (Cohen et al, 2000). Positivist thinkers adopted the scientific method as a means of knowledge generation within the framework of theories, a set of principles and assumptions of scientific inquiry in social research (Cresswell, 2003, p.7). The principles of scientific research are determinism, empiricism, parsimony, and generality. According to critics of this paradigm, objectivity needs to be replaced by subjectivity in the process of scientific inquiry on human beings (Creswell, 2009).

(b) Postpositivism paradigm

Postpositivists see the world as ambiguous, variable and multiple in its realities – ‘what might be the truth for some persons or cultural group may not be the truth for another’ (O’Leary, p. 6). O’Leary (2004, pp. 6-7) suggested that postpositivism is intuitive and holistic, inductive and exploratory with findings that are generally qualitative in nature. Postpositivist researchers work from the assumption that any piece of research is influenced by a number of well-defined theories apart from the one being tested (Cook & Campbell, 1979, p. 24).

(c) Interpretivist paradigm

This particular paradigm is a philosophical position in social and educational research that tries to understand the reality of what, why and how human thought patterns and actions are formed and expressed the way they are in a society and within the environment they live in. This particular paradigm began from earlier philosophies including Edmund Husserl’s phenomenology and Neo Kantian German historians and sociologists (Dilthey, Richert, Windleband, Simmel and Weber). For them, knowledge is personally experienced rather than acquired from or imposed from outside. The interpretivist researcher believes that reality is multi-layered and complex (Cohen et al., 2000). Given this multilayered and complex nature to understand human behaviour the researcher can unveil and establish unlimited relationships, which is contrary to the case of positivism (Denzin & Lincoln, 2000).

(d) Transformative paradigm

According to Mertens (2005) the transformative paradigm arose during the 1980s and 1990s, partly due to dissatisfaction with the existing and dominant research paradigms. Additionally, the dominant paradigms were considered to be gender biased and did not consider marginalised groups in society such as women, girls, non-white and disabled persons in their practice in the social and psychological research (Mertens, 2005, p. 17). The advocates of the transformative paradigm emphasize a political stance that tries to understand and promote social justice on issues affecting humanity (Cresswell, 2003, pp. 9-10). For many transformative researchers a mixed method approach is seen to be the most logical and reasonable approach to understand the social world from multiple perspectives and philosophical lenses (Somekh & Lewin, 2005, p. 275).

Having discussed the above paradigms, the interpretivist paradigm was selected as the appropriate one for the study because it emphasizes that social reality is viewed and interpreted according to how an individual or a group have interacted within their cultural settings and the knowledge they have generated and hold true for themselves (Denzin & Lincoln, 2000, p. 191). The decision to select the interpretivist paradigm was influenced by the research questions developed for this study. This study again focused on Inclusive Education policy makers and implementers and how their understanding and work experiences have become barriers or facilitators of inclusive education in PNG.

There are various educational professionals who performed their roles and responsibilities to initiate, implement and institutionalise Inclusive Education at different levels of the PNG education system. It was necessary to identify the people in the context of the study as the policy makers (local, provincial, and national education officers), teachers in the primary and elementary schools, and the professional and paraprofessionals working in the inclusive education resource centres, as well as parents of children with disabilities. This meant that I situated the study within an interpretivist paradigm, which reflected the natural setting of the people's workplaces. The workplaces have unique people with socio-cultural patterns of behaviour because PNG is multicultural in language, local practices,

beliefs and value systems. Obtaining their interpretations of the facilitators and barriers to the institutionalisation of inclusive education was therefore critical.

4.4 Research design

The design of the study is based on the research questions, and the theoretical framework as discussed in chapter three. The research literature has defined research design in a number of ways. According to Punch (2000), there are three usages of the term 'research design', from the general to specific:

At the most general level, it means all the issues involved in planning and executing a research project from identifying the problem through to reporting and publishing the results... By contrast, at its most specific level, ... the way the researcher guards against, and tries to rule out, alternative interpretation of results ...; Between these two, there is the general idea of designing as situating the researcher in the empirical world, and connecting the research questions to data' (Denzin & Lincoln, 1994; cited in Punch, 2000, p. 66).

Given the three definitions of research design by Punch (2000), the most general focus on design is appropriate in structuring this study. At the most general level, research design means all the issues involved in planning and executing a research project from identifying the problem through to reporting and publishing the results. Figure 4.1 depicts a conceptual framework of the overall research plan that outlines the research process that will be undertaken. The study initially begins with phase one where the University of New England Ethics Committee formally approves a research proposal.

This is then followed by a pilot study to be done in one province of the province in PNG to inform the main study. The pilot study begins with a survey and is then followed by the interview and document collection. The participants are selected from the three levels of education. The second phase looks at the main study where data collection in 4 provinces begins with a survey sent in the first week to respective participants to be collected at the end of the second week. This is then followed by the individual and group focussed interviews and document collection in the third and fourth week. Finally, the final phase, data analysis, interpretation and reporting are done to complete the study.

4.5 Methods

There are a number of research methods a researcher can use to collect data and analyse data for a particular research project. In this study, I decided to use both quantitative and qualitative methods to investigate the barriers or facilitators of institutionalisation of inclusive education in PNG. More specifically, a mixed method approach has been chosen. The reason for selecting mixed method is (a) to first get a snapshot of the perspective of participants in a survey; (b) then conduct an in-depth interview to unveil the phenomenon under study, that is, to get a more detailed understanding of the concept and the relationships amongst them; and (c) document analysis to provide evidence of written documents that have reported certain factors that are barriers or facilitators of inclusive education.

4.5.1 Type of method applied – mixed methods

The study engaged both qualitative and quantitative methods to investigate the research questions. The fundamental principle of mixed-method is ‘the use of quantitative and qualitative analytical technique either concurrently or sequential at some stage beginning with the data collection processes’ (Onwuegbuzie & Teddlie 2003, p. 353). Gorad (2004, p. 7) stated that combined or mixed method research had been identified as a key element in the improvement of social science, including educational research’.

Moreover, Onwuegbuzie and Teddlie (2003, p. 352) further stated that the ‘methods should be mixed in a way that has complementary strengths and no overlapping weaknesses’. In addition, Teddlie and Onwuegbuzie acknowledged that ‘researchers undertaking mixed method techniques should seek to defend explicitly the approach they are employing because it still remains a controversial approach... in the social and behavioural sciences’ (p. 379). Gorard (2004, p. 7) further argued that mixed-method research requires a greater level of skill and can lead to less waste of potentially useful information, creates researchers with an increased ability to make appropriate criticisms [or arguments] of all types of research’ [and often has greater impact] because figures or numeric information can be very persuasive to policy makers whereas stories are more easily remembered and repeated by them for illustrative purposes.

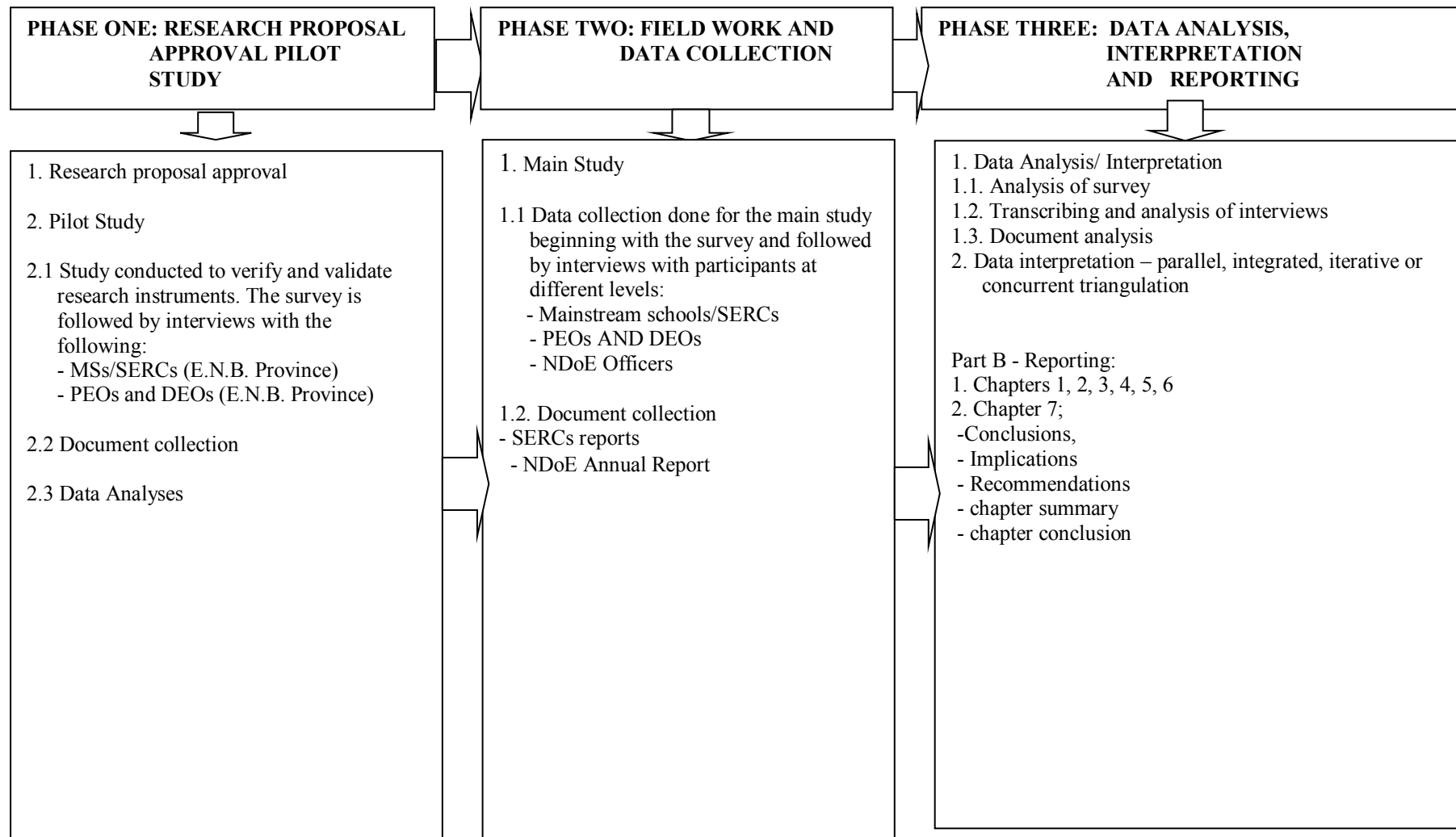


Figure 4.1 A Research Plan

Many researchers including Cresswell (2003 & 2007), Tashakori and Teddlie (1989), Thomas (2005), Greene, Caracelli and Grahame (1989) and Krathwohl (1993), now view quantitative and qualitative methods as complementary, choosing the most appropriate method(s) for an investigation. However, this may not seem to be acceptable for researchers who are more strongly aligned to a particular research approach. It is argued by a number of researchers that if the research is to be fully effective, both approaches need to be applied. In this study, the interview strategy is a way of interpreting/constructing the social reality of the phenomenon under consideration. Document analysis as a way of viewing the social reality of the same phenomenon was also used. The quantitative approach used is the survey. All three instruments are useful and will be used in this study.

4.5.2 Reliability, Validity, Trustworthiness and Authenticity in a Mixed-Method Study

In this study, the selection of data collection instruments for this study was based on ‘the context of the study, the research question(s), the type of participants and the interpretive paradigm’ (Denzin & Lincoln, 1994, p. 202). The three instruments selected were the survey, the interview and document collection. However, before defining these instruments, it would be appropriate to discuss the issues of validity, reliability, trustworthiness and authenticity, and how they were applied in this study.

In this study ‘validity’, ‘reliability’, ‘trustworthiness’ and ‘authenticity’ are very important terms used in order to determine the quality of this research based on the consistency and accuracy of procedures used, and the quality of data collected and analysed. Positivist researchers who engage in quantitative research methods use the terms ‘validity’ and ‘reliability’ for their studies. Interpretivist researchers use the terms ‘trustworthiness’ and ‘authenticity’ (Lincoln & Guba, 1985).

According to numerous research literature, these terms were defined in a number of ways and do not have a standard meaning. However, in educational research method texts there are generally accepted definitions like the ones given below.

4.5.2.1 Definition of reliability

Hamersley (1987, p.73) claims that ‘there is no widely accepted definition of validity and reliability. One finds not a clear set of definitions but a diversity of ideas. There are substantial divergences among different authors’ definitions’. Despite this claim, there is wide support for the view that high reliability relates to the probability that repeating a research procedure or method would produce identical or similar results. It provides a degree of confidence that replicating the process would ensure consistency. This notion is evident in the following definition:

Reliability is the extent to which a test or a procedure produces similar results under constant conditions on all occasions ... A factual question which may produce one type of answer on one occasion but a different answer on another is ... unreliable (Bell, 1987, pp. 50-51).

In addition to the above quotation, Yin (1994, p. 144) further demonstrates that ‘the operation of a study, such as the data collection procedures, can be repeated with the same results’. With this understanding, Sapsford and Evans (1984, p.259) further emphasise that:

Reliability is the consistency of the results obtained when using a measure in research. It is a word used of measuring instruments, including the human observer ..., and refers to the basic scientific requirement that it should be possible for another worker to duplicate one’s results or produce comparable evidence, at least in principle.

The concept of reliability can be applied to several different research methods, especially to surveys, highly structured interviews and documentary analysis. In this study reliability is applied to the following research instruments: a survey schedule, interview schedule and the document analysis

4.5.2.2 Reliability in surveys

Johnson (1994, p. 13) argues that a ‘survey allows the researcher to collect a fairly huge amount of information in order to provide evidence to unveil the reality of what is being studied’. Furthermore, Sapsford and Evans (1984) indicated that a survey places great emphases on reliability of measurement, on standardisation of measuring instruments and on the reliability of data collection techniques. In order to verify this empirical process, instrument design and testing through piloting are vital components of the reliability process. Youngman (1994) also supported these ideas and suggested ways in which it might be checked: (a) comparing findings with other sources e.g. school

records; (b) direct questioning of respondents to see if personal responses match previous answers; and (c) cross checking with the pilot study. The suggestions have certain similarities with validity (see the discussion on validity after reliability).

4.5.2.3 Reliability applicable in highly structured interview not semi-structured and open interview

In support of this study, Fowler (1993), asserted that in single-handed research such as postgraduate dissertations and theses, the interviewer and the researcher are the same person. Given this situation, Fowler argues that the key point in reliability depends on a highly structured instrument. However, when the researcher wants to modify the instrument to probe or prompt respondents, using a semi-structured approach, reliability may be comprised but understanding may be improved. However, Kitword (1977), and Cohen & Manion (1994) expressed reservations about an overemphasis on reliability for interviews because this may have implications for validity. The main purpose of an interview is to create a non-threatening situation where a humane approach to interview can allow participants to disclose deeper aspects of the phenomenon being studied.

Reliability may be enhanced for a survey and a tightly structured interview, but semi-structured and unstructured interviews may limit the scope of reliability but enhance validity. Reliability when used in a positivist study makes a lot of sense because an objective measure of a phenomenon is achieved. In an interpretivist study, however, multiple subjective results are achieved and this creates a discrepancy and affects reliability. Due to this discrepancy, Lincoln & Guba (1985; Coleman & Briggs, 2002, p.64) asserted that 'trustworthiness' is more a suitable and meaningful term for interpretivist study. Trustworthiness is discussed after validity. In this study reliability is used for the survey and document analysis only and trustworthiness for the interview.

4.5.2.4 Reliability in documentary analysis

Document analysis has been used mostly in case studies where there are documents such as budgets, minutes of meetings and other supporting papers. The idea of reliability in document analysis is more focused on the content of documents where the counting of words or terms is applied (Cohen & Manion 1994, p.55). Robson (1994, p.243) regards reliability as one of the advantages of content analysis using documents because document checks can lead to the replication of a study.

Having considered the notion of reliability as discussed, this study has only used reliability in the survey and document analysis while the semi-structured interview instruments applied the term ‘trustworthiness’. For the overall focus of the study, the terms trustworthiness and authenticity are considered more appropriate because the study engages an interpretivist paradigm.

4.5.2.5 Definition of validity

Validity is a concept that is used in the research literature to describe whether the research design and conclusions in a study accurately describe what was studied. More usually it is applied to particular positivist instruments. The following definition and discussion capture the main features of validity in any research study:

The concept of validity ... tells us whether an item measures or describes what it is supposed to measure or describe. If an item is unreliable, then it must also lack validity, but a reliable item is not necessarily also valid. It could produce the same or similar responses on all occasions, but not be measuring what it is supposed to measure (Bell, 1987, p. 51).

Validity is the extent to which an indicator is a measure of what the researcher wishes to measure (Sapsford, 1984, p. 259). In this study the validity of the survey is significant to answer the general research question. In educational research literature there are several different types of validity. The three main ones are ‘content validity’, ‘internal validity’ and ‘external validity’. Internal validity relates to the extent that the research findings accurately represent the phenomenon under investigation as the following definitions suggest:

Establishing a causal relationship, whereby certain conditions are shown to lead to the other conditions (Yin, 1994, p. 143)

How correctly the researcher portrays the phenomenon it is supposed to portray (Brock-Utne, 1996, p. 615)

The degree to which, findings correctly map the phenomenon in questions (Denzin & Lincoln, 1998, p. 186).

On the other hand Cohen and Manion (1994, pp. 99-101) apply the notion of internal validity to the different research methods. In relation to survey research, they point to two potential causes of invalidity:

Respondents may not complete questionnaires accurately. They suggested that validity might be checked by interviewing respondents. Those who failed to return

questionnaires may have responded differently to those who did so. They suggest follow up contact with known respondents by trained interviewers to establish their views. This is an expensive strategy, which is likely to be prohibitive for many single-handed researchers including postgraduate students.

In the interview there is potential to create biases when the interview questions are semi-structured or unstructured. The biases come from the interviewer, the characteristics of the respondents and the content of the questions. However, Cohen and Manion further noted that biases are likely to be endemic and are difficult to eliminate. Therefore, in this case a pilot study is crucial to ensure that the survey items, the interviewer's skills and the interview questions are trialled and refined before the main study.

External validity relates to the extent to which findings may be generalised to the wider population, which the sample represents, or to other similar settings. This understanding is emphasised in the following:

[The external validity is the] degree to which findings can be generalised to other settings similar to the one in which the study occurred (Denzin & Lincoln, 1998, p. 186)

External validity refers to the extent to which findings from research can be usefully generalised. For instance in social survey analysis, the problem has largely been sampling strategies for a representative sample of the wider population where generalisations are desired (Brock-Utne, 1996, p. 617).

In order to measure external validity a study needs to be replicated in a similar setting. This process should lead to wider acceptance of the external validity of the findings. In this case, the study begins with a pilot study and then continues in the main study with four similar research settings and research participants. Given the nature of the sampling, an external validity can be measured of the study population (see section 4.46 on sampling of participants /documents Table 4.1).

4.5.2.6 Trustworthiness and Authenticity

In positivist research literature both validity and reliability are emphasised as distinct and legitimate requirements of a quantitative research. However, interpretivist researchers such as Denzin and Lincoln (1998) and Kincheloe and McLaren (1998) argue that they are not relevant for qualitative research. Kincheloe and McLaren (1998)

rejected the traditional validity and argued that they are unhelpful for critical research, and they joined Bassey (1999) in advocating the alternative concept of trustworthiness that:

where traditional verifiability rests on a rational proof built upon literal intended meaning, a critical qualitative perspective always involves a less certain approach characterised by participant reaction and emotional involvement. Some analysts argue that validity may be an inappropriate term in a critical research context, as it simply reflects a concern for acceptance within a positivist concept of research rigour. ... Trustworthiness ... [is a] more appropriate word to use in the context of critical research (Kincheloe & McLaren, 1998, p. 287).

Trustworthiness and authenticity are qualitative terms used in a qualitative research do have a criteria to verify and validate methodological issues. Trustworthiness is determined by the following terms: credibility, transferability, dependability, and conformability. Authenticity is determined by fairness, and ontological, educative, catalytic, and tactical aspects of methodology (Guba & Lincoln, 1989; Denzin & Lincoln, 2000).

The notions of 'trustworthiness' and 'authenticity' are criteria for the constructivist and interpretivist paradigm, and a number of definitions have been identified for each criterion. 'Trustworthiness' (Guba & Lincoln (1989, pp. 233-245; Denzin & Lincoln, 2000, pp.180-181) can be considered in terms of the following:

Credibility, approximately parallel to internal validity, is established by prolonged engagement at the research site, persistent observation, researcher self-debriefing (a kind of internal critic), negative case analysis (a process of working research questions), progressive subjectivity (continuous checking of developing interpretations against records of interpretations that were expected prior to data collection) and (most important) self-check, continuous interpretation of research questions, data preliminary categories, and implementation by the researcher.

Transferability, approximately parallel to external validity, is established by the examiners or audience reading the research report to make judgments of the degree to which finding are sufficiently similar, or can be similar for local application or replication of the study.

Dependability, approximately parallel to reliability, establishes through the use of the dependability check with assistance of another researcher, who examines the record of the inquiry to determine the methodological decisions made and to understand the reasons for them.

Confirmability, approximately parallel to objectivity determines the extent to which interpretations, assertions, facts, and data can be traced to their sources, the

inspection being done by another examiners or researchers to establish and confirm their appropriateness.

‘Authenticity’, Denzin and Lincoln (2000, pp. 180-191) consider in terms of the following:

a) *Fairness and the quality of balance*; that is, all stakeholders views, perspectives, claims, concerns, and voices should be apparent identified in the [research study] text. Omission of stakeholder views or participants voices reflects ... a form of bias. ... Rather fairness was defined by deliberate attempts to prevent marginalisation, to act affirmatively with respect to inclusion, and to act with energy to ensure that all voices in the inquiry effort had a chance to be represented in any text and to have their stories treated fairly and with balance’;

b). *Ontology and educative authenticity* are designated as criteria for determining a raised level of awareness, in the first instance by individual research participants, and in second by individuals about those who surround them or with whom they come into contact for some social or organised purpose... and

c). *Catalytic and tactical authenticities* refer to the ability of a given inquiry to prompt, first, on the part of the research participants, second, the involvement of the researcher/evaluator in training participants in specific reforms of social and political action if participants desire such training. ... creating the capacity in research participants for positive social change and forms of emancipator community action.

The authenticity in c) immediately above is particularly relevant to research in the transformative paradigm. According to the above definitions, validity and reliability are restricted to the use of the instruments – the survey and documents analysis. Trustworthiness and authenticity, however, relate to the overall procedures used and the quality of data collected and analysed for interpretation.

4.5.3 Selection and design of research instruments

The selection and design of research instruments in this study were influenced by the nature of the research purpose and questions, the interpretivist paradigm, research contextual variables, and concerns about quality data collection and inference (Denzin & Lincoln, 1994, p. 202; Tashakori & Teddlie, 2010, pp. 306-311). These variables, as well as the researcher’s knowledge and understanding of the research context, are key determinants in planning and executing of the research within the given timeframe. The three instruments are to be used are now discussed accordingly below.

4.5.3.1 The Survey

The survey consisted of the quantitative and qualitative items in this study (Guba & Lincoln, 1994; Yoko, 2000, p.73). This particular method provided 24 written statements for participants to respond to in the following structure:

- Part A has 5 items relating to the participants' biographical data, including: gender, age, work years, work positions and highest education qualification;
- Part B has 4 items relating to the participants' level of understanding of Inclusive Education policy, including whether they had seen and read the policy (Yes, No), indication of reasons and levels of understanding, and source of information providing understanding; and
- Part C 14 items relating to the participants' perception of factors impacting on institutionalisation of Inclusive Education, including socio-cultural and historical links, political support, economic and leadership support, and environmental support.

Parts A and B were used to yield numeric data (nominal and ordinal scale) and only Part C of each item (with Likert scale) had two lines of space to indicate supportive reasons for choosing a certain scale out of a range of ratings: 1 = Very strongly disagree, 2 = Strongly disagree, 3 = Disagree, 4 = Agree, 5 = Strongly agree, and 6 = Very strongly agree (see details of survey items in Appendix 2 – Research Instruments). The rating scale (Part C) discards a neutral position to allow participants to give an informed professional view based on professional judgment and experience in the various research sites. There are two reasons for taking this stance: (a) there has been no previously reported research of this kind and therefore it stands as a foundational basis to understand inclusive education across the nation of PNG; and (b) the researcher has personally developed the Likert items with the guidance of the School of Education Research supervisors and a survey sample from the School of Economics to verify the Likert items to the research question. However, checking of the 6-point Likert scale in the survey suggests it may not have a high internal consistency reliability. A commonly used statistical indicator of internal consistency in a scale called 'Cronbach's Alpha coefficient' may not be higher at .7 (Deville's, 2003 cited in Pallant, 2011, p. 97), for the Likert items as required in a well-developed survey. Despite this limitation, the research question, the research paradigm, and the researcher's knowledge and

experience of participants in inclusive education are key determinants of reliability for each Likert item.

The survey was developed for all the participants at the four levels of education. The survey was considered to be an appropriate method for collecting data in the study for the following reasons: (a) it can provide a broader spectrum of relevant, knowledgeable and experienced participants with inclusive education; (b) participants are not under any fear and intimidation to respond; and (c) more participants are required to provide responses in the available time. However, participants may provide responses to statements that may be inadequate when limited knowledge or misunderstanding of certain terms or words may distort proper interpretation, and, as a result, the analysis of data becomes unclear (Burns 1997, pp. 482-483; Kiddler & Judd, 1986, pp. 222 - 224).

Furthermore, a pilot study was critical to ensure quality data was collected where the content and measurement of validity was carefully considered and the instrument adjusted accordingly. Furthermore, strategies were developed so that participants were properly informed to follow procedures that were simple and clearly understood. In order to produce a proper research context and procedural setting for quality data collection, a pilot study was initially planned in East New Britain province of PNG. Surveys were distributed to Mainstream schools and Special Education Resource Centres' (SERC) personnel, and individually with District Education Officers (DEO) and Provincial Education Officers (PEO) who very much would resemble the participants and research sites in the main study. In doing so, survey items and their responses were to be carefully scrutinised to ensure that the trustworthiness and authenticity of data were sufficient to answer the research question (Neumann, 1994, pp. 226-226; Leedy, 1993, pp. 187-190).

Furthermore, as the study intends to make generalisations across the different levels of education, participants are drawn from four regions of PNG. Therefore, a stratified random and purposeful sample was appropriate and selected from four of the 24 provinces in PNG. This sample represents the population targeted in this study.

4.5.3.2 The Interview

There are three types of interview instruments. They are the structured, semi-structured and unstructured interviews. The semi-structured interview was considered as an

appropriate method to be used. There are three reasons for this selection. First, the semi-structured interview had the advantage of capturing in-depth data from participants' perceptions of reality by probes in their natural setting (Burns 1997, pp. 330-331; Robson, 1993, p. 229). Second, the structured interview may not capture in-depth data. Third, the unstructured interview can easily mislead the researcher to be focused from collecting relevant data. The focused groups are MS-teachers and SERCs staff, and individually focussed groups with DEO-District education officers, PEO-Provincial education officers, and NDoE-education officers (see sampling Table 4.1).

However, all three types of interviews can be ineffective and even time wasting if there is no proper room available for interview, and proper interview procedures are not put in place. Consequently, the quality of data collected may be distorted and cause analysis difficulties. In order to avoid such limitations, a semi-structured interview schedule was chosen and the best facilities available were selected.

Given the above reasons an interview schedule was prepared for piloting to identify better structure and effective procedures. The major and sub-research questions and key educational research texts (Lankshear & Knobel 2004, pp. 44-45; Coleman & Briggs, 2002, pp. 148-149) provided invaluable guides in developing the semi-structured interview questions. The semi-structured interview was used with selected classroom teachers, with their deputy or head teachers, special education staff of the SERC, Education Officers in Districts, Provincial Education officers, and NDoE officers (see sampling Table 4.1). In addition, two guardians with their disabled members were interviewed. The interviews were conducted in the educational institutions where the participants carried out their normal day-to-day work routines in an organised room that was user-friendly, quiet, and had a relaxed atmosphere. During the course of the interviews, the following procedure was followed to ensure there was consistency:

- Step 1: Set up the recorder in a more central position close enough to conduct the interview with the right volume level to capture voices clearly.
- Step 2: Greet the participant (s) and briefly introduce the researcher and explain the nature of the study interview. Encourage them to speak up and clearly.

- Step 3: Follow the order of the interview questions to ask participants but with clarity and a loud clear voice.
- Step 4: Allow enough time for participants to response individually and collectively.
- Step 5: Redirect questions or rephrase where necessary for clarity of meaning and accuracy of responses.
- Step 6: Begin the next question until the last interview questions is completed.
- Step 7: Replay the recorded interview to ensure clarity and that the spoken voices were correctly heard and corrected where unclear for transcribing.

After each interview, transcribing was completed to ensure that all interview questions were attempted with correct responses that were worthy of answering the research question. Where time and availability of participants was not possible, further arrangements were made with the leadership head of each institution to conduct the outstanding interviews.

4.5.3.3 Document collection

The document collection method was considered appropriate as well as the basis of identifying written data that came from the content of specific documents. The reason was that the documents provided actual information about what, why and how inclusive education was and is currently institutionalised. More specifically, the documents would contain records of written information that were either facilitators or barriers to the institutionalisation of inclusive education policy and practice for each participating institution. The kinds of samples requested were (see specific sampling of documents in table 4.1): financial reports, teaching and learning programs, professional development programs, institutional profiles of staff with their organisation, and management functions, and inclusive education policy implementation plans for community development. During the course of implementing the survey, interviews and document collection at various research sites, institutional leaders were asked to provide such information. The analyses of the contents of these documents were made to answer the research question (see pilot study analysis at the end).

4.5.3.4 Sampling of participants/documents

In this study, the choice of sampling techniques depended on a range of factors such as the research questions, knowledge and experience of participants and researcher at different levels of education, availability of resources and timing, and a fair sample from the four regions of PNG. For an informative and in-depth inquiry into the barriers and facilitators of institutionalisation of Inclusive Education, a stratified, random and purposeful sampling technique was chosen (Tashakori & Teddlie, 2010, p. 351).

Given the above factors and the researcher's educational experience, the application of stratified, random and purposeful sampling encompassing knowledgeable participants from four different regions' educational groups at different levels of education would provide relevant and in-depth information to answer the research questions. The participants in this study were drawn from four levels of the education system especially: the Mainstream schools and SERCs level, local/district education level, provincial education level, and the national education level. Table 4.1 provides an overview of the sample of participants and instrument types for data collection at different levels. Specific respondents consisted of MS teachers, SERC staff and education officers from four levels. The population is made up of four regions of the country (Highlands, Southern, New Guinea Islands and Momase). From these, five provinces out of a total of 24 were randomly selected using a box: National Capital District (NCD), Manus (Man), Milne Bay (MBP), Eastern Highlands (EHP), Morobe, and East New Britain (ENB) provinces. Then a purposeful sample of five educational groups was selected (SERCs, Mainstream schools, DEOs, PEOs and NDoE Officers). The reason for such random and purposeful selection was to have a fair representation of sample from the four regions and levels of education in PNG.

For the pilot study, ENB was used. ENB was selected because the researcher was working in the province as a teacher educator and would be able to run the pilot easily. Access to the pilot study sites very much resembled what other provinces in the main study such as the 'SERC', Mainstream schools, the PEOs and DEOs. The Table 4.1 provides an overview of the sample of participants and document types for collection at different levels and the research instruments used.

Table 4.1. Sampling of Participants and Documents Collection

Step	Population identification	Sampling method	Sampling	Sample size	Instrument number	Total population
1	4 Regions with 20 provinces	Stratified Random Selection	5 Provinces - 1 from each regions (4) - Pilot study (1)			
2	20 + Divisions of Education	↓	5 Provincial Divisions of Education	8 PE Officers	<ul style="list-style-type: none"> • 7 surveys (2 pilot & 5 main studies) • 6 interviews (3 pilot & 3 main studies) • Document collection 	50+ DEOfficers
3	150+ District Education		10 District Education	3 DE Officers	<ul style="list-style-type: none"> • 8 surveys (2 pilots & 6 studies) • 2 interviews (no pilot & 2 main studies) • Document collection 	150+ DEOfficers
4	20,000 + Mainstream (Primary Schools)		10 Mainstream Schools (Primary)	39 MS Teachers	<ul style="list-style-type: none"> • 39 Surveys (10 pilots & 29 studies) • 7 interviews (1 pilot & 6 main studies) 	20, 000+ Teachers
5	24 Special Education Centres		5 Special Education Centres	23 SERC Staff	<ul style="list-style-type: none"> • 23 surveys (8 pilot & 15 main studies) • Interviews 1 pilot & 4 main study) 	200+ SERC staff
6	1 National Department of Education		2 Sections (Teacher Education Division and National Special Education Unit)	3 NDoE Officers	<ul style="list-style-type: none"> • 3 surveys (no pilot & 3 main studies) • 1 interview (no pilot & 1 main study) 	14 + NDoE Officers
N =	6		2	6	76	

Approximate figures adopted from PNG NDoE (2012)

4.6 Data collection procedures

Data collection procedures are one of the key methodological strategies (Punch, 1998). In this section the following are discussed; strategies for ethical research issues, access to the research sites, and the procedures used to collect data.

4.6.1 Anonymity and confidentiality of research participants

The institutional leaders at the research sites were assured that the anonymity and confidentiality of each survey and interview participants were maintained at all costs, with a prior written consent given at the first meeting. Prior to accessing the research site, the University of New England Ethics Committee provided written ethics approval for the researcher. Participants were given consent forms to complete, demonstrating that their participation was voluntary.

4.6.2 Access: Field studies at ENB, Manus, Milne Bay, EHP, Morobe and NCD

At the beginning of June 2011, a copy of the letter with the approved ethical clearance document was provided to the Policy Research and Monitoring Unit of the NDoE at Port Moresby, the capital city of PNG. After gaining initial oral and written approval from the NDoE at the end of June, I had to write and send a formal letter of request with the approval document from NDoE to the provincial divisions of education in each selected province. The Table 4.2 provides the overview to the access and activities at the approved research sites.

Table 4.2 Access to research sites and field study in the four regions and selected provinces

Time frame- Beginning task	Access to research site		Research activity	Time-frame Completed
	Region	Province/State		
June (week one) Sort permission	Southern	NCD	Seek permission from National Department of Education – Policy, Research & Evaluation Unit	June (3 weeks)
July (week one) Sort permission	New Guinea Islands	ENB	Doing pilot study Division of Education at PEO, DEO, SERC & 1MS (Rural). Transcribing of interview data/document collection	July (3 weeks)
August (week one) Sort permission	New Guinea Islands	Manus	Doing main study at Division of Education- PEO only No DEO, 2MS (Rural &Urban). Transcribing of the interview	August (3 weeks)

			data/document collection	
September (week one) Sort permission	Southern	Milne Bay	Do main study at Division of Education at PEO only No DEO, 2 Mainstream schools (Rural & Urban). Transcribing of interview data & Document collection	September (3 weeks)
October (week one) Sort permission	Highlands	Goroka	Doing main study at Division of Education -PEO and DEO, 2 Mainstream schools (Rural & Urban). Transcribing of interview data/document collection	October (3 weeks)
November (week one) Sort permission	Southern	NCD	Doing main study at the National Department National Inclusive Education Unit – Superintendent, Inspector, and Curriculum Officer. Transcribing of interview data/document collection	November (weeks)

4.6.3 Practical procedures

When I started my visit to the individually approved research sites, I had a brief first meeting in an office with each institutional leader on the first day of visit. The leadership head of each selected institutions included the Provincial Education Secretary for each provinces' PEOs and DEOs, head teachers or their deputies of Mainstream schools, and centre coordinators of the SERCs. In the meetings I explained thoroughly the purpose of the research project, followed by the survey and interview instructions page by page to individual institutional leaders. I emphasized that the survey instructions were provided and all participants were to read and complete all information required in the survey. The leaders of each institution were told to do the same to explain, distribute and collect the surveys from each participant within a period of two (2) weeks. I further explained that I would follow up with individual interviews for PEOs and DEOs because they were distance apart and this was followed by group-focussed interviews for SERCs and Mainstream schools. I also gave the interview questions to the leaders to have their participants read and prepare themselves for the interviews. I then asked each institutional head to provide the following documents if they were willing to do so: inclusive education reports, sources of funding, district and provincial plans, and staff professional development programs (see document sampling Figure 4.1 on page 15).

Additionally, there were two reasons for following this process for the survey, interview and document collection. The first was to maintain protocol and consistency throughout the research process as planned, and the second was because I anticipated a quality outcome from the data collected from participants.

During the follow up of the first meeting in the second meeting at each institution, interviews were organised on a day or days that were convenient, time friendly, with a proper meeting place with minimal or no disturbance or distraction. This was the beginning of the third week and I continued for one to two days for each institution to organise and carry out individual and focus group interviews and they were completed by the fourth week. The order of the interviews was carried out in the following manner for 40 to 45 minute each: a) the PEO and DEOs, b) the SERCs participants, and c) the MS participants.

I recorded the interviews and then replayed them after each interview with the participants during the same day. I ensured that the recordings were audible ensuring the clarity of voice and quality of pitch by making adjustments to the volume and pitch controller of the voice recorder. During the progress of the interviews, I gave the participants the opportunity to have equal participation and provided verbal acknowledgment as skilfully as I could. Furthermore, I probed and redirected interview questions across various participants to clarify and explain issues or words that were unclear. My reasons for taking these measures were to maintain the consistency and accuracy of procedures that were applied throughout the interview process and to collect quality data.

Finally, each time I progressed and completed the data collection process, I ensured there were improvements done and, as a result, better responses were received from various participants. In addition, given my background knowledge and experience as a head teacher and classroom teacher, and working with PEO and DEO in similar institutional contexts previously, the approach to conducting the overall field study was done following institutional structured protocol and the professional code of ethics required by the PNG Teaching Service Commission.

4.6.4 Data Analyses procedures

The data analysis procedures for the study took into account the nature of the research instruments that were selected and the kind of data they produced. These included quantitative analyses as well as qualitative analyses, followed by a combined analysis.

4.6.4.1 Quantitative data analysis of the survey

The survey data was analysed using the Excel computer software program, and Statistical Package of Social Science (SPSS) guided by relevant research texts (Tesh, 1990; Punch, 2000; Heiman, 2001; Onwuegbuzie & Teddlie, 2003; Creswell, 2005; Cooksey, 2007). This determined the statistical analyses of percentages, standard deviations and reliability coefficients of the extent to which each study variable was analysed as barriers and facilitators have impacted the institutionalisation of 'inclusive education'. Comparisons of the data analysed were made with respective SERCs, Mainstream schools, DEOs, PEOs and NDoE officers working together at various levels and regions. The purpose of the analysis was to get a snapshot of the overall responses. For instance, there were 166 surveys distributed to 5 cluster groups and the Excel computer program with the assistance of the scientific calculator was used to calculate and produce the frequency distribution of participants' responses to individual items. Then the responses were categorised into specific research variables using percentages and the standard deviation to compare differences in the 'mean' among the participants at different educational levels. The purpose of this analysis was to determine the barriers and facilitators of institutionalisation of inclusive education. Having identified the barriers and facilitators, the key research questions were answered (see the analysis for the pilot study given at the end of this chapter).

4.6.4.2 Qualitative analysis of the interview data

The analysis of interview data occurred in three phases: organisation of the data, description and interpretation. Interview data was analysed qualitatively. Because a schedule was used to guide the interviews, it was possible to compare the answers of all interviewees' transcriptions to individual interview questions. The process of comparison across interviews was assisted by the use of Leximancer computer software. The transcribed interview data was subjected to interpretational analyses (Denzin & Lincoln, 2000; Onwuegbuzie & Teddlie, 2003; Creswell, 2009) whereby the constructs

identified in the data were coded. The coded data was grouped according to the categories that were drawn from the interview questions where descriptions and comparisons were made and emerging themes identified (refer to the pilot study to verify and validate the procedures used for qualitative data analysis).

Significantly, after the pilot study provision was made for training in data analysis for the researcher by the core supervisors using the Leximancer Computer software for the transcribed interviews and documents collected for the main study. The reason for this was to ensure that data analysis process was not tampered with so that consistency and integrity of the data is not compromised by researcher biases.

4.6.4.3 Content Analysis for documents

There are a number of analytical strategies used to analyse the documents collected, including content, discourse analysis, thematic analysis, and semantic analysis (Kellehear, 1993, cited in Yoko 2000, p. 88). Content analysis was considered for the reason that it involved the researcher identifying themes, concepts, meaning making and interpretations (Burns 1997; Yoko 2000, p. 88). Specifically, content analysis was used to check key words and terms, phrases, paragraphs and numerical values of a monetary nature provided by various participating institutions. The purpose of this is to establish various analysis of documents and their content that relate to the barriers and facilitators of institutionalisation of Inclusive Education policy and practice. During the interpretation of the various content analyses, the researcher was able to infer from the analysis to demonstrate specific text information that were able to answer the research questions for the study (see below how the pilot study applied content analysis). As noted above, in the interview it was also suggested that in the main study the usage of the Leximancer computer software be applied after training was given to the researcher.

