

LEARNER SUPPORT TO FOUNDATION PHASE LEARNERS WHO ARE INTELLECTUALLY
IMPAIRED: A CASE STUDY

by

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Declaration

I declare that 'LEARNER SUPPORT TO FOUNDATION PHASE LEARNERS WHO ARE INTELLECTUALLY IMPAIRED: A CASE STUDY' is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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Abstract

Since 1994, the South African education system has undergone a number of paradigm shifts culminating in the implementation of the policy of Inclusive Education as highlighted in Education White Paper 6: Building an Inclusive Education and Training System.

The purpose of this research was to explore how foundation phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district. A case study design was embarked upon as this allowed for an in-depth exploration of the above research question.

Three special schools in the Pietermaritzburg district that cater for learners who experience severe intellectual barriers to learning were chosen for this investigation. Quantitative and qualitative research methods, consisting of questionnaires, interviews and observation were utilised.

The findings reveal that educators at these schools do provide high levels of support to foundation phase learners who experience severe intellectual barriers to learning.

Key terms

Learner support

Foundation phase learners

Intellectual impairment

Education White Paper 6

Barriers to learning

Special schools

Special school resource centres

Inclusive education

Theories of learning

The curriculum as a barrier to learning

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Chapter 1

ORIENTATION TO THE STUDY

'For, it is, only when these ones (disabled learners) among us are a natural and ordinary part of us that we can truly claim to the status of cherishing all our children equally... . What will be required of us all is persistence, commitment, coordination, support, monitoring, evaluation, follow-up and leadership.

Former Minister of Education, the late Professor Kader Asmal (July 2001)

1.1 INTRODUCTION

With the advent of democracy in 1994, South Africa ushered in a new political dispensation, together with changes in economic, social and educational policies. The quotation by the late Professor Kader Asmal cited above indicates that the priority of policy makers was to transform education by addressing the disparities and inequities of the past and to create one education system that could provide all learners with access to quality education (Engelbrecht & Green, 2007:53). In revising education policy, consideration had to be given to the rights of learners who experience barriers to learning, including those with intellectual barriers to learning (Department of Education, 2001:11).

In 1996, National Minister of Education, the late Professor Kader Asmal, appointed two commissions: The National Commission on Education Support Services (NCESS) and the National Committee on Special Needs Education and Training (NCSNET) to meet as a collective to investigate the existing situation and to recommend policy changes. The challenge that faced the NCESS and the NCSNET was to transform the education system to affirm the rights of all individuals, including those who experience barriers to learning (KZN Department of Education, 2005:9).

The findings of these two commissions culminated in the publication of the *Education White Paper 6: Building an Inclusive Education and Training System*,

launched by Professor Asmal in 2001. Education White Paper 6 advocated an inclusive approach to education and reflected a paradigm shift as far as education for learners who experience barriers to learning is concerned. It legislated that no learner should be prevented from participating in this system regardless of their physical, intellectual, social, emotional, language or other differences (Department of Education, 1997:54). Thus, all learners should have access to education, to the curriculum and to *support* when needed so that the full potential of each learner can be actualized.

However, the impressive policies and objectives of Education White Paper 6: Building an Inclusive Education and Training System, have yet to make its desired impact on the education system in general and on special needs education in particular. One of the reasons for this is that the government may lack the resources (both human and physical) and the finances to implement the policies contained in the White Paper.

The most crucial aspect of Education White Paper 6 is for the government to provide for learners who require high levels of support. Beside the publication of the National Strategy on Screening, Identification, Assessment and Support (SIAS) school pack published in 2008, very few support packages and/or programmes have been published to enable educators at special schools and at special school resource centres to offer high levels of support to learners who experience severe intellectual barriers to learning. The SIAS document focuses mainly on support packages for learners who do not have cognitive barriers to learning. Educators at these special schools and special school resource centres have been left to their own devices in designing support programmes for learners who experience severe intellectual barriers to learning and to differentiate the curriculum. Educators themselves need 'support' in order to provide high intensity support to learners who experience severe intellectual barriers to learning. Therefore, there is a need to research this shortcoming of Education White Paper 6 in order to fill this void.

Thus, the focus of this research was to investigate how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support and how educators implement the programmes regarding curriculum differentiation from an inclusive education approach. The research also investigated how educators adapt the curriculum in terms of methodology,

content and learner/teacher support materials. In addition, the alternate means of assessment adopted by educators and the use of different types of assistive devices were examined. Finally, the study investigated the implementation of the SIAS document and how the environment is adjusted to support these learners.

Chapter 1 serves as a preliminary orientation to the research and highlights the factors giving rise to the study as well as the statement of the problem and the demarcation of the field of study. This chapter also comprises the outcomes of the study, the research methodology utilized and the clarification of concepts. Finally, the programme of study and a short conclusion close the chapter.

1.2 FACTORS GIVING RISE TO THE STUDY

Prior to the implementation of Inclusive Education, support at schools for learners who experience barriers to learning focused on developing the learner to meet the demands of the mainstream curriculum (Department of Education, 2001:5). The curriculum taught to learners who experience barriers to learning was not differentiated significantly to meet the needs of these learners (KZN Department of Education, 2005:6). No significant accommodations were made to the curriculum, assessment, teaching or any other systemic factors (KZN Department of Education, 2005:6). However, with the implementation of Inclusive Education, educators at schools that cater for learners who are severely intellectually impaired have to adapt the curriculum to suit the needs of their learners.

According to latest statistics, there are 400 special schools in South Africa (About South Africa, 2011). 102 057 learners are enrolled at these special schools, comprising 0,7% of the total population enrolled at all schools in the country (South Africa Info, 2011).

In the Pietermaritzburg district there are only three schools that cater for learners who experience severe intellectual barriers to learning. The total enrolment at each school is approximately 250 learners. However, each school has a waiting list of over 100 learners seeking admission to these schools. There is therefore a need for more schools to be established to cater for learners who experience severe intellectual barriers to learning.

The consequence of this limited number of special schools is that learners who experience intellectual barriers to learning are deprived of access to special services, leading to their marginalization and exclusion from additional support (Department of Education, 2001:9).

In the absence of formalized and structured support strategies from the Department of Education and in the light of feedback from principals at meetings and from practising educators, educators at these special schools have to devise and implement school-based and individual-based support strategies for learners who experience severe intellectual barriers to learning.

However, the interaction of the researcher, as principal of Open Gate Special School, with principals and staff of schools for learners with special educational needs (LSEN) with particular reference to those learners who experience severe intellectual barriers to learning in the Pietermaritzburg district (i.e., Open Gate Special School, Peter Pan School and H S Ebrahim School) reveals that at present, very little, or no structured support is rendered to learners in general and to Foundation Phase learners in particular.

Principals of the above-mentioned LSEN schools meet regularly at meetings, workshops and conferences and the challenges of special needs schools are articulated at these events. The principals of the various LSEN schools in the Pietermaritzburg district have also formed the LSEN Principals Forum which meet once a term or when the need arises. A recurring item at these meetings is the concern that the curriculum is undergoing constant change and that educators have to differentiate the curriculum, utilize alternate means of assessment, implement the SIAS process, adopt assistive devices, adapt learning and

teaching support materials and adjust the learning environment in order to provide high levels of support to learners under their care.

Learners who experience severe intellectual barriers to learning need high levels of support. Educators at the above-mentioned schools have reported to the researcher that teaching methodology, such as, discussion and narratives are not suitable for learners who are severely intellectually impaired as they show no interest in, cannot concentrate for any length of time and do not contribute to lessons.

Therefore, according to educators in the classroom, teaching methodology or strategies must be adapted to suit the learning styles and cognitive abilities of individual learners. The content taught and the learner/teacher support materials should be differentiated for these learners in order to actualize their full potential by dealing with the specific barriers to learning which they experience.

1.3 STATEMENT OF THE PROBLEM

The main research question addressed in this study is formulated as follows: How are Foundation Phase learners who experience severe intellectual barriers to learning provided with high levels of support at special schools in the Pietermaritzburg district?

The sub-research problems emanating from the above are:

- How should educators be empowered and equipped in order to assist the learning of Foundation Phase learners who are severely intellectually impaired?
- In what way do educators implement the support programmes with regard to curriculum differentiation and assessment and what alternate means of assessment are used?