4.6.4.4 Quantitative and Qualitative data analyses combined

The analysis of data for interpretation was based on the mixed-method approach (Onwuegbuzie & Teddlie, 2003, pp. 373-379; Burns, 1997). The analysis begins briefly with the pilot study data, and in-depth followed by the main study data in the following manner:

- **Data reduction** – reducing quantitative data (e.g. descriptive statistics) and qualitative data (e.g. exploratory thematic analysis). First the survey analysis data are further reduced from the tables and texts were summed to a manageable level using Statistical Software for Social Science (SPSS). For the interview data are analysed and presented using the Leximancer software for qualitative data analyses. These analyses are referred to as barriers and facilitators of inclusive education policy and practice at different levels of education;
- **Data display** – reducing quantitative data. Given the nature of the survey analysis graphs and other appropriate diagrams or a variation of tables are used to reduce the amount of data presented for the pilot and then the main study. Various data representations helped to address key factors that impacted on the institutionalisation of inclusive education at different educational levels;
- **Data transformation-** the survey and interview data are combined under the themes that were pre-organised in the survey and interview instruments. These were socio-cultural and historical links, political support, economic and leadership support and environmental factors. These factors would determine the barriers and facilitators of the inclusive education briefly in the pilot study and in-depth in the main study;
- **Data comparison** – comparing quantitative data with qualitative data. Given the nature of the data analyses the comparison of the survey and interview data are done at different levels to determine differences on survey and interview interpretation;
- **Data consolidation and 6 data comparison** – combining and comparison of three data types to create new or consolidated variables or data sets. The consolidation of the survey, interview and document data analyses is done to see the developmental process of the knowledge on inclusive education policy and actual practices, and how each participant and their institution perceived institutionalisation occurring at different levels. In doing so, comparison of the differences of the three data types helped to identify the barriers and facilitators of institutionalisation of inclusive education;

- **Data integration** – all the data is integrated into a coherent whole through data consolidation and comparison to stage integration in a coherent manner; and finally,
- **Triangulation** – as defined in Burns (1997, p. 324), refers to the use of two or more methods of data collection in the study of some aspect of human behaviour to explain the reality of its occurrence in a given human social context. For instance, the factors that have contributed to the barriers and facilitators of institutionalisation of inclusive education were drawn from the survey, interview and document analyses. It must be noted that the process is not systematic but operates in an iterative manner.

The discussion now focuses on the pilot study data analyses and discussions to verify and validate the instruments used in the study. This will help to address the issues of validity and reliability in a survey and document analysis, and the trustworthiness and authenticity of the interview to inform the main study.

4.7 Pilot study informing the main study

For the pilot study East New Britain province was chosen. The reason for doing the pilot study was for pragmatic reasons and to verify and validate the trustworthiness and authenticity of the research instruments and data collection procedures. The pilot study province was similar to the main study sample of the targeted population in PNG. The targeted participants were the MS teachers, SERC staff, DEO staff, PEO staff and excluding the NDoE inclusive education staff. The planned pilot study respondents came from the institutions as depicted below in Table 4.3

Table 4.3. Participants in the Pilot Study Province

INSTITUTION	PARTICIPANTS' POSITION	Number	TOTAL
Provincial Education Office (PEO)	Senior Professional Assistant (SPA):		3 out of a total of 7
	• SPA Secondary/Technical Vocational	1	
	• SPA Elementary	1	
	• Provincial In-service Coordinator	1	

	(PIC)		
District Education Office (DEO)	Education Officer (EO)	2	2 out of a total of 4
Special Education Resource Centre (SERC)	Centre Coordinator	1	8 out of a total of 14
	Centre Staff (Male)	3	
	Centre Staff (Female)	4	
Mainstream Schools	Deputy Head Teacher	1	10 out of a total of 16
	Senior Teacher (Female)	2	
	Class Teacher (Female)	7	
N = 4	11	23	23/41

4.7.1 Survey

A total of 22 surveys were completed and returned from the total of 45 distributed. The researcher collected the survey from the institutional leadership head at the beginning of week three when arrangements for interviews were done. During the collection of the survey, I asked the participants individually if they had any difficulty with the readability, understanding of the questionnaire items and the meaning of the words used in each statement, and the kinds of responses that were provided. In response, most of the participants indicated the following feedback (refer to Table 4.4) to maintain and refine specific items in the survey.

Adjustments done – Part A. Participants’ personal information: item 3 was adjusted to cater for different institutional positions for SERC, MS, DEO and PEO and NDoE personnel for the survey instrument. Item 3 was also adjusted to cater for additional categories, i.e. other qualifications were added to the Bachelor degree in Education and Masters in Education; In Part C., item 22 was shifted to C 4 category, which is ‘Environmental support’ (see Appendix 2 of survey instrument).

Usage of analytical tools – during and after the pilot data collection I had to use Excel to analyse and report the pilot data (see the brief analysis of the pilot study in the section on data analysis and adjustments). Then, the results were transferred onto the SPSS

software to statistically analyse and to check the reliability of the Part C 15 Likert scale items with a 6 point rating scale. The reason for the reliability analysis is to determine the internal consistency of the scale by comparing its Cronbach's Alpha coefficient value with the accepted statistical value of .7, preferable at .8 and not less.

However, where the Cronbach's Alpha coefficient is statistically lower than .7 it indicates the certain items are measuring something other than what they are supposed to measure. The Cronbach's Alpha for the Part C Likert scale of 15 items analysed using SPSS is indicated as .6 based on standardized items of a total of 15 items (see reliability Statistics in appendix 3). The other 9 items of the survey had rating scales that were not considered as standardised as the Likert scale items, and, therefore, were not statistically acceptable to determine their reliability coefficient.

However, as indicated above in the selection on research design and instruments, the validity and reliability of the survey can alternatively be determined by the trustworthiness and authenticity the researcher's knowledge, experience and other research methods used in the study. Table 4.4 below tabulates the changes made to the survey items after the pilot study.

Table 4.4 Participants' feedback on survey questionnaire items in the pilot study

Design	Planned	Piloting	Changes made	Reason
Survey	Part A: Items 1 to 5 Participants personal information with categorical responses for gender, age, position, years of service, and highest qualification.	Participants completed items 1,2,4 and 5 well with no difficulty and adequate understanding. Item 3 was not completed by some participants due to inappropriate indication of official position.	Item 3 was adjusted by providing appropriate indications of participants official positions.	To ensure accurate participant personal information was provided consistently throughout the main study.
	Part B. Items 6 to 9 Participants reading and understanding	Participants completed items 6, 7, 8 and 9 with	No changes were made to the statements.	Participants understood them well and

	of inclusive education policy with categorical responses	understanding and no difficulty at all.		responded correctly, consistently and categorically as required.
	Part C. Items 10 to 24: Institutionalisation of inclusive education with categorical responses for socio-cultural/historical links, economic and leadership support, political support, and environmental support.	22 out of the 24 Participants completed items as they appear with no difficulty in understanding, except for 2 participants who did not complete 3 items due to oversight.	No changes were made to all items except for emphases on participants to carefully check all items before returning individual surveys on time.	Participants understood well the content and meaning of each of the items and responded correctly, consistently and categorically as required.

4.7.2 Semi-structured Interview

The Adjustments made – below are adjustments made to interview questions where timing, wording, order of presentation, appropriateness, and relevance for quality assurance to answer the research questions. The Table 4.5 indicates the adjustments done to the interview questions.

Use of analytical tools - once again, given the limitation of time and training, the researcher could not be allowed to have access to Leximancer, the qualitative data processing software package to analyse qualitative data prior to data collection. During and after the data collection period, at the research site, the researcher had to use Excel and manual methods to analyse and report the pilot data (see brief analysis of the pilot data in the section on data analysis below).

Table 4.5 Adjustments made to interview questions

Design	Planned
Interview	<p>Part 1. Initiation of Inclusive Education Policy at National and Provincial level by NDOE</p> <p>Q 1. Where you made aware that a policy on Inclusive Education was made and all schools and SE Resource Centres will implement it? Yes or No, give your views</p> <p>Q 2. In your opinion, was the policy being made clear to you by some persons or some sort of information delivered to your organisation or personally? Yes or No give your views</p> <p>Q 3. Was your organisation (school/community, district education, provincial education, government agency or nongovernment agency) able to take some action plan to initiate any plans and provide leadership, funding and resource capacity to deliver this policy? Yes or No, give your views.</p> <p>Part 2. Implementation and institutionalisation at Provincial, District and Schools/local Community.</p> <p>Q 4. At the provincial level, what have you observed, heard or understood about plans for the districts and their schools/community to implement Inclusive Education policy and programs?</p> <p>Q 5. Did your organisation or personally had the leadership capacity, the funding and resources to implement or involve in Inclusive Education policy and programs? Yes or No, give your views</p> <p>Q 6. For how long was the organisation you were engaged with able to deliver the Inclusive Education policy?</p> <p>Q. 7 a) What are your major setbacks or strengths in delivering or receiving Inclusive Education policy and programs in the organisation you were engaged with (provincial head office, district office, school, Centre, local community)?</p> <p>Q. 7 b) From the list below how would evaluate them as major or minor barriers and facilitators of what need to be done to implementation of Inclusive Education policy and programs:</p> <p>i. Leadership capacity building for staff professional development in Inclusive Education policy and programs. A) Is a (major), or (minor) barrier and facilitator. B) Is effective and ongoing. C) Not very effective. D) Needs more support.</p> <p>ii. Funding and resource capacity for program delivery and instruction and professional development: A) It is a (major), or (minor) barrier and facilitator. B) Needs funding. C) Funding is provided. D) More funding needed.</p> <p>iii. Social and cultural belief and value system exist about the education of disabled children in schools: A) It is a (major), or (minor) barrier and facilitator. B) Needs a big change. C) Needs little change. D) No need to change as all is well.</p> <p>iv. Conducive School and community environment for disabled children to have access and learn: A) is a (major), or (minor) barrier or facilitator. B) Needs more improvement. C) Needs some improvement. D) No improvement needed.</p> <p>Q. 8 Please, provide documents to support each question you have answered during the interview. These documents are: various reports, minutes of meetings, daily/weekly/monthly and yearly programs and organisational support systems for Inclusive Education policy implementations.</p>
	After Piloting and changes made
	<p>Changes have been made to interview questions 1, 2, 3, 4, 5, 6, 7a), 7b), ,i, ii, iii, & iv, & 8:</p> <p>1. Have you seen, read and heard of the government policy to support inclusive education at the school, local, provincial and national level)? Yes or no explain your situation</p> <p>2. Was your organisation able to understand this policy and take leadership to make plans implement inclusive education in schools? Yes or no explain your situation</p> <p>3. Does your organisation have the support system and persons to educate children with disabilities in the Mainstream schools? Yes or No explain your situation.</p> <p>4. Do you think the DEO and PEO staff, the SERC staff, Main Stream School-teachers, parents and community have a positive or negative attitude (like belief or values or responsibilities) towards including children with disability in schools? Explain your situation.</p> <p>5. What are your major facilitators and barriers of making inclusive education as part of the school system (like political support, leadership, funding, beliefs, and other support systems)? Briefly share your view.</p> <p>6. What would you like to see in the future happen to strengthen current inclusive education practice in schools and the community?</p>
	Reasons
	<p>Below are changes made such as timing, wording, and order of presentation, appropriateness, and relevance to answer the research questions. From the original initial 8 questions the number was reduced to six so that they can be remembered easily and each interview can flow smoothly between 40 – to 45 minutes.</p>

4.7.3 Document collection

Given a range of analytical techniques for analysing documents, content analysis (Burns, 1997, p. 339) by word counting was considered as appropriate where themes, concepts, meaning making, and subsequent interpretations were made. For instance, the barriers and facilitators of specific institutions were identified, categorised into themes and interpretations were made to answer the research questions. Significantly, it was suggested the use of computer software was possible.

Thus, in this study the use of the Leximancer software is proposed and training is to be done with the core supervisor to analyse the data. In this study, prior arrangements were made with each institution to provide documents within their own time frames and discretion to provide copies. Institutions were not obliged to provide current documents if they were not able to do so. Furthermore, for those that provided information the issue or research ethics on matters of confidentiality and the anonymity of participants and institution identities were respected and safeguarded. During the data collection period, only one SERC, no Mainstream schools, no PEOs and no DEOs of those visited were not able to provide documents. The one SERC was busy for personal and professional reasons, and, as a result they did not make any attempt and requested more time. However, despite these reasons more time was not possible as the researcher had to leave for the next research site.

Given the preliminary analyses of the data yielded by the survey questionnaire, interview and document analysis, it was anticipated that the quality of data collection and analyses is be applied in the main study. The pilot study has indeed given valuable insights into the kind of data analysis procedures that can be applied. Importantly, it was found that the analytical techniques were accurate enough to present data in a logical and meaningful way for data interpretation to answer the research questions.

4.7.4 Addressing trustworthiness and authenticity of the survey and interview

As discussed above, the research methods used in the piloting stage before the main study were reviewed and adjusted to ensure that they were trustworthy and authentic. Guba and Lincoln (2001) demonstrated that in order to construct the phenomenon under study (in this case inclusive education in PNG) the ‘trustworthiness’ and ‘authenticity’

of methodological decisions are highly critical. They asserted that in determining these data values internally and externally data collected by the researcher must reflect ‘credibility’, ‘transferability’, ‘dependability’ and ‘conformability’. The proceeding discussions provide the preliminary analysis of the data collection instruments piloted after the collection of data.

4.7.5 Brief analyses and interpretation of the pilot study

The following brief analyses were made after the pilot data were collected from the survey, interview and document collection. It begins with the survey analysis, which is then followed by the interview analysis one for MS and SERC and analysis two for PEO and DEO participants.

4.7.5.1 Survey analyses and interpretation

Nearly all the participants in the survey (about 90 percent) were able to provide or complete the survey very well with n the slightest difficulty. However, a very few did not complete one to two items in the survey. These included MS, SERC, and DEO staff due to personal and professional reasons. However, it was understood that participants were volunteers and have every right to change or cancel their engagement whenever they wanted. Out of 45 surveys distributed, 22 surveys were received. The survey analysis has three parts: Part A. Participants biographical data; Part B Understanding of Inclusive Education policy; and Part C Institutionalisation of Inclusive Education.

4.7.5.2 Part A. Participants biographical data

First, in Table 4.6 the gender disparity is balanced with equal numbers; 11 males and 11 females making a total of 22 participants altogether in the pilot study.

Table 4.6 Gender of participants in the pilot study (Part A- Item 1)

	Frequency	Percent	Cumulative Percent
Female	11	50.0	50.0
Valid Male	11	50.0	100.0
Total	22	100.0	

Second, in terms of age, 90 percent of the participants engaged in the pilot study were aged between 26 years and 45 years (see Figure 4.2).

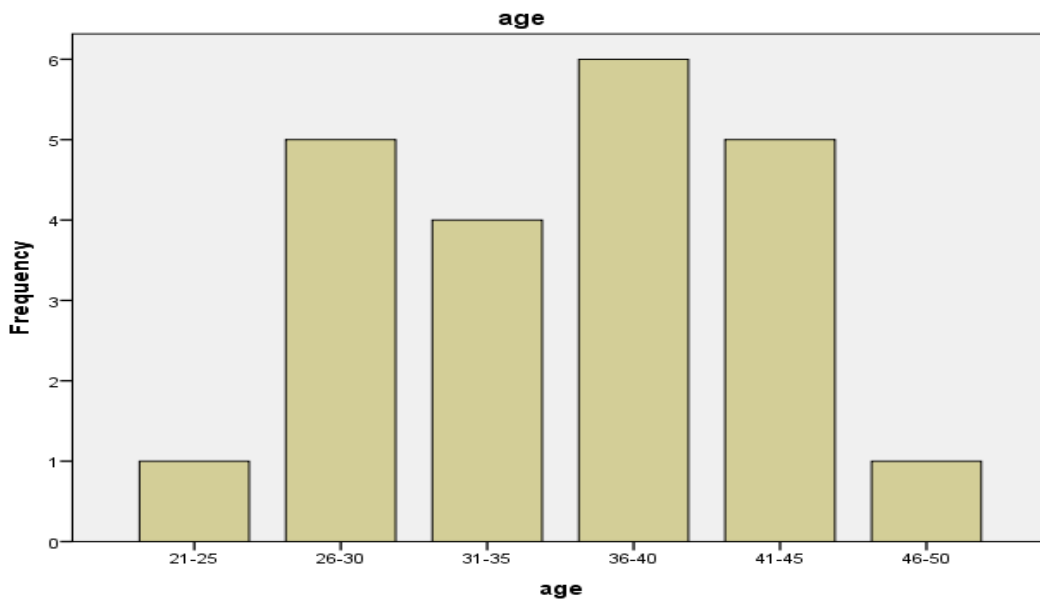


Figure 4.2 Participants age range

Third, Figure 4.3 indicates a good response from participants based on their job positions and is a good indication of participants anticipated in the main study.

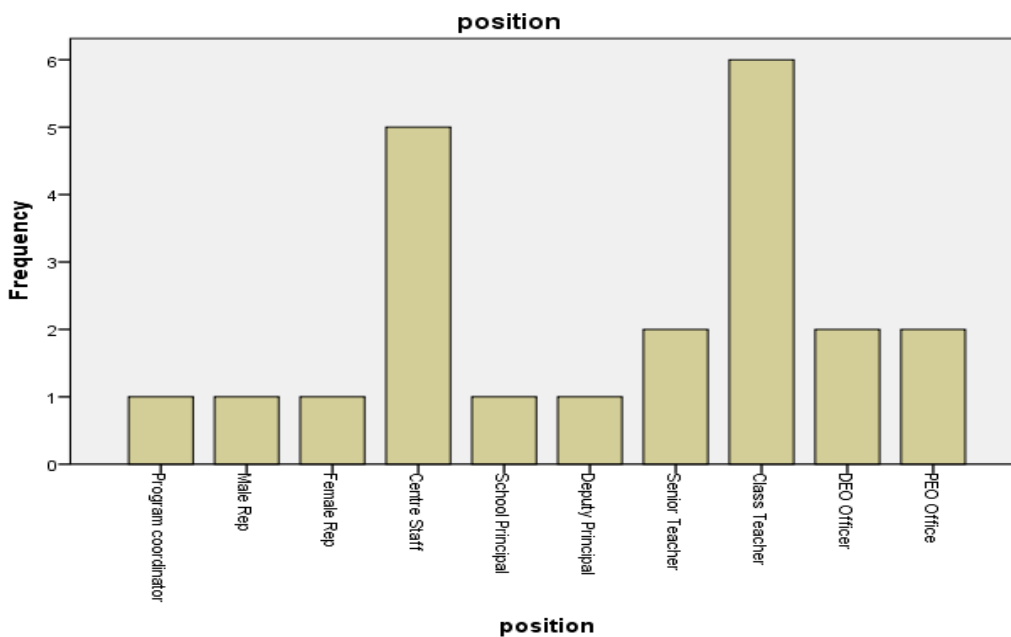


Figure 4.3 Participants job position in the pilot study (Part A - Item 3)

Fourth, Table 4.8 demonstrates that more than 50% of the participants had worked with the Department of Education between 6 to 25 years when the Inclusive Education policy was introduced. They were able to provide a better view on the impact of institutionalisation of inclusive education in their organisations.

Table 4.7 Participants’ work-years with the Department of Education in PNG (Part A - Item 4)

Work Years	Frequency	Percent	Cumulative Percent
1-2Yrs	2	9.1	9.1
3-5Yrs	7	31.8	40.9
6-9Yrs	4	18.2	59.1
10-14Yrs	1	4.5	63.6
15-19Yrs	3	13.6	77.3
20-25Yrs	5	22.7	100.0
Total	22	100.0	

Fifth, Figure 4.4 indicates that more than half (13.5 out of 22) of the participants do not have a proper qualification (others) and relevant training in Inclusive Education, only less than a half. ‘Others’ refers to other participants as having an educational qualification such as a certificate or a diploma or a degree in general education other than inclusive or special education.

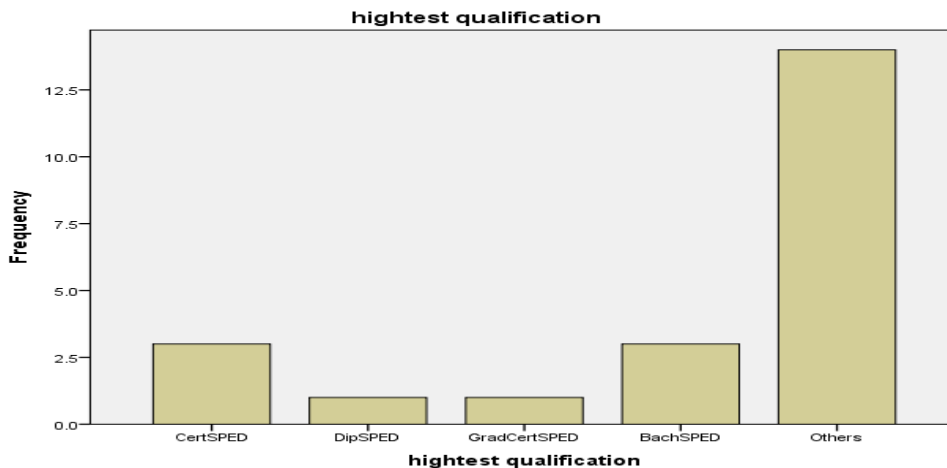


Figure 4.4 Participants’ highest qualification (Part A - Item 5)

4.7.5.3 Part C. Institutionalisation factors of Inclusive Education

Items from each of the above factors have been analysed and discussed for the pilot study. These items are: C. 1 Item 10; C. 2 Item 13; C. 3 Item 20; and C. 4 Item 23. First, Table 4.8 indicates that more than two thirds of the participants (16 /22) agree to very strongly agree that Mainstream schools have acceptable beliefs towards Inclusive Education, while less than a third do not believe.

Table 4.8 Socio-cultural and Historical links (Part C. 1 - Item 10)

Likert Categories	Weight (Rating)	21 Participants' responses to the statement: I think all MS teachers and principals do have acceptable religious and traditional beliefs, values, attitudes, roles and responsibilities to educate all children including children with disability in the mainstream schools.						Mean Rating
		SERC 8	MS 10	PEO 2	DEO 2	Total 21		
Very Strongly Agree	6	1	1	1	-	3/22	18	86/21 = 4.1
Strongly Agree	5	0	3	1	1	5/22	25	
Agree	4	4	4	-	-	8/22	32	
Disagree	3	2	1	-	-	3/22	9	
Strongly Disagree	2	-	-	-	-	0/22	0	
Very S/ Disagree	1	1	1	-	-	2/22	2	
No response	-	-	-	-	-	0/22	0	
N =	6	8	10	2	2	21	86	

Second, Table 4.9 demonstrates that most Mainstream schools agree to very strongly agree that SERCs and Mainstream schools' Inclusive Education programs are well funded by the Federal and State government Ministry of Education in PNG. However, majority of other participants disagree that funding is made available.

Table 4.9 Economic and Leadership support (Part C. 2 - Item 13)

Likert Categories	Weight (Rating)	22 Participants' responses to statement. Joint SERCs and Mainstream schools Inclusive Education programs are well funded by the Ministry of Education in the school system.					Total 22	Mean Rating
		SERC 8	MS 10	PEO 2	DEO 2			
Very Strongly Agree	6	-	3	-	-	3/22	18	75/22 = 3.4
Strongly Agree	5	-	1	-	-	1/22	5	
Agree	4	3	3	-	1	7/22	28	
Disagree	3	3	1	1	1	6/22	18	
Strongly Disagree	2	1	-	-	-	1/22	2	
Very S/Disagree	1	1	2	1	-	4/22	4	
No rating	-	-	-	-	-	0/22	0	
N =	6	8	10	2	2	22	75	

Third, Table 4.10 indicates that more than half of the participants disagree to strongly disagree that State and Federal government provide political support for Inclusive Education, while other participants that are less than half agree to very strongly disagree.

Table 4.10 Political support in PNG (Part C. 3 - Item 20)

Likert Categories	Weight (Rating)	22 Participants' Responses to statement: The various governments have provided political support for CWDs to enable SERCs and Mainstream schools to implement the Inclusive Education policy.					Total 22	Mean Rating
		SERC 8	MS 10	PEO 2	DEO 3			
Very Strongly Agree	6	2	-	-	-	2/22	12	75/22 = 3.4
Strongly Agree	5	1	1	-	-	2/22	10	
Agree	4	2	2	1	1	6/22	24	
Disagree	3	2	3	1	1	7/22	21	
Strongly Disagree	2	1	2	-	-	3/22	6	
Very Strongly Disagree	1	-	2	-	-	2/22	2	
No rating	-	-	-	-	-	0/22	0	
N =	6	8	10	2	2	22	75	

Fourth and finally, Table 4.11 indicates that more than half of the participants agree to strongly agree that SERCs and Mainstream schools associate with key stakeholders to get support for Inclusive Education. However, it should be noted that less than half who are mainly the Mainstream schools participants disagree to strongly disagree.

Table 4.11 Environmental Support (C. 4 Item 23)

Likert Categories	Weight (Rating)	22 participants' responses to the statement. While working together the SERCs and Mainstream schools do associate themselves with the external environment and key stakeholders to get support and implement Inclusive Education policy and programs.						
		SERC 8	MS 10	PEO 2	DEO 2	Total 22	Mean Rating	
Very Strongly Agree	6	-	-	-	-	0/22	0	74/22 = 3.4
Strongly Agree	5	1	1	-	-	2/22	10	
Agree	4	4	3	2	2	11/22	44	
Disagree	3	2	2	-	-	4/22	12	
Strongly Disagree	2	-	3	-	-	3/22	6	
Very Strongly Disagree	1	1	1	-	-	2/22	2	
No rating	-	-	-	-	-	0/22	0	
N =	6	8	10	2	2	22	74	

Having completed this analysis and discussion on the survey, the next lot of analyses is focused on interviews with discussions on participants' responses to the interview.

Below is Table 4.12 that indicates a brief analysis and interpretation of the interviews conducted with the SERCs, Mainstream schools and PEOs at the pilot study sites. It is based on three major categories: data organisation, data description and data interpretation. The three major categories are guided by the major and sub research questions on the top three columns, with four key predetermined themes and identified sub-themes of findings in bullet points in the middle. At the bottom of the table is a brief discussion on the interpretations of the findings.

Table 4.12 Interview analyses and interpretation

Data Organisation	1. Why has there being a limited progress towards inclusive education since 1993 in PNG?	1.1 To what extent do key stakeholders (teachers, special education personnel, educational personnel) understand and deliver inclusive education in PNG?	1.2 What are the barriers or facilitators of structural and leadership dynamics impacting on the institutionalisation of inclusive education?	
Data Description (based on major and minor themes)	<p>Socio-cultural/Historical links perceptions/views of SERCs, Mainstream schools, DEOs and PEOs on:</p> <ul style="list-style-type: none"> • Traditional Beliefs and values system • Modern beliefs and values system • Religious beliefs and value system. 	<p>Political Support – perceptions/views of SERCs, Mainstream schools, DEOs and PEOs:</p> <ul style="list-style-type: none"> • National government • Provincial government • Local/district level government • Others 	<p>Economic support and leadership – perceptions/views of SERCs, Mainstream schools, DEOs and PEOs:</p> <ul style="list-style-type: none"> • National government • Provincial government • Local/district level government • Training/Qualifications • Budgets/funding <p>Leadership roles</p>	<p>Environmental support – perceptions/views of SERCs, Mainstream schools, DEOs and PEOs:</p> <ul style="list-style-type: none"> • Provincial Divisions of Education • Parents and guardians • School teachers • Charity organisations • Resource Centres • Private Sectors
Data Interpretation	<p>Pilot study summary of findings and discussions based on research questions</p> <p>The discussion below provides a brief interpretation of the interview data collected and analysed in the pilot study province in the New Guinea Island region of PNG:</p> <p>1. SERCs – Having interviewed three SERC staff, they have indicated the following: the lack of training, limited funding and administrative and client resources, and limited leadership and manpower support are major barriers to the institutionalisation of inclusive education. Given the nature of awareness conducted on radio and community outreach, rural populations still do not have access to a SERC, accept for the urban communities are responding or those who are access to land and sea transport. The facilitators of Inclusive Education are internal leadership and programs are continuing in a smaller scale in rural areas and a bigger scale in the urban areas. The SERCs are well versed with policy and the required practice of Inclusive Education.</p> <p>2. Mainstream schools – Having interviewed the MS teachers, they have indicated the following: the lack of policy understanding, no training (qualification), no awareness, no funding, no leadership and manpower are major barriers of Inclusive Education. There is a certain degree to which local community’s traditional and religious beliefs, and values hinder acceptance of Inclusive Education in schools. There is no link and network between the SERC, District Education and Provincial Division of Education and NDOE.</p> <p>3. PEOs/DEOs – Having interviewed two PEOs and one DEO, they have indicated that limited training/no qualification in Inclusive Education, ad hoc funding, limited understanding and awareness of Inclusive Education policy, no properly initiated district and provincial plans to monitor and support the institutionalisation of Inclusive Education in the province. Limited political support in the province and from the national government to network effectively action Inclusive Education policy implementation.</p> <p>Conclusion</p> <p>The above discussion of the findings explains to a certain extent the key factors and the underlying reasons why there has been limited progress in the institutionalisation of inclusive education in PNG, and especially in the pilot study province. It is anticipated that the main study now is focused given the piloting of the research method and design.</p>			

4.7.5.4 Document Analysis

Document analysis was not possible as only on the SERC in the pilot study site provided couple of documents that were identify as SERC operation structure and administrative plans; and centre and community based programs that facilitate inclusive education based on the policy in the province. The other participants, such as the Mainstream schools, PEOs and DEOs were not able to provide their documents due to the inability of the officers in the given time and the unavailability of such files despite a follow-up by the researcher.

4.7.5.5 Combined survey and interview analyses and interpretations

Below is Table 4.13 that indicates a brief analysis and interpretation of the survey and interviews conducted with the SERCs, Mainstream schools and PEOs at the pilot study sites. It is based on the three major categories on the left: data organisation, data description and data interpretation. The three major categories are guided by the major and sub research questions on the top three columns, four key pre-determined themes and identified sub-themes of findings in bullet points in the middle. At the bottom of the table is a brief discussion of the interpretations of the findings.

Table 4.13 Combine survey and interview analysis

Data Organisation	KRQ1 Why has there been limited progress towards inclusive education since 1994 in PNG?			
Data Description (based on major and minor themes)	Socio-cultural/Historical links – perceptions/views of SERCs, Mainstream schools, DEOs and PEOs on: <ul style="list-style-type: none"> • Traditional Beliefs and values system • Modern beliefs and values system • Religious beliefs and value system. 	Political Support – perceptions /views of SERCs, Mainstream schools, DEOs and PEOs: <ul style="list-style-type: none"> • National government • Provincial government • Local/district level government • Others 	Economic support and leadership – perceptions /views of SERCs, Mainstream schools, DEOs and PEOs: <ul style="list-style-type: none"> • National government • Provincial government • Local/district level government • Training/Qualifications • Budgets/funding • Leadership roles 	Environmental support – perceptions /views of SERCs, Mainstream schools, DEOs and PEOs: <ul style="list-style-type: none"> • Provincial Divisions of Education • Parents and guardians • School teachers • Charity organisations • Resource Centres • Private Sectors

<p>Data Interpretation</p>	<p>The following are summaries of interview findings and discussions based on research questions:</p> <p>1. SERCs – Having interviewed three SERC staff, they have indicated the following: the lack of training, limited funding and client resources, limited leadership and manpower support are major barriers to the institutionalisation of inclusive education. Given the nature of awareness conducted on radio and community outreach rural populations still do not have access to a SERC except for the urban communities are responding or those who are access to land and sea transport. The facilitators of Inclusive Education are internal leadership and programs are continuing in a smaller scale in rural areas and a bigger scale in the urban areas. The SERCs are well versed with policy and required practices and acceptable beliefs and values in Inclusive Education.</p> <p>2. MS – Having interviewed the MS teachers, they have indicated that the lack of policy understanding, no training (qualification), no awareness, no funding, no leadership and lack of manpower are major barriers of Inclusive Education. To a certain degree local communities’ traditional and religious beliefs, and values do hinder acceptance of Inclusive Education education in schools. There is no link and network between the SERCs, District Education and Provincial Divisions of Education and NDOE.</p> <p>3. PEO/DEO – Having interviewed two PEOs and one DEO, they have indicated that there is limited training/no qualifications in Inclusive Education, ad hoc funding, limited understanding and awareness of Inclusive Education policy, and no properly initiated district and provincial plans to and guide and support the institutionalisation of Inclusive Education in the province. Furthermore, there is limited political support in the provinces and from the national government to network effectively action Inclusive Education Policy implementation.</p>	<p>Below are summaries of survey findings and discussions based on the research questions:</p> <p>1. Fifth, Figure 4.4 indicates that more than half (13.5 out of 22) of the participants do not have a proper qualification (others) and relevant training in inclusive education. Others refer to those as having an educational qualification such as a Certificate, Diploma and a Degree in a education subject area other than inclusive or special education.</p> <p>2. Figure 4.5 indicates more than a third of the participants (19/22) agree to very strongly agree that Mainstream schools have acceptable beliefs towards Inclusive Education, while a third have unacceptable beliefs.</p> <p>3. Figure 4.6 demonstrates that only Mainstream schools agree to very strongly agree that SERCs and Mainstream schools Inclusive Education programs are well funded by the Federal and State governments and the Ministry of Education in PNG. However, SERCs, PEOs and DEOs disagree to very strongly disagree.</p> <p>4. Figure 4.7 indicates that more than half of the SERCs and half of PEOs and DEOs agree to strongly agree that State and Federal governments provide political support for Inclusive Education, while Mainstream schools and half of PEOs and DEOs disagree to very strongly disagree that there is political support.</p> <p>5. All PEOs and DEOs, and two thirds of SERCs, agree to strongly agree that SERCs and Mainstream schools associate with key stakeholders to get support for Inclusive Education, while more than half of the Mainstream schools disagree to strongly disagree.</p>
	<p>Conclusion The above discussion of the findings explains to a certain extent the key factors and the underlying reasons as to why there has been limited progress in the institutionalisation of inclusive education in PNG, and especially in the pilot study province. It is anticipated that the main study now is focused given the piloting of the research method and design.</p>	

4.8 Summary

This chapter has described the research questions, research paradigm and the methodology used for this study. It should be understood that the study was grounded on an interpretivist paradigm that was framed around the work of Professor Michael Fullan and other change theorists on the notion of educational change (Fullan et al, 2001). In order to establish the methodological procedures and processes, key emphases were made on the research design and its appropriateness, to give meaning and clarity on research

instruments to determine their validity and reliability for the survey and document analysis, and the trustworthiness and authenticity of the interview methods used. The selection of mixed-methods and their development for data collection, analysis and interpretation were trialled as part of quality control in the research design. Overall, the pilot study was an opportunity to test the operational feasibility of the main study to refine and adjust the three research instruments, where necessary. This then became the basis of informing the main study to ensure issues of validity, reliability, trustworthiness and authenticity were contained to minimise researcher, participant, environmental and measurement flaws or biases (Heiman, 2001, pp. 58-59).

Chapter Five: Data Analysis

5.1 Introduction

This chapter presents the analysis of data for the institutionalisation of inclusive education in PNG based on the three phases of the main study. There are four sections. The first presents the survey data using numerical and descriptive analysis of data from selected levels of education in the PNG education system. The second section presents data from the individuals and focus groups collected from the different levels of the PNG Department of Education. The third section presents the document analysis from data that was collected from selected educational institutions. Finally, the fourth section integrates the three phase analyses and provides the basis for data interpretation, finding and discussion in Chapter Six.

5.2 Results of the Survey

This section presents the survey data in two subsections. These subsections are guided by the research questions (RQs) and are presented as follows:

5.2.1 Sub-research question 1.1 *To what extent do key stakeholders (teachers, special education personnel, educational personnel) understand and deliver Inclusive Education in PNG?*

5.2.1.1. Issue one - biographical data [responses for Part A]

5.2.1.2. Issue two - understanding of Inclusive Education policy [responses for Part B]

5.2.2 Sub-research question 1.2. *What are the barriers or facilitators of structural and leadership dynamics impacting on the institutionalisation of Inclusive Education?*

5.2.2.1. Issue one – ‘socio-cultural and historical link factors’ [responses for Part C.1]

5.2.2.2. Issue two – ‘economic and leadership support factors’ [responses for Part C.2]

5.2.2.3. Issue three – ‘political support factors’ [responses for Part C.3]

5.2.2.4. Issue four – ‘environmental support factors’ [responses for C.4]

5.2.3. Summary of Survey findings - [response for Key research question 1. *Why has there been limited progress towards Inclusive Education since 1993 in PNG?*]

In order to provide participants’ views from the survey and interview transcripts of specific groups and individual participants, Table 5.1 provides a coding system to identify and guide discussion on participants’ perception accordingly.

Table 5.1 Survey Coding of Participants in Quantitative Analysis 1 and Qualitative analysis 2

Participant Grouping	Coding identification 1 (Quantitative and qualitative analysis)	Type of Participant and number	Coding identification 2 (Qualitative Appendix 3)
Mainstream Schools (Mainstream schools)	MSCT(s)	17 Class teacher(s)	MSCT (Number of responses 24 Table 5.24A3)
	MSST(s)	3 Senior Teacher(s)	MSST (Number of responses 3 Table 5.24A3)
	MSP(s)	4 School Principal(s)	MSP (Number of responses 13 Table 5.24A3)
Special Education Resource Centres (SERCs)	SERCC(s)	4 Centre Coordinators	SERCC (Number of responses 49 Table 5.24A2)
	SERCS(s)	14 Centre staff	SERCS (Number of responses 67 Table 5.24A2))
Provincial Education (PE) and District Education (DE)	PEO or PEOs	4 Provincial Education Officer(s)	PEO (Number of responses 24 Table 5.24A4)
	DEO or DEOs	4 District Education Officer(s)	DEO (Number of responses 6 Table 5.24A4)
National Department of Education(NDoE)	NDoEO or NDoEOs	3 National Education Officer(s)	NDoEO (Number of responses 60 Table 5.24A1)
N = 4	5	55	8

5.2.1 Sub-research question 1.1: To what extent do key stakeholders (teachers, special education personnel, educational personnel) understand and deliver Inclusive Education in PNG?

The presentation of survey data begins with the biographical data that looks at participants responses to these items: 1 gender, 2 age, 3 work positions, 4 work years or experience, and 5 the highest qualification obtained in education.

5.2.1.1: Biographical data [responses for Part A]

The participants are composed of 27 females and 28 males that make a total of 55 participants in the study. This portrays almost a fair distribution of both genders in the study of Inclusive Education in PNG from the various levels of education in PNG namely; (a) School Level (Mainstream schools and SERCs) b) District/Local Level (DEOs), Provincial Level (PEOs) and d) National Level (NDoE).

With regards to the age range of participants the following was found: (a) most of the participants are between 36 and 50 years, which is 67% of the total participants; and (b) the remaining 33% are within the age range of 20-35 years. This is a good representation of participants' age range so that views of both genders about Inclusive Education can be discussed with regard to age.

Considering participants employment position, SERC-staff represent 80% of the participants whose positions identify them as implementers of the Inclusive Education policy so that institutionalisation occurs at the school level. Only 20% of the participants are DEOs, PEOs and NDoEOs who are required to initiate and facilitate the implementation and institutionalisation of the Inclusive Education policy in the education school system.

The study found that 60% of the participants have between 10 to 25 years of work-experience in the education system. The other 40% are new graduate teachers or PEOs and DEOs that have 1 to 10 years work experience in the school system. This is relevant because it helps to determine the extent to which the participants' work-experience assists them to implement and institutionalise Inclusive Education policy in the school system.

In addition, the study also found that only 14.5% of the participants had appropriate qualifications in special/inclusive education and they were the SERCs and NDoE Inclusive Education Unit staff. Their qualification ranged from a Certificate in disabilities study, to a Graduate Certificate in Special Education and a Bachelor's or a Master's degree in Special and Inclusive education. The other 85.5% had only primary and secondary teaching qualifications that ranged from a Certificate to a Diploma, and a Bachelor's Degree in School and General Education Administration. These were the Mainstream schools, PEOs and DEOs who had no qualification in special/inclusive education. The lowest percentage of participants with appropriate qualifications may be a determinant of how prepared the participants are to implement and institutionalise Inclusive Education policy and practice. For instance, for special education to be an ongoing inclusive practice in the Mainstream schools an appropriate qualification would be a determining factor.

5.2.1.2. Issue one-participant' level of understanding of the Inclusive Education policy (Part B)

This sub-section looks at the participants' levels of understanding of the Inclusive Education policy and its institutionalisation in the different levels of education they represent. Understanding in this context means having knowledge about 'what the policy is' and 'how children with disabilities are to be educated in the Mainstream schools'. A general question on the understanding of Inclusive Education was asked to participants to indicate either 'Yes' or 'No' if they had read the Inclusive Education policy and institutionalisation guidelines. About two thirds (63.3) said 'Yes', while the other one third (32.7%) indicated 'No'.

On the general understanding of Inclusive Education policy among participants that responded with 'No' some reasons were given as to why they did so. About 73.3% did not have access to the policy document and NDoE did not provide the policy document, while 1.8% indicated that they had started working recently and had not read the Inclusive Education policy document. This indication is critical to Inclusive Education institutionalisation because it helps to determine the availability of Inclusive Education policy document and how knowledgeable participants are if they had or had not the opportunity to read and understand the policy.

Furthermore, participants were asked to indicate to what level they understood the Inclusive Education policy. Some 34.5% of the participants indicated that they had no understanding because they have not read the 1993/4 Inclusive Education policy document. The other 65.5% of the participants had read and understood the policy through ministerial circulars of instruction, policy document that was made available at workplace, attendance at Special Education workshops, pre and in-service training, University study, or while working at the SERC.

In sum, Table 5.2 shows that 3.6% of the participants indicated that they had no understanding of the Inclusive Education policy, and 40% indicated that they had very little understanding, but 56% believed that they had good or very good understanding of the Inclusive Education policy. These various levels of understanding of the Inclusive Education policy are likely to be significant indicators of participants' knowledge.

Table 5.2 Participants' Level of understanding about the Inclusive Education policy

Participants' response categories	Frequency	Percent	Cumulative Percent
No understanding at all	2	3.6	3.6
Very little understanding	9	16.4	20.0
Little understanding	13	23.6	43.6
Good understanding	23	41.8	85.5
Very good understanding	8	14.5	100.0
Total	55	100.0	

The preceding section indicates that only a little more than half of the participants surveyed believed that they had a good understanding of the Inclusive Education policy. The next subsection explores the response of those participants' as barriers or facilitators.

5.2.2. Sub-research question 1.2 What are the barriers or facilitators of structural and leadership dynamics impacting on the institutionalisation of inclusive education?

The following discussion focuses on the barriers and facilitators of structural and leadership dynamics that impact on the implementation and institutionalisation of Inclusive Education policy and practice. These dynamics are discussed based on the socio-cultural, economic and leadership support, political support and environmental support provided by key stakeholders. Part C of the survey responses is based on a 6 points Likert scale. The analysis below combines quantitative and qualitative data that focus on a series of items (statements). Tables 5.25A1, 5.25A2, 5.25A3, and 5.25A4 (see Appendix 3) are qualitative data of 55 respondents who were asked to give their perceptions on key factors in 15 Survey items in four parts: Part C. 1 'Socio – cultural and historical links' (Items 10 11 and 12); Part C. 2 gives 'Economic and leadership support' (13, 14, 15, 16, 17, 18 and 19); Part C. 3 focuses on 'Political support' (20 & 21); and Part C 4 presents 'Environmental support'(22, 23 and 24).