- Is the SIAS process implemented at special schools and are learners assessed according to categories of support rather than categories of disability?
- How are assistive devices used, learning and teaching support materials (LTSM) adapted and the environment adjusted to support these learners?

1.4 OUTCOMES OF THE STUDY

The researcher's prior interaction with LSEN principals and staff reveal a lack of knowledge and involvement of educators in special schools in the Pietermaritzburg district, in designing support packages for Foundation Phase learners who experience severe intellectual barriers to learning. The long term outcome of this research project is to equip educators with the necessary knowledge in order to enable them to provide high levels of support to Foundation Phase learners who experience severe intellectual barriers to learning. Emanating from this study, educators could be equipped through the medium of workshops, seminars and in-service training sessions.

The short term outcomes of this study are:

- to equip educators with the necessary knowledge to enable them to differentiate the curriculum in order to provide high levels of support to Foundation Phase learners who experience severe intellectual barriers to learning;
- to identify alternate methods of assessment so that educators can provide high levels of support to Foundation Phase learners who experience severe intellectual barriers to learning;
- to empower educators to implement the SIAS process so that high levels of support can be provided to Foundation Phase learners who experience severe intellectual barriers to learning;
- to establish what types of assistive devices are available for educators to use to provide high levels of support to Foundation Phase learners who experience severe intellectual barriers to learning;

- to enable educators to adapt learner/teacher support materials and adjust the environment in order to provide high levels of support to Foundation Phase learners who experience severe intellectual barriers to learning.

1.5 CLARIFICATION OF CONCEPTS

A description of the key concepts is provided in order to obviate ambiguity and to provide the reader with a clear understanding of what is being investigated.

1.5.1 Education White Paper 6

Although *Education White Paper 6: Special needs education: Building an inclusive education and training system* (Department of Education 2001) does not appear in the title of the study and is a policy document and not a concept, the researcher argues that it is important to explain its key components because the concepts that are clarified hereafter are closely linked to and emanate from Education White Paper 6. Without an understanding of the policy, it is impossible to understand fully the current investigation.

Education White Paper 6: Special needs education: Building an inclusive education and training system (Department of Education 2001) was launched in 2001 and outlines what an inclusive education and training system comprises. This policy embraces a paradigm shift in that it adopts a new categorising principle: that of categorising using the level of *support* required rather than one based on the type of disability. The aim of Education White Paper 6 is the provision of support to learners who are intellectually impaired to ensure that they pursue their learning potential to the fullest.

The policy framework charted in White Paper 6 outlines the ministry's commitment to create a wider spread of *educational support* in line with the needs of learners with impairments. Support will be cascaded to them according to levels. A range of factors will be taken into account to determine the level of intensity of support needed by individual learners. These factors could be

intrinsic to the learner him/herself or factors within the learning and living environment of the learner (Department of Education, 2005:107).

According to Education White Paper 6, learners who require low-intensive support will receive their support in ordinary schools and those requiring moderate support will receive this in full-service schools. Learners who require high-intensive educational support will continue to receive such support in special schools. (Department of Education, 2001:15). However, support must not be seen as focusing on 'deficits' in individual learners who are assumed to be in need of 'remediation' through individual attention by specialist staff (Department of Education, 2005:22).

In the context of this study, this brief explanation of Education White Paper 6 is vital as the policy has implications for Foundation Phase learners who experience severe intellectual barriers to learning.

1.5.2 Learner support

Learner support is any activity that provides direct support for learning to individual learners, over and above that which is normally provided in a standard learning programme that leads to their learning goal (Learner Support, 2011). The need for additional support may arise from a learning difficulty and/or disability, or from literacy, numeracy or language support requirements.

The Department of Education (2001:15) defines learner support as any form of help, assistance and guidance given to learners who experience barriers to learning to enable them to overcome their barriers. This support can be of a low intensive, moderate or high intensive level depending on the needs of the learner.

Support can also be defined as all the activities which enhance the capacity of a school to cater for diversity and ensure effective learning and teaching for all learners (Department of Education, 2005:22). This means identifying and

addressing learner, educator and institutional support needs on an ongoing basis. Support is provided, for example, when educators plan lessons which recognise the different starting points and learning styles of learners. Individual support generally aims to increase the inclusiveness of the curriculum. Support, in a nutshell, is an integral part of all teaching.

Support for learners who are intellectually impaired can be allocated as support programmes and support packages. Support programmes refer to structured interventions delivered at schools and in the classrooms within specific time frames (Department of Education, 2008:9).

A package of support is designed to address the barriers to learning identified for each child or school. Each package consists of a variety of resources which may be human, physical, or material, or a combination of these (Department of Education, 2008:9).

The research question however, highlights the concept of 'high levels of support'. According to Education White Paper 6, support would be created along three levels; low-intensive support which would be provided at ordinary schools, moderate support which would be provided at full-service schools and high-intensive support which would be provided at special school/resource centres (KZN Department of Education,2005:11). This means that learners who require high levels of support would not be able to function effectively in an ordinary or full-service school. The educators providing these high-levels of support would also have to have the requisite skills and expertise to educate these learners outside of the mainstream classroom.

For the purposes of this study, the concept 'learner support' implies any activity which assists Foundation Phase learners who experience severe intellectual barriers to learning to overcome their barriers to learning.

1.5.3 Barriers to learning

Barriers to learning is a broad term that encompasses a variety of conditions whose defining characteristic is a significant impairment of intellectual functioning (Bennet, 2003:303).

The definition of barriers to learning can be placed into three categories, a) definitions based on intelligence test scores, b) definitions based on a failure of social performance, and c) definitions based on the cause or essential nature of barriers to learning, such as traumatic brain injury (Bennet, 2003:304). A barrier to learning is not considered a mental illness as such, with its own unique signs and symptoms. It is a term for identifying groups of people who need social support and special educational services to carry out tasks of everyday living (Sebastian, 2002:2).

According to the Department of Education (2005), the concept barriers to learning refers to all the systemic, societal, pedagogic and intrinsic factors that impede learning and development (Department of Education, 2005:10). Barriers to learning may arise within the education system as a whole, the learning site and/or within the learner him/herself which prevent access to learning and development for learners (Department of Education, 2008:8).

Barriers to learning also refer to any obstacle that may hinder the learner from accessing educational provision and that may contribute to learning breakdown. These barriers may be located within the learner, such as learning and visual impairment and emotional breakdown; within the school, such as learning through an additional language; or within broader family, social, economic or political contexts.

The new Inclusive Education and Training System makes provision for learners who have severe intellectual barriers to learning and who require high levels of support, to be educated at special schools.

According to the KZN Department of Education (2005:10), the curriculum is an example of a systemic factor that impedes learning and development. An inflexible curriculum is therefore a significant barrier to learning. Barriers to learning arise from the different aspects of the curriculum, such as, the content, the language, classroom organization, teaching methodologies, pace of teaching and time available to complete the curriculum, teaching and learning support materials and assessment (Department of Education, 2005:109).

In order to overcome this barrier to learning, the curriculum has to be differentiated as a means to support these learners. Curriculum differentiation refers to modifications that relate specifically to instruction or content of a curriculum. Effective curriculum differentiation comprises differentiation of the content, the method of presentation and the assessment of the learner's performance.

For the purposes of this study, the concept barriers to learning implies any obstacle or hindrance that may preclude the Foundation Phase learner from accessing educational provision.

1.5.4 Special schools

There are various definitions of special schools. These include:

'A school for children who are unable to benefit from ordinary schooling because they have learning difficulties, physical or mental handicaps, etc.'

(<http://www.thefreedictionary.com/special+school>);

'A school for children who have physical difficulties or problems with learning' (Definition Special School, 2011); and

'A special school is a school catering to students who have special educational needs due to severe learning difficulties or physical disabilities' (Special Schools, 2010).

According to the Department of Education (2008), special schools are schools equipped to deliver education to learners requiring high-intensive educational and other support either on a full-time or a part-time basis. (Department of Education, 2008:9).

Special schools have a clearly defined role to play in an inclusive education system. Among other functions, they must promote the full development and promote the inclusion of all learners in all activities in the school. (Department of Education, 2007:2).

Special schools are therefore an integral component of our education system, despite the paradigm shift to inclusive education. Special schools will be strengthened to offer the high-intensity levels of support to learners who are in need of them.

For the purposes of this study, the concept special schools means a school specially equipped to provide for the special education needs of learners who experience barriers to learning and, in this context, Foundation Phase learners who experience severe intellectual barriers to learning. An example of such a school is Open Gate Special School. Started in 1975 by the mother of an intellectually disabled child, the school has made prolific progress and today accommodates 256 learners, 42 of whom reside in the hostel. In terms of Education White Paper 6, it was the first special school in the Pietermaritzburg district to be designated as a special school resource centre. Individual learning programmes are designed for each learner taking into cognizance the curriculum, assessment standards, assistive devices, learning and teaching support materials and the learning environment. In this way, learners receive high levels of support to facilitate the learning process.

1.5.5 Foundation phase learners

Foundation Phase learners are found in that band or level of education that comprise Grades R, 1, 2 and 3 within the Early Childhood Development (ECD) phase.

The provision of education for these learners is based on the principle that early years' provision should offer a solid foundation for future learning through a developmentally appropriate curriculum (What is the Foundation Phase? 2010). Learners in this phase are given more opportunities to gain first hand experiences through active involvement. They are also given time to develop their speaking and listening skills and to become confident in their reading and writing abilities (What is the Foundation Phase? 2010).

In the schools chosen for research, the class units are divided into three phases, viz., Foundation Phase, Intermediate Phase and Senior Phase. Although age is a factor that determines into which phase a learner belongs and his/her progression, other factors such as social development, behavior and cognitive development are also taken into account.

According to Piaget's theory of development, the Foundation Phase learner straddles the preoperational and concrete operational stages of development (Woolfolk, 2007:30). This covers ages 2 to 11 years. During these stages and ages, the child's thinking involves seeing, hearing, moving, touching, tasting, and so on (Woolfolk, 2007:30). Cognitive development is therefore prolific during these stages. However, children who are intellectually impaired have delays in development and do not pass through the same milestones as their 'normal' counterparts.

The Foundation Phase is part of ECD and is defined as an umbrella term, which is applied to the process by which children from birth to nine years grow and thrive physically, mentally, emotionally, morally and socially (Department of Education, 1995:33). This phase includes Grade R (reception class) up to Grade 3.

According to Erikson's stages of psychosocial development, the Foundation Phase learner is in the fourth stage of development which he refers to as industry versus inferiority (Woolfolk, 2007:69). This stage covers the early school years from approximately age 5 to 7. During this stage, cognitive development is proceeding rapidly. Children can process more information faster

and their memory spans are increasing. They are moving from preoperational to concrete operational thinking (Woolfolk, 2007:69).

The following are the characteristics of Foundation Phase learners (Cherry, 2010):

- Through social interactions, children begin to develop a sense of pride in their accomplishments and abilities.
- In this phase children who are encouraged and commended by parents and teachers develop a feeling of competence and belief in their skills.
- Children who receive little or no encouragement from parents, teachers or peers will doubt their ability to be successful.
- The major theme for development in this stage is attaining mastery of life, primarily by conforming to the laws imposed by society and by the physical characteristics of the world in which they have to live.
- Problems arise if the learner feels inadequate and inferior to this task.
- Learners are still learning about their world by touching and doing.
- Some learners make mistakes or misbehave simply because they do not understand the 'rules' of the classroom or even the dominant culture of the school.
- When learners come from disadvantaged backgrounds, they need to be taught what is expected of them in the classroom.
- Making rules clear and explaining with the aid of concrete examples can help resolve their ignorance.
- Normal curiosity and the need for attention can cause many Foundation Phase learners to misbehave.

The Foundation Phase has been selected as the focus group for this study because learning begins formally in this phase. The Foundation Phase learner is therefore confronted by an education system for the first time and has to adjust to this new environment for the next twelve years or more. Intellectual impairment hence has a greater impact on the development of the learner in the Foundation Phase. Another reason for selecting the Foundation Phase as the focus group is because the learners spend the entire day with the same educator who is responsible for the overall education of all learners in the class.

In the context of this study, the concept Foundation Phase learners refers to learners in Grades R, 1, 2 and 3.

1.5.6 Intellectual impairment

Intellectual impairment has been a topic of discussion for a very long time. In recent South African publications, for example Education White Paper 6, the terms 'mental disability' and 'intellectual impairment' are used. (Department of Education, 2001:14, 25). According to Jooste and Jooste (in Landsberg, 2008:381), the most recent definition of the American Association on Mental Deficiency (AAMD) states the following:

Mental retardation refers to substantial limitation in present functioning. It is characterized by significantly sub-average intellectual functioning, existing concurrently with related limitations in two or more of the following applicable skills areas: communication, self care, home living, social skills, community use, self direction, health and safety, functional academics, leisure and work. Mental retardation manifests before age 18.

Intellectual impairment can affect a person's ability to reason and understand, to acquire skills and master developmental milestones within 'typical' age ranges, to problem-solve and adapt to new situations, and to learn and remember as easily as others (Intellectual Impairment, 2010).

Intellectual impairment is also referred to as a condition where a person's powers of comprehension and the ability to process information are severely hindered. For the purposes of this study, the concept intellectual impairment implies that a Foundation Phase learner with an intellectual barrier to learning lacks the ability to reason and understand and has developmental delays.

1.5.7 A case study

In a case study, the main assumption is that a phenomenon is investigated as a 'bounded system' (Henning, 2005:32). This system may comprise a group of people.

Any social entity that can be bounded by parameters and that shows a specific dynamic and relevance, revealing information that can be captured within these boundaries, may be a case study (Henning, 2005:32).

According to De Vos, Strydom, Fouche and Delport (2005:272), the case being studied may refer to a process, activity, event, programme or individual or multiple individuals. It might even refer to a period of time rather than a particular group of people (De Vos et al, 2005:272).

The exploration and description of the case takes place through detailed, in-depth data collection methods, involving multiple sources of information that are rich in context (De Vos et al, 2005:272). These may include interviews, documents, observations or archival records (De Vos et al, 2005:272).

According to De Vos et al (2005:272), there are three types of case study:

- The intrinsic case study is solely focused on the aim of gaining a better understanding of the individual case
- The instrumental case study is used to elaborate on a theory or to gain a better understanding of a social issue
- The collective case study furthers the understanding of the researcher about a social issue or population being studied.

For the purposes of this study, the concept case study refers to a process, activity, event or programme whereby the researcher gains a better understanding of an issue or population being studied within a specific time and setting.

1.6 RESEARCH METHODOLOGY

The research problem addressed in this study is: How are Foundation Phase learners, who experience severe intellectual barriers to learning, provided with high levels of support at special schools in the Pietermaritzburg district? The sub-questions investigated have been formulated in Section 1.3. Overall the study examined the nature and process of differentiating the curriculum as legislated

by the National Curriculum Statement (NCS) for severely intellectually impaired learners.

Methodology refers to the coherent group of methods that complement one another and that have the 'goodness of fit' to deliver data and findings that will reflect the research question and suit the research purpose (Henning, 2005:36).

At present there are two well-known and recognized approaches to research, namely the quantitative and the qualitative paradigms (De Vos et al, 2005:73). In a quantitative study, the focus is on the control of all the components in the actions and representations of the participants. The researcher plans and executes this control in the way the study and its instruments are designed (Henning, 2005:3). In a qualitative study the variables are usually not controlled because the researcher wants to capture the freedom and natural development of action and representation (Henning, 2005:3). Both approaches were used in this study.

The schools selected by purposeful sampling as sites for data gathering in this research were above-mentioned LSEN schools in the Pietermaritzburg district (i.e., Open Gate Special School, Peter Pan School and H S Ebrahim School). As the number of educators on the staff of special schools is relatively small compared to mainstream schools, all the educators at the three schools under research were initially invited to respond to the questionnaire. However, for various reasons expanded on later, a total number of 26 educators returned questionnaires, while 5 educators from each school were participants of the interview process and observation in the classroom. The research focus was only the provision of education to Foundation Phase learners who experience severe intellectual barriers to learning (Foundation Phase learners at other special schools may also experience other barriers to learning).