5.2.2.1 Issue one –Socio-cultural and historical links (responses in Survey Part C.1)

Beginning with socio-cultural and historical links, Table 5.3 indicates that 20.1% disagree to very strongly disagree that Mainstream schools have acceptable beliefs for Inclusive Education, while 79.9% agreed to very strongly agree.

Table 5.3 Mainstream schools have acceptable beliefs for Inclusive Education

Participants' response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	4	7.3	7.3
Strongly disagree	4	7.3	14.6
Disagree	3	5.5	20.1
Agree	20	36.4	56.5
Strongly agree	10	18.2	74.7
Very strongly agree	14	25.3	100.0
Total	55	100.0	

The next Table 5.4 demonstrates that the SERCs have acceptable beliefs for Inclusive Education. 30.9% of the participants indicated that responses disagree to very strongly disagree that SERCs have acceptable beliefs for Inclusive Education and 69.1% agree to very strongly agree.

Table 5.4 SERCs have acceptable belief for Inclusive Education

Participants' response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	4	7.3	7.3
Strongly disagree	2	3.6	10.9
Disagree	11	20.0	30.9
Agree	11	20.0	50.9
Strongly agree	11	20.0	70.9
Very strongly agree	16	29.1	100.0
Total	55	100.0	

Furthermore, acceptable belief in Inclusive Education by parents in Table 5.5 indicates that 54.5% of the participants disagree to very strongly disagree and 45.5% agree to very strongly agree. Third, Figure 4.3 indicates a good response from participants based on their job positions and is a good indication of participants anticipated in the main study.

Table 5.5 Parents have acceptable belief for Inclusive Education

Participants' response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	4	7.3	7.3
Strongly disagree	7	12.7	20.0
Disagree	19	34.5	54.5
Agree	14	25.5	80.0
Strongly agree	1	1.8	81.8
Very strongly agree	10	18.2	100.0
Total	55	100.0	

In support of Tables 5.3, 5.4 and 5.5 text data on the 'socio-cultural and historical link' factor is now given for the survey items 10 and 11. According to brief written accounts of participants, some were generally supportive of including CWD in the MS. For instance, a MS class teacher indicated that '[a]t times they do accommodate [CWD], but not every MS-teachers and principals' (MSCT2).

Furthermore, some SERC-staff also agreed and explained that 'there had been a reform in education' and this meant that attitudes of the community are beginning to change (SERCC10 Table 5.25A2 Appendix 3). The NDoEOs were also positive and stated that 'community beliefs were generally acceptable' (NDoEO7 Table 5.25A1 Appendix 3). However, 20% of the MS participants believed that socio-cultural and historical links were not supportive of Inclusive Education (see Table 5.3). This was further supported by some SERC-staff who acknowledged that 'some parents think that CWD are useless and they are taking up spaces for normal children' (SERCS4 Table 5.25A2 Appendix 3). They also believed that there was a lack of broader community acceptance and one

participant responded in this way: ‘not really because parents, guardians and local communities are still ignoring the education of CWD’ (SERCC2 Table 5.25A2 Appendix 3). The next discussion focuses on the ‘economic and leadership support’ provided for Inclusive Education policy.

5.2.2.2 Issue two - Economic and leadership support (responses in Part C.2)

This subsection focuses on participants’ perceptions about the ‘economic and leadership support’ provided for Inclusive Education policy and its implementation and institutionalisation in the education system. First, Table 5.6 indicates that the majority of participants believed that inadequate funding is provided by the Ministry of Education/NDoE to implement inclusive education in PNG. 76.3% of participants either disagreed or strongly disagreed that Mainstream schools and SERCs were well funded, while only 23.7% agreed.

Table 5. 6 SERCs/Mainstream schools are well funded by the Ministry of NDoE

Participants’ response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	18	32.7	32.7
Strongly disagree	8	14.5	47.2
Disagree	16	29.1	76.3
Agree	7	12.7	89.0
Strongly agree	4	7.3	96.3
Very strongly agree	2	3.7	100.0
Total	55	100.0	

Second, Table 5.7 indicates that the majority of the participants believed that SERCs received inadequate funding from the national government through the Ministry of Education/NDoE to implement Inclusive Education in PNG. 72.7% either disagreed or very strongly disagreed that SERCs were better funded and 27.3% agreed or very strongly agreed.

Table 5.7 SERCS have better funding from the government

Participants' response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	17	30.9	30.9
Strongly disagree	9	16.4	47.3
Disagree	14	25.4	72.7
Agree	9	16.4	89.1
Strongly agree	1	1.8	90.9
Very strongly agree	5	9.1	100.0
Total	55	100.0	

Third, Table 5.8 demonstrates that the majority of the participants believed that inadequate funding is provided by the local, provincial and national governments to implement Inclusive Education in PNG. 69.1% of the participants either disagree or very strongly disagree that Mainstream schools were better funded while 30.9% agreed to very strongly agreed.

Table 5.8 Mainstream schools have better funding from government

Participants' response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	20	36.4	36.4
Strongly disagree	6	10.9	47.3
Disagree	12	21.8	69.1
Agree	6	10.9	80.0
Strongly agree	2	3.6	83.6
Very strongly agree	9	16.4	100.0
Total	55	100.0	

Fourth, Table 5.9 indicates that the majority of the participants' believed that inadequate salary is paid by the Ministry of Education/NDoE to implement Inclusive Education

policy in PNG. 67.1% of the participants either disagreed or very strongly disagree, while 32.9% agreed.

Table 5.9 Mainstream schools/SERCs are paid adequate salary to provide Inclusive Education

Participants' response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	21	38.1	38.2
Strongly disagree	8	14.5	52.6
Disagree	8	14.5	67.1
Agree	7	13.0	80.1
Strongly agree	6	10.9	91.0
Very strongly agree	5	9.0	100.0
Total	55	100.0	

Fifth, Table 5.10 demonstrates that the majority of the participants believed that SERCs and Mainstream schools had professional development programs to implement Inclusive Education. 61.8% of the participants either agreed or very strongly agreed while 38.2% of the participants disagreed or very strongly disagreed.

Table 5.10. Mainstream schools/SERCs have professional development for Inclusive Education

Response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	10	18.2	18.2
Strongly disagree	7	12.7	30.9
Disagree	4	7.3	38.2
Agree	7	12.7	50.9
Strongly agree	12	21.8	72.7
Very strongly agree	15	27.3	100.0
Total	55	100.0	

Sixth, Table 5.11 shows that the majority of the participants believed that no proper and clear directions were provided by the NDoE to implement Inclusive Education in PNG. 63.6% of the participants either disagreed or very strongly disagreed while only 36.4% agreed to very strongly agreed.

Table 5.11 NDOE has provided clear direction on Inclusive Education

Response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	18	32.7	32.7
Strongly disagree	5	9.1	41.8
Disagree	12	21.8	63.6
Agree	12	21.8	85.5
Strongly agree	4	7.3	92.7
Very strongly agree	4	7.3	100.0
Total	55	100.0	

The Seventh Table, 5.12, shows that the majority of the participants believe that the SERCs and the Mainstream schools' Inclusive Education programs do not have clear goals for implementation and institutionalisation. About 61.8% of the participants disagreed or very strongly disagreed while 38.2% agreed to very strongly agree.

Table 5.12 Joint SERCs/Mainstream schools programs have clear goals for Inclusive Education

Participants' response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	15	27.3	27.3
Strongly disagree	7	12.7	40.0
Disagree	12	21.8	61.8
Agree	10	18.2	80.0
Strongly agree	6	10.9	90.9
Very strongly agree	5	9.1	100.0
Total	55	100.0	

In this discussion, text data is given to support discussion about the issue of ‘Economic and leadership support’ based in C.2 Items 12, 13, 15, 16, 17, 18, 19, 20 and 21. According to the participants’ brief written accounts in the survey, economic and leadership support was very minimal. Exploration of the responses of particular groups of participants revealed general agreement of inadequacy in economic and leadership support. For instance, the NDoEOs acknowledged that ‘economic and leadership support’ were limited or inadequate. However, as far as SERC-staff were concerned, ‘the operational grants of K3000 to K4000 by the Ministry of Education were inadequate for implementing and institutionalising Inclusive Education policy and program’ (SERCC19 Table 5.25A2 in Appendix 3).

In addition, the NDoEOs also acknowledged that ‘a few “provincial” and “local level” governments have given support but most have not supported the Inclusive Education policy since its inception in 1993/4’ (NDoEO30 Table 5.25A1 Appendix 3). The general view held by most participants is that ‘economic and leadership support’ has been minimal and not taken on board seriously by various levels of government. In addition, leadership for professional development of SERC-staff and MS-teachers to understand and institutionalise Inclusive Education programs were limited to urban centres for a number of networking schools in access and partnership. It was also noted that ‘the bulk of the rural schools with their teachers and principals were yet to established contact with the rural Mainstream schools to have meaningful access [to Inclusive Education]’ (NDoEO50 Tables 5.25A1 Appendix 3).

5.2.2.3 Issue three – ‘Political support/issues’ (responses in Survey Part C.3)

This subsection of the survey looks at the ‘political support/issues’ and the perception of participants according to responses made on a 6 point Likert scale. Political support was defined as legislation or laws for CWDs to enable SERCs and Mainstream schools to implement Inclusive Education.

Beginning with Table 5.13, 78.2% of the participants disagree to very strongly disagree that various governments have provided political support for Inclusive Education policy, and 21.8% agree or very strongly agree.

Table 5.13 Various level of governments have provided political support

Participants' response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	23	41.8	41.8
Strongly disagree	4	7.3	49.1
Disagree	16	29.1	78.2
Agree	10	18.2	96.4
Very strongly agree	2	3.6	100.0
Total	55	100.0	

Table 5.14 demonstrates that the majority of the participants, about 81.9%, disagree or very strongly disagree that there is provincial/local/district support for Inclusive Education for the institutionalisation of Inclusive Education policy in the education system, while 18.1% agree to very strongly agree.

Table 5.14 Provincial/Local/District governments support Inclusive Education

Participants' response categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	25	45.5	45.5
Strongly disagree	6	10.9	56.4
Disagree	14	25.5	81.9
Agree	6	10.9	92.7
Strongly agree	3	5.4	98.2
Very strongly agree	1	1.8	100.0
Total	55	100.0	

Text data in the survey is now given to support participants' perceptions of 'political support'. The researcher noted that generally 'political support' for Inclusive Education policy was very minimal given the written accounts of participants. Generally, the two major reasons for the minimal political support were 'ignorance' and 'limited governance plan' where established government system for communicating and

implementing policies were not utilised to support Mainstream schools and SERCs (Tables 5.25A1 NDoEO, 5.25A2 SERCS, 5.25A3 MSST and 5.25A4 PEO/DEO Appendix 3). Generally, the participants from the SERCs and Mainstream schools described the national government's support of school fee subsidies as form of 'political support' for Inclusive Education.

In addition, the NDoEOs noted that the:

Australian Government, NDoE, [and] Department of Health and Department of Community Development support were made through established committees with respective programs generally for teacher education institutions and the centres for the disabled population (NDoEO Table 5.25A1 Appendix 3).

But this Inclusive Education policy support does not filter down to all Mainstream schools. Most SERC-staff and MS-teachers have not seen political support from provincial and local level governments to fund their Inclusive Education plans and programs on a yearly basis but only some on ad hoc bases. For instance most SERCs claimed that 'the policy is there but the government does not strongly support the Inclusive Education program. Not seen seriously as one of the focus area of implementation' (SERCS61), while some MS-teachers indicated that 'most ... only support the whole school, not specifically for special students in school' (MSP7). The PEOs also indicated that 'there is very poor support. In fact there is none' (PEO17).

NDoEOs indicated some political support through the 'Ministry of Education' in 'teacher training' provided by the PNG government and Australian government (NDoEO Table 5.25A1 Appendix 3). At the same time, some SERC-staff and MS-teachers indicated very little, or in some instances no, 'political support' from the different levels of governments after 1993. The common perceptions in the survey text data are reflected below (Table 5.25A2 SERCS, Table 5.25A3 MSP, Table 5.25 MSCT, Table 5.25A4, Table 5.25 PEO and Table 5.25 DEO appendix 3):

Most that I know of only support the whole school, not specifically for special students in school. (MSP7).

Only in some areas depending on their priorities of development plan (MSCT19).

There is very poor support. In fact there is none (PEO17). There is not so much and

not really happening at the three government levels (PEO20).

Most SERC-staff and MS-teachers acknowledged no political support in many provinces except for a few on an ad hoc basis through the support given by the PDoE. For instance, various teaching positions were made available for SERCs when they were officially registered with the NDoE and initially began functioning. Provisions of school fee subsidies for individual SERC disabled children were then made available and based on SERCs' enrolment figures submitted to the PDoE and the NDoE by the governor, or the local member of the parliament (NDoEO Table 5.25A1).

For children in the Mainstream schools, the 'school fee subsidy' was calculated and paid for all children but no special subsidy grants were provided for Inclusive Education programs annually. It is the view of the participants that political support was mainly on funding. Other significant forms of political support such as disability legislation, disability projects in schools or province various disabilities and other created a portfolio or, Ministry for Disability, were never stated or heard of by participants. The researcher noted that most participants were not aware of such support systems for Inclusive Education. Most participants only referred to the *NSEPPG*, 1993 as a policy document.

5.2.2.4 Issue four - Environmental support (responses in Survey Part C.4)

The final subsection of the survey concentrates on participants' perceptions about environmental support/issues that associate with the implementation and institutionalisation of the Inclusive Education policy and system-wide practice. Table 5.15 portrays that the majority of the participants believed that SERCs and Mainstream schools extend what they value about Inclusive Education to other key stakeholders. 74.4% of the participants agree or very strongly agree with the proposition, while 25.6% of the participants disagree or very strongly disagree. The researcher noted that the SERCs have visited a good number of urban Mainstream schools including the ones he visited. However, most of the rural schools were not visited by the SERCs and informed about Inclusive Education.

Table 5.15 SERCs/Mainstream schools do extend the value of Inclusive Education to stakeholders

Participants' Response Categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	4	7.3	7.3
Strongly disagree	4	7.3	14.6
Disagree	6	11.0	25.6
Agree	28	50.9	76.5
Strongly agree	8	14.5	91.0
Very strongly agree	5	9.0	100.0
Total	55	100.0	

Table 5.16 shows that the majority of the participants believe that SERCs / Mainstream schools had a better association with the external local environment to implement Inclusive Education. 69.1% of the participants agreed or very strongly agreed, while 30.9% of the participants disagreed or very strongly disagreed. The above result seems to imply that awareness is being carried out or made; however, there are many people in the local community who know very little about Inclusive Education. This may have very little impact on the understanding of Inclusive Education in the local environment.

Table 5.16 SERCS/Mainstream schools associate with external environment

Participants' Response Categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	2	3.6	3.6
Strongly disagree	10	18.2	21.8
Disagree	5	9.1	30.9
Agree	28	50.9	81.8
Strongly agree	7	12.7	94.5
Very strongly agree	3	5.5	100.0
Total	55	100.0	

Table 5.17 reveals that the majority of the participants believe that SERCs and Mainstream schools provide a less restrictive learning environment for Inclusive Education in Mainstream schools. 43.6% of the participants disagreed with the proposition while 56.4% agree or very strongly agree. Almost half of the participants seem to hold the view that the least restrictive learning environment is a problem for Mainstream schools and SERCs to address for Inclusive Education. This may be a barrier or a facilitator of Inclusive Education in Mainstream schools.

Table 5.17 SERCS/Mainstream schools provide a least restrictive L/Environment for Inclusive Education

Participants' Response Categories	Frequency	Percent	Cumulative Percent
Very strongly disagree	8	14.5	14.5
Strongly disagree	7	12.7	27.2
Disagree	9	16.4	43.6
Agree	25	45.5	89.1
Strongly agree	5	9.1	98.2
Very strongly agree	1	1.8	100.0
Total	55	100.0	

Finally, text data from the Survey is presented to give the participants' perceptions of 'environmental support/issues'. Generally, participants' written accounts indicate that environmental support was minimal. For instance, the limitation of funds to support travel and in-service were noted as a major barrier to research out to the schools and the local communities. According to Table 5.25A1 NDoEO, Table 5.25A3 Mainstream schools and Table 5.25A4 PEO/DEO (See Appendix 3), SERCs that have functioned prior to and since 2007, their responses were:

We do extend and submit our programs to external stakeholders but they only provide little support. Not as much as we like to carry out the Inclusive Education programs (NDoEO59)

We do have proper conducive learning environment for CWD but we use the Church building and a smaller area that is restrictive for clients only but not least restrictive environment like Mainstream schools (NDoEO49).

The key stakeholders 'Provincial Division of Education' [and] school agencies are

accepting policy and guidelines but not putting them in full practice (NDoEO58).

The approach of special needs is yet to sink into the system of educating special and normal children (SERCC39).

Additionally, the researcher noted that though SERC-staff and MS-staff were able to extend what they value about Inclusive Education to other key stakeholders to get environmental support there was minimal 'least restrictive learning environment' for CWDs in schools. The PEOs and DEOs, as well as the Mainstream schools-teachers with their principals acknowledge that:

The mainstream schools do not have facilities to cater for the disable students (PEO21).

We make awareness to the surrounding communities about the importance of inclusive education (MSCT24).

Programmes are done but outcomes of them are not really showing out. The [environmental] support from [key] stakeholders is not effective (MSP10).

Lack of proper materials and curriculum is a hindrance to the effective deliverance of information to children with disabilities. (MSCT21).

Thus generally, the researcher observed that 'environmental support' for Inclusive Education by PEOs, DEOs, SERC-staffs and MS-teachers in each province is limited. The lack of interaction and understanding by the community or the key stakeholders' ignorance to Inclusive Education seem to be key indicators for the lack of support.

5.2.3 Summary of survey findings – responses to Key research question 1: Why has there been limited progress towards Inclusive Education since 1993 in PNG?

This sub-section presents the findings that provide answers to the Key research question 1: Why has there been limited progress towards Inclusive Education since 1993 in PNG? In this presentation a summation of key findings in the survey is given.

1. Understanding of the policy – perceptions/views of participants:

a) A barrier to inclusive education – lack of understanding of the policy statement and how the policy can be meaningfully translated into the practical teaching and learning

context is problematic. The survey found that two thirds of the participants understood what the Inclusive Education policy is while the other one third had a very limited understanding of it. For the other one third they had not read and understood or been explained to in their workplace and the training they had received. A few of these participants had also indicated that they were new to the teaching profession and needed to get information or proper awareness in professional development such as workplace learning or by attending full time or part time training. This barrier will be further explored in the next chapter.

Limited education and training contributed to the limited understanding of the Inclusive Education policy and its implementation and institutionalisation. The focus has been mainly on general education. Special Education or Inclusive Education training was only received by the SERCs and the personnel at the NIEU of the NDoE to take up leadership to initiate, implement and institutionalise Inclusive Education policy in the education system. Education and training of the MS-teachers, PEOs and DEOs was not made fully available, or, if it was provided it was only on a smaller scale. This will be further explored in the next chapter (6)

2. ‘Socio-cultural and traditions’ – perceptions/views of participants

a) A barrier to Inclusive Education – the ‘socio-cultural and historical links’ factor is a great barrier to the implementation and institutionalisation of Inclusive Education policy and practise. Two thirds of the participants acknowledged that there is educational reform in PNG and that participants’ beliefs about Inclusive Education were seem to be generally acceptable. However, less than 1/3 believed that socio-cultural and historical factors were not supportive of Inclusive Education. A SERC staff member acknowledged that: ‘some parents think that CWD are useless and are taking up spaces for normal children [in education]’ (SERC-staff). There seems to be a lack of broader community and system-wide acceptance of Inclusive Education in the Mainstream schools. In addition, there are parents of CWDs who understand what Inclusive Education is but have doubts whether their children can be educated in the modern education system. This will be explored in the next chapter (6).

In general, 3/4 of the participants positively indicated that ‘socio-cultural and historical links were supportive of the institutionalization of Inclusive Education policy. This

support was only in principle, it was not put into practice in the school system. The MS-teachers, the PEOs and DEOs had negative attitudes to the delivery of Inclusive Education policy. This scenario seems to imply that the leadership at the provincial, district and the Mainstream schools / SERC levels is not translating Inclusive Education policy into meaningful and practical teaching/learning experiences in the school system and the community. This will be further explored in the next chapter (Chapter 6).

Traditional norms and belief systems of the past are critical of Inclusive Education and continue to exist in contemporary PNG. Participants indicated that parents and citizens uphold the traditional mindsets of inferiority complexes against conditions of disability, and undervalues the potential of PWD or CWD to be educated in the Mainstream schools. Not all but certain parents and communities' view on formal mainstream schooling as not applicable for CWD. Why are these happening? This will be explored further in the next chapter (Chapter 6).

3) 'Political Support' – perceptions/views of participants:

a) A major barrier – the lack of political support for Inclusive Education policy implementation and institutionalisation in the school system is a major barrier. The participants' views of the national, provincial and Local/district level governments political support was mostly negative towards Inclusive Education policy and practice. Ignorance and the devaluing of Inclusive Education policy were perceived by participants in the delivery of education services in the provinces and their districts. This scenario seems to imply that though Inclusive Education policy was initiated and implemented initially, the various governments have failed to support it. This will be further elaborated in the next chapter (Chapter 6).

Political support is very minimal despite the initial initiation and implementation between 1993 and 2000 by the national government through the NDoE. Most SERCs and Mainstream schools' participants have not seen political support for Inclusive Education from the provincial governments down to the local level governments and the MS/SERC level. The NDoE only acknowledges teacher-training support provided by the PNG government and Australian government. On the other hand, SERCs and Mainstream schools had seen very little ad hoc, or in some instances no, 'political support' from the different levels of government. There was no 'political support' in

terms of key disability support legislation for CWD or PWD and their families, no annual budgeting for schools and SERCs programs or infrastructure, no ministerial portfolios, no school-based disability research and development projects, and no overseas and other international support negotiated for schools. Generally, this meant that no provincial, district and school structural and leadership plan and support system are in place for Inclusive Education in the contemporary delivery of education services for the provinces.

4) ‘Economic support and leadership’ – perceptions/views of participants:

a) A barrier to Inclusive Education – More than 3/4 of the participants were negative about funding provided by the Ministry of Education. In general, the NDoEO acknowledged that ‘economic and leadership support’ were limited or inadequate. However, as far as SERCs were concerned, the operational grants of K3000 to K4000 by the Ministry of Education were inadequate for institutionalising Inclusive Education policy and programs. In addition, the NDoEO and SERCs also acknowledged recently that a few ‘provincial’ and ‘local level’ governments have given support but most have not supported the Inclusive Education policy since its inception in 1993/4. A general view held by most participants is that ‘economic and leadership support’ has been minimal and was not taken on board seriously by various lower levels of government such as the provincial and local/district level governments.

b) Professional development of PEOs, DEOs, SERCs and Mainstream schools to understand and institutionalise Inclusive Education programs was limited in the urban and rural districts schools in access to Inclusive Education in partnership. It was also noted that ‘the bulk of the rural schools with their teachers and principals were yet to established or have meaningful access to Inclusive Education’ services through School Learning Improvement Programs (SLIP). Training and academic qualifications indicated that less than a fifth of the highest qualifications were obtained in special/inclusive education or disabilities study by the SERCs’ staff and NDoEOs that ranged from a Certificate to a Graduate Certificate and a Bachelor’s or a Master’s degree. As for the majority – MS-teachers, PEOs and DEOs, they had no proper qualification in special/inclusive education but a pre-service teaching certificate or a diploma, and an In-service Diploma and a Bachelor’s degree in school and general education. This means that appropriate Inclusive Education knowledge, skills and

attitudes are being denied. This then creates a major barrier to meaningful and practical implementation of Inclusive Education at the implementation and institutionalisation process.

5) Environmental support - perceptions/views of participants:

a) A barrier and a facilitator – The participants’ perceptions of the ‘environmental support’ by key stakeholders indicated both a positive and negative view. About 1/4 of the participants view that that SERCs/Mainstream schools do not extend what they value about Inclusive Education to other key stakeholders in the community, while most of the participants (3/4) do. However, nearly all participants noted that because of limited funding to support travel and to conduct in-service sessions, awareness was limited. As a result, there is ineffective networking by SERCS and Mainstream schools with all key stakeholders such as the provincial governments, Ministry of Education, PDoEs, local/district education, parents and guardians, school BOM, charity organisations, and the private sectors in each province of the four regions. Having presented the survey data analyses, the next discussion looks at the individual and focus group interview transcripts analysed with the assistance of Leximancer computer software.

5.3 Results of the Interview

The second presentation discusses the analysis of the interview under five subsections. These sections are outlined as follow:

5.3.1 Sub-research question 1.1 *To what extent do key stakeholders (teachers, special education personnel, educational personnel) understand and implement inclusive education in PNG?*

5.3.1.1 Issue one – factors affecting the understanding of Inclusive Education policy and practice
(responses to interview items 1 and 2)

5.3.2 Sub-research question 1.2. *What are the barriers or facilitators of structural and leadership dynamics impacting on the institutionalisation of inclusive education?*

5.3.2.1 Issue one – factors affecting the implementation and institutionalisation of Inclusive Education policy and practice (responses to interview items 3, 4, 5 and 6)

5.3.3 Summary of interview findings (responses to Key research question 1. *Why has there been limited progress of Inclusive Education in PNG since 1994?*)

Before discussing the five sub-sections, based on the Sub-research questions and Key research question, a conceptual framework of Leximancer analysis of six interview items is given in Figure 5.1.

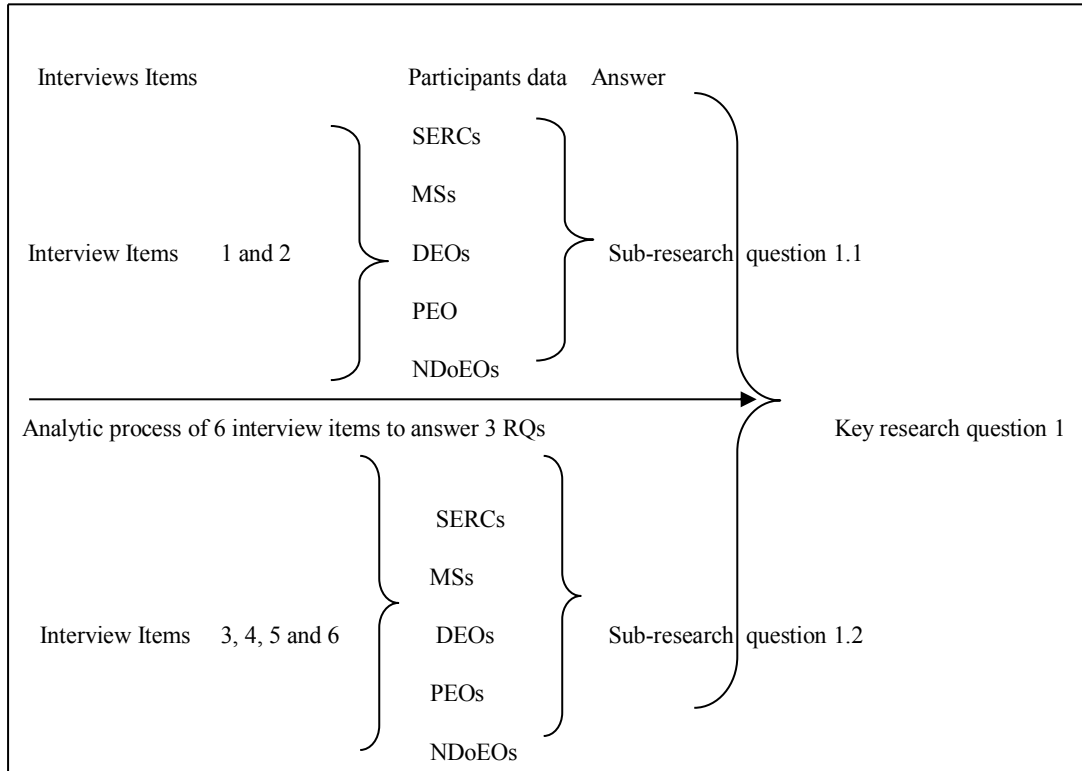


Figure 5.1 The Structure of Leximancer Analytical Conceptual-Framework

5.3.1 Sub-research question 1.1: To what extent do key stakeholders (teachers, special education personnel, educational personnel) understand and deliver inclusive special education in PNG?

What does the Leximancer reveal about the understanding of Inclusive Education policy and its institutionalisation by the SERCs participants? The Leximancer analysed the interview transcripts and generated visual cognitive images of written words as themes and concepts; straight lines determine key relationships and there are various coloured circles that represent primary themes, while concepts are represented by dots. Given below, in the order of the discussion are the Leximancer analyses beginning with the ‘SERC-staff’, followed by the ‘MS-teachers’, ‘PEO-officers’ and ‘DEO-officers’, and finally the ‘NDOE officers’. Each analysis helps to discuss the institutionalisation process and factors of Inclusive Education policy and practices that are based on themes and concepts provided as Text Log data Set (TLDS) one and two; and storylines derived

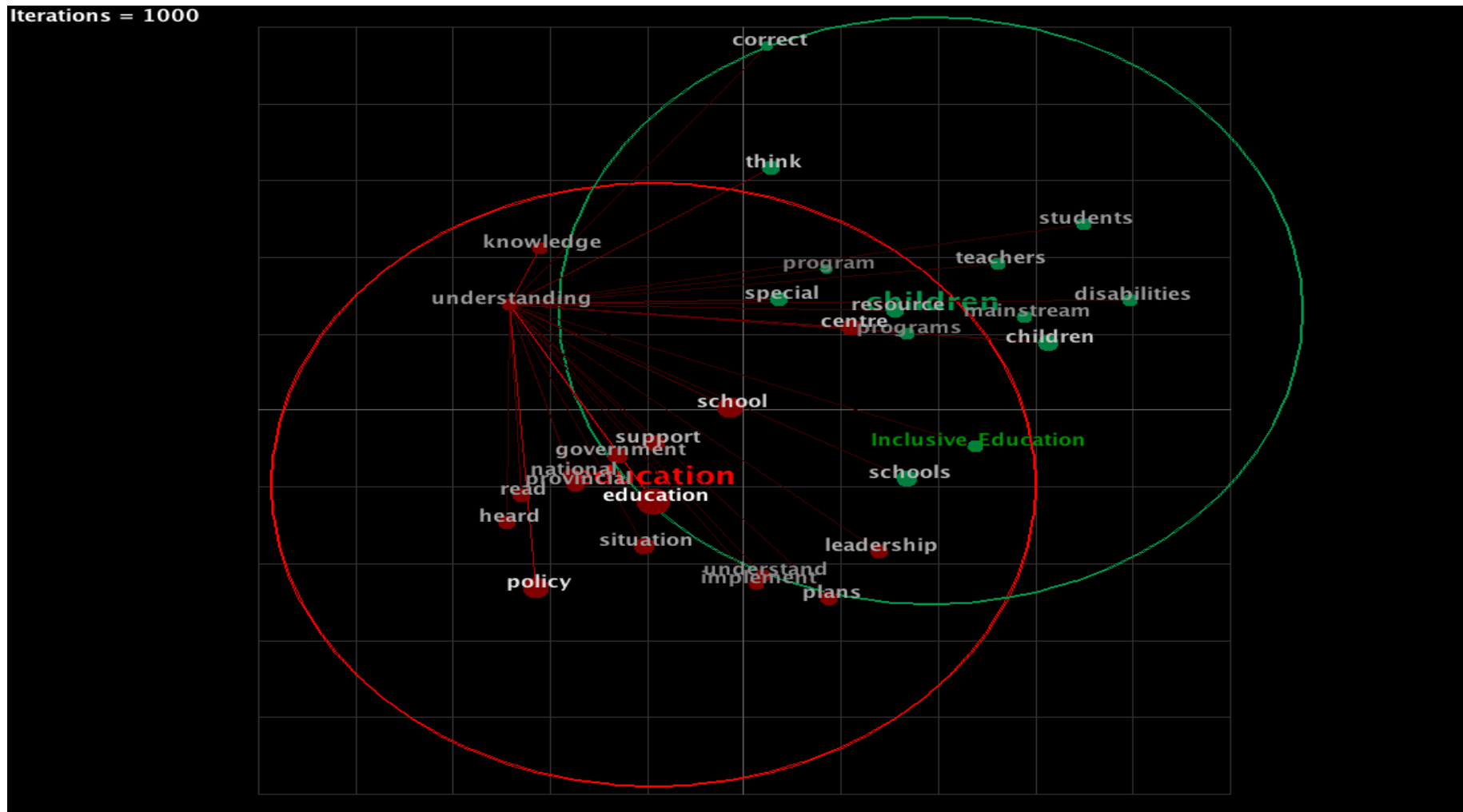


Figure 5.2 Theme and Concept Maps of Participants' Understanding of the Inclusive Education Policy

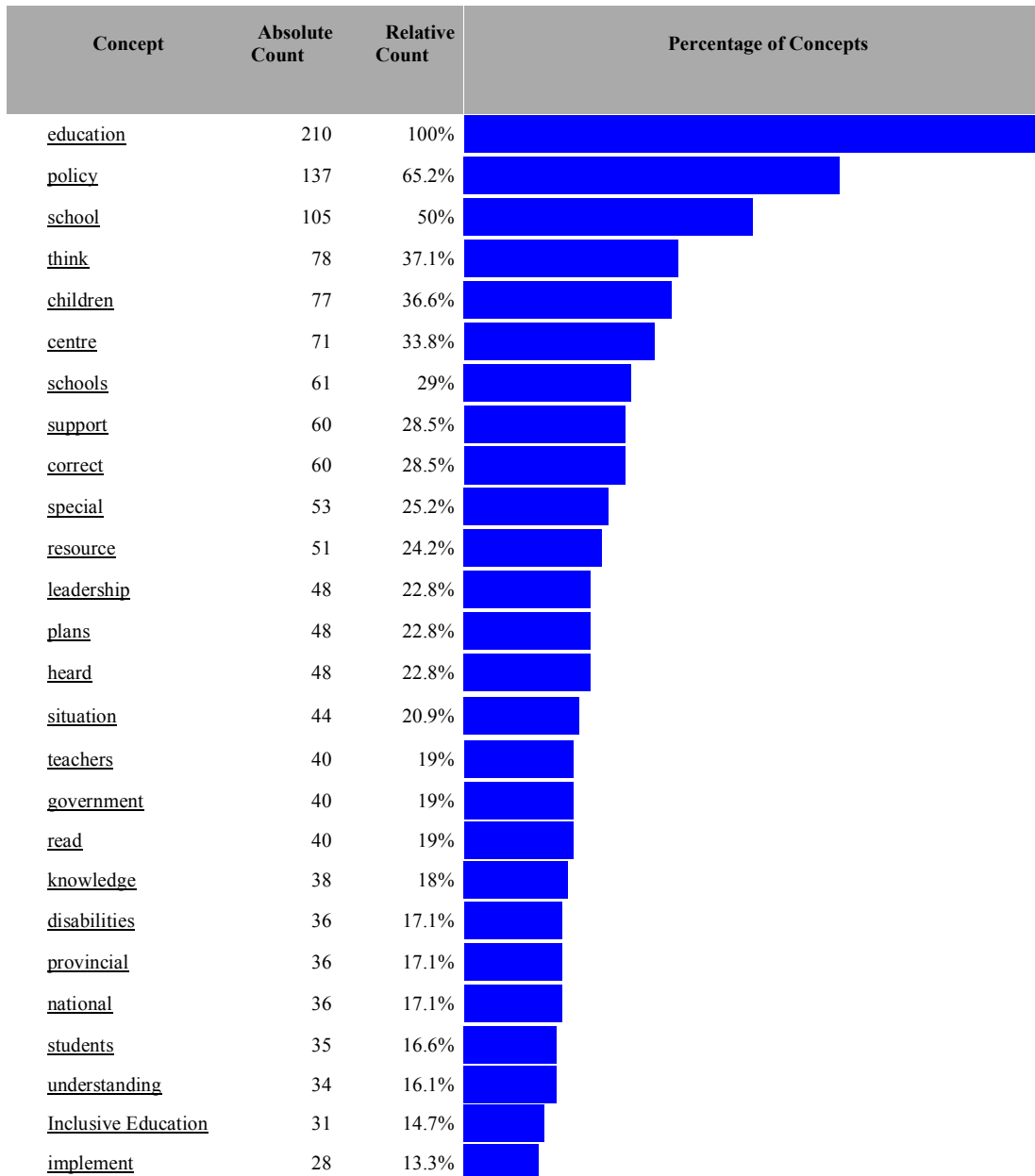


Figure 5.3 Leximancer counts of Rank Concepts in the Interview Transcripts in Percentages

from each group and individual interview transcripts. In Figure 5.1 the most occurring themes and concepts identified are ‘Education’, ‘Policy’, ‘School’, ‘Think’, ‘Children’ and ‘Centre’. They are inter-connected. In addition, Leximancer generated a rank order of percentages from the frequently used concepts to the least used concept in the Figure 5.2. The meanings of the concepts are interpreted consecutively to answer SRQ1.1 using ‘TLDS’ one.

5.3.1.1 Issue one – factors affecting the understanding of Inclusive Education policy and practice (responses to interview items 1 and 2)

The first presentation of interview quotations is from the SERCS, and then it is followed by MS-teachers, PEOs/DEOs and NDoEOs:

CC: We, the centre had one of the policy guidelines, and I have already seen it because that's the only document that helps me to run the centre.	Concepts: policy AND centre
CS1: I went for a course about the policy in Wewak and it talked about normal children and the disabled children can be educated together in the normal school context.	Concepts: policy AND education

What do they mean? Generally, since the inception of the Special Education or Inclusive Education policy in 1993, the SERCs have made an attempt to understand and deliver the Inclusive Education policy. From the CC perspective, the common understanding is that they have seen the policy and have used it to implement what was required then until now – the current state of implementation. From the CS they have some knowledge of Inclusive Education policy and what is required because it was part of their teacher training for inclusive education that they have received, however, some have not actually seen the Inclusive Education policy document.

Furthermore, the SERCs have indicated that while they have a better understanding of the policy, their core-counterparts the PEOs, DEOs, Mainstream schools and the local community where they work in do not understand what is Inclusive Education and its mandated requirements for implementation at the various levels of education – MS and SERC level, district level and provincial level. This view is evident in the original transcripts, which could not be generated by the Leximancer software:

What has happened is there has been a policy written but a lot of people within the provincial education office are not aware of the policy (CC).

Really, the policy needs to be disseminated down to the provincial level and reinforced there as well so that people like [school] inspectors; policy makers within the Division [of Education] can reinforce ... (CC).

Since the policy of inclusive education was developed in 1993, I would say that it needs more awareness especially to communities and to schools. They really need to know about what is inclusive education ... (CC).

Generally, across the four regions of PNG, there are about three categories of MS-teachers with different views about how they understand Inclusive Education policy and how they have engaged in its implementation and institutionalisation. In the first category ('TLDS' one):

<p>MSST: Well for me, umm, I haven't seen the policy so, to be honest, I don't know what the policy is for. In my years of teaching I have never come across this ah inclusive education policy so I cannot comment much on.</p>	<p>Concepts: policy AND education</p>
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It is understood that this view reflects a particular group of teachers that have not had any form of training to come to understand what the Inclusive Education policy is and its requirements. These were the teachers who were trained before 1993, and have not seen the policy document or been explained to what it is about. The second category of teachers ('TLDS' one):

<p>MSPs: It was just newly introduced by resource centre, and we went out visiting students with disabilities so children with disabilities around the province and we didn't do much. It was just introduced as I've said, and we just went into sign languages and all that. When I came out, I didn't see anything much on that so I just went in to everybody teaching normal in the schools.</p>	<p>Concepts: children AND disabilities</p>
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This quote represents the view of teachers who have had some training in a Teachers' College when they were taught a unit of special or inclusive education. Between 1993 and 1997, after its initiation, the Inclusive Education policy was introduced with very little clarity and no in-depth explanation for implementation and institutionalisation. During the first three to four years of implementation, very few teachers were exposed to the Inclusive Education policy. The third category of teachers ('TLDS' one):

<p>MSST: About the policy, in fact it is not very clear to the classroom teachers using our curriculum. There is no clear statement about inclusive education, especially, with regards to disabled persons in the school. We have an outcomes-based curriculum and our curriculum books are mostly to do with able children.</p>	<p>Concepts: policy AND school</p>
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<p>MSST: Yes, actually policy I haven't seen it, only hearing, but not read it myself or gone through induction through that policy. So I have not much idea about the policy.</p>	<p>Concepts: policy AND education</p>
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The teachers with this view indicate that they understand the Inclusive Education policy, however, they have indicated that they have yet to be engaged in meaningful training that would help them to acquire relevant knowledge, skills and develop acceptable beliefs or value systems about Inclusive Education. Additionally, they indicated that the training would help teachers to translate the policy into practical teaching and learning experiences for CWDs.

The extent to which the DEOs understand and deliver Inclusive Education policy and its required practice have been minimal. Beginning with the first DEO, who stated (TLDS one) that:

PEO: Thank you. The first time I came across this policy was in 1997 at Papua New Guinea Education Institute (PNGEI) when I was studying Special Education as a Unit for my diploma in Education.	Concepts: policy AND education
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Generally, the quote represents a common response from the DEOs interviewed about the concept ‘policy’ for Inclusive Education. It was apparent that for those with some form of training in teacher education institutions between 1997 and 2011 have been informed what the Inclusive Education policy referred to. One of the four DEOs interviewed stated, ‘I have actually not read any document regarding the policy but I have just heard and seen... at a Resource Centre here’. So, it is noted that there is a general understanding of Inclusive Education policy, however, the transferring of knowledge of Inclusive Education policy into practical programs in the districts is lacking. This is evident in the next quote given below (‘TLDS one’):

DEO: Well, in reality, not much has been done since 1993 when the policy first came out and it was not made known and even awareness was made in institutions, nothing actually took place. Evidently, in the Division of Education here and especially in the district I'm looking after too.	Concepts: policy AND education
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Therefore, a common view across the four regions of PNG is that DEOs did indicate that the SERCs were more or less set up in the main town district and their links with other districts were yet to be established. Therefore, it is evident that the understanding of Inclusive Education policy at the district levels is very limited and specific plans to implement and institutionalise Inclusive Education across a whole province and its districts are non-existent.

It is quite evident that PEOs in the four regions of PNG have very limited knowledge and understanding of the Inclusive Education policy. The PEOs do not know the required policy strategies that translate into teaching learning experiences in the school system as far as the delivery of education services is concerned. A classic example is demonstrated by the following response in an interview with a PEO ('TLDS' one):

<p>Researcher: While looking at the Division of Education as a whole. Is there any leadership at this time through the education division down to the schools that have any support plans for the schools and for the resource centre? PEO: Again, I would say no. I've not heard any, anything yet like that. You see, my mentality now at the moment is this ah, this is you know ah separated kind of ah, that is, you know what I mean ah? We are talking but then I'm seeing a different picture now since you coming here and talking with me here. So, definitely in my mind, I am thinking along that line, that something needs to be done.</p>	<p>Concepts: centre AND leadership</p>
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Like their district counterparts nearly all participants displayed no understanding, or only had a very vague idea about the policy and its recent development. One PEO said, 'Okay, like everything else we ... are implementing the government policy on education. Especially, special education and this is the information that has come since February 2011' (PEO1). This particular province has just become aware in the last couple of years that there is a policy on Inclusive Education, and had not been made aware during its inception in 1993. In addition, the same officer acknowledges his own limited understanding by saying (original interview text):

Not so much because maybe in one way or the other, the [NDoE] personnel people at the headquarters are not visiting our province... this may have contributed to the lack of information from the National Headquarters' (PEO1).

Another PEO also indicated that same lack of Inclusive Education policy understanding (TLDS one):

<p>PEO 1: Okay, thank you very much. Inclusive education, to be quite honest about, I understand it. For example, in the national education plan, just a bigger picture in this policy of education plan and breaking down universal basic education plan and then it comes to provincial plans and it flows down to district plans. Ok, the little nitty-gritty's like inclusive special education comes in I'm not so familiar about it ... as a teacher and moving to become an administrator in the Division of Education.</p>	<p>Concepts: government AND education</p>
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Both PEOs and other DEOs working under the PDoE have been very ignorant about the policy and have initiated nothing for Inclusive Education. Whether they were new or or they had been in the position for a number of years, they acknowledged that they

were now beginning to engage in developing plans initiated by the Catholic Disability Services. The Catholic Disability Services, while being in partnership with the NDoE, has recently established SERCs that would provide disability services and Inclusive Education programs to the provinces' schools. Given this new development initiative, the PEOs in various PDoE in the regions have come to see the significance of Inclusive Education policy as a government initiated policy that has been neglected for 10 to fifteen years.

The extent to which the NDoE understand and deliver Inclusive Education policy and its required practice are interpreted consecutively and similarly. The interview took place at the NDoE, which involved officers of the NIEU, and they are referred to as NDoEO1 and NDoEO2. At the NDoE (National Level of Education), the officers have a very clear understanding of the Inclusive Education policy and were to advise the SERCs, the PEOs, DEOs and MS-teachers on implementation and institutionalisation. NDoEOs 1 and 2 (TLDS one) made the following statements:

<p>NDoEO1: Yes, for me as a Curriculum Officer, yes I'm aware of the Policy of the Special Education that was been introduced. It's a policy that needs to also be made aware to all the schools within the elementary, within the primary, within the secondary and all that because now within the special education, these children with special needs are mainly is a focus in having education within the mainstream as well.</p> <p>NDoEO2: I'm aware of this Inclusive Special Education policy as a Standards Officer.</p>	<p>Concepts: policy AND mainstream</p>
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When asked to what extent do the key stakeholders (SERCS, Teachers Colleges, PEO and DEO, Mainstream schools and NDoEO) deliver Inclusive Education, one NDoEO acknowledged that 'there are programs that are in place between Teachers' Colleges and also the SERCs. But what I'm saying is, it's little. What is done is little, and it needs to be emphasised and there needs to be more involvement within the two institutions' (NDoEO1). Another NDoEO made this observation ('TLDS' one):

<p>NDoEO2: Lecturers have no background in special education, and that's where they feel that they don't see the importance of working together with the resource centre. And also, there is another area that lecturers also need to understand is that, there are schools around and they need to work together with the mainstream schools to have more practical activities within those mainstream schools.</p>	<p>Concepts: centre AND education</p>
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Despite the clear understanding of the roles to be played by the SERCs, as well as the Teachers' Colleges and the Mainstream schools, the progress since the implementation

of Special Education or Inclusive Education policy is far from what is desirable. Therefore, as far as NDoEOs are concerned, the SERC-staff and Teachers' Colleges' lecturers in Special Education or Inclusive Special Education employed by the NDoE are supposed to be working together to implement the Inclusive Education policy in the Mainstream schools. The training needs of pre-service and in-service teachers are also included in this view. However, the impact of Inclusive Education policy implementation and institutionalisation has been very limited. Given these scenarios, it is quite evident that the understandings of the Inclusive Education policy and its delivery mechanisms have been poorly articulated by key stakeholders since the inception of the Inclusive Education policy in 1993.

In sum, the extent to which key stakeholders understand and implement the Inclusive Education can be seen through the analyses of the first two items: SERCs, Teachers' college lecturers and NDoEOs have a better understanding of the Inclusive Education policy and the required delivery mechanisms stipulated in the *NSEPPGs* document; and Mainstream schools and PEOs have very little understanding of the Inclusive Education policy and the required delivery mechanism stipulated in the Inclusive Education policy and guidelines. The next presentation of data focuses on the barriers or facilitators of structural and leadership dynamics impacting on the institutionalisation of Inclusive Education policy based on SRQ 1.2.

5.3.2 Sub-research question 1.2. What are the barriers or facilitators of structural and leadership dynamics impacting on the institutionalisation of inclusive special education?

In order to identify the barriers or facilitators of structural and leadership dynamics impacting on the institutionalisation of Inclusive Education policy, the SERC-staff have expressed a number of views. As far as training is concerned, the SERC-staff see MS-teachers as having lack of proper knowledge, skills and appropriate attitude to educate and support children with disabilities. According to TLDS (Figures 5.4 and 5.5) and original interview text data. First according to original data, they claim that:

The disabled children are left out in the village so we normally go out for our program to talk on inclusive education. There are many children with disabilities being enrolled into ... schools...The biggest challenge are ... supporting children with intellectual disability... difficult to handle... need expertise to assist them. They [teachers] worry about student performance and do not want ... to waste time on children with disabilities (CS).

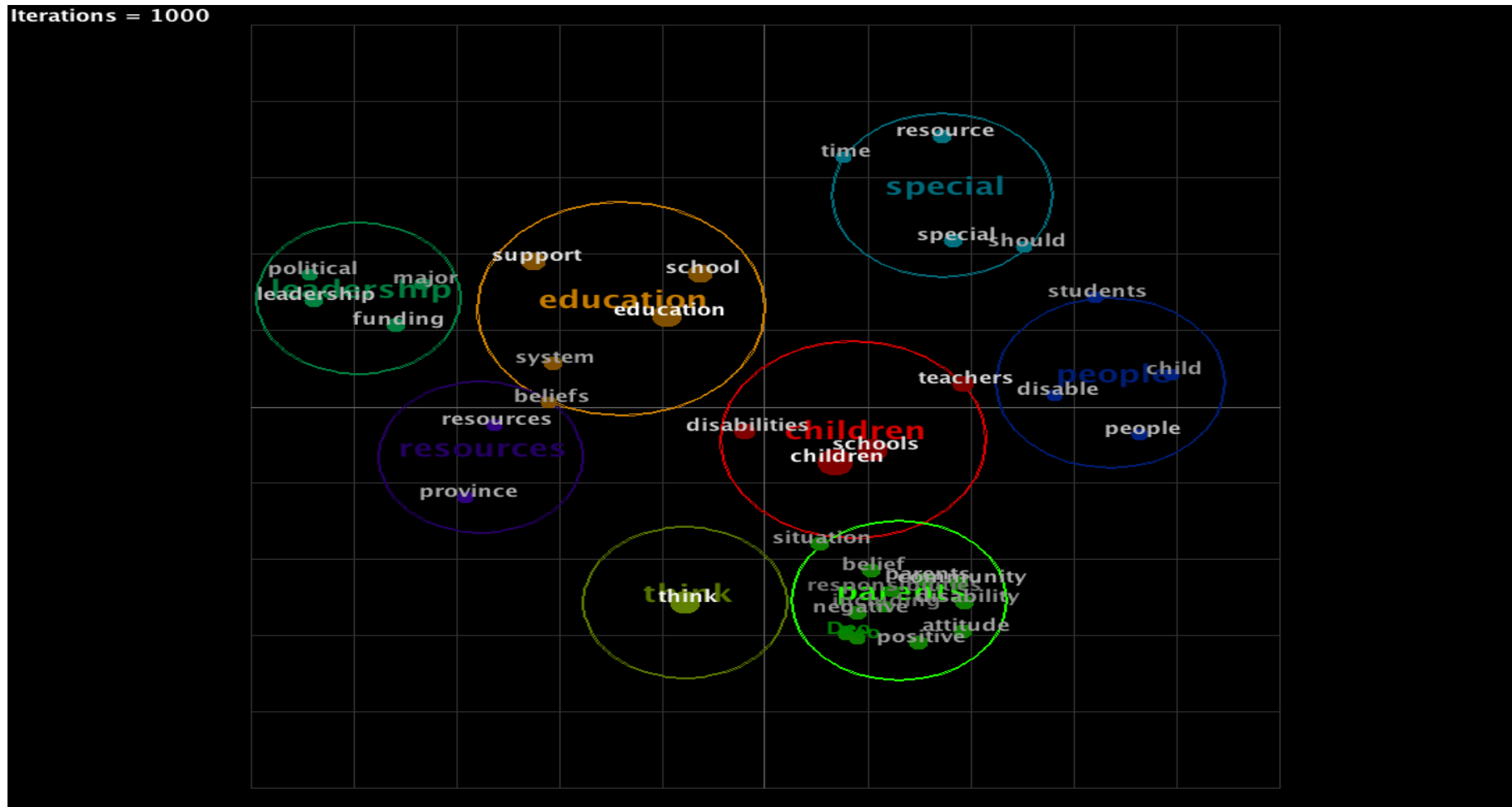


Figure 5.4 Concept map on Factors affecting structural and leadership dynamics of IE

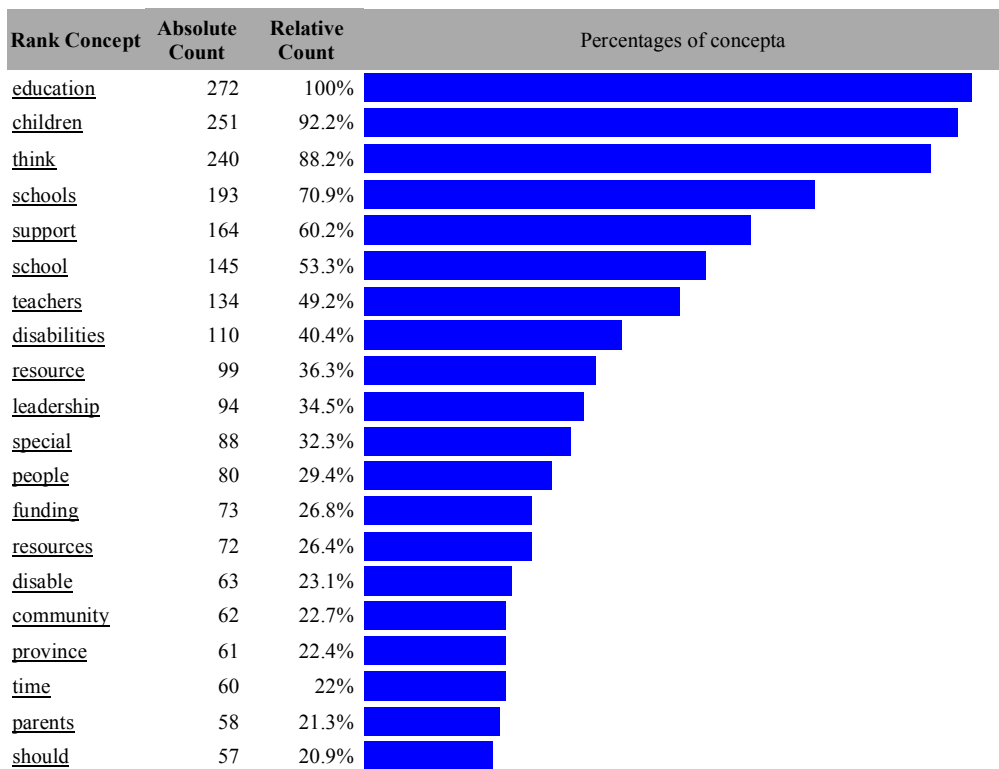


Figure 5.5 Leximancer counts of Rank Concepts in the interview Transcripts in Percentage

In addition, it is quite evident that both SERC staff and MS teachers do not have a ready-made curriculum from the NDoE to help guide them to teach children with disabilities. This was noted in an interview (‘TLDS’ two):

<p>MSCT: Teaching and learning is also a problem. We still need some resource books at the same time like more creative resource books and more special education books that will guide and help teachers to teach. Also the latest sign language books that can help us to teach the deaf students, some resource books for lower vision like blind students like the Braille machines and Braille papers.</p>	<p>Concepts: education AND special</p>
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Currently, the ‘Outcomes-based Curriculum (OBE) that is in use lacks structure and content that is irrelevant for children with special needs. Furthermore, paraprofessionals that have sufficient training in local and standard sign language to communicate and teach the deaf or hearing-impaired children are unavailable. The same applies to children with intellectual disabilities who do not have SERC staff and MS teachers to educate them. Some CSs observed the following (‘TLDS’ two):

<p>CSs: There are variety of needs and so it's often very difficult to follow the Outcome Based Curriculum because it doesn't fit the situation the child has and this makes it very difficult for teachers to follow what the mainstream teachers are following and that's so I think the most challenges teachers face here, and that's why we've been asking our bosses. When the Senior curriculum Officer, Special Education inspector and the Superintendent were here, we asked him if they can specifically look at the needs of the resource centre and speak on children with disability and the different disabilities and what and how we can kind of develop the children's program based on their strengths, their abilities, and the IP's that is derived from their assessment.</p>	<p>Concepts: children AND disabilities</p>
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Apart from 'Hearing', 'Sight' and 'Intellectual' disabilities other disabilities such as 'Learning Disabilities', 'Behaviour problems', 'Speaking and communication problems' and 'Others' were not mentioned by the CC and CS and this could mean that they may have less difficulty addressing them.

Furthermore, other major barriers also contribute to the institutionalisation of Inclusive Education include the socio-cultural understanding of disability by the people, and the support system provided by the SERCs. Generally, the SERCs have expressed concerns about the lack of awareness of Inclusive Education ('TLDS' two):

<p>CS: Since the policy of inclusive education was developed in 1994, I would say that it needs more awareness especially to communities and to schools. They really need to know about what is inclusive education and then they really need to have some basic ideas about what causes, what are some of the causes of disabilities and all these stuff? Since most of the people, they don't know what are some of the causes and all these they are thinking that bad spirits or demons spirits associate with disabilities. These kind of negative beliefs and practice are becoming barriers for Inclusive Education not only in schools but also in the communities</p>	<p>Concepts: education AND schools</p>
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Overall, given the socio-cultural nature of each region's cultural setting, children and PWDs and their families or guardians have yet to fully grasp the profound nature and purpose of Inclusive Education policy, and how they can benefit from its institutionalisation. The next presentation of the analysis concentrates on the Mainstream schools.

Generally, across the four regions of PNG, there are about three categories of MS teachers with different views about how they understand Inclusive Education policy and

how they have engaged in its implementation and institutionalisation. The first category had not received any information on Inclusive Education (‘TLDS’ two):

<p>MSST1: No, we haven’t done that as a province. Just a way to comment that if the province knows about the policy, we will have in-services like we have the Provincial In-service Training, however, the focus was on Outcomes Based Education, and there was nothing on Inclusive Education.</p>	<p>Concepts: Inclusive Education AND policy</p>
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It is understood that this view reflects a particular group of teachers that never had any form of training to come to understand what the Inclusive Education policy is and its requirements. These were the teachers who were trained before 1993, and have not seen the policy document or had its significance explained. The second category of teachers knows some aspects of Inclusive Education but has done little to implement it (‘TLDS’ two):

<p>MSST2: For my case, while I was teaching in National Capital District, I saw the policy during workshops, but I learnt it very briefly about inclusive education. I then went to do my Diploma studies at PNG Education Institute in 2008, I did an elective on Inclusive Special Education and I saw the policy. However, we have not done much about it.</p>	<p>Concepts: education AND Inclusive Education</p>
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This quote represents the view of teachers who have had some training in a teachers’ college when they were taught a unit on special or inclusive education. Between 1996 and 2011, after the initiation of Inclusive Education policy, it was introduced with very little clarity and no in-depth explanation for implementation and institutionalisation. The implementation began in the first three to four years where both pre-service and in-service diploma teachers where been introduced to the Inclusive Education policy. The third category of teacher had some understanding of Inclusive Education but little information on its implementation (TLD two’):

<p>MSST1: About the policy, in fact it is not very clear to the classroom teachers using our curriculum. There is no clear statement about inclusive education, especially, with regards to disable persons in the school. We have an outcomes-based curriculum and our curriculum books are mostly to do with able children and specialised subjects.</p>	<p>Concepts: school AND policy</p>
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The teachers with this view indicate that they understand the Inclusive Education policy, however, they have yet to be engaged in meaningful training that would help them to acquire relevant knowledge, skills and appropriate beliefs or value systems. This in turn will help teachers to translate policy into practical teaching and learning experiences for children with disabilities. The next discussion focuses on the barriers or facilitators of structural and leadership dynamics impacting on the institutionalisation of Inclusive Education policy.

As far as the barriers and facilitators are concerned, generally, across the four regions, teachers had indicated that a number of factors have affected the structural and leadership dynamics of all Mainstream schools such as socio-cultural, political support, economic and leadership support, and environmental support. Beginning with ‘economic and leadership’ factors most teachers observed the following (‘TLDS’ two):

<p>MSST: At the moment, there is very little awareness on Inclusive Education. I don't think they are prepared, but I'm sure that if there were awareness and in-services carried out more about Inclusive Special Education, I'm sure schools will be prepared and very happy to take Inclusive Education. We want the Inclusive Education people like the resource centre to visit more schools and tell the people about the policy, so that the people can understand and support their children and the schools.</p>	<p>Concepts: support AND people</p>
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Furthermore, the MS teachers have indicated, ‘to date, right at the moment, there is no funding for students with disabilities’ (MSCT). For teaching children with disabilities, teachers felt that ‘they don't have enough resources to support the disabled children’ (MSST). They explained that ‘most of them, the disabled children just go with the normal children using whatever resources the normal children are using’ (MSCT). However, teachers who have had training in Inclusive Education or special education from a Teachers' College were seen to have come with some materials with them, but due to the limitations in teaching and learning resources and instructional support these teachers reverted to general teaching. Here is what one had to say (TLDS' two):

<p>MSST: [Inclusive Education] was just newly introduced by the resource centre and we went out visiting students with disabilities around the province and we didn't do much. It was just introduced and as I've said, we just went into sign language and all that. When I came out, I didn't see anything much on that so I just went [with] everybody teaching normal in the schools.</p>	<p>Concepts: children AND disabilities</p>
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Also, another teacher explained a similar kind of situation they had faced ('TLDS 'two):

<p>MSCT: There are a variety of needs and so it's often very difficult to follow the Outcome Based Curriculum because it doesn't fit the situation the child has and this makes it very difficult for teachers' to follow what the mainstream teachers are following. So I think that is the challenge most teachers face here, and that's why we've been asking our bosses. When the Senior curriculum Officer, Special Education Inspector and the Superintendent were here, we asked them if they could specifically look at the needs of the resource centre and how we can kind of develop the children's program based on their strengths, their abilities, and the Individual Education Plan that is derived from their assessment. There is no clear statement about inclusive education, especially, with regards to disable persons in the school. We have an outcomes-based curriculum and our curriculum books are mostly to do with able children.</p>	<p>Concepts: children AND teachers</p>
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In addition, some MS-teachers perceive that ' if the provinces [PDoEs] knows about the policy, we will have ... the 'Provincial In-service Training', however, the focus is on Outcomes Based Education, and there is nothing on Inclusive Education' (MSST).

Looking at the political support, and the economic and leadership support from the provincial government, local level governments (LLGs) and including the School Boards of Management (BOM), teachers have observed that 'there are no plans in place' (MSST). Some have indicated, 'For the whole province ... mainly the PDoE in our province, their concentration is on the mainstream schools' (MSPs). For instance, in considering infrastructure it was observed by teachers that PEOs 'talk about the infrastructure for the mainstream schools and nothing about infrastructure for inclusive education,' (MSPs).

Given these above scenarios, it is understood that since the inception of Inclusive Education policy in 1993 and between 1993 and 2010, Mainstream schools in the four regions of PNG had received inadequate support for Inclusive Education from the provincial and national governments. Importantly, the PDoE, the District Education, the LLGs and the Mainstream schools BOM have not provided any support sufficient political support, and economic and leadership support. There are leadership and systemic structures in place but also a lack of knowledge on Inclusive Education policy, ineffective communication, and no meaningful planning and implementation has resulted in the current state of affairs in the Mainstream schools.

SERC-staff have indicated that economic and leadership support was lacking in the last ten to fifteen years when SERCs were established. The provincial governments, through the PDoE, have abandoned the Inclusive Education policy until the last three years (2009 -2011) when a few began to provide support. One SERC staff gave an account of the situation (TLDS two):

<p>CS: Now lately in 2010, our administration for the first time had invited us as a Resource Centre through Community Development as a partner to represent or to attend a summit, which enabled us to go through the vision for our province in the 5year plan. So within the five-year's plan, disability or issues relating to persons with disabilities were taken on board and is addressed through the Community Development and Provincial Education Division.</p>	<p>Concepts: children AND disabilities</p>
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This is a classic example of provinces in the four regions who have just come to take on board Inclusive Education policy in its very early stage of implementation and are yet to see institutionalisation taking form in the MS system.

Finally, teachers' socio-cultural backgrounds and environmental supports have to some extent affected the institutionalisation of Inclusive Education policy, mainly in the area of specific attitudes based on the beliefs and value systems they have and practice. Therefore, generally there are three socio-cultural views that guide the attitude and behaviour of teachers toward CWDs and PWDs. The following are examples of the first two views ('TLDS' two):

<p>MSST1: I think when we are supported then we can have the positive attitude to deal with inclusive education. So at the moment teachers do not have a positive attitude because they lack certain training to have proper knowledge and skills to implement inclusive education.</p>	<p>Concepts: education AND think</p>
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<p>MSST3: Yes, like the three of us said, we have actually had a bit of training on special education while we were in college. So as teachers, I believe we treat these kids pretty much normal as the other kids in the classroom.</p>	<p>Concepts: education AND teachers</p>
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The above views seem to suggest that teachers have both a negative and positive beliefs and value systems that will guide their attitude and behaviour toward educating a

disable child or PWDs. In doing so, they can initiate, implement and institutionalise Inclusive Education only if they receive appropriate training.

The following responses illustrate the powerful influence of traditional beliefs about disabled children ('TLDS two):

<p>Researcher: Do you think traditional beliefs like curses or sickness and diseases are major hindrances to children to come to school? MSST1: Of course, there are beliefs like that still existing. They have beliefs that the father and mother have traditionally disobeyed advise on food taboos by a pregnant mother, and angered ancestral spirits living on the land. As a result the children were born with a disability. Researcher: So would you agree that this kind of belief system is strong in the community? MSST1: Yes, these beliefs are very strong.</p>	<p>Concepts: beliefs AND think</p>
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<p>MSST1: Some people's traditional beliefs are that if someone has placed a curse on another person, he or she will be disabled for all their life. There is no other explanation to it.</p>	<p>Concepts: beliefs AND people</p>
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This particular view suggests that there is a negative attitude towards Inclusive Education policy and to allow the institutionalisation process to occur. In the local communities, where teachers live and work people's belief and value systems are culture bound. Therefore, powerful barriers are in place and teachers cannot be facilitators of the Inclusive Education.

A third view by teachers concerns their numbers and training ('TLDS' two):

<p>MSST: Okay from my point of view I believe that this inclusive learning or inclusive education, it takes a teacher to be really well versed or trained. The attitude of the teachers and the present load they have, like right now, we have a population increase in all schools and the ratio is a like 1: 45 student per class, that's a lot.</p>	<p>Concepts: education AND teachers</p>
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In this view, teachers are undecided, and they cannot come to terms with the reality of educating all children in a class given the high teacher student ratio that is typically

found in an elementary and primary school classroom in PNG. Thus, a general view across the four regions indicates that the socio-cultural, political, economic and leadership and environmental factors impacting on Inclusive Education are commonly shared. In addition, the researcher noted that the ‘Ministry of Education’ in each region has a different view and little policy knowledge about Inclusive Education. As a result, it had not prepared the MS-teachers to fully accept the responsibility of educating all children given the limitations teachers confront in their teaching and learning contexts.

The extent to which the DEOs understand and deliver Inclusive Education policy and its required practice are interpreted consecutively from the text data presented and discussed below, beginning with is the view on the understanding of the Inclusive Education policy (‘TLDS’ two):

<p>DEO: Thank you, generally I’m not a trained special education officer with experience in a resource centre to mind these special people. I have heard of the policy since 2000, 2001, 2002, and 2003 while I was in Port Moresby attending the Papua New Guinea Education Institute (PNGEI).</p>	<p>Concepts: policy AND heard</p>
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Generally, the quote resembles a common response from the DEOs interviewed with the concept ‘policy’ for Inclusive Education. It was noted by the researcher that for those with some form of training in a teacher education institution between 1997 and 2011, they have been informed what the Inclusive Education policy is. One of the four DEOs interviewed stated, ‘I have not actually read any document regarding the policy but I have just heard and seen... at a Resource Centre here’ (PEO). So, it is noted that there is a general understanding of Inclusive Education policy, however, the transferring of knowledge on Inclusive Education policy into practical programs in the districts is lacking. This is evident in the next two views (‘TLDS’ two):

<p>PEO/DEO: Exactly, I think so. In my survey or questionnaire that I answered by stating that, I agree to that because I think that we lack awareness. Especially all education officers like my team, the Standards Officers should help to tackle this issue of inclusive education to occur in the school system. Because as Monitoring and Evaluating Officers of school education, I think we should be inducted by being made aware of the inclusive education policy. It has to be relooked by the Department of Education.</p>	<p>Concepts: education AND think</p>
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<p>DEO: I have actually not read any document regarding the policy but I have just heard and seen it because we have a Resource Centre here. I realize that, these things are coming up, and in fact certain people are talking about forming these institutions to cater for this type of education. However, by observing and listening, I came to pick up that there's something going on in this area of education.</p>	<p>Concepts: policy AND heard</p>
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Therefore, a common view across the four region of PNG is that DEOs did indicate that the SERCs were more or less set up in the main town district and their links with other districts were yet to be established. Therefore, it is evident that the understanding of Inclusive Education policy at the district levels is very limited and specific plans to implement and institutionalise Inclusive Education in a particular province and its districts are non-existent.

Given the general understanding of Inclusive Education policy by the DEOs, the next discussion focuses on the barriers and facilitators of the structural and leadership dynamics of institutionalising Inclusive Education at the district level. The following factors have impacted the institutionalization process: economic and leadership support, political support, socio-cultural and historical links, and environmental support. According to the DEOs, the Catholic Disability Services and the NDoE, through the PDoE, played a major role in the establishment of SERCs to administrate Inclusive Education services or programs in PNG's school system. In terms of 'economic and leadership' support (TLD two):

<p>DEOs: I think in fact, upon listening to the media at the national level, they have [the national government] has injected some money for the special education or inclusive education. But in the province, about five years or so, we had the opportunity of getting Catholic Disable Service, which was established here at the ... Catholic Parish. So we have the Resource Centre in place. We have also teachers being paid by the Teaching Service Commission... about four teaching positions out there at the moment.</p>	<p>Concepts: school AND province</p>
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The DEOs work with the PEOs to ensure that all education services in their districts are funded so that they plan, organise and administrate key educational functions for all schools. As far as all educational programs including Inclusive Education are concerned, both the provincial and national government provide funding and the DEOs

and PEOs provide the leadership that link up with the leadership at the MS and SERC level. This is demonstrated by a common response from the DEOs ('TLDS' two):

<p>DEOs: Ok, as far as I can recall, I think the centre has been given subsidy from the national government. I'm not too sure because we have two lots of funding, the provincial component and the national component. ... The centre has been given subsidy from the national government. That was the national component</p>	<p>Concepts: school AND province</p>
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Though it was acknowledged that the PDoE provided 'funding and leadership' this support was just very recent. Nearly all of the DEOs across the four regions acknowledged that funding and leadership support was never provided between 1993 and 2005. Inclusive Education funding (not a yearly budgeted item for education) and leadership were provided beginning 2010. One DEO claimed that ('TLDS' two),

<p>PEO/DEO: As far as I know, there is nothing. There's no plan and leadership at all. Unfortunately, there is none [Inclusive Education plan]. Honestly speaking, I have not seen or sighted any plans for that. Like it's just been excluded completely out. We ... are only concentrating on the mainstream schools at the moment ... I know there is a Resource Centre ... I thought that it is just a totally different sector altogether. There is no link to them.</p>	<p>Concepts: PEO AND leadership</p>
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It is very evident that all DEOs had grave concerns that the economic and leadership support for the SERCs to institutionalise Inclusive Education with the Mainstream schools was of low priority. The main focus of education was on infrastructure development specifically for generalised teaching and learning in the district schools. The DEOs also confirmed that because there is no 'political support' for this particular policy there are no development plans for the disabled children in the local communities. The LLGs do not know about such a policy and so the lack of knowledge is critical in this situation. As far as 'environmental support' is concerned for Inclusive Education, the DEOs indicated that parents and citizens support the Mainstream schools. It is only the SERCs who are able to assist disabled children in their own localities, or those that are close to the SERCs are brought in for examination and support. Given the barriers and facilitators of Inclusive Education policy and practice for the DEO, the next discussion focuses on PEOs and how their views help to answer Sub-research question 1.2.

Both PEOs and other DEOs working under the PDoE had been very ignorant about the policy and have, therefore, initiated nothing for Inclusive Education. They have acknowledged that whether they were new or had been in the position for a number of years, they were only now beginning to engage in developing plans initiated by the Catholic Disability Services. The Catholic Disability Services, while they have been in partnership with the NDoE, has only recently established SERCs that would provide disability services and Inclusive Education programs to the provinces' schools. Given this new development, the PEOs in various PDoE have come to see the dawn of Inclusive Education policy as a government initiated policy that had been neglected for ten to fifteen years. The following is a commonly shared view across the four regions ('TLDS' two):

<p>PEO/DEO: Yes, of course I do. I think not only in the province but political and leadership support at the national level as well. Both the provincial and national government need to take into consideration of inclusive education. [S]ince 2009, ...we [the SERC and PEOs] have joined together and helping each other with special or inclusive education ... three positions have been given to our three staff [SERC teachers] and they are on the payroll</p>	<p>Concepts: DEO AND support</p>
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As the Catholic Disability Services and the NDoE set up new SERCs in the regions in selected provinces between 2000 and 2011 establishment support was given. This support included the following: awarding of three or more TSC institutional positions depending on staffing needs such as 1 SERCC and two or more SERCS; a donated old building or a group of buildings are been renovated, including an old tourist resort, an old Catholic Church building and old preschool; and a set of Inclusive Education support package such as books and equipment for different disabilities – hearing, blind and low vision and physical disabilities. It was noted by the researcher that support also came from individuals and the local community through fundraising activities on Disabled Day Events and the non-government organizations such as Christofel Blinden Mission, the European Union and others.

Given these scenarios about the recent developmental support, they do indicate how certain factors such as socio-cultural, economic and leadership support, political support and environment support have impacted on the institutionalisation of Inclusive Education policy and practice. Beginning with the socio-cultural factor, across the regions there exist traditional and Christian beliefs and values toward the education of the disabled population. More specifically, most PEOs indicated that in both the rural

and urban areas traditional views of the local people are that disability is a hindrance for a person to learn and to advance like the able person. They see the handicap in society as shameful and a burden for their family and the local community. However, as was the case with the MS-teachers, there are three types of views about the education for children with disabilities. The first two views ('TLDS' two):

<p>PEO: I'm not too sure how much, but they raise some good amount of money where it involved a lot of people, different walks of life, people who were involved walked purposely to raise funds for the Catholic Special Education Centre. In addition, business houses and other individuals and organisation have also given their support in terms of a facility or otherwise funding.</p>	<p>Concepts: funding AND people</p>
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<p>DEO: Generally, from our perspective here in our province, our cultural beliefs on curses are still strong. It is happening and some students haven't experienced this because most parents are educated in the province. For such disable student their parents are able to put them in schools. Our [p]eople have no problem with that. We look after our people. In terms of Integral Human Development, the Division of Education is implementing that; ... we want everybody to be alike. [T]he community went ahead with the fundraising for the disables and people came all around ... to assist ... The positive things that they want are for the disable people to enjoy the same kind of life).</p>	<p>Concepts: parents AND disable</p>
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In this view, the potential of disabled persons to function in society is becoming quite observable, and thus educated persons in society are able to develop a positive attitude to be responsible and assist children with disabilities to get an education. The second two views (TLDS two):

<p>DEO: Our traditional beliefs, I think some people traditionally people say witchcraft has an influence. So a few can allow their children to be supported while otherwise just neglect them and let them stay in the village. That's how I see it. Yes definitely. I mean human thoughts and feeling can change, so people are beginning to change slowly.</p>	<p>Concepts: children AND beliefs</p>
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<p>PEO1: It's a very big conflict in terms of people understanding their roles and responsibilities for children's rights and there is need for a lot of awareness, a lot of monitoring, and a lot of planning to really address that. The scenario here, father or the mother would worry more about their disabled children's wellbeing, how they will be cared and support themselves and then getting something towards the feast than putting the money or putting the money aside to pay the child's school fees. A lot of parents failed to pay their school fees but they turn to attend to cultural activities more than their responsibility on their children's education.</p>	<p>Concepts: schools AND belief</p>
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The second view does acknowledge the potential of disabled persons, especially the children but goes further by making a strong assertion that a traditional belief can be

changed into positive one if awareness and practical measures are utilised. For instance, when enrolling a disabled child, he or she must be supported in terms of love and care, as well as the educational benefits claimed by the Inclusive Education policy. The third view (‘TLDS’ two):

<p>Researcher: Because of the priority of the parents and teachers, so it will be right to say cultural beliefs and values about education are negative for children with disabilities.</p> <p>PEO 1: Yes, that is my view of most parents in the local villages. Until and unless our parents are really educated and proper awareness is done on inclusive education, then maybe, a change of attitude will occur, but not at the moment. Because [a disable child] his or her education is not considered as a priority than the cultural obligations [in the community].</p>	<p>Concepts: beliefs AND teachers</p>
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This particular view has a contradiction between accepting and rejecting Inclusive Education policy and practice in the school system. There are educated as well as uneducated people in the local community who question the validity and reliability of love, support and the educational progress of CWD and PWD. For so long, the local communities had cared for their own CWD and PWD, and they have grave concerns about their children been taken away from their homes. For instance, questions are raised such as: Do you understand what we believe is that these persons are cursed people by the demons or witches? Who would want to pay for their school fees when cultural obligations of a clan or a tribe are a priority? These and many other hidden thoughts of the past had continued to exist today in PNG. Given these three views about the existing socio-cultural perspective on Inclusive Education, it is fair to say that the PEOs lack of knowledge on Inclusive Education policy have positioned them to have a negative attitude; being ignorant, irresponsible and not been innovative to implement Inclusive Education as a government policy.

‘Political support’ for Inclusive Education policy originated in 1993. NDoE put in place a National Inclusive Education Unit (NIEU) under the Teacher Education Division (TED) to facilitate the implementation and institutionalisation of Inclusive Education at the national, provincial and district level. Whilst the political support was given then, the Ministry of Education initiated development plans for Inclusive Education and these were endorsed by the national government as budgetary plans to deliver Inclusive Education policy. These plans were stipulated in the document *NSEPPG* 1993, and were recognised then as providing the political support where continued ‘economic and leadership support’ be given by the various provincial governments in PNG.

‘Economic and leadership support’ was provided by the national government from 1993 to 2000 were an initial allocation of an establishment financial grant for a number of years. However, this economic support began to decline in 2000. As a number of SERCs and Inclusive Education units in Teachers’ Colleges were established, teachers were trained beginning in 1996 to provide Inclusive Education in the Mainstream schools in PNG. The SERCs had to work in collaboration with each region’s provincial government and the NDoE to provide leadership and logistical support for Inclusive Education policy implementation between 1993 and 2000. By 2000, economic and leadership support for Inclusive Education was trimmed so that the only financial support provided was considered as an annual operational grants for registered SERCs. This meant that each region’s provincial government would then take on ‘economic and leadership support’ by making funds available through the provincial Ministry of Education and PDoE to support Inclusive Education policy in the same way as other policies developed for all schools in the system. What is the current state of ‘economic and leadership support’ provided by the PDoE? The views of the PEOs working with PDoE are presented using original interview texts and the two of ‘TLDS’ consecutively.

In **province one**, a PEO who is the ‘Basic Education Advisor’ and a board member of the SERC said that ‘[to] be honest, this is lacking in the schools. Logistic wise, we have 84 schools and there are disabled children there and the three teachers [SERC-staff] cannot see all’. He continued, ‘mind you while speaking and touching on that area, there is lack of assistance from the Division [PDoE]. I cannot help because of funding wise. There are major barriers or major problems’ (PEO). In this scenario, the ‘basic education sector’ looks after the elementary, primary and secondary schools or Mainstream schools. The only support that was provided was the granting of three ‘Teaching Service Commission’ (TSC) institutional positions for the SERC in 2007 and no annual budgeting has been considered since then for Inclusive Education in the recurrent education budget by that provincial government.

Similarly, in **province two** a PEO who has just come to understand the recent development of a SERC in his province and the critical roles that was required for the PDoE to play stated that (‘TLDS’ two):

<p>PEO: We have a Catholic Disable Centre from what I know. Last year with our funding, we assisted the Centre with K 5,000.00. This year, we have topped it up with another K 5,000. 00, this is ten thousand now. We're still looking at how we can be able to involve or make awareness to the political heads of the province, at the same time; we need to let the administration to really see the needs in terms of assisting children with disabilities. Then we're looking forward to increase that amount when our recurrent budget for the Division of Education goes up we will surely do that.</p>	<p>Concepts: children AND disabilities</p>
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This particular PEO in representing the view of PDoE made it quite clear that Inclusive Education policy only came to light the previous year, which was 2010, and was given consideration by the Education Advisor for the province. However, from 1993 to 2009 there was no funding support and no specific leadership roles put in place to initiate Inclusive Education plans. It is very evident that PEOs in provinces one and two have both failed to implement and institutionalise the Inclusive Education policy since its inception in 1993. Even, though ‘economic and leadership support’ has begun it lacked proper clarity and direction in the long term.

The ‘economic and leadership support’ in **province 3** for Inclusive Education was considered to be the sole responsibility of the SERCs and NDoE. The provincial governments, through the Ministry of Education and the PDoE, had completely ignored the Inclusive Education policy. A PEO/DEO representing the ‘PDoE’ in a province acknowledged that (‘TLDS’ two):

<p>DEO: Well, in reality, not much has been done since 1993 when the policy first came out and it was not made known and even awareness was made in institutions, nothing actually took place. Evidently, in the Division of Education here and especially in the district I'm looking after too. There were interested people who have contact with disable people. I was involved with other Standard Officers too. So we talked about how we could improve the implementation of the inclusive education policy that was developed 14 years ago. [It] was sort of dead in the system until now. I should say no districts apart from [my] district is actively involved in implementing the Inclusive Education policy.</p>	<p>Concepts: policy AND education</p>
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Adding to the lack of ‘economic and leadership support’ provided by the PDoE, the PEO/DEO also had the view that there was a lack of political support, and the leadership had turned a blind eye to the existence of the Inclusive Education policy. The PEO/DEO representative made this statement (‘TLDS’ two):

<p>PEO/DEO: Yes, of course I do. I think not only in the province but political and leadership support at the national level as well. Both the provincial and national government need to take into consideration of inclusive education. It depends on who is the leader in our districts or in the province. I think sometimes leaders mislead or see that the policy is not important so they have their reservations. If there is a streamline management from the top all the way to the school level then it will facilitate it very well.</p>	<p>Concepts: education AND leadership</p>
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In **province four**, visitation to selected districts and the PDoE was not possible due to the leadership crisis that was affecting the SERC and, therefore, the linkage between the PEOs as well as the DEOs and Mainstream schools were not in existence. Therefore, only SERC-staff in this province were interviewed to maintain consistency with SERCs of provinces one, two and three. Given the PEOs' views, Inclusive Education policy had been neglected by their provincial government in providing adequate 'economic and leadership support' from the provincial Ministry of Education through the administrative functions performed by the PDoE. Furthermore, it is noted by the researcher that 'economic and leadership support' at the lower levels of education – the districts right down to the SERC and school level – is critically not available. The final presentation of interview analysis focuses on the NDoEOs. The NDoEO1 and NDoEO2 observed that ('TLDS' two):

<p>NDoEO2: As far as Standards are concerned, I think ah there are officers who are appointed to those positions are very young, some are very young, some inexperience and some officers are very you know, they've been in the system for quite a long time and I think these are two things that are really are part of the activities of the special education. I think leadership is a need in all our resource centres where we need to bring in our Coordinators and our Principals and school boards so there should be training conducted on how they can you know manage and facilitate or organize the Inclusive Education programs in their schools and communities to take ownership.</p>	<p>Concepts: education AND resources</p>
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From the above quote, the selection and training of institutional leadership to initiate implement and institutionalise Inclusive Education policy in the Mainstream schools by the SERCS and the teachers' colleges encountered difficulties. The kind of training provided and the support systems that were anticipated were key determinants of the lack of implementation and institutionalisation. In addition, further observation by the NDoEOs while visiting the SERCs, teachers' colleges and Mainstream schools identified a lack of appropriate resources ('TLDS' two):

<p>NDoEO 1: Resource centres really want example of equipment that they can use to enhance special education. For example, they don't have Braille machine. The other is that centres really need to have a lot of in-service on sign language... we need to really look to develop our own Papua New Guinea sign language.</p>	<p>Concepts: education AND resources</p>
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The main reason why there is lack of resources to provide Inclusive Education by the SERCS and the Mainstream schools was observed as the lack of funding. The production of key resources to help the MS-teachers to teach disabled children was never done. NDoEO1 highlighted that fact ('TLDS' two):

<p>NDoEO 1: Actually, funding is a problem. Giving a resource centre three or four thousand kina in a year to facilitate their activities of inclusive education in every resource centre is not enough. Also educating an individual child is also a problem because the subsidy funds that goes into one child is K15.00 for a student with special needs.</p>	<p>Concepts: education AND funding</p>
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A general view across the regions is that though MS-teachers have come to understand Inclusive Education policy and the need to educate children with disabilities, the support and they have made were very little progress. The reason for the minimal progress and lack of support by MS-teachers were determined as a lack of interest: 'Well, some have interest in special needs students, they are also encouraging this in the classroom, but most of the teachers were not really doing that' (NDoEO1). Both officers had visited the SERCs, teachers colleges' and Mainstream schools to inspect and run workshops for Inclusive Education and provided small operational grants of K3000 to K4000 to support the work of SERCs. It was noted that though teachers' colleges are funded by the TED to teach Inclusive Education Course Units, teachers who graduate and teach in schools cannot really teach children with disabilities except for those that are visited by the SERCs. For instance, NDoEO2 made this observation ('TLDS' two):

<p>NDOEO 2: One barrier is that you know schools are so many and we have only one resource centre and the manpower is limited and you know, in a term they can go to ten different schools, mainstream schools including elementary. Also the schools, they have their own programs and it's only when they are given opportunity to conduct in-service, then they do it. That's what I see.</p>	<p>Concepts: schools AND resource</p>
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The NDoEOs have portrayed mostly a negative view and very little positive views of the institutionalisation process of Inclusive Education in the key institutions they have and are currently working with. Despite the initial political, economic and leadership

support that was provided between 1993 and 2000, the institutionalisation of Inclusive Education has been limited and difficult even though some progress was made in the implementation stages before the year 2000. It is understood that through years of observation and working with various institutions, NDoEOs have identified key barriers and very few facilitators of the Inclusive Education policy in the PNG school system.