The data collection methods in this study comprised questionnaires, interactive interviewing and observation. These data collection methods fall within the quantitative and qualitative approaches. These methods are specifically applicable to the research because some of the data collected was of a statistical nature, while focusing more on the capture of the views of the participants and the

researcher's observation at first-hand of the reality on the site. These research methods were regarded as most suitable to finding answers to the research question and sub-questions. Questionnaires were administered and interviews with educators conducted. Lessons were also observed to investigate the alternate means of assessment used to support these learners. In the present context, assessment was defined as finding out what a learner has learnt and achieved, commonly through the testing of knowledge. The use of observation sought to reveal how educators adjusted the environment to cater for learners and how assistive devices were used in providing them with high intensity support.

Finally, it is acknowledged that the study was limited to educators of Foundation Phase learners who experience severe intellectual barriers to learning in this geographical location. Thus, the research is limited to a case study which is 'bounded' by parameters and has relevance only for educators of Foundation Phase learners who experience severe intellectual barriers to learning.

1.7 ETHICAL MATTERS

Since most educational research deals with human beings, it is necessary to understand the ethical and legal responsibilities of conducting research (McMillan & Schumacher, 2006:142).

Ethics generally are considered to deal with beliefs about what is right or wrong, proper or improper, good or bad (McMillan & Schumacher, 2006:142). The researcher must therefore be fully aware of the ethical and legal implications in conducting the research as injury and psychological difficulties, such as, anxiety, shame, loss of self-esteem, affronts to human dignity or legal infringements may result when conducting research (McMillan & Schumacher, 2006:142). De Vos, et al (2005:57) state that ethics is a set of moral principles which is suggested by an individual or group, is subsequently widely accepted and which offers rules and behavioural expectations about the most correct conduct towards experiential subjects and respondents, employers, sponsors, other researchers, assistants and students.

In conducting this research, the following ethical considerations were taken into account:

- The participants were informed that the researcher was also the principal of Open Gate Special School;
- Participants taking part in the study were told beforehand about the study and that their participation was voluntary;
- Participants were comprehensively informed about the study and their consent sought prior to the investigation;
- Participants were informed that all information would be treated as confidential and that their privacy would not be violated at any time;
- The researcher was competent and adequately skilled to undertake the proposed investigation;
- The research was undertaken in an ethically correct manner;
- The research findings would be released to the participants in writing after the completion of the study.

1.8 PROGRAMME OF STUDY

Chapter 1, as an orientation chapter, contains the introduction and aims of the study. A brief explanation of the research problem and clarification of key concepts is provided.

In chapter 2, the broad perspectives on the study, comprising the literature study that describes and provides an overview of inclusive education, theories of learning, learner support, intellectual impairment and the curriculum as a barrier to learning will be expanded on in order to find answers to the research question and sub-questions.

Chapter 3 focuses on the research design, the methodology utilized and the data collection procedures of the investigation to find out how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high intensity support in special schools.

Chapter 4 contains the analysis and interpretation of data that has been captured so that answers can be found for the research question and sub-questions.

Chapter 5 culminates in the findings, the recommendations for further research to be undertaken, limitations and conclusions stemming from the research study.

1.9 CONCLUSION

The study investigated how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support in three selected LSEN schools in the Pietermaritzburg district. The investigation was aimed at revealing how educators can be equipped with the necessary knowledge to differentiate the curriculum, identify alternate methods of assessment, implement the SIAS process, utilize assistive devices and learner/teacher support materials and adjust the environment in order to provide the high levels of support that these learners require.

This chapter 1 served as an orientation chapter to introduce the research, made known the factors giving rise to the study as well as elucidated the problem statement. Chapter 1 also broached the outcomes of the study, the research methodology to be used and clarified key concepts. Furthermore, the first chapter also outlined the ethical aspects of research and gave a summary of the programme of study, ending with a conclusion that links it to chapter two.

Chapter 2 will outline the broad perspectives of the study and delve into an expose of inclusive education, theories of learning, learner support, intellectual impairment and the curriculum as a barrier to learning.

Chapter 2

LITERATURE REVIEW

'The moral test of government is how it treats those who are in the dawn of life ... the children; those who are in the twilight of life ... the elderly; and those who are in the shadow of life ... the sick ... the needy ... and the disabled.'

Hubert H Humphrey

2.1 INTRODUCTION

An education system reflects the policy of the government of the day. Hubert H Humphrey's quotation stresses that the government must adopt education policy to accommodate learners who experience barriers to learning, be it a systemic, societal or intrinsic barriers to learning. The policy of inclusive education adopted by the South African government promotes education for all to enable all learners to participate actively in the education process so that they can develop and extend their potential and participate as equal members of society (KZN Department of Education, 2005:5).

In this second chapter, the national and international literature/research findings on inclusive education are reviewed in order to provide a framework for the empirical inquiry. Initially a short discussion on the importance of the literature study is presented, followed by a general discussion of how inclusive education has been implemented. This pertains not only in South Africa, but also to other parts of the world because the policy of inclusive education underpins the changing education landscape worldwide. This is followed by readings on theories of learning, learner support, an exposition into 'intellectual impairment' as well as an explanation of the curriculum as a barrier to learning.

Finally, in the concluding section, the possible answers related to the research findings of other researchers, as reflected in the literature study, are summarised.

2.2 THE IMPORTANCE OF THE LITERATURE STUDY

The purpose of a literature study is to help the researcher to find out whether other scholars have investigated the research problem he is interested in and what body of knowledge is available on it (De Vos et al, 2005:263).

The literature study also serves other purposes in research. The knowledge gained from the literature aids in stating the significance of the problem, developing the research design and relating the results of the study to prior knowledge (McMillan & Schumacher, 2006:75-76).

According to McMillan and Schumacher (2006:76), a review of the literature enables the researcher to do the following:

- (1) Define and limit the problem;
- (2) Place the study in an historical perspective;
- (3) Avoid unintentional and unnecessary replication;
- (4) Select promising methods and measures;
- (5) Relate the findings to previous knowledge;
- (6) Suggest further research;
- (7) Develop research hypotheses.

According to De Vos et al (2005:263), the literature study should indicate that the researcher has identified some gaps in previous research and that the proposed study will fill a demonstrated need. In this study, the scarcity of information and knowledge on this problem reveals that not enough research has been conducted on how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools with special reference to the Pietermaritzburg region. The literature study will therefore explore the existing research findings with a view to answer the research question (cf. 1.3).

The research study is guided by research findings in authoritative books, journals, policy documents, parliamentary reports and internet sites.

2.3 INCLUSIVE EDUCATION

To fully understand the topic under research, it is essential to delve briefly into the history of inclusive education (Special Needs Education) in South Africa as well as in other parts of the world to find out how inclusive education impacts on the education system .

Inclusive education is not an entirely new policy. In 1948 the United Nations Universal Declaration of Human Rights was promulgated. Article 26 highlighted that education is a basic human right. Article 28 of the United Nations Convention on the Rights of the Child (1989) also stated that individual countries must recognize the right of the child to education with a view to achieving this right progressively and on the basis of equal opportunity.

Previously learners were categorized according to their impairments and were placed into special schools that catered for their particular disability, for example, schools for the visually impaired, aurally impaired and so on. The medical model was used and their placement was informed predominantly by the learners' inabilities/disabilities (Department of Education, 2005:6).

Inclusive education, however, is based on the social model or human rights model which stresses that all learners, irrespective of their differences, must be included into one education system.

The drive towards the implementation of inclusive education arose from a meeting of Special Needs Educators in 1994 in Salamanca, Spain (Unesco, 1994:5). In what was later to become known as the Salamanca Statement, the concept of Equal and Quality Education for All was clarified (UNESCO, 1994:5). The foundations for inclusive education is built upon the creation of an inclusive learning environment that promotes the full personal, academic and professional development of all learners irrespective of race, class, gender, disability, religion, learning styles and language (Department of Education, 2001:16). Inclusive education fosters the view that a supportive environment minimizes the barriers that learners face in accessing high levels of support.

According to Loreman, Deppeler and Harvey (2005:2), inclusive education, by its very nature, cannot exist in environments where some children are educated separately or substantively differently to their peers. Inclusion involves regular schools and classrooms genuinely adapting and changing to meet the needs of all children, as well as celebrating and valuing differences. (Loreman et al, 2005:2).

In 1996, the South African Ministry of Education appointed the National Commission on Special Needs in Education and Training (NCSNET) and the National Committee on Education Support Services (NCESS) to investigate and make recommendations on all aspects of 'special needs and support services' in education and training in South Africa (Department of Education, 1997:2).

The joint report of the NCSNET and the NCESS recommended that a new education and training system should endorse 'education for all' and advance the development of inclusive and supportive centres of learning. (Department of Education, 2001:5).

The joint report culminated in *Education White Paper 6: Special needs education: Building an inclusive education and training system* in 2001. Since then there have been many initiatives to facilitate the effective implementation of an inclusive education system in South Africa. However, many challenges still exist. These include the need for the conceptual and practical integration of inclusive education with the changing curricula, the development of the capacity of educators, the need to address current teacher morale and attitudes and the need to rethink training and development for inclusion (Engelbrecht & Green, 2007:57).

The adoption of Education White Paper 6 reflected a paradigm shift in the education system of South Africa. Education White Paper 6 acknowledges that all children can learn and that all children need support.

Loreman et al (2005) state that there is sufficient research evidence to suggest that inclusion, even of children with the most severe disabilities, can work if schools have a culture of shared values and are genuinely committed to improving their practice. According to Singal (2008:1516), there must be a focus on the building of

inclusive schools, schools that involve everyone and ensure that everyone belongs. Inclusive schools are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system (Singal, 2008:1517).

Influenced by the growing number of international declarations, national legislations and a range of social, political and cultural factors, the concept of 'inclusive education' is gaining popularity in the Indian context (Singal, 2008:1519). The term is rapidly becoming part of the official rhetoric and is particularly used with reference to the education of children with disabilities. However, Singal (2008) argues that inclusive education in India is understood differently from the West. Inclusive education indicates a "tendency to be 'politically correct' by taking on current trends in the west without a real or common understanding of their meaning, resulting in dilution of service quality" (Singal, 2008:1519).

In the Zimbabwean context, inclusive education involves the identification and minimization or elimination of barriers to students' participation in traditional settings (i.e., schools, homes, communities and workplaces) and the maximization of resources to support learning and participation (Mutepfa, Mpofu & Chataika, 2007:342). However, there is no specific legislation for inclusive education in Zimbabwe. Nevertheless, a number of government policy issues are consistent with the intent of inclusive education. For example, the Zimbabwe Education Act (Education Act, 1996), the Disabled Persons Act (Disabled Persons Act, 1996) and various Ministry of Education circulars require that all students, regardless of race, religion, gender, creed and disability, have access to basic or primary education up to Grade 7 (Mutepfa, Mpofu & Chataika, 2007: 343).

The Secretary for Education's directive for inclusive education requires schools to provide equal access to education for learners with disabilities, routinely screen for any form of disability and admit any school-age child, regardless of ability (Mutepfa, Mpofu & Chataika, 2007:343). Any school that refuses to enroll a child on grounds of disability is in violation of the Disabled Person's Act (1996) and

faces disciplinary action from the District Education Office (Mutepefa, Mpofu & Chataika, 2007:343).

In Australia, inclusive education most typically refers to the participation of students with disabilities in regular or mainstream schools and classrooms (van Kraayenoord, 2007:390). However, many writers and education authorities have adopted a broader understanding of the term and today inclusive education is referred to as 'the practice of providing for students with a wide range of abilities, backgrounds and aspirations in regular school settings' (van Kraayenoord, 2007:391). Such a definition acknowledges the diversity of students who attend Australia's schools and their individual developmental, cultural and personal differences, as well as the requirements of schools to ensure that students' needs, which are a consequence of these differences, are met (van Kraayenoord, 2007:391).

The most comprehensive definition of inclusive education provided by an Australian education department is that of the Department of Education, Tasmania. Their definition states: "Inclusive education means that all students in a school, regardless of their differences, are part of the school community and can feel that they belong. The mandate to ensure access, participation and achievement for every student is taken as given" (van Kraayenoord, 2007:391).

The Tasmanian Education Department's description of inclusive education also suggests that it involves social connectedness and creates a feeling of belonging among the students. A "systematic approach to ensuring that the practices of inclusive education are embedded, sustained and evaluated" is encouraged, and finally, "the quality of relationships in a school, especially between students and their teachers, is the most important variable in supporting all of the above" (van Kraayenoord, 2007:391).

In the United States, two federal laws converge in providing clear messages about the importance of learners with special educational needs (i.e., disabilities) participating in school experiences that provide them with the opportunity to learn and master the same content as their typical peers (King-Sears, 2008:55).

First, the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 is clear in its language that learners with disabilities should progress and participate in the general education curriculum. Second, the No Child Left Behind (NCLB) Act of 2001 requires states to include learners with disabilities in large-scale assessments, aligned with the general education curriculum, used to measure adequate yearly progress (King-Sears, 2008:55).

Other countries are also adopting similar initiatives to ensure that learners with special educational needs receive quality educational experiences. However, researchers in some countries (e.g., Italy) note that although national policies are in place for integrating more learners with disabilities into general education classrooms, there is still a need to conduct more empirical research in general education settings that focuses on how to integrate learners with disabilities successfully (King-Sears, 2008:55).

In theory, inclusive education is considered the most appropriate strategy for addressing the diverse needs of all learners in South Africa. However, its implementation has challenges. Challenges exist in terms of the time frames and the resources required to implement changes on site.

The above readings on inclusive education clearly show that many countries are adopting the policy of inclusive education to ensure that learners who experience barriers to learning are provided with quality education. However, the readings also suggest that little research has been conducted in the field to equip educators with information on how to provide high levels of support to Foundation Phase learners who experience severe intellectual barriers to learning in terms of curriculum differentiation, assessment standards and alternate means of assessment, the use of assistive devices and learning and teaching support materials and the adjustment of the environment. These shortcomings establish the fact there is a need for research on this topic.

2.4 THEORIES OF LEARNING

A theory is an integrated statement of principles that attempts to explain a phenomenon and make predictions (Woolfolk, 2007:14). Learning, on the other hand, occurs when experience causes a relatively permanent change in an individual's knowledge or behaviour (Woolfolk, 2007:206). Cognitive psychologists, who focus on changes in knowledge, have put forward various theories to explain how learning occurs.

Swiss psychologist, Jean Piaget devised a model about how humans go about making sense of their world by gathering and organizing information (Woolfolk, 2007:26). According to Piaget, our thinking processes change radically, though slowly, from birth to maturity because we constantly strive to make sense of the world (Woolfolk, 2007:27). Piaget identified four factors – biological maturation, activity, social experiences and equilibration – that interact to influence changes in thinking (Woolfolk, 2007:27).

In terms of maturation, parents and teachers have little impact on this aspect of cognitive development, except to make sure that children get the nourishment and care that they need to be healthy (Woolfolk, 2007:28). In terms of activity, as we act on the environment, we are likely to alter our thinking processes at the same time (Woolfolk, 2007:28). According to Piaget, our cognitive development is also influenced by social experiences, or learning from others (Woolfolk, 2007:28). Lastly, in his theory, the actual changes in thinking take place through the process of equilibration – the act of searching for a balance (Woolfolk, 2007:29). Piaget assumed that people continually test the adequacy of their thinking processes in order to achieve that balance (Woolfolk, 2007:29).

Piaget distinguished the following four stages in the development of human cognition: sensorimotor stage (birth-2 years); preoperational stage (2-7 years); concrete operational stage (7-11 years) and formal operational stage (11 – through adulthood) (Santrock, 2004:34). For the purposes of this study, the first three stages will be discussed as the focus of the research is on Foundation Phase learners whose ages fall within the birth to 11 year range. The reason for this is that these learners

experience severe intellectual barriers to learning with the result that the age range is not on par with learners who do not experience barriers to learning.

The earliest period is called the sensorimotor stage because the child's thinking involves seeing, hearing, moving, touching, tasting, and so on (Woolfolk, 2007:30). During the sensorimotor stage, infants construct an understanding of the world by coordinating sensory experiences (such as seeing and hearing) with physical, motoric actions – hence the term *sensorimotor* (Santrock, 2006:46). At the beginning of this stage, newborns have little more than reflexive patterns with which to work. At the end of the stage, 2-year-olds have complex sensorimotor patterns and are beginning to operate with primitive symbols (Santrock, 2006:46).

In this stage children learn about objects and form ideas about their world by physically manipulating everything around them (Vogel, 2006:46). The child begins to recognize that objects do not cease to exist when they are hidden and moves from reflex actions to goal-directed activity (Woolfolk, 2007:30).