According to the NDoEOs', the major barriers include: the lack of adequate financial support for all institutions to provide teaching and learning materials; limited in-service training of teachers, school leaders or principals; and limited availability of specialist SERC staff to initiate and institutionalise inclusive practices in the Mainstream schools. The researcher also noted that many provincial governments and local level governments from where SERCS have been established have not provided counterpart-funding known as the 'provincial component'.

The national government provided the national component known as 'school fee subsidy funding'. In addition, it was also noted that Mainstream schools only received school fee subsidy as financial grants for all children; however, specific funding for Inclusive Education for inclusive curriculum and teaching were never part of the funding made. This meant that Inclusive Education was and is still been treated just like the mainstream education and has no real value in meeting special teaching and learning needs of children with disabilities who are enrolled in the MS classes.

As far as environmental support was concerned, the NDoEOs acknowledged that certain provincial governments, charity and non-government organisations were able to provide materials such as wheelchairs and donations of vehicles for operational purposes. These non-government organisations were the following: Germany's Christofel Blinden Mission (CBM), the European Union (EU), Australian Aid (Aus-AID), Japanese International Countries Aid (JICA), United Nations' Children's Education Fund (UNICEF), and a provincial member of parliament out of his 'District, Service Improvement Plan' (DSIP) Funds and others.

It was also noted that the NDoEOs' understanding of socio-cultural factors hindering the progress of Inclusive Education policy and especially MS-teachers' practices in the MS schools were considered as minimal. Their interview's show that the teachers'

attitudes toward teaching and learning of children with disabilities were positive and only needed proper leadership guidance and materials support by the SERCs and Mainstream schools.

Finally, the only facilitator on an ad hoc basis is the funding provided by a few provinces since 2010. However, in the years since 1993 no political support for Inclusive Education was made in the provinces. The initial initiation and implementation was politically handled at the national level of education. At the provincial level institutionalisation had been very minimal and lacked clarity, and no proper delivery mechanisms were put in place. A few provincial governments have just started to make sense of the Inclusive Education policy and have started to come to terms with the development plans stipulated in the *NSEPPG* (1993) document. The others have a long way to go to commence their first political series of strategies to initiate, implement and institutionalise the Inclusive Education policy within their structural and leadership functions in their provinces.

5.3.3 Summary - [responses to Key research question 1. Why has there been limited progress towards inclusive education in since 1993 in PNG?]

Finally, the interview data has provided the perceptions/views of SERC, MS, DEO, PEO and NDoEO on policy understanding, ‘political support’, ‘economic and leadership support’, and ‘environmental support. There exist a number of factors that are barriers to the institutionalisation of Inclusive Education policy and practice. These include:

- (a): SERCs, teachers’ college lecturers and NDoEOs have a better understanding of the Inclusive Education policy and the required delivery mechanisms stipulated in the *NSEPPG* (1993) document, and Mainstream schools and PEOs have very little understanding of the Inclusive Education policy and the required delivery mechanism stipulated in the Inclusive Education Policy and Guidelines.
- (b) Barriers of Inclusive Education – there is a lack of ‘political support’ as well as and ‘economic and leadership support’ from the provincial governments, the

local level governments and the administrative departments of these government in the provinces. ‘Political’ plans to initiate development strategies for a province and the local districts are non-existent. ‘Political’ leadership by the Ministry of Education is lacking in the provinces and their districts to support Inclusive Education as government initiated policy. The PEB and PDoE have ignored or limited the full implementation and institutionalisation process of the Inclusive Education policy due to lack of policy knowledge, dissemination clarity and professional wisdom to convert policy into meaningful practice in the province and district schools; and

- c) Facilitators of Inclusive Education – certain provincial governments and charities, or non-government and international organisations, were able to provide material support such as wheelchairs, donations of vehicles for operational purposes and special project funding for visual and hearing disabilities in some regions.

Having discussed the interview data analysis, the next presentation looks at the phase three analyses that are based on document analysis by the Leximancer computer software. The documents are the 2011 NDOE Education Report for PNG and eight brief reports of the SERCs on the implementation and institutionalisation of Inclusive Education.

5.4 Results of Document Collection

This sub-section will present the Leximancer analysis for the documents collected from the SERCs and the NDoE Annual Report. It will present the analysis in the following:

5.4.1 SERCs Situational report on understanding, implementation and institutionalisation of Inclusive Education policy and practice for Sub-research question 1.1 and Sub-research question 1.2

5.4.2 NDoE’s Annual Report 2011 on understanding, implementation and institutionalisation of Inclusive Education policy and practice Sub-research question 1.1 and Sub-research question 1.2

5.4.3 Summary [response to Key research question 1]

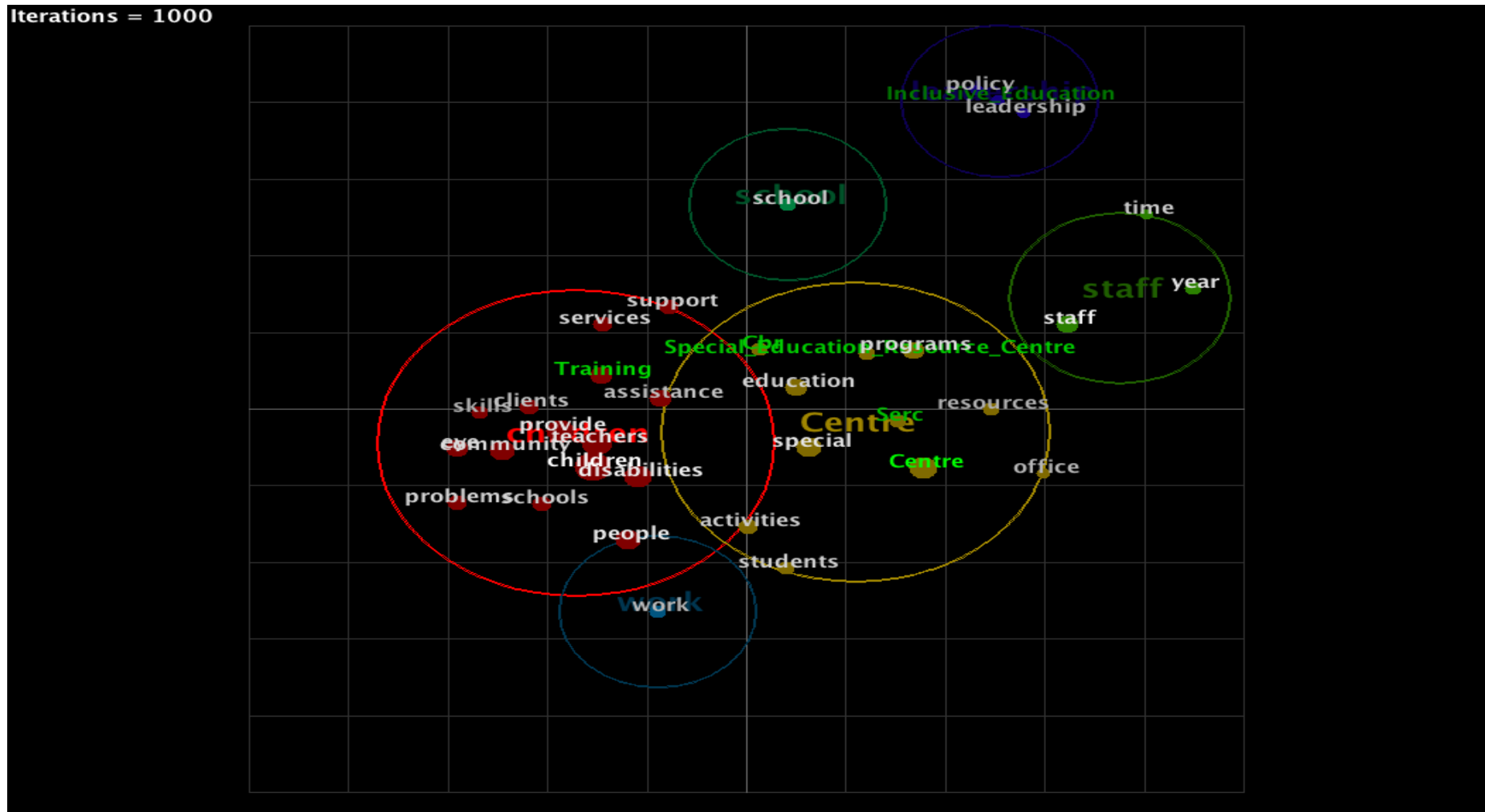


Figure 5.7 SERCs' Reports 2013 on Implementation and Institutionalisation of Inclusive Education Policy (Exhibit 1)

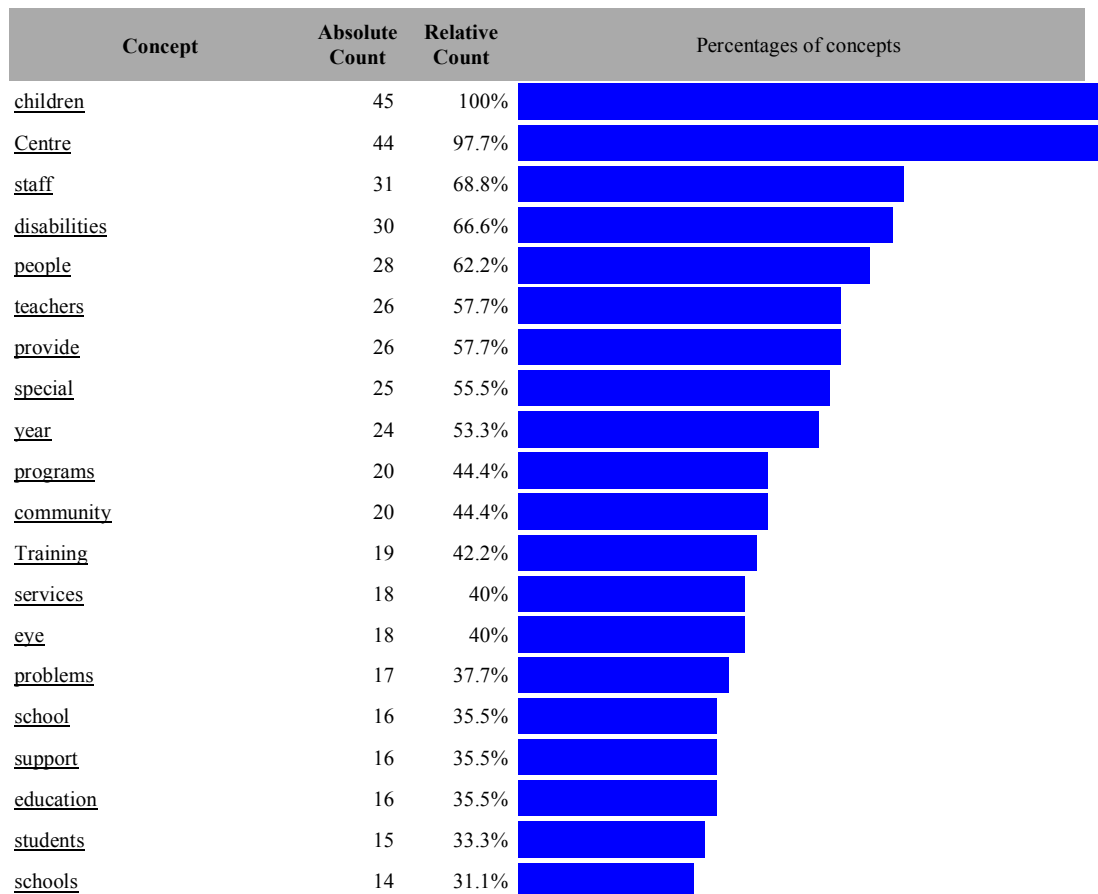


Figure 5.8 SERCs’ Reports 2013 on Institutionalisation of Inclusive Education Policy (Exhibit 2)

5.4.1 SERCs’ Situational Report on understanding and Institutionalisation of Inclusive Education policy and practice for Sub-research question 1.1 and Sub-research question 1.2

Beginning with the figures 5.7 and 5.8, answers to Sub-research question 1.1 and Sub-research question 1.2 are given based on the content analysis of the reports provided. It is understood already from the earlier discussion that the SERCs have a far better understanding of the Inclusive Education policy that is evident in the survey and interviews discussed. Therefore, understanding is now discussed in terms of its application in the work of the SERCs documented in the reports. A common understanding of SERCs across the four regions was demonstrated by the institutional operational structures and plans they developed. Here are some samples (‘TLDS’ three):

Likewise, our primary aim is to conduct Outreach programs (School and Community visits and Home visits), improve our centre and facilities and capital equipment funds, and to start small in moving towards achieving our vision to serve the people and children who have special needs, and our intention of developing the 3 Year SERC Learning Improvement Plan (2010- 2012) is believed to guide us towards achieving our goals.	Concepts: children AND special
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Though the centre is a Catholic institution, it is ecumenical in its scope and accepts people of all Christian denominations and other religions.	Concepts: children AND Centre
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The Centre caters for children with different disabilities in the national capital and the Central Province. Although we have a large number of clients but the staff have done well to cater for them in their different areas within the set times spent with them and their parents, friends and teachers.	Concepts: children AND teachers
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Community Based Rehabilitation (CBR) Ear and Eye clinics are held every Wednesday.	Concepts: children AND eye
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It is very evident that given the SERCs’ understanding of the Inclusive Education policy, they have translated the Inclusive Education policy into meaningful disability support services as demonstrated by the content of the situational report provided. The next discussion looks at how effective is the implementation and institutionalisation based on factors such as ‘socio-cultural and historical links’, ‘political support’, ‘economic and leadership support’ and ‘environmental support’.

Firstly, ‘socio-cultural and historical links’ was not an issue discussed in the content of the reports but were seen in terms of the positive attitudes to fulfilling planned centre activities. The SERC-staff had demonstrated the following:

Although we have a large number of clients but the staff have done well to cater for them in their different areas within the set times spent with them and their parents, friends and teachers.	Concepts: children AND teachers
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This centre program has also enabled four children to be integrated in the elementary class this year. With the parents support they have started well in adapting to the new environment with the other able children. Due to limited staff manpower this program was been drawn back for a while.	Concepts: children AND staff
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The special outreach was carried out at Djaul Island. This includes 5 elementary schools with 264 students, 5 Primary schools with 590 students. The similar activities (awareness and screening) were carried out in 7 villages on the island; with more than 500 - 600 people attended, but 230 came for ear and eye screening.	Concepts: children AND special
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Though the centre is a Catholic institution, it is ecumenical in its scope and accepts people of all Christian denominations and other religions.

Concepts: children AND Centre

Generally, the socio-cultural factor is seen to be an effective facilitator of Inclusive Education policy and practice in SERCs. There is no indication of socio-cultural barriers where people's beliefs and value systems are problematic based on the content of the reports provided.

Secondly, political support was not stated in all the documents that it is a barrier or a facilitator of Inclusive Education policy. It is understood from the content of the report that there may have been some form of political support from the provincial governments especially in the form of community grants to support screening tests for persons with eye and ear diseases.

Thirdly, in terms of economic and leadership support, the content of the reports have not indicated some form of support for the SERCs. However, given the progressive development and engagement of SERC-staff in various plans and programs, it is noted that a certain degree of 'economic and leadership support' is provided.

Finally, 'environmental support' again was not specifically accounted for in the content of the report. But it is noted by the researcher that there seems to be 'environmental support' given the progress each SERCs has made over the years. This support can be attributed to the manner in which number of clients turned up for eye and ear treatment as well as students who have been integrated into Mainstream schools. The next discussion Figure 8.9.1 and Figure 8.9.2 gives the analyses of Inclusive Education policy activities documented in the NDoE 2011 Annual Report.

5.4.2 NDoE's Annual Report 2011 on understanding, implementation and institutionalisation of Inclusive Education policy and practice Sub-research question 1.1 and Sub-research question 1.2.

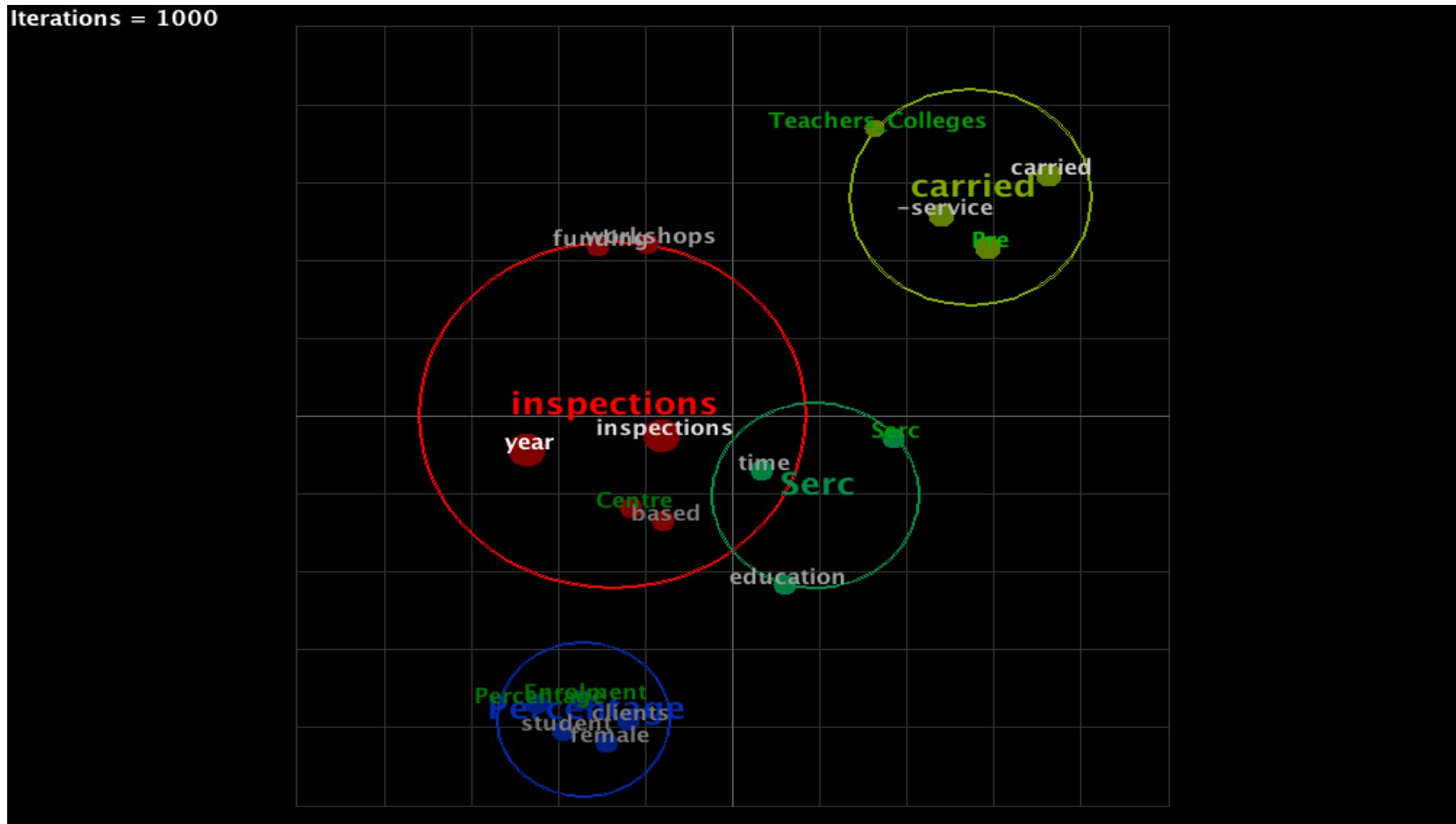


Figure 5.9 Ed/Annual report 2011 on implementation and institutionalisation of Inclusive Education policy Exhibit 1)

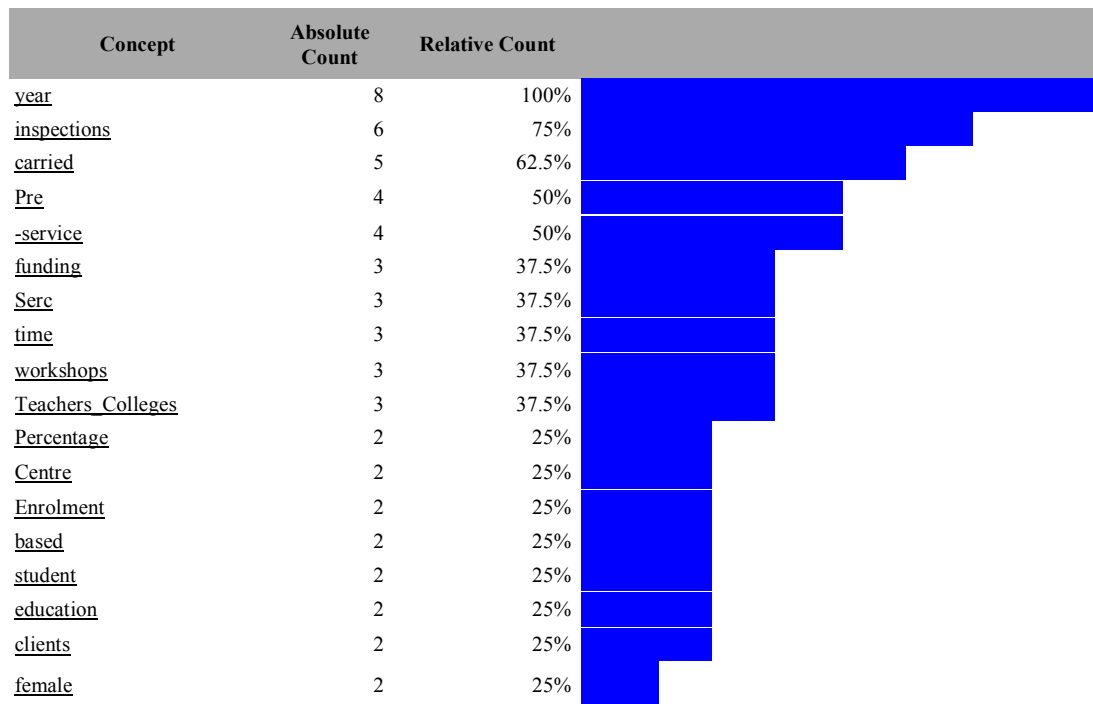


Figure 5.10 NDOE Annual report, 2011, on implementation and institutionalisation (Exhibit2)

In the NDoE 2011 report, the ‘Policy, Research and Communication’ section of the NDOE produced a very brief Inclusive Education policy implementation and institutionalisation report. According to NIEU of the NDoE, it is the requirement of all SERCs to provide quarterly and annual reports to the NDoE. However, when visiting the NDoE to collect documents, the Superintendent NIEU failed to provide annual and quarterly detailed reports for all SERCs operating in the country. As a result, the NDoE was not able to document key issues or factors that are barriers or facilitators of the Inclusive Education policy and its practice in the education system. Despite, the unavailability of all required documents obtained at the NDoE, the researcher noted that the NDoE, the TED and the NIEU are well versed with the Inclusive Education policy, but have indicated very brief document coverage of Inclusive Education policy and its practice. Presented below are Inclusive Education activities reported in the *Annual NDOE Report 2011*:

Activity 1.

<p>7. Conducted a three (3) day National Special Education Seminar in September at Don Bosco Technological Institute from 6th - 8th September 2011 co-funded by UNICEF and AusAID. 8. Inspection carried out from AusAID and Developmental funding 9. Curriculum Audits carried out into Pre-service Teachers College Special Education Program activities coordinated at the college level. 10. Centre based curriculum workshops carried out at seven (7) Special education Resource centres in the country.</p>	<p>Concepts: year AND inspections</p>
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Activity 2.

<p>Female 4 20 *21 officers listed for inspections missed out as funds came in late September and there was limited time for all inspections to be carried out before the end of the year. They will be the priority for 2012. Curriculum Special Education Curriculum Audits *SERCs: Monitoring of TIP at the 7 SERCs: Callan SERC Wewak, Callan SERC Mt.</p>	<p>Concepts: inspections AND time</p>
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Activity 3

<p>Constraints 1. Despite the availability of funds in many areas, still a few areas experienced funding difficulty with funds not released on time to conduct workshops and inspections and even to fund provincial cluster workshop. 2. Colleges like Balob and Dauli had to close early due to social unrest in the provinces. 3. No Annual Principals Conference this year 2011.</p>	<p>Concepts: inspections AND time</p>
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Activity 4

<p>2230 Community Based Rehabilitation (CBR) 3,059 3150 Students attending Centre based Program 797 820 Percentage of female student clients 43% 43% Enrolment by Emotional disorder 132 140 disability Hearing disability 109 2100 category Intellectual disability 299 310 Learning disability 1,091 2450 Multiple disability 523 540 Physical disability 1,647 1710 Speech impairment 101 100 Visual disability 593 600 Meetings of the Number of NSEC meetings (3 meetings planned) 1 1 National Special National Special Education Conference 0 0 Education Committee (NSEC) Inspections Inspections (60 officers initially for inspections) </p>	<p>Concepts: inspections AND Percentage</p>
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Given, the above analysis, it is evident that the NDOE had only briefly highlighted Inclusive Education activities that the NIEU reports to it. There is not real evaluation of the Inclusive Education policy and its practice in the education system by the ‘Policy, Research and Communications Unit’ of the NDoE. There is a certain degree of indecisive and impractical policy evaluation support system that seems to verify and validate the delivery mechanisms for the Inclusive Education policy from its inception in 1993 to the present.

5.4.3 Summary (response to Key research question 1)

In response to Key research question 1 (Why has there been limited progress towards inclusive education since 1993 in PNG?), the analysis of the SERCs and NDoE documents have provided the following:

1. SERCs – The understanding of Inclusive Education policy and its delivery mechanisms are not been specifically accounted for but are visible in the centre

activities carried out by each of the SERCs in the four regions of PNG. In addition, the survey and interview analysis have indicated that there is an acceptable level of understanding of the Inclusive Education policy and in the centres' activities.

Barriers and facilitators of the structural and leadership dynamics have been evident in the document analysis. In the SERCs' documents, no barriers were identified; however, though they are not visible, they are accounted for in the survey and interviews conducted. There is evidence in the documents that certain factors have been the facilitators of Inclusive Education policy and practice. They are the 'socio-cultural and historical links' demonstrated in the work attitudes of the SERCs for the activities they have reported on. Another facilitator has been the leadership and the limited economic support they have experienced, and this support has enabled them to implement Inclusive Education to a certain limited extent, but there is room for more to be done.

2. NDoE -The understanding of Inclusive Education policy and its delivery mechanisms are documented only as highlights of Inclusive Education activities provided by the NIEU. There is no real evaluation of the delivery mechanisms by the SERCs and NIEU under the function of TED of the NDOE.

Barriers and facilitators of the structural and leadership dynamics have not been documented, however, there are structures in place that are seem to be ineffective in the delivery of Inclusive Education policy and practice from the SERC, NIEU and the TED down to the provincial Ministry of Education, the PEB and the PDoE and the Local/Districts.

Finally, this chapter has presented the findings from the survey, interviews and document analyses from a range of stakeholders in the provision of Inclusive Education in PNG. The next chapter will explore these findings further with reference to literature in this area of research.

Chapter Six: Findings and Discussion

6.1 Introduction

This chapter presents the interpretations of findings and discusses them in the light of the research question and the literature review that guided this study. The chapter begins with the interpretations of findings from the survey, interviews and document analyses and then integrates them into a coherent whole to answer KRQ1: Why has there been limited progress in the institutionalisation of inclusive education in PNG since 1993? The perceptions of the SERCs, Mainstream schools, PEOs/DEOs and the NDoEOs are examined using the theoretical framework that was developed from Fullan's Change Theory Model for this study (see Figure 3.2 in Chapter 3). In addition, the suggestions of what the participants would like to see in the near future are finally discussed. In addition, Fullan's Change Theory Model will be verified and validated based on the macro and micro factors that impact on the Inclusive Education policy as an educational change in the PNG education system.

6.2 Interpretation of findings in light of the theoretical framework of the study

Why has there been limited progress in the institutionalisation of inclusive education in PNG since 1993? Since Inclusive Special Education (Inclusive Education) is an educational change, the nature of its limited progress in the PNG education system is examined using the theoretical framework developed from Fullan's Change Theory Model.

As discussed in Chapter 3, according to Fullan (2001) any educational change occurs at three Levels: the federal level (National) and down to the state level (provincial) and school (local/district) level. It was also noted that within the three levels of educational change there are macro and micro factors that interplay as change dynamics which tend to impact on the three key processes of educational change – initiation, implementation and institutionalisation (Fullan, 2001, pp. 50-51). In the process of initiation, implementation and institutionalisation, the macro factors – socio-cultural and historical links, economic and leadership, political and environmental – exist within the different levels of education and governments. As for the micro factors, they are systemic

structures and roles that translate a new idea into a meaningful educational activity in the school system. In terms of the Inclusive Education policy and its practice, institutionalisation, which is the focus of this study, is an educational change that was initiated in 1993/4 by the national government through the NDoE. Furthermore, as stated in Chapter 2, the TED and SERCs were mandated by the NDoE to implement the Inclusive Education policy between 1996 and 2000 with the support of key stakeholders – from the NDoE to the provincial governments through the Ministry of Education, the PDoE and the LLGs and local districts in their schools and communities.

6.2.1 Sub-research question 1.1: To what extent do key stakeholders (teachers, special education personnel, educational personnel) understand and deliver inclusive special education in PNG?

The survey, interview and document analyses results presented in Chapter 5 took into account the macro and micro factors that have been identified as barriers and facilitators of the Inclusive Education policy and its practice. First, the ‘lack of understanding’ of the Inclusive Education policy statement and how the policy can be meaningfully translated into practical teaching and learning activities is problematic for the teachers’ college lecturer, MS-teachers, PEOs, DEOs and the Ms-teachers. As for the NDoEOs and SERC staff, they had a better understanding of the Inclusive Education policy and the delivery mechanisms that were stipulated in the Inclusive Education policy document. For instance, two thirds of the participants understood what the Inclusive Education policy is, while the other one third had a very limited understanding of it. The other one third had not read and understood, nor had explained in their workplace and the training they had received.

Some participants had also indicated that they were new to the teaching profession and needed to get information or proper awareness in professional development such as workplace learning or attend full-time or part-time training. These unique situations portray the view that the uniqueness of the individual setting is a critical factor. This finding is consistent with what change researchers have also identified in other studies of change. For instance, Huberman and Miles (1984), Fullan (1999) and Fullan (2001) noted that what works in one situation may or may not work in another. This is because each context of change is unique and has its own problems that impact on the processes of change. Fullan (2001) explained that there are a number of interacting factors that

affect the processes of change: (a) the characteristics of change – need, clarity, complexity and quality of the change; (b) local characteristics – district, community, principal and teacher; and (c) external factors – government and other agencies (pp. 71-90). These characteristics and other related factors are discussed under the two sub-research questions and the key research question for the study.

Limited education and training need was another barrier for the Teachers' College lecturers, MS-teachers and the PEOs with their DEOs. This had contributed to the limited understanding of the Inclusive Education policy and its implementation and institutionalisation. The focus had been mainly on general education. No inclusive special education training had been received by the SERCs and the personnel at the NIEU of the NDoE to take up leadership to initiate, implement and institutionalise Inclusive Education policy in the education system. Education and training of the MS-teachers, PEOs and DEOs were not fully made available, or even if provided on a smaller scale at a Teachers' College or University was counter-productive and lacked meaningful and practical input into institutional structure and leadership support in the school system. For instance, the researcher's own experience and his recollection of the type of training he undertook were limited.

The teacher education programs in the primary teachers' colleges offer mostly theoretical lectures for Inclusive Education and very minimal practical school experience. It was observed and noted during the interviews that pre-service and in-service student teachers are able to teach in general but without the mastering of specific teaching strategies that are appropriate for teaching various disabilities. The disabilities include learning disabilities, blind and low vision, hearing impaired, speech and communication problems, behavioural problems and multiple disabilities. The teaching strategies require longer periods of training both in theory and practice in order for the student teacher to be confident and competent to teach CWDs.

The need for appropriate education and training to implement and institutionalise a new change or innovation like the Inclusive Education policy is a complicated task and demands all stakeholders to provide support. Fullan's explanation on 'priority needs' does reveal similar views on participants' need for appropriate education and training needs for the Inclusive Education policy. Fullan explains that one of the key interacting

factor is evident in the study of change is the characteristic of change that concerns ‘priority needs’ for implementing change (See Chapter 3). In this case the priority needs of MS-teachers, SERC staff, the PEOs and DEOs were not adequately taken into consideration during the implementation and institutionalisation of Inclusive Education since 1993.

Another contributing factor is that when student teachers are sent to mainstream schools after training, they are faced with a challenging school leadership and there seems to exist no least restrictive environment (LRE) for learning. In terms of leadership, the principal and senior teachers have not put in place structures and functions that address the needs of CWDs. For instance, LRE is a provision in the US federal laws that have governed special (inclusive) education. It is a student’s right to be educated with his or her nondisabled peers with appropriate support provided (D’Alonzo, Giordano, & Cross, 1995; McNulty, Connolly, Wilson, & Brewer, 1996). During the interview participants acknowledged that the kind of leadership that is required to provide LRE as student support were not available.

Furthermore, some participants explained that in a typical PNG mainstream school classroom the teacher/student ratio makes it difficult for the classroom teacher to adequately meet the needs of CWDs. There is no extra support staff, such as a professional or a paraprofessional to help assist the class teacher to have quality and meaningful time with all children individually in the classroom. It was observed and noted during the interview that the situation is complicated by the fact that all schools do not have appropriate resource rooms or seating arrangements, proper toilets and ramps for children with physical impairments and blind students to have access to learning and their physiological needs.

Again the findings are consistent with Fullan’s explanation on interactive factors, especially local characteristics, which have a positive or negative impact on the implementation and institutionalisation of change. In this case, the districts, communities, principals and the teachers were not prepared for Inclusive Education in terms of appropriate knowledge and skills, proper learning infrastructure, relevant curriculum and teaching resources for CWDs. The limitations in their understanding of Inclusive Education caused key stakeholders to make a minimal impact on the

implementation and institutionalisation process. Having identified the above limitations in understanding of the Inclusive Education policy key factors concerning structural and leadership dynamics at the various levels are raised for their appropriateness and pro-activeness to answer sub-research question 1.2.

6.2.2 Sub-research question 1.2. What are the barriers or facilitators of structural and leadership dynamics impacting on the institutionalisation of inclusive special education?

The survey and interview identified key factors that are barriers and facilitators in the structural and leadership dynamics impacting on the institutionalisation of Inclusive Education in the MS system. These factors are the ‘socio-cultural and historical links’, ‘political support’, ‘economic and leadership support’ and ‘environmental support’.

Participants in the survey and interviews indicated that these ‘socio-cultural and historical links’ factors are a great barrier to the implementation and institutionalisation of Inclusive Education policy and practice. There is reform in education and generally the participants’ beliefs of Inclusive Education were acceptable, however, less than one third believed that socio-cultural and historical links factors were supportive of Inclusive Education. SERC staff acknowledged that ‘some parents think that CWDs are useless and taking up spaces for normal children’. There was a lack of broader community and system-wide acceptance, and there are still many parents who have very little understanding of Inclusive Education. In addition, they have not engaged themselves in any meaningful Inclusive Education experience and do not know that such an education is applicable in the modern school system.

According to the findings two types of belief systems are at conflict with the implementation and institutionalisation of the Inclusive Education policy and its practice in the school system. The first, teacher belief systems about teaching and learning, do not support the education of CWDs. According to the survey and interview analysis (see Chapter 5), the in-service teachers see themselves as lacking training where their current teaching skills and pedagogical knowledge and experience has not prepared them for inclusive teaching and learning. They are generalist teachers who are taught to teach all children using generalist teaching approaches or subject specialist teaching approaches. Furthermore, the survey and interview analysis revealed that the

curriculum provided by the NDoE emphasizes basic subject content knowledge and skills for the elementary and primary schools, and subject specialist skills for the secondary schools. There is no curriculum for CWDs, as is evidenced by the following quotes from the TLDSs, which were cited in Chapter 5:

<p>MSST: About the policy, in fact it is not very clear to the classroom teachers using our curriculum. There is no clear statement about inclusive education, especially, with regards to disable persons in the school. We have an outcomes-based curriculum and our curriculum books are mostly to do with able children for specialised subjects only.</p>	<p>Concepts: policy AND school</p>
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<p>MSCT: Teaching and learning is also a problem. We still need some resource books at the same time like more creative resource books and more special education books that will guide and help teachers to teach. Also the latest sign language books that can help us to teach the deaf students, some resource books for lower vision like blind students like the Braille machines and Braille papers.</p>	<p>Concepts: education AND special</p>
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<p>CSs: There are a variety of needs and so it's often very difficult to follow the Outcome Based Curriculum because it doesn't fit the situation a child has and this makes it very difficult for teachers' to follow what the mainstream teachers' are following and I think these are challenges teachers' face here, and that's why we've been asking our bosses. When the Senior curriculum Officer, Special Education inspector and the Superintendent were here, we asked him if they can specifically look at the needs of the resource centre and speak on children with disability and the different disabilities and what and how we can kind of develop the children's program based on their strengths, their abilities, and the Individual education plan (IEP) that is derived from their assessment.</p>	<p>Concepts: children AND disabilities</p>
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The outcomes-based curriculum that is currently used in the schools has no teaching and learning approach for Inclusive Education in terms of specific content, teaching skills and pedagogical knowledge. These findings are consistent with Fullan's (2001) views about teacher beliefs and value systems in teaching, where he noted that teachers' pedagogical knowledge assumptions and theories underlying a particular new policy or program (see Chapter 3) affect the implementation and institutionalisation of an educational change. In this case, teachers' beliefs and value systems in teaching, pedagogical knowledge assumptions and theories about Inclusive Education were problematic in PNG's teaching and learning context. Teachers were used to teaching all students with a generalist approach to teaching and do not have other specialised knowledge and skills to assist children with special needs. For instance, there is no planned curriculum for children with learning disabilities, partially blind and hearing

impaired, speech and communication difficulties and intellectual disability. It was observed and noted during the visits to schools that teachers do not have a specialised curriculum to teach CWDs. In addition, the newly established SERCs also encountered difficulties in developing an Individualised Education Plan (IEP) to support teachers having CWDs. Given these difficulties, teachers' beliefs toward the education of CWDs are currently negative. However, teachers have also indicated that appropriate training of selected teachers to become special education teachers will help general teachers to teach CWDs:

<p>MSST1: I think when we are supported then we can have the positive attitude to deal with inclusive education. So at the moment teachers do not have a positive attitude because they lack certain training to have proper knowledge and skills to implement inclusive special education.</p>	<p>Concepts: education AND think</p>
<p>MSST: Okay from my point of view I believe that this inclusive learning or inclusive education, it takes a teacher to be really well versed or trained. The attitude of the teachers and the present load they have, like right now, we have a population increase in all schools and the ratio is a like 1: 45 student per class, that's a lot.</p>	<p>Concepts: education AND teachers</p>

Additionally, based on the survey and interview analysis (see Chapter 5), about three quarters of the participants positively indicated that 'socio-cultural and historical links' were supportive of the institutionalisation of Inclusive Education policy. This support was only in principle but not in practice in the school system. The MS-teachers, PEOs and DEOs had a negative attitude to the delivery of the Inclusive Education policy in practice. This is because the education system had failed to put in place support mechanisms like school Inclusive Education program, trained teachers and principals for institutionalising Inclusive Education. Furthermore, there is no provision of appropriate leadership approach to guide parents and citizens, and local/external community leaders - BOM, LLGs, District Education personnel and Provincial Education personnel to take ownership of Inclusive Education. The leadership at the provincial, district and Mainstream schools/SERC levels is lacking to translate Inclusive Education policy into meaningful and practical teaching/learning experiences in the school system and the community. These claims can be substantiated by the survey and interview TLDS (see Chapter 6):

<p>NDoEO2: As far as Standards are concerned, I think ah there are officers who are appointed to those positions are very young, some are very young, some inexperience and some officers you know, they've been in the system for quite a long time and I think these are two things that are really are part of the activities of the special education. I think leadership is a need in all our resource centres where we need to bring in our Coordinators and our Principals and school boards so there should be training conducted on how they can you know how to manage and facilitate or organize the Inclusive Education programs in their schools and communities to take ownership.</p>	<p>Concepts: education AND resources</p>
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As a result, a participants' negative belief and value system that undermines principles of social justice continues to exist for Inclusive Education since its inception in 1993. These findings again are similar to the ones stated above. Additionally, they are consistent with Fullan's views about how teachers' beliefs and value systems in teaching, which are based on pedagogical knowledge assumptions and theories underlying a particular new policy or program, can positively or negatively affect the implementation and institutionalisation. In this case, Inclusive Education as an educational change is believed to be undermined by teachers' beliefs.

The second type of belief system is the traditional norms and beliefs of the past are in conflict of Inclusive Education and continue to exist in contemporary PNG. According to the survey, participants indicated that parents and citizens uphold the traditional mindsets against the conditions of disability and this undervalues the potential of PWDs or CWDs to be educated in the Mainstream schools. For instance, in see Chapter 5 20% of the MS participants believed that socio-cultural and historical links were not supportive of Inclusive Education (see Table 5.3). This was further supported by some SERC staff who acknowledged that 'some parents think that CWD are useless and they are taking up spaces for normal children' (SERCS4 Table 5.25A2 Appendix 3). The teachers also believed that there was a lack of broader community acceptance and one participant noted that 'parents, guardians and local communities are still ignoring the education of CWD' (SERCC2 Table 5.25A2 Appendix 3). Additionally, there are interviews of TLDS that also revealed the following:

<p>CS: Since the policy of inclusive education was developed in 1993, I would say that it needs more awareness especially to communities and to schools. They really need to know about what is inclusive education and then they really need to have some basic ideas about what causes, what are some of the causes of disabilities and all these stuff. Since most of the people, they don't know what are some of the causes and all these they are thinking that bad spirits or demons spirits associate with disabilities. These kind of negative beliefs and practice are becoming barriers for Inclusive Education not only in schools but also in the communities</p>	<p>Concepts: education AND schools</p>
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<p>Researcher: Do you think traditional beliefs like curses or sickness and diseases are major hindrances for disabled children to come to school?</p> <p>MSST1: Of course, there are beliefs like that still existing. They have beliefs that the father and mother have traditionally disobeyed advise on food taboos by a pregnant mother, and angered ancestral spirits living on the land. As a result the children were born with a disability.</p> <p>Researcher: So would you agree that this kind of belief system is strong in the community? MSST1: Yes, these beliefs are very strong.</p>	<p>Concepts: beliefs AND think</p>
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<p>PEO1: It's a very big conflict in terms of people understanding their roles and responsibilities for children's rights and is still need to be a lot of awareness's, a lot of monitoring, a lot of planning to really address that. The scenario here, father or the mother would worry more about their disabled children's wellbeing, how they will be cared and support themselves and then getting something towards the feast than putting the money aside to pay the child's school fees. A lot of parents failed to pay their school fees but they turn to attend to cultural activities more than their responsibility on their children's education.</p>	<p>Concepts: schools AND belief</p>
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<p>Researcher: Because of the priority of the parents and teachers, so it will be right to say cultural beliefs and values about education are negative for children with disabilities.</p> <p>PEO 1: Yes, that is my view of most parents in the local villages. Until and unless our parents are really educated and proper awareness is done on inclusive education, then maybe, a change of attitude will occur, but not at the moment. Because his or her education is not a priority than cultural obligations</p>	<p>Concepts: beliefs AND teachers</p>
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The researcher noted that not all, but some, parents and communities hold the view that formal mainstream schooling is not applicable for CWDs. They see Inclusive Education as a waste of time and play an insignificant role to meet a family's life long needs. They think that it is better to keep CWDs or PWDs at home where it is safer, easier to handle and less troublesome, in order to avoid verbal abuse and embarrassment made by the members of society. There are educated as well as uneducated people in the local community who have issues about the sincerity and reliability of parental love and support, and the educational progress of CWDs and PWDs.

Significantly, for a long time, the local communities had cared for their own CWDs and PWDs, and in their minds they have grave concerns about their children who are likely to be taken away from their homes. For instance, from the above survey and interview analysis it can be inferred that there are critical issues considered by the parents of CWDs: 1. *“How can families, the clan or the tribe be guaranteed that there is a better future for the feeble minded, and the physically and mentally handicapped?”* 2. *“Is the disabled child or person able to perform personal hygiene?”* 3. *“Do you understand*

what we believe is that these persons are cursed by the demons or witches?” 4. “Who would want to pay for their school fees when cultural obligations of a clan or a tribe are a priority?” It was noted by the researcher that these thoughts of the past had continued to exist because participants in the study are from different ethnic and cultural groups; and therefore, share similar traditional beliefs and value systems.

Given the above discussion on socio-cultural and historical link factors, there are two beliefs and value systems in existence. They are the teacher beliefs and values about teaching and learning, and traditional beliefs and value systems about disabilities. So the key stakeholders do not have similar beliefs and values about Inclusive Education. Therefore, it is conclusive that the socio-cultural and historical link factors are a major barrier to the implementation and institutionalisation of Inclusive Education. Change researchers have also continued to affirm that any educational change that is locally unacceptable will result in community resistance, or slow the process of institutionalisation (Fullan, 2001; Hall & Hord, 2006). In addition, findings on the socio-cultural and historical links of inclusion were focused on common teacher beliefs systems and failed to understand the traditional cultures of the developing countries in order to meet the diverse needs of all students (Whyte, 2005; Carrington, 1999).

The lack of political support for Inclusive Education policy implementation and institutionalisation in the PNG school system is a major barrier. In Chapter 6, participants’ views of the national, provincial and Local-level governments’ political support were mostly negative towards Inclusive Education policy and practice. Ignorance and the devaluing of Inclusive Education policy were acknowledged by participants in the delivery of education services in the provinces and their districts. These views were evident in the analysis of the survey, for instance, the common perceptions in the survey text data are reflected below:

The policy is there but the government does not strongly support the Inclusive Education program. Not seen seriously as one of the focus area of implementation (SERCS61).

Most that I know of only support the whole school, not specifically for special students in school. (MSP7).

Only in some areas depending on their priorities of development plan (MSCT19).

There is very poor support. In fact there is none (PEO17). There is not so much and not really happening at the three government levels (PEO20).

Most SERC-staff and MS-teachers acknowledged no political support in many provinces except for a few on an ad hoc basis through the support given by the ‘PDoE’ (see Table 5.25A2 SERCS, Table 5.25A3 MSP, Table 5.25 MSCT, Table 5.25A4, Table 5.25 PEO and Table 5.25 DEO appendix 3). Additionally, the interviews of the TLDSs also indicated that there was minimal, or in some instances no, political, economic and leadership support:

<p>PEO/DEO: Yes, of course I do. I think not only in the province but political and leadership support at the national level as well. Both the provincial and national government need to take into consideration of inclusive education. It depends on who is the leader in our districts or in the province. I think sometimes leaders mislead or see that the policy is not important so they have their reservations. If there is a streamline management from the top all the way to the school level then it will facilitate it very well.</p>	<p>Concepts: education AND leadership</p>
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<p>PEO/DEO: As far as I know, there is nothing. There's no plan and leadership at all. Unfortunately, there is none [Inclusive Education plan]. Honestly speaking, I have not seen or sighted any plans for that. Like it's just been excluded completely out. We ... are only concentrating on the mainstream schools at the moment ... I know there is a Resource Centre, I thought that it is just a totally different sector altogether. There is no link to them.</p>	<p>Concepts: PEO AND leadership</p>
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<p>DEO: Well, in reality, not much has been done since 1993 when the policy first came out and it was not made known and even awareness was made in institutions, nothing actually took place. Evidently, in the Division of Education here and especially in the district I'm looking after too. There were interested people who have contact with disable people. I was involved with other Standard Officers too. So we talked about how we could improve the implementation of the inclusive special education policy that was developed 14 years ago. [It] was sort of dead in the system till now. I should say no district apart from [my] district is actively involved in implementing the Inclusive Education policy.</p>	<p>Concepts: policy AND education</p>
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Political support is very minimal despite the initial initiation and implementation between 1993 and 2000 by the national government through the NDoE. Most SERCs and Mainstream schools participants have not seen political support for Inclusive Education from the provincial governments down to the local level governments and the MS/SERC level. The NDoE only acknowledges teacher-training support provided by the PNG government and Australian government. On the other hand, SERCs and

Mainstream schools had seen very little ad hoc, or in some instances no, 'political support' from the different levels of governments.

Due to the lack of political support in the provinces it is inferred from the data that no support mechanisms and noted by the researcher were: key disability support legislation, no annual budgeting for schools and SERCs programs or infrastructure, no ministerial portfolios allocated, no school based disability research and development projects initiated, no overseas and other international support negotiated for the provincial schools. Generally, this meant that no provincial, district and school structural and leadership plan and support systems are in place for Inclusive Education for the contemporary delivery of education services in the provinces. It was noted by the researcher that the provincial governments were advised in the *NSEPPG (1993)* to support the ongoing implementation and institutionalisation but they have not met these expectations. The simple reason identified in this study was that key stakeholders were ignorant of the Inclusive Education policy.

In addition, not directly from the data, the researcher noted that the participants' views about political support were only about the initial and ongoing institutional funding set up of the NIEU, teacher training and Inclusive Education policy. Even though they completed a survey and were interviewed on what they would like to see put in place in the long term, they did not indicate specific views about matters relating to legislation, ministerial portfolio for the CWDs or PWDs, special provincial and district long and medium term development plans about disability related projects, or appropriate service delivery mechanisms. Their perceptions of political support were limited because of the lack of understanding of the *NSEPPG (1993)* and, therefore, they never addressed any matters relating to higher political demands as such those based on the people's constitutional rights.

The above scenarios seem to imply that the parents of CWDs or PWDs in the local communities and the disabled population in general, are not recognised and are denied a voice that would enable them to access a fair share of the natural and human resources or educational opportunities. This observation is consistent with other findings and ongoing political debates on the provision of Inclusive Education in developed

countries, as indicated in the review of literature in Chapter 2 (Fulcher, 1989; Oliver, 1996; Vlachou, 1997; Carrington, 1999; Vlachou, 2000).

The views on ‘economic and leadership support’ in the survey and interview indicated that more than three quarters of the participants were negative about the funding provided by the Ministry of Education. In general, the NDoEOs acknowledge that ‘economic and leadership support’ were limited or inadequate. As far as SERCs were concerned, the operational grants of K3000 to K4000 by the Ministry of Education were inadequate for institutionalising Inclusive Education policy and programs. In addition, the NDoEOs and SERCs also acknowledged recently that a few ‘provincial’ and ‘local level’ governments have given support but most have not supported the Inclusive Education policy since its inception in 1993. As a general view based on the above TLDS, most participants indicated that ‘economic and leadership support’ had been minimal and was not taken on board seriously by the various lower levels of government such as the provincial and district/LLGs.

Leadership in terms of professional development of PEOs, DEOs, SERCs and Mainstream schools to understand and institutionalise Inclusive Education programs was limited in the urban and rural districts schools. It was also noted that ‘the bulk of the rural schools with their teachers and principals were yet to establish or have meaningful access to Inclusive Education’ services through School Learning Improvement Programs (SLIP).

Training and academic qualifications indicated that less than a fifth of the highest qualifications were obtained in special/inclusive education by the SERCs’ staff and NDoEOs. For instance, in Chapter 5 the following were evident: only 14.5% of the participants had appropriate qualifications in special/inclusive education and they were the SERCs and NDoE Inclusive Education Unit staff. Their qualification ranged from a Certificate in Disabilities Study, to a Graduate Certificate in Special Education and a Bachelor’s or a Master’s degree in Special and Inclusive Education. The other 85.5% (Mainstream schools, PEOs and DEOs) had only primary and secondary teaching qualification that ranged from a Certificate to a Diploma, and a Bachelor’s Degree in School and General Education Administration. This means that appropriate knowledge,

skills and attitudes required for Inclusive Education are been denied by the NDoE through the lack of appropriate educational programs for all stakeholders.

The researcher noted from participants' survey and interview analysis that qualification is a major barrier to meaningful and practical implementation of Inclusive Education during the implementation and institutionalisation process. In dealing with similar issues confronted by participants in the study, Fullan's explanation on problems of continuation (Institutionalisation) of an educational change is hampered by a number of system wide factors. These factors again as stated previously are macro and micro factors.

Next, findings on 'economic and leadership support' for Inclusive Education were similar to those experienced in other developed and developing countries. For instance, their federal, state and local/district governments have identified similar constraints in economic and leadership support and continued to review and improve the challenging nature of Inclusive Education (Friend, & Bursuck, 1999; Suter and Giangreco, 1999 & 2000; Watson & Hatton, 2002; Australian Vinson Report, 2002; Crosby, 2002; Timmons 2003; Powers, Rayner, & Gunter, 2003).

Environmental support is both a barrier and a facilitator. The participants' perceptions of the 'environmental support' indicated both positive and negative views. About one quarter of the participants expressed the view that SERCs/Mainstream schools do not extend what they value about Inclusive Education to other key stakeholders in the community. However, nearly all participants briefly acknowledged that, because of limited funding to support travel and conduct in-service sessions, awareness was limited. There was minimal support for funding where K3000 to K4000 was received by the SERCs for operational purposes from the NDoE from 1993 to the present; and between 2007 and 2011 by certain Provincial governments for the first time since the inception of the policy in 1993. The funding came from a few provincial governments through the PEB and PDoE in the form of school fee subsidy for the CWDs and institutional teaching positions for the SERCs on an ad hoc basis in between 2007 and 2011.

In addition, charity or non-government and international organisations were able to provide material support such as wheelchairs, vehicles for operational purposes, and special project funding for visual and hearing disabilities in some regions. These organisations were the following: Catholic Disable Service (Callan), German's Christofel Blinden Mission (CBM), the European Union (EU), Australian Aid (Aus-AID), Japanese International Countries Aid (JICA), United Nations' Children's Education Fund (UNICEF), and certain provincial members of parliament out of their 'District, Service Improvement Plan' (DSIP) Funds, and others.

As a result there is ineffective networking by SERCS and Mainstream schools with all key stakeholders such as the Ministry of Education, PEB, PDoEs, local/district education, parents and guardians, school BOM, charity organisations and the private sectors in each province of the four regions. Generally, the PEB and PDoE had ignored or limited the full implementation and institutionalisation process of the Inclusive Education policy due to lack of policy knowledge, dissemination clarity, and the professional wisdom to convert policy into meaningful practice in the provinces and district schools.

Findings in this study indicate that internal and external environmental support are being provided but in a very limited way. As far as Mainstream schools and SERCs were concerned their internal and external environments had limited support. The charity organisations, the local villages, urban and rural town populations are able to provide Inclusive Education program support. One example is the fundraising drive initiated and coordinated by the SERCs in a particular province. A few provincial governments had provided school fee subsidies for CWDs, a local member of parliament or local charities or international agencies had provided disability support through kind donations. However, these supports are only for the short term and do not last to make a bigger impact in the process of institutionalising Inclusive Education.

In sum, the following were the barriers and facilitators of the institutionalisation of Inclusive Education policy and its practice in the PNG school system. Participants' saw that the facilitators of Inclusive Education policy and practice were very minimal in terms of political support, economic and leadership support and environmental support. Barriers to Inclusive Education were the lack of funding and guidance by Inclusive

Education leadership, the lack of political leadership to pass and mandate disability legislation, and to create a disability portfolio and a regulatory body for Inclusive Education in Mainstream schools and community-based projects. Socio-cultural and historical links was also identified as a major barrier in terms of teachers beliefs systems in teaching and learning of CWDs and all stakeholders' traditional beliefs and value systems were seen to be in conflict with accepting Inclusive Education.

In its understanding and representation of the macro and micro factors as barriers and facilitators of Inclusive Education policy and its practice, Fullan's notion of change factors and processes has been evident in this study. In Chapter 3, Fullan emphasises that any given innovations, whether they be a success or failure, are very much dependent on the organisational context of an educational institution (Fullan et al, 2001). He continues to elaborate this in terms of the materials, teaching practice, and teacher beliefs where they become either meaningful or not at the level of the individuals in practice.

6.2.3 Key research question. Why has there been limited progress towards institutionalisation of inclusive education since 1993 in PNG?

It is fair to say that the documentation of the Inclusive Education policy and its delivery mechanism have been well articulated as a document (see Chapter 1 and Appendix 7). However, key stakeholders at the national level to the provincial, district and school/SERC levels did not articulate the policy document well to the implementers in the system. The findings based on the survey and interviews indicated that macro and micro factors that interacted as change dynamics affected the implementation and institutionalisation in two major aspects of the Inclusive Education policy:

(a) the first was the inability of participants to understand and articulate the Inclusive Education policy in terms of the 12 guidelines stipulated for implementers; and

(b) the second was the failure of the systemic leadership and structural functions of the various educational institutions to actually translate the policy into meaningful and effective practice.

These two aspects are discussed as a coherent whole by integrating the above discussions to answer the key research question. In the following sections, the report of these two aspects is examined in relation to the provisions of the systems support and then to direct provision of education services for CWDs in the change processes.

6.2.3.1 Understanding of Initiation, Implementation and Institutionalisation of Inclusive Education (National Level To The Provincial and Local/District Levels)

It is evident that the NDoE, through the National Ministry of Education, has initiated the Inclusive Education policy and put in place its implementation and institutionalisation processes. For instance, key structural and leadership functions were put in place with NDoEOs of the NIEU under TED who are qualified to facilitate the Inclusive Education policy from the NIEU to key stakeholders in the education system (see Appendix 3). It is understood that the TED of the NDoE through the NIEU ensures that the structural and leadership functions provide clarity on the Inclusive Education policy and articulate it to stakeholders in the education system. For instance, from the earliest form of implementation the Inclusive Education policy was then facilitated from the national level to the provincial and/local district levels, and finally the SERC/School level.

Despite the clear indication of the roles to be played by the NDoE, TED, NIEU, the SERCs, the Teachers' Colleges and the Mainstream schools, the progress since the inception of Inclusive Education policy is far from desirable. Therefore, as far as NDoEOs are concerned, the SERC staff and teachers' colleges lecturers of Inclusive Education employed by the NDoE were mandated to work together to implement the Inclusive Education policy in the Mainstream schools. The training needs of pre-service and in-service teachers are also included in this view. However, the impact of Inclusive Education policy implementation before institutionalisation seems to be very limited. Given these scenarios, it is evident that understanding the Inclusive Education policy and the delivery mechanisms have been poorly articulated by key stakeholders since the inception of the Inclusive Education policy in 1993. It is likely that there exists a certain level of uncertainty and a lack of clarity in the delivery process of Inclusive Education policy by key stakeholders at the national and provincial levels of education.

According to Fullan (2001), any educational change that enters the institutionalisation process involves macro and micro factors that interplay as change dynamics to make decisions and take action (See Chapter 3). The micro and macro factors can be similarly referred to as the 12 Inclusive Education policy guidelines for implementation as documented in the *NSEPPG*, 1993 in Chapter 2 and Appendix 7). Based on the macro and micro factors outlined in the *NSEPPG* 1993, participants were not explained what institutionalisation decisions were to be made and decisive actions to be taken.

It is therefore understood that, though SERCs as well as the NDoEOs had a better knowledge and understanding of the Inclusive Education policy, their ability to articulate the policy to the lower levels for implementation and institutionalisation were ineffective. As a result, the provincial government, through the Ministry of Education, the LLGs, the PEB with the PDoE and its leadership (PEOs and DEOs), the MS teachers and their school BOM have yet to effectively institutionalise the Inclusive Education policy and its required practices in the Mainstream schools of the education system.

It is also noted that at the national level the NDoE in its *Annual Report* of 2011 had documented very little content relating to the factors that had facilitated or hindered the progress of institutionalisation of the Inclusive Education policy in the system. What was produced was patchy and lacked credible substance to verify and validate the quality and effectiveness of the institutionalisation process in the education system. During the visit by the researcher to the NDoE, all SERCs were unable to provide their quarterly and annual reports, however, some were provided while the study was conducted. This raises a grave concern on the structural functions and leadership dynamics that are currently in place. Are they functioning efficiently, or are they weak and produce patchy presentations by the NIEU and TED to NDoE for the publication of the *Annual NDoE Report*.

According to the NDoEOs interviewed, funding was a problem for SERCs to operate. The current funding of K3000 to K4000 yearly grants were inadequate for them to operate efficiently. Though there are other forms of funding from non-government organisations or donors, most SERC staff also acknowledged that funding was limited and inadequate to function efficiently. In addition, the limited number of SERC staff

available to reach out to the large number of CWDs and PWDs in the four regions provinces and districts was a major barrier of Inclusive Education. It is very clear that given the limited manpower and logistical support for the SERCs it was impossible to deliver Inclusive Education to all the provinces in PNG. Currently, there are 24 SERCs in PNG. How long they have been established and the status of their current institutional structures and functions cannot be verified and validated in this study. However, from the findings it is conclusive that each SERC is very unique given their context and the Inclusive Education support they receive. In terms of the macro and micro factors discussed above, each SERC and Teachers' College cannot be an effective facilitator of Inclusive Education policy in the Mainstream schools because there are more barriers identified in the delivery of Inclusive Education.

The next sub-section looks at the initiation, implementation and institutionalisation from the national level to the SERC and Mainstream schools level.

6.2.3.2 Initiation, Implementation and Institutionalisation (National Level To The SERC and Mainstream School Level)

In the initiation, implementation and institutionalisation processes, the TED of the NDoE is a key player in the delivery of Inclusive Education policy. By joining forces with the SERCs they associate with it affects the choice of locations where teachers' colleges are established. The TED and SERCs continue to collaborate and provide ongoing both theoretical and practical support for the institutionalisation of Inclusive Education policy through college-based and centre-based training programs. There were initially eight primary teachers' colleges but two more have been established, making a total of ten (NDoE, 2011). According to the NDoEOs' perceptions, the lecturers lecturing in the Professional Development Strand are not providing enough practical school experience for Inclusive Education in the local Mainstream schools. This means that the Inclusive Education lecturers and SERCS are not collaborating well enough with the local Mainstream schools in delivering Inclusive Education policy and its required practices in their lecturing and centre programs. This indicates clearly that meaningful and effective teaching and learning experience of Inclusive Education for beginning teachers and in-service teachers is problematic. In the survey and interview it was noted that though pre-service and in-service teachers had been taught Inclusive Education Units in a teachers' college, University of Goroka, or the PNG Education

Institute, they were not able to teach CWDs in the MS system. A number of teachers with some training revealed that they had learnt sign language, had some hands on experience in the screening of CWDs, were explained some things in class on the Inclusive Education policy, and were informed that teachers were to educate CWDs in the Mainstream schools as part of the education reform. However, in reality, the Mainstream schools' ability to translate theoretical knowledge on Inclusive Education into a real practice of teaching CWDs was generally minimal or not possible. What explains this discrepancy between theory and actual practice of Inclusive Education?

From the researcher's observations and data collected during the study, it appears that the current teaching and learning context of Mainstream schools does not cater for CWDs. As observed in the schools visited, there are no appropriate teacher support mechanisms and restrictive environment (LRE) for CWDs to learn. The teacher support mechanisms include a special support teacher (can be a familiar member, paraprofessional or professional in a disability area), specific instructional programs designed for CWDs, proper seating and space, and instructional resources to teach CWDs. As observed in the current state of teaching and learning in schools, there is no special curriculum integrated into the main one. Furthermore, the Mainstream schools do not have specific teaching aids for CWDs, including those with disabilities: blind or have low vision; partial and or hearing impairment; multiple disabilities.

Additionally, it was observed by the researcher and data collected from the survey and interviews that the Mainstream school leadership does not cater for teacher support strategies that provide additional teacher support or teacher aids that can help each classroom teachers to provide instructional and supervision of CWDs in and out of the overcrowded classrooms. Instead, the leadership focuses on general administration of teaching staff and the social and academic wellbeing of able students. Given these scenarios, Inclusive Education policy institutionalisation has not been visible, clear or effectively making progress in the Mainstream schools. In Chapter 3, Fullan in defining institutionalisation refers to it as continuation, incorporation and routinisation (Berman & McLaughlin, 1977; Huberman & Miles, 1984; Fullan, 2001). This means the new educational change [in this case Inclusive Education policy] either gets built in as an ongoing part of the school system or disappears. In this case, the institutionalisation is

making a very slow process and is still far from being achieved in the PNG Education system.

Moreover, the Inclusive Education policy and its required practice in the MS system is currently still along the continuum from implementation and slowly entering the institutionalisation process, and teacher education programs have not adequately prepared teachers for the Mainstream schools. From the above discussion, the quality of training received in Inclusive Education is inappropriate, there are no proper guidelines for institutionalisation in the Mainstream schools for school principals and teachers, there are no guidelines for parents and citizens as well school BOM to put in place support mechanisms for the class teachers and CWDs.

In addition, it is also noted that when an educational policy is being initiated and mandated for implementation, all affected institutions are required to initiate their own implementation strategies that are relevant and applicable in their teaching and learning contexts. For instance, school principals, school BOMs, parents and citizens, the local communities, the LLGs, the PEBs and PDoEs should collaborate to initiate an Inclusive Education implementation and institutionalisation plan that will take into consideration the macro and micro factors that affect the structural and leadership dynamics of the Mainstream schools. The researcher observed that this is not the case in the Mainstream schools that were visited. All the schools visited in the selected provinces for the study claimed that they were not ready to take on board Inclusive Education policy and its institutionalisation. The reason given for this was the fact that they were not prepared for the Inclusive Education policy and there were no prior consideration of factors that would affect the process of institutionalisation.

There are two relevant factors identified that have been identified in this study: (a) macro factors that operate in the overall school system, including the socio-cultural links, political support, economic and leadership support and environmental support; and (b) the micro factors that operate within the an institution's structural functions and leadership dynamics, such as at the SERCs and the MS Level.

Given the above discussion, it is noted that based on organisational change processes and factors the implementation and institutionalisation of Inclusive Education policy

and practice has brought to light minimal facilitators but more barriers. Therefore, according to Fullan (1992, p. 21) implementation [a policy or other forms of change] focuses on what happens in practice or actual change. In this case many factors have affected the implementation and institutionalisation of Inclusive Education policy which has included lack of clarity of Inclusive Education implementation goals, lack of resources such as funding, coordination, communication, and legislation all of which separately or together has inhibited direct implementation and institutionalisation among PNG's educational institutions. Additionally, in the context of lack of clarity of the goals for an educational change (in this case the Inclusive Education policy), similar findings have been noted by Fullan and Stiegelbauer (1991, p. 4), when speaking in the context of North America:

One of the fundamental problems in education today is that people do not have a clear, coherent sense of meaning of what educational change is for, what it is, and how it proceeds. Thus, there is much faddism, superficiality, confusion, failure of change programs, unwarranted and miss directed resistance, and misunderstood reform.

As a result, there appears to be very minimal Inclusive Education outcomes being achieved at the School/SERC level, district level and the provincial level of education. In the next sub-section, participants' in-depth long-term perspectives are presented and elaborated accordingly.

6.2.3.3 Participants' long-term recommendations about the institutionalisation of Inclusive Education policy and practice in the PNG Education system

During the course of the four focus group interviews into the barriers and facilitators of institutionalisation, SERCs, Mainstream schools, PEOs/DEOs and the NDoEOs, were asked, 'What would you like to see in the next 5 to 10 years happen for Inclusive Education in your institution?' Their views and suggestions are given and elaborated.

Beginning with the SERCs, inadequate funding and manpower were their major barriers to the effective implementation of programs based at teachers' colleges and Mainstream schools. One respondent said:

CS: First, for the long term, I would like to see financial support from the national and provincial government for our Resource Centre. Second, there must be human resource capacity building for teachers in Resource Centres and all teachers' colleges to take up courses of disabilities. There are many agency schools when we go to talk about disabilities they need help.

This particular suggestion is a common view and does imply that financial and leadership support are critical for the better delivery of Inclusive Education in the near future. In addition, a number of SERC staff had acknowledged that PWDs were not supported in terms of seeking employment in the towns and cities. For example, most Centre Coordinators of the SERC made replies like the following:

CCs: For [CWDs or] PWDs, there are only few companies that [have] accepted them to be part of their employment workforce. But the majority are rejecting PWDs because when they look at their disability, they think they cannot do it. The employers are not looking at the abilities that a particular child has. The companies who have employed people with disabilities talk about why and how they have employed PWDs. We would like to see more of these opportunities for PWDs [or CWDs] happening in other Resource Centres in the country.

After their years of schooling, CWDs or PWDs would want to have a quality of life that anyone else would want. The researcher noted that in one of the research visits to a bigger SERC, many CWDs or PWDs had learnt and acquired both survival and industry skills to make a living. PNG, a country that is booming with mineral resources such as gold, oil, liquefied natural gas (LNG) and other mega growing industries, should be able to provide support for CWDs and PWDs. The National and provincial governments have the power to utilise them for the disabled population. In reference to a provincial government, a SERC coordinator represented the view of all SERCs when they made this statement:

CCs: The New Ireland Governor has put in place a support system for aging PWDs. This is an example of a role model, a leader or a politician in the country. Here we already had some supports from the current Governor and the former Governor in terms of bringing water supply down, and putting up the fence surrounding the Resource Centre. [We] would like to see an annual budget is set for our province as well as other resource centre by the provincial government. We are like other existing government and non-government organisations that are conducting so many good activities in the province. We would like to move forward, but we cannot because we have limited support from the leaders in our province.

The SERC staff also would like to see that the design of classrooms and the physical surroundings of the Mainstream schools to be accessible for CWDs to learn and interact meaningfully. The following suggestion was made:

CCs: All schools or all school buildings must be designed for special education, the curriculum must be well designed for special education children and teachers who are going to be specialised in teaching special education must be trained. There has to be

collaborative support from the government departments, non-government organisation and other interested organisations. Then the special education resource centre throughout the country will be well off to service the people of their province.

While the SERCs play a part in teacher training at the local teachers' colleges, they have identified the difficulties of trying to provide school-based Inclusive Education assistance given the limited manpower and logistical support they have. The following suggestion was made:

CCs: [A] primary school has about 8 grades or 8 classes with 8 teachers; we should have one special education teacher in Inclusive Special Education teacher and that teacher should become the number 9th teacher. This particular teacher moves around from grades 3 up to 8 and assists the class teacher preparing teaching aid or whatever at the same time maybe specialised in different disabilities. For example, he or she conducts sign language with mute or deaf child, while the teacher is teaching so that the teacher will help the student with a disability. When it comes to school in-service sessions, these teachers come to the resource centres for in-services or anywhere for in-services, and they are there to help facilitate.

In support of the above view for long term consistency to maintain progressive teaching and learning for CWDs, longer teacher appointments must should be considered in order to avoid lag in learning for CWDs. It was noted that some CWDs had not been consistently taught over the years. As a result, the key learning milestones have not been achieved as planned and executed by SERC staff in the Mainstream schools.

A major barrier explained by the SERCs is the issue of qualified and experienced leadership to coordinate and maximise all leadership capacities in the centre-based programs. It was noted by the researcher that one of the five SERCs visited had a big leadership tussle that had affected the structural and leadership dynamics of the centre. The SERC coordinator currently experiencing the problem suggested a long-term view:

CC: What I would like to see is quality leadership for the centre, all the centres. I would like to see that the person who is selected as Centre Coordinator should be having the experience and also have the qualification. So, he or she can use both knowledge or qualification and experience to run the programs effectively. Maybe other centres have got the qualification but they do not have the experience and it's like unbalance. So we would like to see balance in a person who becomes the coordinator so he or she can be a productive leader.

The long-term views suggested by the SERCs are considered to be significant because they have made it very clear during the research visits that they have not been properly supported over the years. As an educational institution that is mandated to carry out the

delivery of Inclusive Education, they have been poorly funded and less resourced. It is evident that the barriers outweigh the facilitators of Inclusive Education. Though the understanding of Inclusive Education policy and its practice are highly commendable, the structural functions and leadership dynamics have been too limited to properly be proactive and progressive contributors in the institutionalisation process. The next long-term views are given by MS teachers about what they consider as significant in order to facilitate Inclusive Education policy and its appropriate practices in the PNG school system.

The Mainstream schools teachers have consecutively suggested in their long-term views that they need properly trained teachers. In addition, the SERCs in support of the same view indicated that current field teachers teaching in the school system should be selected and be retrained to specialise in Inclusive Education. The specially trained teachers should work alongside the general classroom teachers and collaborate with the SERCs to teach CWDs. In a nutshell, the following statement amounts to a summary of a number of the common recommendations:

MSST: [B]efore anything can happen there must be some sort of a plan for the province about inclusive education submitted to the provincial and local level government by our Division of Education [PDoE]. Then this should be followed-up by proper funding for resources and infrastructure development. Teacher and head-teachers need to be trained to take leadership; and for the communities a lot of awareness needs to be done.

The work of Mainstream school-teachers in working with the SERCs to integrate and include CWDs in the PNG National Education system is a function that is regulated and supported by the NDoE and PDoE. Both the provincial and national governments also play significant roles in the education of all children including CWDs in the regular MS classrooms. The long-term suggestions made are significant because they imply that Inclusive Education was theoretically applicable but practically it had achieved very little. Thus, it is significant to accept the Inclusive Education views of MS-teachers as worthy of consideration, and especially their demands for appropriate action by all stakeholders in the near future.

Fullan et al (2001) continually affirms that educational change is a complicated process and demands all stakeholders to be part and parcel of the change process. Fullan (2001) categorically emphasis that the context of change and the interactive factors such as

those noted in the above discussions works in one situation or may not work in another. This is because each context of change is unique and has its own problems that impact on the processes of change. Fullan explained that there are a number of interacting factors that affect the processes of change: (a) the characteristics of change – need, clarity, complexity and quality of the change; (b) local characteristics – district, community, principal and teacher; and (c) external factors – government and other agencies (2001, pp. 71-90). These characteristics and other related factors have been discussed under the two sub-research questions and the key research question for the study. The next long-term suggestions are made by the PEOs and DEOs in the respective provinces visited in this study.

From the survey and interview analyses the PEOs and DEOs have very little understanding of the Inclusive Education policy. As a result, they have come to realise that very little, or in some instances nothing, has been done about this particular policy. As far as their long-term suggestions are concerned they share a similar view with the SERC staff and the Mainstream schools teachers:

PEOs / DEOs: The problem we are having is funding and resources. Leadership, there is leadership but it is not concentrating on this policy, so I think that has to be considered. I'd like to see the schools facilitating for special children with special needs like if there is a child with a wheelchair there should be doors open and cement floors going into facilitating the child to go into to learn and move to meet his or her need... That's right; the classroom should be accessible such as toilets and all these. I think, if there is a streamline management from the top all the way to the school level then it will facilitate it [Inclusive Education] very well.

The provincial and district education services are entrusted to the care of the PEOs and DEOs, and it is their delegated responsibility to ensure that they take into consideration the long-term suggestions. This will assist them to initiate implementation plans and strategies for institutionalisation of Inclusive Education policy by translating them into meaningful and practical educational programs as services in their province and district Mainstream schools. The final suggestions for the Inclusive Education policy and practice are given by the NDoEOs.

The NDoEOs had also provided their long-term suggestions that need careful attention for long-term solutions to institutionalise Inclusive Education policy and its practice in the MS system. Both NDoEO1 and NDoEO2 are experienced and qualified officers in

the field of special education and they have been teachers at the Mainstream schools and the SERCs, and also served as teacher educators before taking up national duties in NIEU of the NDoE. They had been in their current positions recently and have tried to articulate the Inclusive Education policy in terms of curriculum development and institutional inspections in the SERCs and the teachers' colleges. These have been their prime responsibilities and then they report to the superintendent of the NIEU and the TED of the NDoE. Beginning with NDoEO1, he made the following suggestions for significant consideration and action:

NDoEO1: I would like to see that infrastructure within the mainstream schools need to be put up like we need special classroom for our indoor resource teachers to be placed in there. So they can have the opportunity of giving instructional support to the mainstream schools. [A]ll the teachers working in the elementary, primary and secondary... need to have awareness on education for all. This means they ... have to go for training, workshops... so that they will be able to assist special needs children when they go into the mainstream schools, from elementary up to secondary and even teachers' colleges.

The above suggestions indicate that appropriate training for teachers and key infrastructure in the Mainstream schools are not in place for Inclusive Education to be institutionalised. The SERC-staff, the MS-teachers and the PEOs/DEOs also had similar views. It is imperative that the NDoE, TED, NIEU, PEB and all PDoE to collaborate to address the training needs of all key stakeholders implicated in the institutionalization process.

The first suggestion for NDoEO2 is based on the funding ability of the NDoE for TED and NIEU need to consider macro and micro factors that are crucial implementation strategies to institutionalise Inclusive Education policy and its practice in the MS system. As discussed above, that funding and availability of key resources were lacking in the SERCs and Mainstream schools to teach CWDs. One of the reasons for this was the following:

NDOEO 2: [W]hen funds are allocated, it's allocated to teacher education and you know, we are sharing that, elementary, primary, teacher - training colleges as well as inclusive education and training [other] education professional as well.

It is understood from this reason that the NDoE's annual budget for TED and NIEU is inadequate to institutionalise Inclusive Education in the SERCs, teachers' colleges and the Mainstream schools. NDoEO2 is implying that funding in the

future for Inclusive Education needs to be drastically improved. This means that a separate funding or budget arrangement would be a better option compared to the current funding of budget arrangement and priorities set down by the NDoE and TED.

The second suggestion for NDoEO2 looks at the TED's arrangement of teachers' colleges' structural functions and leadership dynamics, and how Inclusive Education policy had been translated into teacher training programs for pre-service and in-service teachers. The current Academic Strands that is responsible for delivery of Inclusive Education units is counter-productive where it mostly emphasises only the theoretical courses on Inclusive Education. The practical aspect of delivering Inclusive Education in the MS system is very minimal and therefore, it results in low teacher expertise in the teaching of CWDs. As a result, a long-term suggestion is given by NDoE 2:

[I]ncrease the number of staff in the National Inclusive Education Unit [NIEU]... A Unit of special education should not come under Professional Development Strand. [T]hat Inclusive Education should have a Division of its own like TVET ... [W]e are thinking of getting out from the professional development [strand] because when we look at ...the curriculum ... special education comes under the professional studies... [W]e want to be out from there so that we can dictate our own... time concern ... [We need] more chances of having enough time where we can have more practical [with] our students who are taking up more effective participation. [A]t the same time increase our credit points where ... we can have more [practical] courses given to the students.

The success and failure of training in Inclusive Education are attributed to a low level or no teacher expertise in the actual teaching of CWDs that takes place in the school system. The survey and interview data had confirmed this barrier in terms of appropriate qualification and training received by the SERC staff and MS teachers. It is fair to state that teachers' college lecturers in Inclusive Education understand the Inclusive Education policy and its required practices. They are able to teach the theoretical lectures of Inclusive Education to student teachers; however, practically they have failed to provide the link between theory and actual practice in the Mainstream schools.

From the NDoEOs observation as noted in the interview the Professional Development Strand in the Teachers' Colleges had made very little impact of Inclusive Education programs. It is evident that Inclusive Education had been given very limited training hours for theory and practical learning as a learning unit. For instance, TED (NDoE, 2007, p. 20) the revised *National Curriculum Content Guidelines for Diploma in*

Teaching offers 36 hours for Inclusive Education or Special Education. Most of these hours are committed to theoretical lectures and very little on the practical aspects of Inclusive Education. Therefore, the suggestions made by the NDoEOs are worthwhile and demand a paradigm shift in the current design of teacher education programs to implement the Inclusive Education policy and its practice in the education system.

The lack of understanding of the Inclusive Education policy and the structural and leadership dynamics operating at the four levels of education had resulted in a low level impact and very little progress made in the Mainstream schools of the PNG education system. The initiation phase of the Inclusive Education policy was well documented with clear delivery mechanisms for the initial implementation. The initial implementation phase of three to six years was done, however, the quality and effectiveness of articulating the Inclusive Education policy and institutional support were denied by key responsible stakeholders in the ‘institutionalisation phase’. As a result, there seem to be very little progress in the institutionalisation of Inclusive Education in the PNG school system. The denial of Inclusive Education policy and its rightful place in the PNG education system clearly show that there is a lack of social justice for the marginalised and disabled children in PNG.

6.3. Verification and Validation of Education Change in PNG’s Inclusive Education Policy

According to Fullan (2001) there are three major change processes that any educational change goes through, namely, initiation, implementation and institutionalisation. The Inclusive Education policy change has gone through the processes of initiation and implementation, except that the institutionalisation process has been a very slow process at the school/SERCs level, local/district education level and provincial education level. Within the three major processes there exist macro and micro factors of the kinds identified by Fullan (2001, p. 72). As discussed earlier, Fullan (2001) refers to three macro factors: (a) teacher beliefs and value system in teaching and this stems from; (b) teachers pedagogical knowledge assumptions; and (c) theories underlying a particular new policy or program. At the institutional level, educational change can have a successful or an unsuccessful outcome and is determined by key macro and micro factors. However, these factors do not take into consideration teachers as well as other key stakeholders’ beliefs and value systems that are rooted in traditional cultures. This

study suggests that Western norms and beliefs about the education of CWDs in the modern school classroom context are not applicable in the PNG teaching and learning context.

Additionally, the Western World's perception of educational change is determined by policy makers as a top down process and implemented by those in the school context. PNG is a non-Western country and its traditional cultures with their unique beliefs and value systems are not necessarily the same as with educational change beliefs and values of the Western world. To conclude, this study suggests that educational change, in this case the Inclusive Education policy and practice, is culture bound and can only be successfully institutionalised within a relevant PNG cultural framework.