The preoperative stage, which lasts from approximately 2 to 7 years, is the second Piagetian stage. In this stage, children begin to represent the world with words, images and drawings (Santrock, 2006:46). This phase is divided into two sub-phases – the pre-conceptual sub-phase (2 – 4 years) and the intuitive thought sub-phase (4 – 7 years) (Vogel, 2006:47).

During the pre-conceptual sub-phase children begin to express their thoughts in symbolic ways by representing ideas and events in words, sentences, drawings and dramatic play (Vogel, 2006:47). The child is also able to formulate designs of objects that are not present.

In the intuitive thought sub-phase, children's concepts develop rapidly although they are not yet capable of using the logic of adults (Vogel, 2006:47). They are still egocentric and see everything from their own point of view (Vogel, 2006:47).

The concrete operational stage, which lasts from approximately 7 to 11 years of age, is the third Piagetian stage. In this stage, children can perform operations and logical

reasoning replaces intuitive thought as long as reasoning can be applied to specific or concrete examples (Santrock, 2006:46).

One of the key ideas of Russian psychologist, Lev Semenovich Vygotsky was that our specific mental structures and processes can be traced to our interactions with others (Woolfolk, 2007:31). These social interactions are more than simple influences on cognitive development – they actually create our cognitive structures and thinking processes (Woolfolk, 2007:31).

Vygotsky was of the view that higher mental processes first are co-constructed during shared activities between the child and another person (Woolfolk, 2007:40). Then the processes are internalized by the child and become part of that child's cognitive development (Woolfolk, 2007:40). For Vygotsky, social interaction was more than influence; it was the origin of higher mental processes such as problem-solving (Woolfolk, 2007:40).

Vygotsky suggested that the mutterings of young children – rather than being a sign of cognitive immaturity – played an important role in cognitive development by moving children toward self-regulation: the ability to plan, monitor and guide one's own thinking and problem solving (Woolfolk, 2007:42). Vygotsky maintains that in infants and toddlers, thinking and language are completely different activities (Vogel, 2006:47). Their thinking develops independently from language and when they begin to speak, it is to communicate (Vogel, 2006:47). In children of approximately two years of age, language and thinking are closely intertwined because they express their thoughts in language and simultaneously begin to think in terms of language (Vogel, 2006:47).

Vygotsky placed more emphasis than Piaget on the role of learning and language in cognitive development (Woolfolk, 2007:42). He believed that thinking depends on speech, on the means of thinking and on the child's socio-cultural experience. In fact, Vygotsky believed that language in the form of private speech (talking to yourself) guides cognitive development (Woolfolk, 2007:42).

The Ecological Systems Theory was developed by Urie Bronfenbrenner. This theory is Bronfenbrenner's environmental system of development. It consists of five environmental systems ranging from the fine-grained inputs of direct interactions with people to the broad-based inputs of culture (Santrock, 2006:51).

The theory is broken down into different layers of the child's environment. Every child lives within a *microsystem*, inside a *mesosystem*, embedded in an *exosystem*, all of which are a part of the *macrosystem* (Woolfolk, 2007:73). The fifth layer is the *chronosystem* (Santrock, 2006:52).

In the microsystem are the child's immediate relationships and activities. These might be the immediate family, friends, or teachers and the activities of play and school (Woolfolk, 2007:73). Relationships in the microsystem are reciprocal – they flow in both directions (Woolfolk, 2007:73). The individual is viewed not as a passive recipient of experiences in these settings, but as someone who helps to construct the settings (Santrock, 2006:52).

Bronfenbrenner classifies the mesosystem as involving relations between microsystems or connections between contexts (Santrock, 2006:52). Again, all relationships are reciprocal – the teacher influences the parents and the parents affect the teacher, and these interactions affect the child (Woolfolk, 2007:73).

The exosystem includes all the social settings that affect the child, even though the child is not a direct member of the systems (Woolfolk, 2007:73). The macrosystem is the larger society – its values, laws, conventions and traditions (Woolfolk, 2007:73). The chronosystem involves the patterning of environmental events and transitions over the life course, as well as sociohistorical circumstances (Santrock, 2006:52).

The above readings on learning theories reveal that there are many theories on learning and development espoused by psychologists and educationists. Piaget's theory reveals that he was more interested in understanding children's thinking. He believed that the main goal of education should be to help (support) children learn how to learn. Vygotsky's theory suggests that teachers need to do more than just arrange the environment so that children can learn. They should also do more to

support their learners. According to Vygotsky, learners should be guided and assisted in their learning. Bronfenbrenner's theory reveals that influences in all social systems are reciprocal and that there are many dynamic forces that interact to create the context for individual development.

However, the one over-riding fact that emerges is that all these theorists looked at learning theories from the perspective of a 'normal' child who has no cognitive impairment. Learners in a normal learning situation achieve the same learning milestones within specified time-frames. Learners are expected to do and say certain things at a certain age. When they achieve these milestones within the time-frames, normal learning is said to take place. However, learners who experience severe intellectual barriers to learning cannot and do not achieve these milestones at the same rates as their mainstream counterparts. These theories therefore cannot be applied to learners who experience severe intellectual barriers to learning because they do not achieve their intellectual and emotional milestones at the same time as their mainstream counterparts in mainstream settings.

Learners who experience severe intellectual barriers to learning experience difficulty processing basic instructions and assimilating basic concepts. They also require constant supervision and guidance. Learners can become severely intellectually impaired through a number of ways. These include motor vehicle accidents resulting in head trauma, trauma through falling, abuse, difficult births, neglect in early post-natal care, drug abuse and physical abuse of the mother during pregnancy and genetic or hereditary factors.

These readings also suggest that learning theories have an impact on the support that is offered to learners in order to enable them to learn. Therefore research must be carried out in this regard. The research is thus justified because it aims to address the question as to how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support by educators at special schools with special reference to the Pietermaritzburg district.

2.5 LEARNER SUPPORT

In 1994, the UNESCO World Conference on Principles, Policy and Practice in Special Needs Education was held in Salamanca, Spain. One of the principles adopted at this conference was that "...human differences are normal and learning must accordingly be adapted to the needs of the learner, rather than the learner fitted to preordained assumptions regarding the pace and nature of the learning process" (Unesco, 1994:160). In essence, this means that learners, irrespective of their disabilities, must be provided with support in order to realize their full potential. The provision of learner support to Foundation Phase learners who are severely intellectually impaired is the fundamental focus of this research project.

Cheminais (2004:15) states that one of the key factors that help schools to become more inclusive is the availability of suitable teaching and personal support.

According to Education White Paper 6: Special Needs Education: Building an Inclusive Education and Training System (KZN Department of Education, 2005:11), learner support should be provided in the following ways: Low-intensive support will be provided for learners at ordinary schools while moderate support will be provided at full-service schools. High-intensive support will be provided at special schools/resource centres. To determine the level of support required, the needs of the learner, educator, school and system have to be taken into consideration. (KZN Department of Education, 2005:11).

In order for special schools to provide high-intensive support to learners who require them, the overall quality of education services that special schools provide has to be raised. Education White Paper 6 explains that to assist special schools, there will be a qualitative upgrading of their services (Department of Education, 2001:20). The upgrading will include physical and material resources as well as the professional development of staff (Department of Education, 2001:22).

Education White Paper 6 refers to the establishment of institutional-level support teams (Department of Education, 2001:29). The function of these support teams will be to coordinate learner and educator support services by identifying and addressing learner, educator and institutional needs. (Department of Education, 2001:29). Furthermore, district support teams will provide the full range of education support services, such as professional development in curriculum and assessment, to these institutional-level support teams (Department of Education, 2001:29).

This section on learner support indicates that the provision of support to learners who experience barriers to learning is the key towards providing them with quality education. Guidelines do exist with the publication of the Screening, Identification, Assessment and Support document that was released by the national Department of Education in 2008, but this does not adequately address the problem of providing high intensity levels of support to Foundation Phase learners who experience severe intellectual barriers to learning. It also indicates that a gap exists when it comes to the provision of high intensity support to Foundation Phase learners who experience severe intellectual barriers to learning. The findings reveal a need for research to find answers to the research question namely, how are Foundation Phase learners who experience severe intellectual barriers to learning provided with high levels of support at special schools in the Pietermaritzburg district. The envisaged outcomes of the research will provide a starting point for educators of these learners and set them on the right track to provide the high intensity levels of support that they so desperately require.

2.6 INTELLECTUAL IMPAIRMENT

Intellectual impairment has been a topic of discussion for more than 2 300 years (Jooste and Jooste in Landsberg, 2008:380). It was, however, only during the last two centuries that intellectual impairment as a phenomenon was more clearly defined (Jooste and Jooste in Landsberg, 2008:380).

Defining a phenomenon, such as intellectual impairment, has interested many academics and researchers from different disciplines for many years (Jooste and Jooste in Landsberg, 2008:381). Their attempts have not always been successful and could even have created some confusion, because educationists tend to define the phenomenon differently from the way physicians, psychologists, sociologists or legal professionals do (Jooste and Jooste in Landsberg, 2008:381).

Therefore, various definitions of intellectual impairment can be cited. According to Woolfolk (2007:139), intellectual impairment is a more current name for mental retardation. The American Association on Mental Deficiency (AAMD) defines the phenomenon as follows: "Mental retardation is a disability characterized by significant limitations in both intellectual functioning and adaptive behavior as expressed in conceptual, social, and practical adaptive skills." This disability originates before age 18 (Woolfolk, 2007:139).

Another definition states that an 'intellectual impairment' refers to learners who show cognitive deficits and who are characterized by a slower rate of development in the ability to communicate, interact, study, work and establish independence. Physical, emotional and behavioural development may also be affected (Intellectual Disability, 2010).

Learners who are intellectually impaired also manifest limited attention to tasks and have frequent problems with thought processing (Intellectual Impairment: Teaching and Learning, 2010). They also have more problems with short-term memory and have considerable difficulty in transferring skills learned under one condition to another (Intellectual Impairment: Teaching and Learning, 2010).

The term 'mental retardation' is still widely used in the United States to describe intellectual impairment, while in other countries, 'intellectual disability', 'cognitive disability', 'developmental disability' and 'learning disability', are used interchangeably to describe intellectual impairment. However, the acceptable term to describe a child with this impairment is a child with an intellectual impairment' (Intellectual Impairment, 2010).

The causative factors of intellectual impairment can be rather complex (Department of Education, 2002:131-141). It can be caused by: (a) extrinsic factors (contextual factors) within the centre of learning (school), the education system or the broader social, economic and political context, and/or (b) intrinsic factors within the learner (genetic, biological, physical and/or psychological factors (Jooste and Jooste in Landsberg, 2008:382). Different combinations of these factors manifest in different individuals and will affect their level of functioning in a unique way.

According to Jooste and Jooste (in Landsberg, 2008:382-383), the extrinsic factors that cause intellectual impairment include the following:

- Poverty
- Linguistic deprivation
- Low literacy level of parents
- Unsuccessful child-rearing practices
- Lack of motivation
- Lack of schooling
- Poor nutrition
- Environmental toxins
- Poor medical care
- Diseases such as HIV/Aids
- Harmful and negative attitudes (Jooste and Jooste in Landsberg, 2008:382-383).

Jooste and Jooste (in Landsberg, 2008:383-386) further list the intrinsic factors that cause intellectual impairment:

- Chromosomal anomalies
- Single gene anomalies
- Endocrine anomalies
- Brain, skull and spinal cord problems
- Multiple disabilities and intellectual impairment
- Intellectual impairment and medication

Intellectual impairment also varies in severity. Learners whose rate of progress is very slow are classified as moderately intellectually impaired, while learners who

show a global delay in all areas of physical, intellectual and social development are regarded as severely intellectually impaired (Types of Special Educational Needs, 2010). The rate of progress of these learners is less than half the rate of other children of the same age (Types of Special Educational Needs, 2010).

Generally, there are four different categories of intellectual impairment, namely:

- Mild intellectual impairment
- Moderate intellectual impairment
- Severe intellectual impairment, and
- Profound intellectual impairment (Mental Retardation, 2010).

According to Santrock (2006:317), intellectual impairment is a condition of limited mental ability in which an individual has a low IQ, usually below 70 on a traditional intelligence test, and has difficulty adapting to everyday life. Individuals with IQ's of 55 to 70 fall into the mild category, while those who have IQ's of 40 to 54 are classified as moderately intellectually impaired (Santrock, 2006:317). Individuals with IQ's of 25 to 39 are categorized as severely intellectually impaired and those with IQ's of below 25 fall into the profoundly intellectually impaired category (Santrock, 2006:317).

Santrock (2006:317) further states that intellectual impairment can have an organic cause or it can be social and cultural in origin. Organic retardation is intellectual retardation that is caused by a genetic disorder or by brain damage; the word organic refers to the tissues or organs of the body, so there is some physical damage in organic retardation (Santrock, 2006:317). Down's syndrome, one form of intellectual impairment, occurs when an extra chromosome is present in an individual's makeup (Santrock, 2006:318). Cultural-familial retardation is a mental deficit in which no evidence of organic brain damage can be found and the individual's IQ's ranges from 50 to 70 (Santrock, 2006:318).

According to Jooste and Jooste (in Landsberg, 2008:381), some local experts estimate that approximately 3 % of the South African population experience an intellectual impairment. Among the 3 per cent of the total population of South

Africa, more than 300 000 learners in South African schools can also be expected to have an intellectual impairment (Jooste and Jooste in Landsberg, 2008:381-382).

The above research findings and statistics is an important reason for every educator to learn more about this type of barrier to learning. What is even more important is that research be undertaken to provide answers to the question of how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support in order to overcome their barriers to learning. The answers will enable the educators who teach these learners to provide the necessary high intensity levels of support so that learners who experience severe intellectual barriers to learning will be able to function on par with their colleagues in other schools.

2.7 THE CURRICULUM AS A BARRIER TO LEARNING

The curriculum is central to the teaching and learning that takes place in schools. A curriculum is comprehensive in scope and complex in practice. It includes issues such as subject matter, pedagogy, assessment/evaluation and related resources involved in the organization, delivery and articulation of education programmes (Loreman et al, 2005:135).

However, one of the most significant barriers to learning and the exclusion of many learners is the curriculum. Barriers to learning arise from the different aspects of the curriculum, such as:

- The content (i.e. what is taught)
- The language or medium of instruction
- How the classroom is organized and managed
- The methods and processes in teaching
- The pace of teaching and the time available to complete the curriculum
- The learning materials and equipment that is used
- How learning is assessed (Department of Education, 2005:109).

The curriculum discussion in South Africa in the last sixteen years or so has been vigorous and highly contested. When South Africa became a democracy in 1994, it inherited a profoundly discriminatory education system (Engelbrecht & Green, 2007:127). Thereafter, a flurry of initiatives took shape in the search to reform the education system, and specifically, the curriculum, to make it more inclusive.

The first was the establishment of the National Education Coordinating Committee which gave birth to 'People's Education' and later to the National Education Policy Investigation (NEPI). Through this, a broad policy platform was developed that led to the formation of the National Qualifications Framework (NQF) (Engelbrecht & Green, 2007:128).

Curriculum 2005 (C2005) was launched in March 1997 and was developed through processes of participation, assisted by international leaders in curriculum development. It represented major shifts in what was to be learned in schools, highlighting competencies rather than knowledge. However, it was not well received by educators and educationists, who predicted that it would fail.

In 2000, the new national Minister of Education, the late Professor Kader Asmal, appointed a ministerial committee to review the applicability and appropriateness of Curriculum 2005 (Engelbrecht & Green, 2007:130). The result was an amended National Curriculum Statement (NCS).

The National Curriculum Statement adopts an inclusive approach for all learners. It acknowledges that all learners should be able to develop to their full potential provided they receive the necessary support. In particular, the National Curriculum Statement is sensitive to issues of diversity such as poverty, inequality, race, gender, language, age, disability and other factors (Department of Education, 2003:4).

However, learners who experience severe intellectual barriers to learning, have to be taught the same curriculum as their mainstream counterparts, according to the National Curriculum Statement (NCS) and the Curriculum and Assessment Policy Statement (CAPS). In order to overcome this barrier to learning, the curriculum must be differentiated and the assessment standards modified to support these learners. How

this must be done is not spelt out clearly in Education White Paper 6 or in the NCS or CAPS.