Furthermore, other key research literature had indicated that there are also macro and micro factors that exist and they have impacted on Inclusive Education in the developed and developing world's education systems. It was noted that factors such as 'socio-cultural and historical links', 'political support', 'economic and leadership support' and 'environmental support' are more significant than the institutional-based factors as defined by Fullan (2001). From the review of literature in Chapter 2, the federal and state governments, international organisations such as the UN, and academics at the universities engaged in special education or Inclusive Education, have all witnessed these factors as barriers and facilitators of their Inclusive Education policies.

6.4 Summary

The findings discussed in this chapter indicated that the lack of progress in the institutionalisation of Inclusive Education policy and its practice in PNG can be attributed to the lack of understanding and the structural and leadership dynamics operating at the various levels of education. Through the initial initiation and implementation of the Inclusive Education policy between 1993 and 2000, the articulation of the Inclusive Education policy had being poorly done. As a result, the delivery mechanisms lacked proper clarity measures and support systems from the national level and down to the provincial level, and then onto the district/local level and the school/SERC level. The survey and the interviews uncovered the views of the SERC staff, MS teachers, PEOs, DEOs and the NDoEOs who represent the key stakeholders at the various levels of education in PNG. The document analysis provided a brief outline

of what the SERCs had done in the Inclusive Education programs, and at the national level, however, the *NDoE Annual Report 2011* did not provide data on the factors that had affected the initiation, implementation and institutionalisation of Inclusive Education.

The lack of progress in the institutionalisation of Inclusive Education policy and its practice in the school system were examined in the light of the theoretical framework rooted in the notion of Fullan's education change processes and factors. Significantly, the macro factors guided by the literature reviewed in Chapter Two also played a key role in analysing and integrating findings as answers for the three research questions: (a) 1.1 To what extent do key stakeholders understand and deliver Inclusive Education in the education system? (b) 1.2 what are the leadership and structural dynamics that impact the institutionalization of Inclusive Education in the education system? and finally, (c) Key research question 1.0, why has there been little progress in the institutionalisation of inclusive special education in PNG since 1993?

From the findings it appears that there are two sets of factors that have impacted on the institutionalisation of Inclusive Education. They are identified in the study as, (a) macro factors that operate in the overall school system which include the socio-cultural links, political support, economic and leadership support and environmental support; and (b) the micro factors that operate within Mainstream schools, SERCs and the Teachers' Colleges. These factors were visible in the survey and interviews conducted and integrated in the discussion based on Inclusive Education as an educational change in the PNG education system. The participants' views of long-term plans to institutionalise Inclusive Education have been presented as invaluable and worth consideration by all the stakeholders engaged in the study. The final chapter looks at the conclusions, implications and recommendations.

Chapter Seven: Conclusions, Implications and Recommendations

7.1 Conclusion

This chapter draws conclusions and makes recommendations based on the data analysis findings about the barriers and facilitators of institutionalisation of Inclusive Education in the Mainstream schools of the PNG education system. It begins with the restatement of the research problem, moves on to provide a summary of the research procedures employed in the study, and then briefly summarises the major findings in relation to the key research question. Finally, critical implications of the findings are explored and these are followed by key recommendations both to the providers of Inclusive Education and concerning the need for further investigations.

7.2 Restatement of the research problem

As discussed in Chapter 1, this study emerged as a result of the researcher's interest in the limited progress of Inclusive Education despite the policy mandate made 15 years ago in PNG. Understanding the gap in the knowledge of the barriers and facilitators that have impacted on the institutionalisation of PNG Inclusive Education was seen as one of the many ways to provide social justice for all children including marginalised disabled children. This study investigated the barriers and the facilitators of the institutionalisation of Inclusive Education in the light of existing approaches and the policy that supported them. It is the Mainstream schools and the SERCs who had the frontline responsibility to institutionalise inclusive education with the support of the national and provincial Ministry of Education and its administrative arms in the local or district level, provincial level and the national level in PNG's education system.

7.3 Summary descriptions of the research procedures

The research procedures that have guided the investigation of barriers and facilitators of Inclusive Education policy and its practice in the various levels of the education system were carefully chosen. They were guided by the research literature in Chapters, 2, 3 and 4.

The review of literature focused on educational change literature and the macro and micro factors that had impacted on Inclusive Education in the developed and developing country including PNG. First, key factors such as socio-cultural and historical links, political support, economic and leadership support and environmental support how Inclusive Education as an educational change phenomenon originated from the various schools of thought in Chapter 3 (behaviourism, constructivism, progressivism, pragmatism, organisational theory and Fullan's perceptions about educational change). Both approaches in the review of literature were able to position the research problem in a proper perspective before the investigation of Inclusive Education was made. It was noted in the review that the work of general education practitioners, special education teachers, professionals and paraprofessionals, and school administrators for Inclusive Education were relevant to the research problem.

In comparing the developed and developing countries, factors such as socio-cultural, political support, economic and leadership support and environmental supports were key issues affecting 'inclusive education'. It was found, however, that not much was known about the situation in PNG. Therefore, a study of Inclusive Education in PNG was essential and there was the need to explore the factors that had been barriers and facilitators of the institutionalisation process. In addition, Fullan's educational change model was considered as appropriate to verify and validate the macro and micro factors that have affected the structural and leadership dynamics operating at the various levels of education in PNG. As a result, a theoretical framework was developed and findings from the literature were used to verify and validate the barriers and facilitators of the institutionalisation process.

The interpretive research paradigm was chosen as appropriate for the study on Inclusive Education policy and its practice in the Mainstream schools of the PNG education system. The approach was selected because social reality is viewed and interpreted by how a person or individuals in a group have interacted within their cultural settings and in the knowledge they have generated and hold true for themselves (Denzin & Lincoln, 2000, p. 191). The primary sources of information for the study were identified as the policy makers (local, provincial, and national education officers), teachers in the primary and elementary schools, and the professionals and paraprofessionals working in the SERCs. This meant that the study was situated within an interpretivist paradigm,

which reflected the natural setting of the people's workplaces. The participants' workplaces have shown unique people with various socio-cultural patterns of behaviour because PNG is multicultural in language, local practices, beliefs and value systems. Obtaining their interpretations of the facilitators and barriers to the institutionalisation of Inclusive Education was therefore critical.

The analyses based on the survey, interviews and document collections used analytical techniques that were pretested during the pilot study and then refined and applied in the main study. From the analyses that were made, the consistent and thorough application of the data collection and analysis methods revealed that the research had an acceptable level of validity and reliability (Lincoln & Guba, 1994; Denzin & Lincoln, 2001; Onwuegbuzie & Teddlie, 2010). Overall, in the interpretation of the findings, the theoretical framework, research questions and the interpretivist paradigm combined to reveal very significant aspects of the barriers and facilitators that have impacted the initiation and the implementation of the Inclusive Education policy, and explained why there is very little progress in its institutionalisation.

7.4 Summary of major findings and key research question

The major findings in the study were drawn from the survey, interview and document analyses in Chapter 5. The research questions focused on the understanding of inclusive special education policy and the delivery mechanism stipulated in the *NSEPPG*, 1993 by key stakeholders selected in the education system. The perceptions of the SERC staff, MS teachers, DEOs/PEOs and NDoEO were drawn from the survey and interviews conducted. According to the data analysis and findings, there were less facilitators and more barriers. The lack of understanding of the policy statement and how the policy can be meaningfully translated into the practical teaching and learning in the context is problematic. Document analysis has indicated that the understanding of Inclusive Education policy and its delivery mechanisms are reported as only highlights of Inclusive Education activities provided by the NIEU. There is no real evaluation of the delivery mechanisms by the SERCs and NIEU under the function of TED of the NDOE.

The barriers and facilitators of the structural and leadership dynamics have been evident in the document analysis. Based on the interview and survey, the theoretical framework

unveiled major barriers and minimal facilitators of structural and leadership dynamics. The framework also helped to reveal how these barriers and facilitators have impacted on Inclusive Education policy and practice at the Mainstream schools/SERC level, the local/district level, the provincial level and national level of education.

Below are the findings regarding these barriers and facilitators:

Socio-cultural and historical links' factors are a great barrier to the implementation and institutionalisation of Inclusive Education policy and practise. Two thirds of the participants acknowledged that there is educational reform in PNG and the participants' beliefs about Inclusive Education were generally supportive. However, less than one third believed that socio-cultural and historical factors were not supportive of Inclusive Education. This scenario implied that the leadership at the provincial, local/district and the Mainstream schools/SERC levels is still insufficient to translate Inclusive Education policy into meaningful and practical teaching/learning experiences in the MS system and the community.

Economic and leadership support was both a major barrier and a minor facilitator to the institutionalisation of Inclusive Education policy and practice. More than three quarters of the participants were negative about the funding provided by the Ministry of Education. In general, the NDoEO acknowledged that 'economic and leadership support' was limited or inadequate. Significantly, professional development of PEOs, DEOs, SERCs and Mainstream schools to understand and institutionalise Inclusive Education programs were limited in the urban and rural districts schools in access to Inclusive Education in partnerships. It was also noted that 'the bulk of the rural schools with their teachers and principals were yet to [be] established or have meaningful access to Inclusive Education' services through School Learning Improvement Programs (SLIP).

The research concerning training and academic qualifications indicated that less than a fifth of the highest qualifications by the SERCs' staff and NDoEOs were obtained in special/inclusive education or disabilities study. These qualifications ranged from a Certificate to a Graduate Certificate and a Bachelor's or a Master's degree. As for the other majority of MS-teachers, PEOs and DEOs, they had no proper qualifications in

special/inclusive education but a pre-service teaching certificate or a diploma, and an In-service Diploma and a Bachelor's degree in school and general education.

The participants' perceptions of the 'environmental support' by key stakeholders indicated both barriers and facilitators. About one quarter of the participants believe that SERCs/Mainstream schools do not extend what they value about Inclusive Education to other key stakeholders in the community, while most of the participants (three quarters) do. However, nearly all participants observed that awareness was limited because of limited funding to support travel and conduct in-service sessions.

Barriers and facilitators of the structural and leadership dynamics have not been documented, however, there were structures in place that seemed to be ineffective in the delivery of Inclusive Education policy and practice based on the survey and interview accounts of the SERC and NDoE participants.

7.5 Conclusions and implications of findings

This study was grounded on the interpretivist research paradigm and it has examined and determined the barriers and facilitators of the institutionalisation of Inclusive Education policy and its practice in the Mainstream schools of the PNG education system. The focus was on SERCs, mainstream schools, and the education authorities at the local/district level, the provincial (state) level and the national (federal) level. The federal government, through the National Department of Education, produced the *NSEPPG* in 1993. The *NSEPPG*, 1993 had strategic plans for the implementation and institutionalisation of Inclusive Education policy and its practice in the mainstream school system. The approach in educating children with disabilities was based on the philosophy of integration and then shifted to inclusion. The goal of inclusion was for the disabled children to be prepared by the SERCs, placed in schools and then assisted by the mainstream school-teachers with the assistance of both professionals and paraprofessionals from the SERCs. This was a new philosophy based on the United Nations (UN) Geneva and Salamanca (1994) conventions, which declared and mandated as a universal right for the equal participation of every person to be included in the provision of education services in all member countries.

Given the last 15 years of implementation and institutionalisation, issues are now being raised to verify and validate the barriers and facilitators of this Inclusive Education policy, and its required practice in the education system. The concept and philosophy of Inclusive Education is to educate children with disabilities alongside their non-disable peers in the mainstream schools. The conceptual framework of this study, focused on the barriers and facilitators of Inclusive Education policy and its required practice in the mainstream school system. To facilitate the identification of the barriers and facilitators of the policy, a theoretical framework based on Fullan's organisational change model was developed and applied. The research methodology involved quantitative and qualitative approaches, or mixed-methods, largely grounded on the interpretivist paradigm. A cross-cutting method was applied and the data gathering methods included a survey, interviews and document collection. The data sources included special education staff, mainstream schoolteachers, local/district education officers, provincial education officers and NDoE officers. Data analysis included a survey, transcribed interviews and document collection. The interview and documents collected were analysed using the Leximancer computer software, and the survey was analysed using the SPSS Computer Software.

Major findings regarding the inception of the Inclusive Education policy in 1993 and its subsequent implementation and institutionalisation between 1993 and 2011 indicated major areas of concern. There were minimal facilitators and more barriers in the institutionalisation of Inclusive Education policy and, as a result, minimal outcomes were achieved. The following conclusions have been based on major barriers and facilitators of the Inclusive Education policy and practice in the various levels of the education system:

1. Facilitators of Inclusive Education policy and practice:

1.1. Initially, significant funding was made for political, economic and leadership support for Inclusive Education policy based on the *NSEPPG* (1993), and this was implemented between 1993 and 2000 by the Ministry of Education and the NDoE;

1.2. The national Ministry of Education and NDoE are continuing to provide funds (the national component) but it is on a smaller scale for SERCs and teachers' colleges for operational costs and student subsidies between 2000 and 2011;

1.3. A few provincial governments, the Ministry of Education and PDoE have started to provide ad hoc funding beginning in 2010 as school subsidy, but it has been found to be inadequate;

1.4. The SERCs and teachers' colleges are providing ongoing support to train teachers and assist children and persons with disabilities, but the progress is limited in scope for the mainstream schools through centred-based and college-based programs; and

1.5. There are more teachers emerging from Teachers Colleges with a good understanding of Inclusive Education policy and with a belief in the value of CWDs but they need support.

2. Barriers:

2.1. There is a lack of Inclusive Education policy understanding, collaboration and coordination;

2.2. There is no ongoing political support given by the provincial governments in terms of allocating a key Ministerial portfolio to look into disability legislations, long term development strategies, and practical service delivery mechanisms;

2.3 There is inadequate economic and leadership support provided by the provincial governments for Inclusive Education policy in the provinces. SERCs and mainstream schools are faced with problems of unsatisfactory infrastructure and curricula, and limited and inappropriate teacher education programs to deliver practical aspects of Inclusive Education in the mainstream schools; and

2.4. The majority of key stakeholders involved with education system still hold traditional beliefs and values about the education of children with disabilities. This means that the institutionalisation of Inclusive Education is culture-bound and therefore, counterproductive in contrast to the directions of government policy on Inclusive Education.

Consequently, there is limited progress in the institutionalisation of Inclusive Education policy and its practice in the PNG school system (elementary, primary, and secondary schools, the University of Goroka and Primary Teachers' Colleges). Finally, appropriate, meaningful and practical recommendations are made toward a home-grown solution as key recommendations to various stakeholders and institutions in the education system and relevant government agencies.

7.6 Recommendations for the institutionalisation of Inclusive Education

Having identified the barriers and facilitators of the institutionalisation of inclusive special education in the Mainstream schools of the PNG education system, the following recommendations are presented:

7.6.1 Political support

Since, there is no legislation in place, the Inclusive Education policy has had limited impact in the education system. In consideration of a national and provincial disability act, or a legislative framework is likely to empower the *NSEPPG*, 1993. The legislation may be based on a cultural relevance and home-grown strategic action plans. These would apply at the school/SERC level, the local/district level (LLGs), the provincial level (Ministry of Education, PEB and PDoE) and the national level (Ministry of Education, NDoE, NEB, NIEU, NBDP, Community Development Ministry, Ministry of Justice and Commission of Higher Education).

7.6.2 Economic and leadership support.

Economic and leadership support is needed to boost the current educational structures and functions– such as the NIEU, SERCs, and TED – perhaps by the establishment of a separate autonomous body that administrates the funding, human and material resource capacity, and research and developmental support. In particular, the Mainstream schools, the SERCs require special project funding for the following:

- An autonomous Children's Disability Foundation should be established to organise and manage the education and welfare grants for the PNG disabled children. The Foundation should also carry out research and developmental programs to facilitate

and improve Inclusive Education policy and practice at all levels of the education system.

- Employment of specialist teachers in various disability types in all schools.
- Employment of educational leaders who are appropriately qualified and skilled in the implementation of the Inclusive Education policy.
- Delivery of appropriate infrastructure.
- Review of the Inclusive Education policy that reflects traditional beliefs and values about disability and the need for education and social justice for CWDs or PWDs

7.6.3 Socio-cultural and environmental support factors

The education of CWDs needs better cultural awareness where traditional cultures and modern cultures are affecting CWDs or PWDs and their immediate families. This important cultural factor needs to be addressed jointly by local MS teachers, MS principals, MS parents and citizens, and the local level government through ward councils and community groups. Consequently, the following are recommended practical measures:

- Inclusive Education awareness and parents and citizens approval of CWDs to be educated both at home and school must be verified and accepted holistically by all concerned stakeholders in the education system. Then strategic measures must be taken to help educators and families appreciate and value inclusive special education, its underlying beliefs and value systems internationally, nationally and at each province's local/district and school/SERC levels.
- Efforts must be made to identify, appreciate and value traditional beliefs and value systems, and to produce strategic and practical measures to deliver Inclusive Education using home-grown approaches in consultation with the parents and guardians of CWDs.
- Charity organisations, non-government organisations, school boards, LLG members, ward counsellors, village elders, local churches, the Community Development Ministry, the Justice Ministry, PDoE and PEB need to form provincial Inclusive

Education Committees or advocacy groups to address social and cultural issues related to social welfare and education of CWD or PWDs, developmentally and progressively in the longer-term.

The above recommendations have been based on the perception of key stakeholders implicated in the initiation, implementation and institutionalisation of Inclusive Education policy and practice. It is envisaged that the respective national and provincial governments and the Ministry of Education, LLGs, PEB, PDoE, SERCs, and Mainstream schools with their school boards, parents and citizens, ward councillors, non-government organisations and the local communities will collaborate, and take responsible action with a common purpose to institutionalise the Inclusive Education policy and its required practice in the PNG education system.

7.7 Recommendation for further research

This research study has examined the understanding of key stakeholders and the structural and leadership dynamics that are barriers or facilitators of institutionalisation of inclusive education policy and practice at various levels of the education system in PNG. The analysis has indicated that fundamental problems do exist in the implementation and institutionalisation processes. Although Fullan's Change Theory and Model has been useful in the examination of the institutionalisation of inclusive special education policy, what actually happens in practice is culturally counterproductive or not acceptable. There is a discrepancy between modern change concepts and traditional beliefs and values to accept foreign change like the Inclusive Education policy and its required practice. There is a need for further investigations into inclusive education and culturally appropriate ways of educating CWDs or PWDs. If the *NSEPPGs*(1993) are to be meaningfully understood and actioned, the problems identified need to be further examined and addressed by policy makers (NDOE, TED, NIEU), administrators (PEOs, DEOs and NDoEOs), teacher educators, teachers and principals, and SERC staff. Such a comprehensive effort is needed if the improvement, and the achievement of the ultimate purpose of Inclusive Education policy and its required practice, is to take place in the PNG education system.

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APPENDICES

Appendix 1: RESEARCH INSTRUMENTS

A. SURVEY INSTRUMENT SURVEY ID: SISERCs 101 to 200

This is a Survey on Inclusive Education policy and plan implementation in the Mainstream Schools (Mainstream schools) teachers, Special Education Resource Centres (SERCs) personnel, Local/District personnel, the Province personnel and the National Department of Education (NDoE) personnel. The survey is design to obtain your perception based on experience on the implementation of Inclusive Education Policy through programmed activities since you started working with, observed or understood the Special Education Resource Centres and the Mainstream Schools in your province; or nationally the provinces. Please, complete all items below. Be assured that your responses will be held in the strictest confidence and the National Special Education Unit has agreed to respect this confidentiality. Once the data has been entered into the database for analysis, all of the original questionnaires will be destroyed. All that will be entered into the computer database as a line identifier, will be your survey identification (ID) number shown above.

Part A. Participant personal information		
Q. 1	Please, indicate your gender	1. Female <input type="checkbox"/> 2. Male <input type="checkbox"/>
Q. 2	Please, indicate your age	1. 20 years <input type="checkbox"/> 2. 25 years <input type="checkbox"/> 3. 26 to 30 years <input type="checkbox"/> 4. 31 to 35 years <input type="checkbox"/> 5. 36 to 40 years <input type="checkbox"/> 6. 41 to 45 years <input type="checkbox"/> 7. 46 to 50 years <input type="checkbox"/>
Q. 3	Please, indicate your official position	1. Principal <input type="checkbox"/> 2. Deputy Principal <input type="checkbox"/> 3. Subject Master/Senior Teacher <input type="checkbox"/> 4. Female Class teacher <input type="checkbox"/> 5. Male class teacher <input type="checkbox"/>
Q. 4	Please, indicate number of years in service with the Mainstream Schools (Mainstream schools) or Special Education Resource Centres (SERCs)	1. 6 months – 1 yeas <input type="checkbox"/> 2. 1 year to 2 years <input type="checkbox"/> 3. 3 to 5 years <input type="checkbox"/> 4. more than 5 years <input type="checkbox"/> 5. More than 10 years <input type="checkbox"/> 6. more than 15 years <input type="checkbox"/> 7. more than 20 years <input type="checkbox"/>
Q. 5	Please, indicate only your highest qualification attained	1. Certificate in SPED or Disability studies <input type="checkbox"/> 2. Diploma in SPED or Disability studies <input type="checkbox"/> 3. Graduate Certificate in SPED or Disability studies <input type="checkbox"/> 4. Bachelor’s Degree in SPED or Disability studies <input type="checkbox"/> 5. Post Grad. Honours in SPED or disability studies <input type="checkbox"/> 6. Master of SPED or Disability studies <input type="checkbox"/> 7. Others: Education Degree <input type="checkbox"/> , Diploma Secondary Teaching <input type="checkbox"/> , Diploma Primary Teaching <input type="checkbox"/> , Certificate Primary Teaching and Elementary Teaching Certificate <input type="checkbox"/>

SURVEY ID: SI Mainstream schools 001- 100

This is a Survey on Inclusive Education implementation in the district, district school(s), the province and the National Department of Education (NDoE). The survey is design to obtain your perception based on experience on the implementation of Inclusive Education Policy through programmed activities since you started working with, observed or understood the Special Education Resource Centres (SERCs) and the Mainstream Schools (Mainstream schools) in your province; or nationally the provinces. Please, complete all items below. Be assured that your responses will be held in the strictest confidence and the National Special Education Unit has agreed to respect this confidentiality. Once the data has been entered into the database for analysis, all of the original questionnaires will be destroyed. All that will be entered into the computer database as a line identifier, will be your survey identification (ID) number shown above.

Part A. Participant personal information		
Q. 1	Please, indicate your gender	1. Female <input type="checkbox"/> 2. Male <input type="checkbox"/>
Q. 2	Please, indicate your age	1. 20 years <input type="checkbox"/> 2. 25 years <input type="checkbox"/> 3. 26 to 30 years <input type="checkbox"/> 4. 31 to 35 years <input type="checkbox"/> 5. 36 to 40 years <input type="checkbox"/> 6. 41 to 45 years <input type="checkbox"/> 7. 46 to 50 years <input type="checkbox"/>
Q. 3	Please, indicate your official position	1. Principal <input type="checkbox"/> 2. Deputy Principal <input type="checkbox"/> 3. Subject Master/Senior Teacher <input type="checkbox"/> 4. Female Class teacher <input type="checkbox"/> 5. Male class teacher
Q. 4	Please, indicate number of years in service with the Mainstream Schools (Mainstream schools) or Special Education Resource Centres (SERCs)	1. 6 months – 1 yeas <input type="checkbox"/> 2. 1 year to 2 years <input type="checkbox"/> 3. 3 to 5 years <input type="checkbox"/> 4. more than 5 years <input type="checkbox"/> 5. More than 10 years <input type="checkbox"/> 6. more than 15 years <input type="checkbox"/> 7. more than 20 years <input type="checkbox"/>
Q. 5	Please, indicate only your highest qualification attained	1. Certificate in SPED or Disability studies <input type="checkbox"/> 2. Diploma in SPED or Disability studies <input type="checkbox"/> 3. Graduate Certificate in SPED or Disability studies <input type="checkbox"/> 4. Bachelor’s Degree in SPED or Disability studies <input type="checkbox"/> 5. Post Grad. Honours in SPED or disability studies <input type="checkbox"/> 6. Master of SPED or Disability studies <input type="checkbox"/> 7. Others: Education Degree <input type="checkbox"/> , Diploma Secondary Teaching <input type="checkbox"/> , Diploma Primary Teaching <input type="checkbox"/> , Certificate Primary Teaching and Elementary Teaching Certificate <input type="checkbox"/>

SURVEY ID: SIEOs 001- 100

This is a Survey on Inclusive Education policy and plan implementation in the Mainstream Schools (Mainstream schools) teachers, Special Education Resource Centres (SERCs) personnel, Local/District personnel, the Province personnel and the National Department of Education) NDoE personnel. The survey is design to obtain your perception based on experience on the implementation of Inclusive Education Policy through programmed activities since you started working with, observed or understood the work of SERCs and the Mainstream schools in your province; or nationally. Please, complete all items below. Be assured that your responses will be held in the strictest confidence and the National Special Education Unit has agreed to respect this confidentiality. Once the data has been entered into the database for analysis, all of the original questionnaires will be destroyed. All that will be entered into the computer database as a line identifier, will be your survey identification (ID) number shown above.

Part A. Participant personal information		
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Q. 1	Please, indicate your gender	1. Female <input type="checkbox"/> 2. Male <input type="checkbox"/>
Q. 2	Please, indicate your age	1. 20 years <input type="checkbox"/> 2. 20 to 25 years <input type="checkbox"/> 3. 26 to 30 years <input type="checkbox"/> 4. 31 to 35 years <input type="checkbox"/> 5. 36 to 40 years <input type="checkbox"/> 6. 41 to 45 years <input type="checkbox"/> 7. 46 to 50 years <input type="checkbox"/>
Q. 3	Please, indicate your official position or acting basis	1. Education Officer Grade 12 <input type="checkbox"/> 2. Education officer Grade 13 <input type="checkbox"/> 3. Education Officer Grade 14 <input type="checkbox"/> 4. Education Officer Grade 15 or above <input type="checkbox"/>
Q. 4	Please, indicate number of years in service with the Department of Education	1. 6 months – 1 years <input type="checkbox"/> 2. 1 year to 2 years <input type="checkbox"/> 3. 3 to 5 years <input type="checkbox"/> 4. more than 5 years <input type="checkbox"/> 5. more than 10 years <input type="checkbox"/> 6. more than 15 years <input type="checkbox"/> 7. more than 20 years <input type="checkbox"/>
Q. 5	Please, indicate only one your highest qualification attained	1. Certificate in Primary Teaching <input type="checkbox"/> 2. Diploma in Primary Education (Ins or Pres) <input type="checkbox"/> 3. Graduate Certificate/Diploma in Education <input type="checkbox"/> 4. Bachelor’s Degree in Education, Planning or Administration, Management or relevant <input type="checkbox"/> 5. Honours in Education Admin, Planning, Teacher Education, Management or Special Education <input type="checkbox"/> 6. Master of Education, Special Education, Management or other relevant <input type="checkbox"/> 7. Other qualifications <input type="checkbox"/>

Part B. Reading and Understanding the Inclusive (Special) Education

For each of the questions beginning from Q. 6 to Q. 9 indicate 'x' in only one of the correct response box for each questions in the box

Q 6. Have you seen and read any document on Special Education and the policy on Inclusive Education policy between 1994 and 2010?

Yes, I have seen and read this document. If you say yes, go to question 8

No, I have not seen and read this document. If you say no to question 6, go to question 7.

Q. 7. What would be your likely reason for not seeing and reading this document on Special Education and Inclusive Education (special) Education policy between 1994 and 2010?

Because I do not have access to this Special Education policy document at my Institution/workplace.

Because the National Department of Education have not provided this document for my institution/workplace.

Because I have just began to work with my institution and need some help to find, read and understand the Special Education Policy document.

Because nobody has explained to me that such a policy document does exist in my institution or workplace.

Q. 8. How did you obtain information about the document on Special Education and Inclusive Education policy?

It was a circular or ministerial instruction sent from the National Department of Education I saw and read at my institution/workplace.

Made available by the National Department of Education and I read at my institution/work place.

At a workshop I attended between 1994 and 2010

During my Pre-service and In-service training at Teachers' College or by PNG Education Institute in Port Moresby.

From the Special Education Resource Centre

While I was studying 'Special' or 'Inclusive Education' units at the University.

Q. 9. How would you describe your understanding of Special Education and Inclusive Education policy document?

- No understanding at all about the policy document
- Very little understanding of the policy document
- Little understanding of the document
- Good understanding of the policy document
- Very good understanding of the policy document
- Excellent understanding of the policy document

Part C. Institutionalisation of the Inclusive Education

For your response for the next lot of statements, please, indicate in the box 1 if you very strongly disagree that best describes your experience and thoughts. Indicate 6 if you very strongly agree with the statement; and indicate 3 if you agree with the statement. The numbers in between offer you the opportunity to grade the strength of your experience and thoughts as agree and strongly agree; or disagree and strongly disagree. Please, try to use the full range of each scale and write a brief comment or reason for your response.

Rating Scale

- 1. Very Strongly Disagree
- 2. Strongly Disagree
- 3. Disagree
- 4. Agree
- 5. Strongly Agree
- 6. Very strongly agree

C 1. Socio-cultural factors and Historical links

Q. 10 I think all MS teachers and principals do have acceptable religious and traditional beliefs, values, attitudes, roles and responsibilities to educate all children including children with disability in the mainstream schools.

1. .2 3 .4 .5 6.

Reason.....

Rating Scale

- 1. Very Strongly Disagree
- 2. Strongly Disagree
- 3. Disagree
- 4. Agree
- 5. Strongly Agree
- 6. Very strongly agree

Q. 11. I think all SERC staff do have acceptable beliefs, values, attitudes, roles and responsibilities to educate all children including children with disability in the mainstream schools?

1. 2. 3. 4. 5. 6.

Reason.....
.....
.....

Q. 12 I think parents or guardians religious and traditional beliefs, values, attitudes, roles and responsibilities in the local communities support the teaching of all children including children with disability in the mainstream schools.

1. 2. 3. 4. 5. 6.

Reason.....
.....
.....

C. 2. Economic and Leadership support for personnel

Q. 13 Joint SERCs and Mainstream schools Inclusive Education programs are well funded by the Ministry of Education in the school system.

1. 2. 3. 4. 5. 6.

Reason.....
.....
.....

Q. 14 SERCs do have better funding from the government for infrastructure especially design of Centre facilities and resource materials for to cater for teaching children with disabilities.

1. 2. 3. 4. 5. 6.

Reason.....
.....
.....

Rating Scale

- 1. Very Strongly Disagree
- 2. Strongly Disagree
- 3. Disagree
- 4. Agree
- 5. Strongly Agree
- 6. Very Strongly agree

Q. 15. Mainstream schools do have better funding from the government for infrastructure especially design of classrooms and other school facilities and resource materials to cater for teaching children with disabilities.

1. 2. 3. 4. 5. 6.

Reason.....
.....
.....

Q. 16 SERCs and Mainstream schools are paid salary that is adequate to provide Inclusive Education for all children including children with disabilities in the schools.

1. 2. 3. 4. 5. 6.

Reason.....
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.....

Q. 17 While working together the SERCs and Mainstream schools do not have professional development programs that will assist them to provide quality teaching and learning programs for all children including children with disabilities.

1. 2. 3. 4. 5. 6.

Reason.....
.....
.....

Q. 18 The NDoE through the Provincial and District Education have provided a clear directions on Inclusive Education to be implemented by SERCs and Mainstream schools in the PNG school system.

1. 2. 3. 4. 5. 6.

Reason.....
.....
.....

Q. 19 Joint SERCs and Mainstream schools programs do have clear goals and outcomes to achieve Inclusive Education Policy and programs.

1. 2. 3. 4. 5. 6.

Reason.....
.....
.....

C. 3 Political Support

Q. 20. The various governments have provided political support for children with disabilities to enable SERCs and Mainstream schools to implement the Inclusive Education policy.

- 1. □2. □3. □4. □5. □6.

Reason.....

Q. 21. Provincial and local level governments in my province and districts are very supportive for the education of children with disabilities in the SERCs and Mainstream schools.

- 1. □2. □3. □4. □5. □6.

Reason.....

Q. 22. While working together the SERCs and Mainstream schools do extend what they value about Inclusive Education to other stakeholders while they deliver their inclusive program in the schools and the community.

- 1. □2. □3. □4. □5. □6.

Reason.....

C. 4 Environmental Support

Q. 23. While working together the SERCs and Mainstream schools do associate themselves with the external environment and key stakeholders to get support and implement Inclusive Education policy and programs.

- 1. □2. □3. □4. □5. □6.

Reason.....

Q. 24 While working together the SERCs and Mainstream schools do provide a least restrictive learning environment with resources for all children including children with disabilities to learn in the schools.

- 1. □2. □3. □4. □5. □6.

Reason.....

This is the end of the survey. I would like to say thank you for your time and input for the good of our children’s education.

RESEARCH INSTRUMENT B. FOCUS GROUP INTERVIEW INSTRUMENT

This is the specification of the number of instrument, sample of participants and population. The kinds of interview questions based on the research questions developed addressing barriers and facilitators to change based on selected SERCs, Mainstream schools, and education personnel. The three main phases of implementation (Initiation, Implementation and Institutionalization) and specific key dynamics informed by literature are the basis of developing the interview questions.

Number of focus groups

1. *Rural Schools*
 - 1.1 *Principals (males and females)*
 - 1.2 *Senior Teachers males and females)*
 - 1.3 *Classroom Teachers (males and females)*
2. *Urban Schools*
 - 2.1 *Principals (Males and females)*
 - 2.2 *Senior Teachers (male females)*
 - 2.3 *Classroom Teachers (males and females)*
3. *Education personnel*
 - 3.1 *District (males and Females)*
 - 3.2 *Provincial (males and Females)*
 - 3.3 *National (males and females)*
4. *SERCs*
 - 5.1 *Centre Coordinator (males and females)*
 - 5.2 *Program Coordinator (males and females)*
 - 5.3 *Male Rep professionals/Paraprofessionals*
 - 5.4 *Female Rep professionals/Paraprofessionals*

B. Interview Schedule

Hello and thank you for accepting and giving time for this interview. My name is John Pokana a student from the University of New England, Armidale from the state of New South Wales in Australia. Please, indicate your personal particulars by indicating the appropriate box with an in the box next to each items.

1. Gender: 1. Male 2. Female
2. Position: 1. Principal 2. Deputy Principal
3. Senior Teacher 4. Class teacher
 5. District Education Officer
 6. Provincial Education Officer
 7. National Education Officer
 8. Parent of disabled child
 9. SERC Coordinator
 10. SERC Program Coordinator
 11. SERC Male Rep
 12. SERC Female Rep

I have several questions to ask on the Inclusive Education policy that has been mandate for implementation in the last 14 years. This policy went through the process of initiation, implementation and institutionalization at various levels. I would like to ask you a number of questions about your understanding, observations, and experiences regarding this policy and its programs at different levels. The levels

include: school/local community, district, provincial and the national levels. Before, the actual interview, please, respond to the questions briefly in order to give you time to think before discussion.

1. Have you seen, read and heard of the government policy to support inclusive education at the school, local, provincial and national level)? Yes or no explain your situation

.....

2. Was your organisation able to understand this policy and take leadership to make plans implement inclusive education in schools? Yes or no explain your situation

.....

3. Does your organisation have the support system and persons to educate children with disabilities in the Mainstream schools? Yes or No explain your situation.

.....

4. Do you think the DEO and PEO staff, the SERC staff, Main Stream School-teachers, parents and community have a positive or negative attitude (like belief or values or responsibilities) towards including children with disability in schools? Explain your situation.

.....

5. What are your major facilitators and barriers of making inclusive education as part of the school system (like political support, leadership, funding, beliefs, and other support systems)? Briefly share your view.

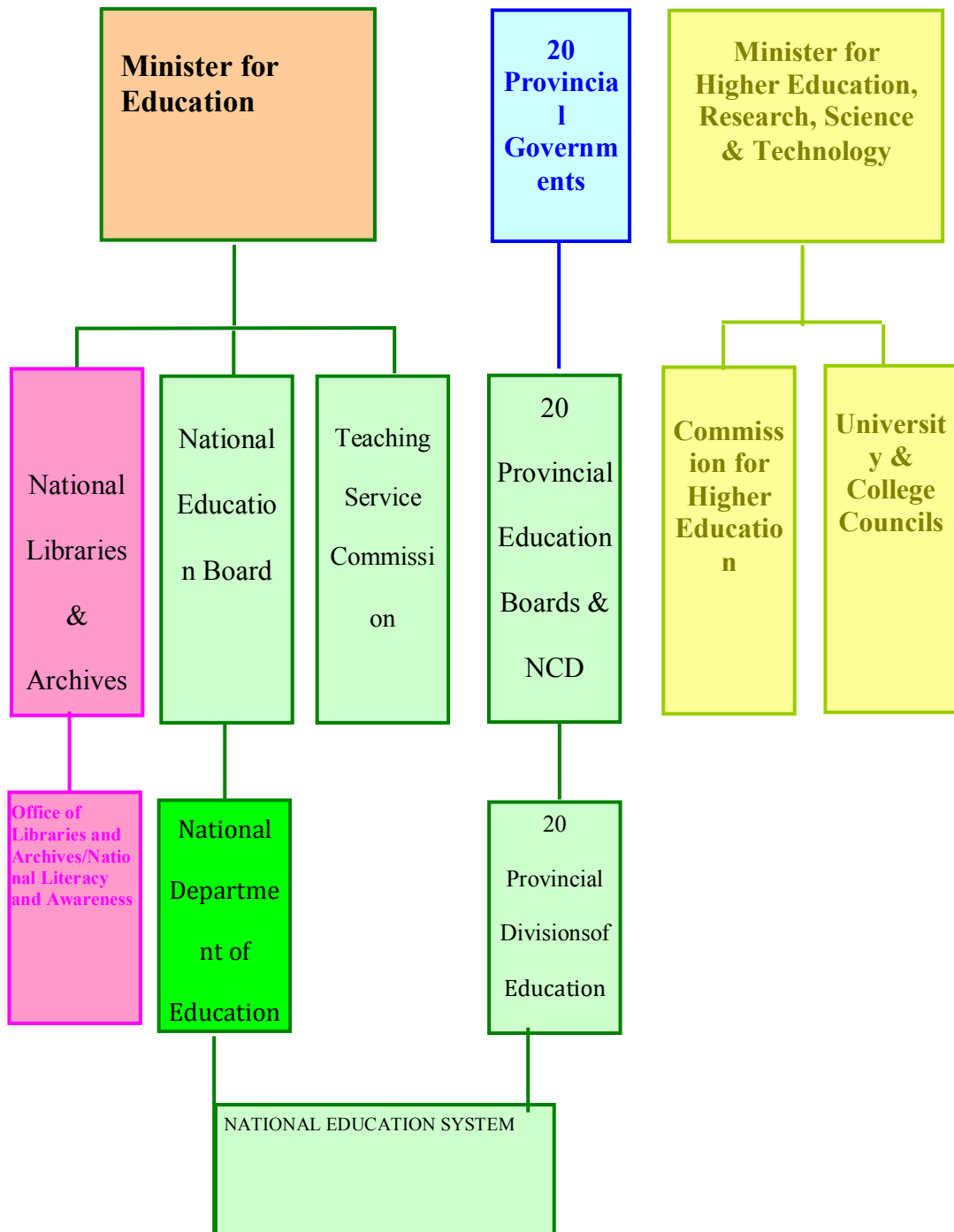
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6. What would you like to see in the future happen to strengthen current inclusive education practice in schools and the community?

.....

Appendix 2.

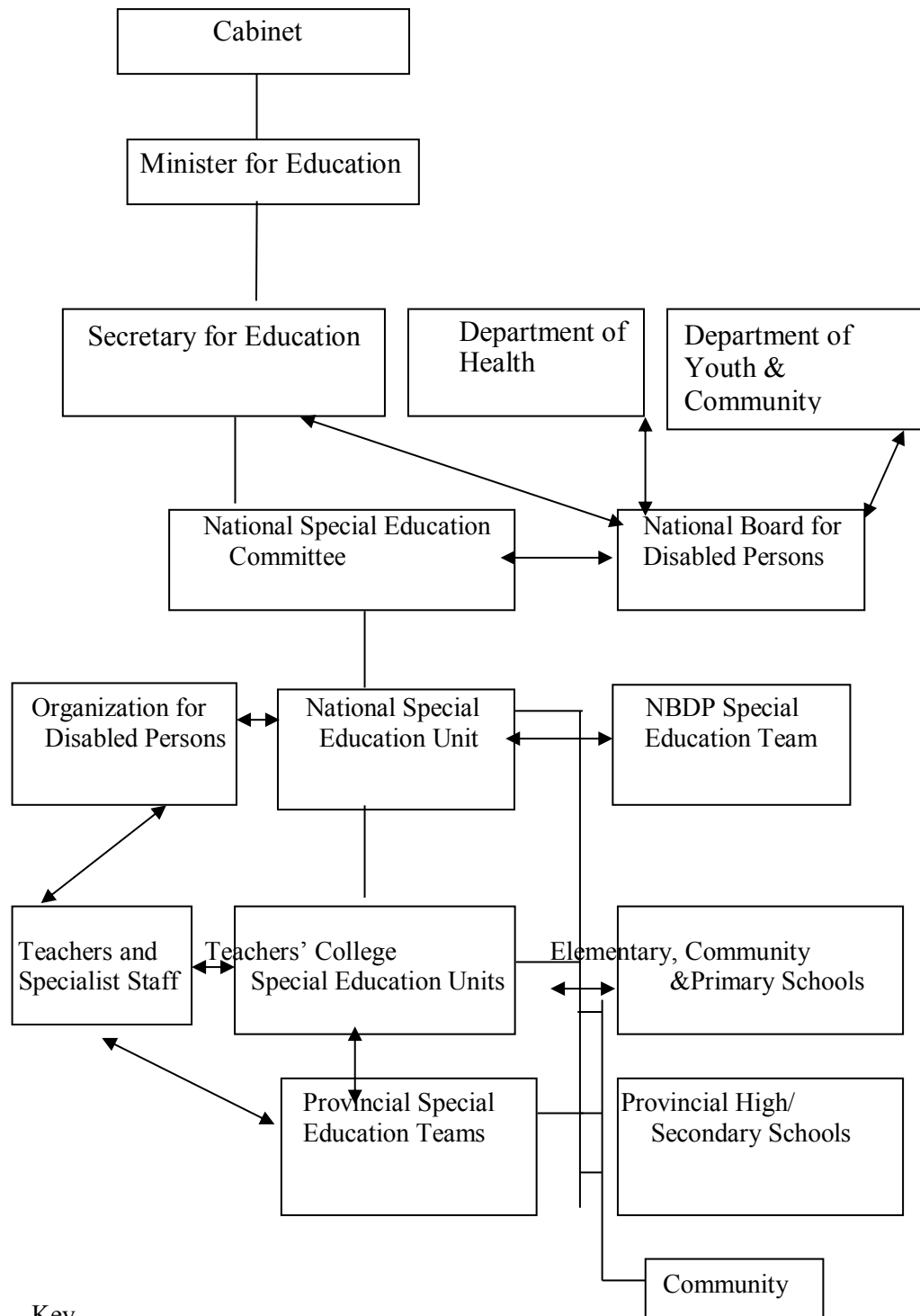
Structure of the Education System and Sectors



The National Education Board, Department of Education, Teaching Service Commission and Libraries and Archives Board all have their own Acts and they also report separately to the Minister for Education.

Source: NDoE, 2011

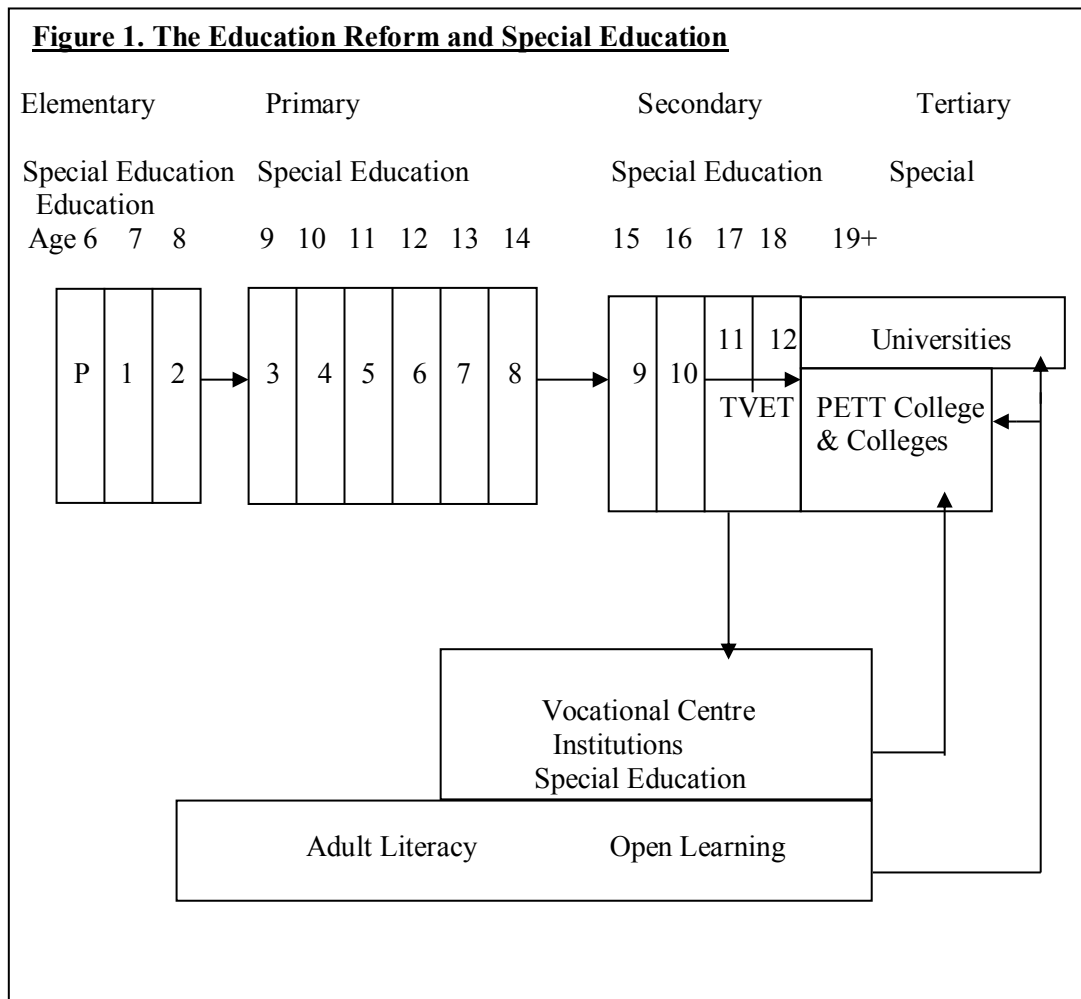
Appendix 2.1 Organisational Chart showing structure, collaboration, support system and lines of authority



Key
 —→ The arrows indicate collaboration and support
 — Continuous lines indicate line of authority

Source: NDOE (1993, p. 29) *National Special Education Plan*

Appendix 2.2 The Structure of PNG Education system incorporating Inclusive Education



Source: Adapted and modified with special education inclusion from National Department of Education,

Education Reform and Monitoring Unit (2000). *The State of Education in Papua New Guinea, March 2000*
 NDOE / AusAID

Appendix 3. Table 5.25

Table 5.25 A1. NDoE Participants' reasons for factors as barriers and facilitators of Inclusive Education (Survey responses on Part C - 6 Point Likert Scale)

Likert Scale	Socio-cultural/Historical (Items 10, 11 & 12)	Economic/Leadership (Items 13, 14, 15, 16, 17, 18 and 19)	Political support (Items 20 and 21)	Environmental support (Items 22, 23, and 24)
1. Very Strongly Disagree		<ul style="list-style-type: none"> • There is no funding available for infrastructural development in all SERCs. Need funds for such because some SERCs do not have infrastructure (NDoEO13). • Minimal support for infrastructure in Mainstream schools as well as SERCs to address Inclusive Education for CWD (NDoEO). • Could be obvious in main centres but bulk of the schools it's not common (NDoEO14). • The ratio of students to school fee subsidy per term in a SERC is about K15.00 per child whereas MS child is K 80.00 (NDoEO15). 	<ul style="list-style-type: none"> • There was no support from any level of government in the province. But awareness was done. I think by now they have a clear understanding to help and support the implementation of Inclusive Education policy (NDoEO37). 	<ul style="list-style-type: none"> • The home, school environment and the classroom setting are totally inaccessible for CWD (NDoEO45). • No, there was no restriction on learning environment but lack of resources (NDoEO46). • Because the Mainstream schools are not fully aware of Inclusive Education and lack of knowledge, little attention is given to children with disabilities (NDoEO47).
2. Strongly Disagree	<ul style="list-style-type: none"> • Not all MS principals/teachers have such acceptable beliefs to educate CWD in the MS (NDoEO 1). 	<ul style="list-style-type: none"> • *Only few schools that are located near the SERC have benefited from such Inclusive Education programs. The bulk of schools all over PNG lacking in Inclusive Education programs. Need to organise for conference (NDoEO50). • Very little support 		<ul style="list-style-type: none"> • Need a good support from the government department to address this to create environment for CWD in schools (NDoEO48). • We do have proper conducive

		<p>provided despite the Inclusive Education policy (NDoEO17).</p> <ul style="list-style-type: none"> • As teachers are the busiest working class but are paid less and so do not take it serious to work with their heart to educate all children in CWD (NDoEO18). • Mainstream schools Teachers see SERCs staff as specially trained unlike them the Inclusive Education programs are left to SERC staff to carry out. • Since the establishment of SERC in our province in 2007 there has been zero concern from provincial and District education authorities (NDoEO19). 		<p>learning environment for CWD but we use the Church building and a smaller area that is restrictive for clients only but not least restrictive environment like Mainstream schools (NDoEO49).</p>
3. Disagree	<ul style="list-style-type: none"> • Not all do have acceptable belief for children with special needs in the Mainstream schools (NDoEO2). • Only a few need more awareness (NDoEO3). • Three quarters of the teacher population would not have taken up Inclusive Education studies during their teacher training (NDoEO4). • Many parents and guardians need to be educated on Inclusive 	<ul style="list-style-type: none"> • Not enough funds for Inclusive Education programs, very limited (NDoEO21). • Funds allocated cannot cater for all Inclusive Education programs (NDoEO22). • Mainstream schools get funding but cannot cater for their programs (NDoEO23). • SERCs and Mainstream schools work extra hours, they need to be paid at a higher level (NDoEO24). • Not every provincial and district education provides such support (NDoEO25). • All SERC activities are co funded by the 	<ul style="list-style-type: none"> • SERCs receive government support but Mainstream schools yet to make it happen (NDoEO38). • Yet to see it happen at all three levels of government (NDoEO39). • Only some do give support to this program (NDoEO40). • Not really supportive. • These are at its beginning stages (NDoEO41). • Only the governor of the 	<ul style="list-style-type: none"> • Schools have yet to make adaptations to accommodate CWD (NDoEO50).

	<p>Education. Traditional cultures and no awareness are barriers (NDoEO5).</p>	<p>Ministry of Education and other donor organisations (NDoEO26).</p> <ul style="list-style-type: none"> • Mainstream schools do not have better funding from the government other donor agencies for infrastructure, but not specifically to cater for CWD (NDoEO). • Teachers are paid accordingly. For both SERCs and Mainstream schools. SERCs base level is higher than a MS base level salary (NDoEO27). 	<p>province has funded a vehicle to our resource centre through request and submission by Centre coordinator (NDoEO42).</p>	
4. Agree	<ul style="list-style-type: none"> • There were few who were exposed to such services believe in the education of CWD in the Mainstream schools (NDoEO6). • Most have acceptable beliefs and attitude, roles and responsibilities to educate all children including CWD in the Mainstream schools (NDoEO7). • No SERC officers, they need to be opened minded about it all and all advocate to the Mainstream schools (NDoEO8). • Only a few are willing to spend 	<ul style="list-style-type: none"> • Yes, Department of Education funded part of the programs such as teachers' salaries, operational grants/subsidy. Need funding to sustain the cost of running the institution (NDoEO30). • The idea is there but do not have clear ideas on how to get it started or support the SERCs and their programs (NDoEO31). • SERCs may have such clear goals but Mainstream schools may have or not have pending the location of the school (NDoEO32). • They try to achieve their goals and outcomes of the Inclusive Education policy and the programs they have developed (NDoEO33). • There is professional development programs 	<ul style="list-style-type: none"> • Australian government, Education Department, Health Department and Department of Community Development supports through established committees with respective programs (NDoEO43). • The governor and local member of the parliament through PDoE made allocations of teaching positions and grants/funds/school fee subsidy to help improve 	<ul style="list-style-type: none"> • Active for SERCs and schools that work together with them. For remote schools have yet to see it happen (NDoEO51). • Some do try their best to deliver Inclusive Education program to schools and the community (NDoEO52). • Some do as above try their best to give support (NDoEO53). • All try their very best with the limited resources they have (NDoEO54). • Not the

	<p>their time and resources to work alongside with their children's class teachers (NDoEO9).</p>	<p>in place and are dealt with by the SERCs for the Mainstream schools, but many Mainstream schools are yet to be reached. Teacher training programs are available (NDoEO34).</p>	<p>programs of disabled association and SERCs (NDoEO44).</p>	<p>Mainstream schools, but yes the SERCs do (NDoEO55).</p> <ul style="list-style-type: none"> • The SERCs advocate for such support for the implementation of Inclusive Education policy (NDoEO56). • I think a lot has been done by the SERCs and they have established a good relationship with their partner schools to provide adequate resources for school children respectively (NDoEO57).
<p>5. Strongly Agree</p>	<ul style="list-style-type: none"> • Because they were exposed to such environment they believe that they can be educated in Mainstream schools (NDoEO10). • The school setting and environment together with the ignorance of some parents and classroom teachers (NDoEO11). • For many Mainstream schools that are far away from the resource centre 	<ul style="list-style-type: none"> • TSC terms and conditions apply to SERC staff and Mainstream schools teachers. They are paid according to positions (NDoEO35). • This area needs to be critically looked at All teachers need to be given that opportunity (NDoEO36). 		<ul style="list-style-type: none"> • We do extend and submit our Inclusive Education programs to local stakeholders but they only provide little support. Not as much as we like to carry out Inclusive Education programs (NDoEO59). • When the programs are obvious, stakeholders can

	and staff location (NDoEO12).			always help in whatever way they can (NDoEO60).
6. Very strongly Agree				

Table 5.25A2. SERC Participants' reasons for factors as barriers and facilitators of Inclusive Education (Survey responses on Part C - 6 Point Likert Scale)

Likert Scale	Socio-cultural/Historical (Items 10, 11 & 12)	Economic/Leadership (Items 13, 14, 15, 16, 17, 18 and 19)	Political support (Items 20 and 21)	Environmental support (Items 22, 23, and 24)
1. Very Strongly Disagree	<ul style="list-style-type: none"> • Not all principals and teachers accept children CWD in their schools or classroom (SERCC1). • They are part of the same community and they should be supported and develop a good environment (SERCS1). • No! Disable children are considered no use to the community and are kept at homes (SERCS2). • Though they possess all these skills they are weak to support normal and CWD (SERCS3). 	<ul style="list-style-type: none"> • Better funding must come from the government sectors but they are not funding (SERCS14). • They must recognise Inclusive Education because this is an educational issue created by the government and there must be funding provided SERCS15). • Both SERCs and Mainstream schools Inclusive Education programs must be shared accordingly and there must be a goal set to work on (SERCS16). • Have a long way to go before PNG can be recognised and fully funded SERCC10). • Teachers teaching CWD in their class or SERCs should be paid higher than a normal classroom teacher because of the workload they do (SERCS17). • Not much has been 	<ul style="list-style-type: none"> • This is part of education and it's an issue which the government must be supportive for the Inclusive Education policy (SERCS51). • There must be resources available for teachers to work on, but without resources nothing much will be done (SERCS52). • None that I know of (SERCS53). • No financial or human resource support given to the SERC or Mainstream schools or provide transport for extension officer in the 	

		<p>said and done during in-services conducted by Mainstream schools that includes CWD (SERCS18).</p> <ul style="list-style-type: none"> • No, only from non-government organisations and local support services. They are not supporting us at all (SERCS19). • SERCs and Mainstream schools are under-paid the salary should be looked at (SERCS20). • No, Education department did not provide clear directions (SERCS21). • No there are no clear goals and outcomes for Inclusive Education policy and programs (SERCS22). • Most SERC programs are funded NGO'S and not the Education Department (SERCS23). • Education is not fair in supporting SERCs and Mainstream schools are taking on board the disabled population (SERCS24). • Very poor and insufficient help given (SERCS25). • Commitment, time and multi-skills given to staff are very unfair and gone unnoticed for the work done (SERCS26). • Still very slow and schools are not 	<p>community (SERCS54).</p> <ul style="list-style-type: none"> • No not all. Not enough awareness. (SERCS55). • Government has not fully supported the SERC for its program SERCC32). • Too many lies and not much support given (SERCS56). • Nothing given, very poor (SERCS57). • At the resource centre and sub-centre, I have not received any support (SERCS58). • They are not supportive (SERCS59). • As far as I'm concerned, the only way known of NGO is funding and assisting the Centre financially. I wouldn't know of political support for children with disabilities (SERCS60). • The provincial and local level government were supportive in terms of 	
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		<p>cooperative like others already on board (SERCS27).</p> <ul style="list-style-type: none"> • Nothing has been done so far (SERCS28). • Funding is not enough to carry out and to sustain the programs (SERCS29). • Nil. Funding is a very, very big problem (SERCS30). • Materials are unavailable. We are teaching scraps (SERCS31). • It is a workload. Teachers in SERCs and Mainstream schools should be paid well. This will boost the teachers to help promote special education (SERCS32). • Most of the teachers in the mainstreams Schools seem to turn the disabled children back to their village because they simply do not have the clear directions from the province or district education (SERCS33). • Too much workload and extra load to classroom teachers who have no clear idea on how to approach the disabled student (SERCS34). • The salary that is paid is not adequate for inclusive education implementers, so as no proper curriculum materials (SERCS35). 	<p>allowing the inclusive education into the province and allowing our school to take up the initiative as the first in the country. Various activities and programmes by the SERCs and Mainstream schools were very supportive except that funding from provincial and local level government was a problem as they were unable to provide assistance in terms of funding (SERCC33).</p> <ul style="list-style-type: none"> • The policy is there but the government does not strongly support the Inclusive Education program. Not seen seriously as one of the focus area of implementation (SERCS61). • There is nothing (SERCS62). 	
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		<ul style="list-style-type: none"> • Improvements will be seen if funds are sufficiently allocated quarterly. There is no funding of such (SERCS36). • Policy and guidelines are designed, however, no better funding from the government. • Classroom built are not designed for CWD. • No such extra allowances for teachers and SERC staff teaching children with special needs (SERCS37). • SERC is still working its way to build up institutional relationships through knowing the roles and responsibilities and through better awareness programs. A newly established centre (SERCS38). • Not of that sort since it joined the program and project. No clear direction form from NDoE to the provincial Division of Education to implement Inclusive Education policy and programs (SERCS39). • Policy and Guidelines weren't address clearly. No in-service on policy and guidelines to SERC and MS staff (SERCS40). • As a SERC officer there is no implementation of 		
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		Inclusive Education or clear direction for Inclusive Education in the province by the provincial Division of Education (SERCS41).		
2. Strongly Disagree	<ul style="list-style-type: none"> • Some parents think that CWD are useless and taking up spaces for normal children (SERCS4). • Not really because parents, guardians and local communities are still ignoring the education of CWD (SERCC2). • Not all stakeholders support inclusion of disability children into mainstream schools (SERCC3). 	<ul style="list-style-type: none"> • The Inclusive Education is being implemented but not fully, if only the above superiors [NDoE] provide a clear direction to all (SERCC11). • Very little support in the area of infrastructure. • Haven't seen happening in schools. • They do but not enough to carry out the programs of Inclusive Education (SERCC12). • Hardly see funding for infrastructure purposes (SERCS42). • No programmes in place and cannot achieve the inclusive education policy and programmes (SERCC13). • Lack of professional development programmes being carried out at the school level (SERCS43). • There is funding from the Ministry of Education but no funds/accept school fee subsidy given by the provincial Division of Education to SERC and Mainstream schools to carry out 	<ul style="list-style-type: none"> • These group of people need to communicate and carry out the Inclusive Education programs. (SERCS63). • Haven't supported or seen any of such (SERCS64). 	<ul style="list-style-type: none"> • No networking (SERCS64).

		<p>their responsibilities and implementation of Inclusive Education (SERCC14).</p> <ul style="list-style-type: none"> • SERC from my province do not have funding from the government office now, we are asked to submit progressive reports of the SERC to them for funding (SERCC15). 		
3. Disagree	<ul style="list-style-type: none"> • Consider children who achieved the task can make it through. But those who cannot can fall into other special programs (SERCC4). • Not all supporting but those who have these children. Others think that these children cannot make it through like the able persons (SERCC5). • Have seen one or two staff use their position to do other organisation or agency's work but getting paid by the Department of Education. • Not all have acceptable responsibilities (SERCC6). • Not all staff of SERC. Depends in who they are 	<ul style="list-style-type: none"> • This is why many Mainstream schools are not accepting our CWD (SERCC16). • I haven't seen it happening and the Mainstream schools Headmaster do not explain (SERCS44). • There were no clear directions given by Assistant Secretary for the province (SERCS45). • SERC-staff try to implement the policy that was written (SERCC17). • Very little (SERCC18). • I don't think government have funding for the above (SERCS46). • K 3, 000 to K 4, 000 a year is not enough. No way near in terms of funding support, only for teachers' salaries (SERCC19). • I think the NDoE has stated clearly their goal but it isn't really supporting in 	<ul style="list-style-type: none"> • Only one or two accept us to carry out inclusive program but head teachers ignore us because it is an extra-work load for them (SERCC34). • The support in a little way with money but they have other priorities than SERCs and Mainstream schools (SERCC35). • Support is not given. • There hasn't been much political support for children with disabilities due to no consultation for assistance etc. (SERCC36). • Not much support has 	<ul style="list-style-type: none"> • There has been restrictive learning environment for studies with special needs (SERCC38). • The approach of special needs is yet to sink into the system of educating special and normal children (SERCC39).

	<p>and what they are here for in the SERC (SERCS5).</p> <ul style="list-style-type: none"> • Only few parents and guardians 	<p>implementing.</p> <ul style="list-style-type: none"> • There were no proper and clear goals stated in achieving the inclusive education policy and programmes (SERCC20). 	<p>been done due to lack of communication (SERCC37).</p>	
4. Agree	<ul style="list-style-type: none"> • It is still breaking the barriers of shame of customs and shame of disabled parents and guardians. (SERCS6) • Not really. PNG has its own customs etc. Our traditional beliefs are still strong in our societies. (SERCS7). • Quite right (SERCS8). • At times they do accommodate the above, but not every MS teachers and principals (SERCC7). 	<ul style="list-style-type: none"> • The government only support of subsidy funding not any other support from them. • Better training for both elementary and mainstream schools Teachers for Inclusive Education. • Teachers' salary paid by Education (SERCC21). • Most schools are not welcoming to do team planning to help the disabled population. • The idea is there, but no proper implementation procedures in place. • In mainstream schools the SERC officers visited, they have, but in other mainstream schools the SERC officers have not visited, they do not have (SERCC22). 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Still need to involve more communities and stakeholders with more awareness (SERCC40). • The principal or coordinators of SERCs need to associate more to get bigger assistance. • I agree but we need to do more change or big change in the classroom settings or spacing (SERCC41). • Yes, we do that in schools (SERCC42). • Little was extended by the SERCs to the Mainstream schools. Not much assistance was given to Mainstream schools in terms of professional development. The Mainstream schools were able to work alone with the

				<p>assistance from classroom teacher and student aide (SERCC43).</p> <ul style="list-style-type: none"> • We are participating but not to the expectations. Less association with stakeholders in the implementation on inclusive education policy and programmes (SERCC44). • They do value inclusive education, but the deliverance of the program not really recognised by department of education in the province (SERCC45). • By observation, they tried their best to associate with the stakeholders (SERCC46). • Done through awareness program. Courtesy visits to these interested stakeholders within the networking organisations (SERCC47). • Communicating
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				with other stakeholders to receive support but there is not much assistance given by them (SERCC48).
5. Strongly Agree	<ul style="list-style-type: none"> • Teachers are so called ‘man of all trade’, and they are trained to be flexible and improvise materials when the need arise to accommodate all the above listed areas (SERCS9). • Teachers and principals posse’s professional skills in teaching to cater for both normal and special children (SERCC8). • SERC staffs do have basic knowledge and skills in Special Education including teaching skills to educate both normal and special children (SERCC9) 	<ul style="list-style-type: none"> • I strongly feel that professional development program should be provided for quality teaching (SERCC26). • No such development program in place. • The NDoE may have played its part, but the provincial and the district education have not done their part fully as expected (SERCC27). • They are paid to provide quality Inclusive Education programs for our CWD, but not enough for a SERC and MS teachers who spend extra with the CWD (SERCC28). 	•	<ul style="list-style-type: none"> • Awareness was made in various schools and communities about what they value about inclusive education (SERCS65). • Less or nothing has been provided. Few resources provided but not enough special students and very limited resources for teachers (SERCC49).
6. Very strongly Agree	<ul style="list-style-type: none"> • Since reform is in place teachers in Mainstream schools need to be educated in Inclusive Education so that they will be in a better position to teach all children 	<ul style="list-style-type: none"> • No discussions were ever held together (SERCC29). • All teaching positions for SERCs are paid by the National Department of Education (SERCC30). • Teachers in 	•	<ul style="list-style-type: none"> • The SERCs have associated with stakeholders to get support (SERCS66). • Most children with disabilities are included in mainstream

	<p>including CWD (SERCS10).</p> <ul style="list-style-type: none"> • More research should be done • We are here to serve and assist the disabled population within the integral human development (SERCS11). • There is no problem that will affect our religious and traditional beliefs when educating our children including CWD. We all have equal rights and must have access to anything human beings have or do. I do not see any problem on that. SERC-staff are in a better position of educating all children including CWD (SERCS12). • They want to see the achievement of their children's performance by the SERC and MS teachers will support together for the good of our children including CWD (SERCS13). 	<p>Mainstream schools do not have skills and knowledge in assisting children with disabilities. That is one of the factors that is letting down most of the children with disabilities (SERCS47).</p> <ul style="list-style-type: none"> • I strongly believe and agree that professional development programmes should have been the focused area for providing quality teaching and learning for all children including the disabled students (SERCC31). • There is always government funding of school fee subsidies for all schools that operate under their authority but there is no equipment or resources for teaching CWD in Mainstream schools. May be the problem is with the government officers of not understanding and implementing the Inclusive Education policy (SERCS48). • Our SERC is a newly established centre there is no funding allocated for capacity building of staff, but there is for teachers in Mainstream schools who are under the provincial Division of Education 		<p>schools with least restrictive learning environment (SERCS67).</p> <ul style="list-style-type: none"> •
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		<p>(SERCS49).</p> <ul style="list-style-type: none"> • There are goals/aims or outcomes to be achieved when working under as SERC. Our goals have been set out clear and across the province to achieve Inclusive Education (SERCS50). 		
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Table 5.25 A 3. MS Participants' reasons for factors as barriers and facilitators of Inclusive Education (Survey responses on Part C - 6 Point Likert Scale)

Likert Scale	Socio-cultural/Historical (Items 10, 11 & 12)	Economic/Leadership (Items 13, 14, 15, 16, 17, 18 and 19)	Political support (Items 20 and 21)	Environmental support (Items 22, 23, and 24)
1. Very Strongly Disagree	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • That is our biggest problem. Need to really look into this area for improvement. (MSP2) • There is hardly any coordination between these two agencies. There is no clear direction whatsoever (MSCT3). • This is something that must be looked at seriously. (MSCT4) • The pay we are getting now doesn't match the workload. We are doubling work with less pay. (MSCT5) • Practically in class more attention is given to the able students and not much to the special students because of resources not available and shallow knowledge, not enough PDP. (MSP3) • The provincial education is not 	<ul style="list-style-type: none"> • Again another important component that is lacking from the political position. No support at all (MSCT16). • Hardly see any of that in our district (MSCT17). • Nothing has been done (MSST2). • No sign of them in our SERC schools. No support in our SERC schools.7 (MSST3) 	<ul style="list-style-type: none"> • While working, I haven't seen this happening, only on special days. The programmes are not done and made known to the community (MSP8) • There are no resources available. Nothing (MSP8)

		<p>concern about SERC programs and they lack knowledge. (MSST1)</p> <ul style="list-style-type: none"> • Salary is inadequate because the price of goods and services are rising at an alarming rate (MSCT6) 		
2. Strongly Disagree	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Current salary paid is very low compared to the amount of workload for teachers dealing with disabilities (MSCT7). 	<ul style="list-style-type: none"> • Not really committed (MSCT18) • Most that I know of only support the whole school, not specifically for special students in school. (MSP7) 	<ul style="list-style-type: none"> •
3. Disagree	<ul style="list-style-type: none"> • Not all staff of SERC, depends on who they are and what they are here for in the SERC (MSP1). • Only few parents and guardians who know of SERC, but handful of them still believe in traditional beliefs (MSCT1). 	<ul style="list-style-type: none"> • Supports only for teachers' salaries. (MSCT8) • I don't think government have funding for the above (MSCT9). • Supports only for teachers' salaries (MSCT10) • K3, 000 or K4, 000 a year is not enough. No way near in terms of funding. Supports only for teachers' salaries. (MSP4). 		<ul style="list-style-type: none"> •
4. Agree	<ul style="list-style-type: none"> • At times they do accommodate the above, but not every MS teachers and principals (MSCT2) 	<ul style="list-style-type: none"> • I think not really (MSCT11). • They may have, but no proper awareness done to the community on how important the inclusive education is 	<ul style="list-style-type: none"> • Only in some areas depending on their priorities of development plan 	<ul style="list-style-type: none"> • Programs have been conducted but not at that level where every stakeholder is effectively

		(MSCT12).	(MSCT19). •	informed (MSCT20). • Programmes are done but outcomes of them are not really showing out. The [environmental] support from [key] stakeholders is not effective (MSP10). • Lack of proper materials and curriculum is a hindrance to the effective deliverance of information to children with disabilities. (MSCT21). • Program needs more materials – learning and physical need materials. (MSCT22). • Recently, I've seen special students performing at world TB Day and some incentives were given but not made known back to school about the monies received. (MSP11).
5. Strongly Agree	•	• Both are working in isolation – the children with special needs are pushed to learn or pick	•	• Yes, to ensure smooth functioning of the centre and

		<p>up through their own struggles with inclusive education programmes. (MSP5).</p> <ul style="list-style-type: none"> • They do have goals and outcomes because it will develop holistic approach to educate a child for life. 		<p>institution. (MSP12).</p> <ul style="list-style-type: none"> • Yes, good. • Because children with disabilities need special care and treatment. (MSCT23).
6. Very strongly Agree	•	<ul style="list-style-type: none"> • Extra workload (MSCT13). • Everybody must be educated, regardless (MSCT14). • Yes, to cope up with the latest information and technologies (MSCT15). 	•	<ul style="list-style-type: none"> • We make awareness to the surrounding communities about the importance of inclusive education (MSCT24).

Table 5.26 A4

A 4. PEO/DEO Participants' reasons for factors as barriers and facilitators of Inclusive Education (Survey responses on Part C - 6 Point Likert Scale)

Likert Scale	Socio-cultural/Historical (Items 10, 11 & 12)	Economic/Leadership (Items 13, 14, 15, 16, 17, 18 and 19)	Political support (Items 20 and 21)	Environmental support (Items 22, 23, and 24)
1. Very Strongly Disagree	<ul style="list-style-type: none"> • Teachers are trained to teach students regardless of their disabilities but they need special training to effectively understand and provide appropriately for these categories of students (PEO1). 	<ul style="list-style-type: none"> • Teachers feel workload is too much and they are underpaid as they say (PEO10). • Not much thought put into this (PEO11). 	<ul style="list-style-type: none"> • There is very poor support. In fact there is none (PEO17). 	<ul style="list-style-type: none"> • The mainstream schools do not have facilities to cater for disable students (PEO21).
2. Strongly Disagree		<ul style="list-style-type: none"> • Except that MS staff needs specialist training to cater for the needs of disabled students. • In a very slow pace (PEO12). 	•	•
3. Disagree	<ul style="list-style-type: none"> • They lack interest in this matter, for 	<ul style="list-style-type: none"> • I am not certain; however, I think there 	<ul style="list-style-type: none"> • Again in a small scale 	•

	<p>some they think its waste of time for their children to go to school (PEO4).</p> <ul style="list-style-type: none"> • I do not see CWD in the Mainstream schools (PEO5). • Parents or guardians of children need more awareness (PEO6). 	<p>needs a review to funding and these facilities (PEO13).</p>	<p>(PEO18).</p>	
4. Agree	<ul style="list-style-type: none"> • Parents need to be made aware of the opportunities that are available for disable students (PEO7). • Not all value and accept these responsibilities due to their motives of being teachers (PEO8). • SERC-staff have been trained to advocate CWD (PEO9). 	<ul style="list-style-type: none"> • This needs a review to ensure the facilities in MS to be user friendly, considering the common and diverse needs to students with diverse disabilities. Currently, facilities in MS institutions are meant for able persons only (PEO14). • Salaries are similar to staff serving the MS and SERCs institutions. There's need for review and upgrading DEO1). • I have not seen any policy on this and hope that this policy be made available or circulated widely to education institutions and offices (PEO15). 	<ul style="list-style-type: none"> • I do not think so, but it is high time to seriously consider improving political support (PEO19). • There is not so much and not really happening at the three government levels (PEO20). 	<ul style="list-style-type: none"> • There is need for a real shake up at the school level to have teachers realise the growing need for inclusive education as more children with disabilities are entering our school systems (PEO22). • Not really happening at the mainstream but may be at SERCs and specialist schools for disabilities (PEO23)
5. Strongly Agree				
6. Very strongly Agree	•		•	•

Appendix 4. Statistical Analysis for Reliability of Scale used in Inclusive Education Survey

DataSet1] D:\Survey Table3, doc. x.sav

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RELIABILITY
/VARIABLES=SocHilikA SocHilikB EcoLeSupA EcolesupB EcolesupC EcolesupD EcolesupE EcolesupF
EcolesupG PolsupA PolsupB SocHilikC EnvSupA EnvSupB EnvSupC
/SCALE('Factors affecting institutionalisation of inclusive education') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE CORR
/SUMMARY=CORR.
    
```

Reliability

Note

	13-NOV-2012 02:07:03
Output Created	
Comments	
Data	D:\Survey Table3,docx.sav
Input	DataSet1
Active Dataset	<none>
Filter	<none>
Weight	<none>
Split File	<none>
N of Rows in Working Data File	22
Matrix Input	
Missing Value Handling	User-defined missing values are treated as missing.
Definition of Missing	
Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax	<pre style="margin: 0;"> RELIABILITY /VARIABLES=SocHilikA SocHilikB EcoLeSupA EcolesupB EcolesupC EcolesupD EcolesupE EcolesupF EcolesupG PolsupA PolsupB SocHilikC EnvSupA EnvSupB EnvSupC /SCALE('Factors affecting institutionalisation of inclusive education') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE CORR /SUMMARY=CORR. </pre>
Resources	00:00:00.02
Processor Time	
Elapsed Time	00:00:00.01

Statistical Analysis – Reliability of Part C. Survey Items

Scale: Factors affecting institutionalisation of inclusive education

Case Processing Summary

		N	%
Cases	Valid	21	95.5
	Excluded	1	4.5
	Total	22	100.0

a. List wise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.655	.667	15

Item Statistics

	Mean	Std. Deviation	N
Mainstream schools have acceptable beliefs	4.10	1.446	21
SERCs have acceptable belief	4.86	.964	21
SERCs/Mainstream schools well-funded by NDoE	3.48	1.436	21
SERCS have better funding from govt	3.10	1.300	21
Mainstream schools have better funding from govt	2.90	1.578	21
Mainstream schools/SERCs are paid adequate salary	3.43	1.469	21
Mainstream schools/SERCs have professional development	3.76	1.375	21
NDOE has provided clear direction on Inclusive Education	3.48	1.250	21
SERCs/Mainstream schools programs have clear goals for Inclusive Education	3.48	1.250	21
Various govt have provided political support	3.48	1.401	21
Prov./Local/District government support Inclusive Education	3.10	1.261	21
Parents have acceptable belief	3.95	1.359	21
SERCs/Mainstream schools extend value of Inclusive Education to stakeholders	3.57	1.121	21
SERCS/Mainstream schools associate with external environment	3.29	1.102	21
SERCS/Mainstream schools provide a least restrictive L/Environment	3.33	1.155	21

SERCs/ Mainstream schools programs have clear goals for Inclusive Education	Various govt have provided political support	Prov./Local /District government support Inclusive Education	Parents have acceptable belief	SERCs /Mainstream schools extend value of Inclusive Education to stakeholders	SERCS /Mainstream schools associate with external environment	SERCS/M ainstream schools provide a least restrictive L/Environment
.223	.026	.132	.359	-.375	.045	.339
.142	.349	.423	.224	-.059	.087	.270
.313	.006	.305	.166	.040	.036	.171
.309	-.411	-.006	.059	.269	.050	-.222
.404	-.092	.457	.184	.315	.419	.155
-.008	-.250	-.401	-.014	.512	.013	-.147
.098	-.535	-.563	-.274	.352	.014	-.325
.360	.150	.192	-.045	.617	.368	-.081
1.000	.064	.319	-.015	.331	.550	.370
.064	1.000	.681	.380	-.150	.231	.484
.319	.681	1.000	.382	.101	.591	.423
-.015	.380	.382	1.000	-.112	.277	.202
.331	-.150	.101	-.112	1.000	.509	-.116
.550	.231	.591	.277	.509	1.000	.275
.370	.484	.423	.202	-.116	.275	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.118	-.631	.681	1.311	-1.079	.078	15

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
53.29	65.914	8.119	15

Appendix 5: Letters Seeking Permission to Visit Research Sites in PNG



DEPARTMENT OF EDUCATION
WAIGANI

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E-mail: Luke-Taita@educationpng.gov.pg

Fincorp Haus

PO Box 446

WAIGANI

N.C.D.

Papua New Guinea

Date: 12 May 2011

File: PR1-1-2

Mr John Pokana
Doctor of Education Candidate
School of Education
University of New England
Armidale NSW 2351
AUSTRALIA

Dear Mr Pokana

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

Your research proposal titled: *"Barriers and facilitators of Institutionalization of inclusive education 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 in Papua New Guinea.

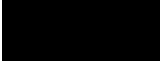
While your research is approved in principle to collect data in educational institution/s, it is also subject to approval by Provincial Research Committee (where applicable) and/or the Provincial Education Advisor or the principals or head teachers of your nominated institutions. It is your responsibility 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 your 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.

Yours sincerely



LUKE TAITA
Deputy Secretary – Policy & Corporate Services
Chairman – Research and Evaluation Steering Committee

cc: *Manager – Research and Data Analysis*



EAST NEW BRITAIN PROVINCIAL ADMINISTRATION

DIVISION OF EDUCATION

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KOKOPO
EAST NEW BRITAIN PROVINCE

07 June 2011
PR5-3-3

Mr John Smith (Veali) Pokana
Doctoral Research Student
School of Education, UNE
Armidale. NSW. 2351
AUSTRALIA

Dear Mr Pokana

**RE: PERMISSION TO CONDUCT A SURVEY AND INTERVIEWS WITH SELECTED PRIMARY TEACHERS,
DISTRICT AND PROVINCIAL EDUCATION OFFICERS**

Your letter of request concerning the above subject was hereby received and acknowledged.


You are hereby granted permission as requested to carry out the survey and interviews in the province with the selected teachers, district and provincial education officers.

The affected officers of both the District and the Provincial Headquarter through the authority of this letter are encourage to participate in this important research and survey as it will benefit the target audience and participants in the long-run.

We believe your study and research findings will be of benefit to the Division of Education in East New Britain Province, Inclusive Education and the National Department of Education.

For your information and further action.

Yours sincerely


PAUL LAORE
a/Provincial Education Advisor

cc: Head Teachers – Participating Schools, ENBP
cc: District Education Officers x 4
cc: Provincial Head Quarter Officers x 3 (PISC, Elementary Coordinator, PA Primary)



MANUS PROVINCIAL ADMINISTRATION
Division of Education

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Date: 2011-06-22
File: Visitation

TO WHOM IT MAY CONCERN

Please assist **Mr. John Pokana** who is visiting your school in carrying out a survey for his research.

His visit to your school is of random selection and has been approved by the office.

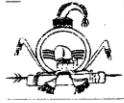
Your support and assistance to him by your school and teachers will be greatly appreciated.

For your information in Education



LEONARD JONLI
OVERSEER

Cc: Nuwok Primary School
Cc: Dungomasih Primary School
Cc:



MILNE BAY ADMINISTRATION

DIVISION OF EDUCATION

Free Mail Bag, ALOTAU, Milne Bay Province

Telephone: 6411305

Fax: 6410603

5th July 2011

Chairman
Provincial Research Committee
Milne Bay Administration
ALOTAU
Milne Bay Province



Dear Sir,

RE: ENDORSED REQUEST FOR RESEARCH TO BE CONDUCTED WITHIN SELECTED SCHOOLS IN MILNE BAY PROVINCE.

The request letter by Mr John Pokana dated 27th July 2011 has reached my office and the content is of concern particularly the inclusive education.

The neglected and marginalized minority is of focus for this research and I am optimistic of the research findings and future benefits from this feedback to the education sector in the province.

Just like any other survey carried out in the province, the final findings are always accessible by concerned sites visited and authorities. Often recommendations are influential in the decision making to improve for better quality of education in the future.

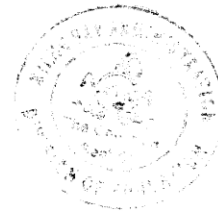
A special request for the following schools; Lelehoa Primary school, Koeabule (KB) Primary school and Hagita Secondary School and other schools of interest as per his visit schedule of the research officer.

I request for the endorsement of this request by the committee and to schools concerned to cooperate with Mr John Pokana for smooth administration of his questionnaires and audio interview research.

Respectfully submitted,


Mr Michael OVA
Provincial Education Advisor

Cc: Mr John Pokana- Research officer
Head teachers of Schools Concerned



copy: 26-7-11



School of Education
University of New England
Armidale.NSW. 2351
Australia
Phone: 61 2 6773 4221
Fax: 61 2 6773 2445
Email: education @une.edu.au
www.une.edu.au/education

Mr. Pokana

*Your request is
endorsed. Consult the head teachers
of the schools you intend to conduct
your survey*

18th July, 2011

Mr. Conrad Esoka
The Education Advisor
Division of Education
P.O.Box
Goroka E.H.Province

EASTERN HIGHLANDS PROVINCIAL ADMINISTRATION DIVISION OF EDUCATION GOROKA E.H.P.		
SIGN: ...		
PROVINCIAL EDUCATION ADVISOR		
DATE:	26.7.2011	

Dear Sir,

Subject: Letter requesting permission to conduct a survey and interview with selected primary teachers, District and Provincial Education officers in the Province

My name is John Pokana and I am present studying at the University of New England, Armidale, Australia. I'm enrolled in the Doctoral course.

This year I'm starting my thesis project and in order for me to complete my writing of the thesis, I'm expected to conduct a research project.

The title of my study is: *Barriers and Facilitators of institutionalization of Inclusive Education in Papua New Guinea.*

I write to seek you permission to conduct research in one urban level 5 school and one rural level 4 or 5 school with 15 or more teachers, 3 Provincial and 2 District Education officers (any of school inspectors, superintendents or reform coordinators).

The purpose is to investigate how primary schools and Special Education Resource Centres have taken on board the education of children with disabilities in the mainstream school system.

The findings of the study will contribute to the understanding of Barriers and facilitators of institutionalization of Inclusive Education, and the development of a better approach and support system for parents, Resource Centres, principals and teachers, and the education system in PNG.

The study has been approved by the University of New England Ethics Committee (see attachment of approval statement and number) and the Policy Research and Evaluation Unit of the National Department of Education (Person for contact: Mr. James Agigo 72228041).