The curriculum in Great Britain has been modified to accommodate learners who experience barriers to learning. Every learner receiving special education services must have an Individualised Education Programme (IEP). This programme includes a statement of the learner's current educational performance levels including how the learner's disability affects his or her progress in the general education curriculum. Measurable annual goals and short term objectives that enable the learner to participate in the general curriculum and help meet any of the education needs resulting from the disability are also included.

The curriculum is modified in such a way that it not only allows the learner to achieve annual goals and be part of the curriculum, but it also enables him or her to participate in extra-curricular and other non-academic activities.

According to Loreman et al (2005:7), issues surrounding curriculum provision to children with diverse abilities and their peers in inclusive settings are central to successful inclusion. The idea that children with diverse abilities should be provided with individualized programming has been incorporated into the legislation or policy of almost every Western country and individualized education programmes are widely accepted as an appropriate tool for educating children with diverse abilities (Loreman et al, 2005:7).

The paradigm of differentiation of the regular curriculum is based on a number of assumptions about learners with diverse abilities. These include that learners with disabilities often learn at slower rates, are unable to perform the required assessment tasks and often require more practice and repetition to consolidate learning.

Van Kraayenoord (2007:392) states that differentiated instruction involves teaching that takes into account the individual differences and needs of students, and the valuing and use of an individual's experiences and contributions to promote opportunities for learning in the classroom. It comprises modifications to the curriculum, teaching structures and teaching practices in combination to ensure that instruction is relevant, flexible and responsive, leading to successful achievement and the development of students as self-regulating

learners alongside their peers (van Kraayenoord, 2007:392). Differentiated instruction is more than just about taking individual differences into account and accommodating student's abilities; it is also about valuing and using (developing) the diverse characteristics of students to promote learning (van Kraayenoord, 2007: 392).

The most recent research indicates that from both a theoretical and practical perspective the use of general teaching methods is insufficient for addressing intellectual barriers to learning. It is therefore imperative that teachers use more specific educational support methods to deal with learners who experience severe intellectual barriers to learning.

More specific and high intensity support methods are essential for stimulating the limited intellectual capacity of the learner and will usually result in improvement of personal functioning. The research will therefore provide answers to the research question as to what high levels of support and support methods are provided to Foundation Phase learners who experience severe intellectual barriers to learning at special schools in the Pietermaritzburg district.

2.8 CONCLUSION

Research findings on Inclusive Education (Unesco,1994:5,11-12; Department of Education, 1997:2; Department of Education, 2001:5; KZN Department of Education, 2005:7; Loreman et al, 2005:2; Engelbrecht & Green, 2007:57; Mutepfa, Mpofu & Chataika, 2007:342-343; van Kraayenoord, 2007:390 -391; Singal, 2008:1517-1519; King-Sears, 2008:88) show that more and more countries are adopting the policy of inclusive education so that learners who experience barriers to learning are provided with the necessary support to overcome their barriers. It also reveals that there is a need to conduct research on how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high intensity support at special schools in the Pietermaritzburg district. This high intensity support embraces curriculum differentiation, the utilization of alternate means of assessment, the use of assistive devices, the adaptation of learning and teaching support materials and the adjustment of the environment.

Research findings on theories of learning (Woolfolk, 2007: 14, 26-31, 40,42, 73,206; Vogel, 2006:46-47; Santrock, 2004: 34; Santrock, 2006:46, 51-52; The Ecological

Systems Theory, 2010) reveal that although there are many different theories on learning and development, all advocate that all learners must be assisted or supported to learn. This includes learners who experience barriers to learning. Research in this field is therefore justified as it aims to provide answers as to what high levels of support are provided to Foundation Phase learners who experience severe intellectual barriers to learning at special schools in the Pietermaritzburg district.

Research on learner support (Unesco, 1994:160; Department of Education, 2001:29; Cheminais, 2004:15; KZN Department of Education, 2005:11) indicate that the provision of support to learners who experience barriers to learning is the key to providing them with quality education. It also indicates that more research must be carried out when it comes to the provision of high levels of support to Foundation Phase learners who experience severe intellectual barriers to learning.

Research findings and statistics on intellectual impairment (Department of Education, 2002:131-141; Woolfolk, 2007:139; Jooste and Jooste in Landsberg, 2008:380-386; Santrock, 2006:317-318; Intellectual Disability, 2010; Intellectual Impairment: Teaching and Learning, 2010; Intellectual Impairment, 2010; Types of Special Educational Needs, 2010; Mental Retardation, 2010) reveal that every educator needs to learn more about this type of barrier to learning.

In addition, it is even more important that research be undertaken to find out how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support in order to overcome their barriers to learning.

The most recent research on the curriculum as a barrier to learning (Department of Education, 2003:4; Department of Education, 2005:109; Loreman et al, 2005:7,153; Engelbrecht & Green, 2007:127-130; van Kraayenoord, 2007:392) indicates that general teaching methods are not enough for addressing intellectual barriers to learning. It is vital that educators use more specific and high intensity support methods. This would include differentiating the curriculum, adopting alternative means of assessment, prescribing the utilization of assistive devices and learner/teacher support materials as well as adapting the

environment. These specific and high intensity support methods will enable Foundation Phase learners who experience severe intellectual barriers to learning to overcome their barriers so that they can be educated in an inclusive environment in order to reach their potential and take their rightful places in society.

The conclusions drawn from this chapter highlight the fact that research needs to be conducted as gaps in research exist on how Foundation Phase learners who experience severe intellectual barriers to learning provided with high intensity levels of support. More specifically, there are gaps in research regarding how educators implement support programmes with regard to curriculum differentiation at special schools in the Pietermaritzburg district.

The research will focus on curriculum differentiation, alternative means of assessment, the implementation of the SIAS strategy, the use of assistive devices, adaptation of learner/teacher support materials and the adjustment of the learning environment.

The next chapter will explain the processes involved in solving the researcher's question as to how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high intensity support at special schools in the Pietermaritzburg district. The research design, qualitative methodology and data collection methods will be discussed and explained.

Chapter 3

RESEARCH DESIGN

'If every child matters, every child has the right to a good start in life. If every child matters, every child has the right to be included. And that is so important for children with special needs'.

Cherie Blair

3.1 INTRODUCTION

Cherie Blair's philosophy that it is important for every child, including children with special needs, to be given a good start in life by being supported through the education process turns the spotlight on the research question: how are Foundation Phase learners who experience severe intellectual barriers to learning provided with high levels of support at special schools in the Pietermaritzburg district.

This chapter attempts to explain the processes involved in solving the researcher's main question posed in Chapter 1, namely, 'How are Foundation Phase learners who experience severe intellectual barriers to learning provided with high levels of support at special schools in the Pietermaritzburg district from an inclusive education approach?'

The researcher will also try to find solutions to the sub-questions that evolve from the main research question, namely,

- How should educators be empowered or equipped in order to assist the learning of Foundation Phase learners who are severely intellectually impaired?
- How do educators implement the support programmes with regard to curriculum differentiation and assessment and what alternate means of assessment are used?

- Is the SIAS process being implemented at special schools and are learners being assessed according to categories of support rather than categories of disability?
- How are assistive devices used, learning and teaching support materials (LTSM) adapted and the environment adjusted to support these learners?

Research design, quantitative research designs, qualitative research designs and the importance of qualitative research design in the context of the study will be discussed. Next, the educators involved in the research project, data collection, the time and duration of data collection and the site of the research will be elucidated. In addition, the data collection methods viz., the questionnaire, the interview process and observation of the participants under research will be explained and discussed. Finally, the research principles of reliability and validity will be explained, culminating in a short conclusion noting the aspects that will be discussed in chapter four.

3.2 RESEARCH DESIGN

In its simplest form, a research design describes how the study was conducted (McMillan & Schumacher, 2006:22). It summarises the procedures for conducting the study, including when, from whom, and under what conditions the data will be obtained. In other words, the research design indicates the general plan: how the research is set up, what happens to the subjects, and what methods of data collection are used (McMillan & Schumacher, 2006:22).

The research design in this study was planned to answer the research question of how are Foundation Phase learners who are severely intellectually impaired provided with high levels of support at special schools in the Pietermaritzburg district. The research design was also geared towards answering the sub-questions of how the educators implement the support programmes with regard to curriculum differentiation, what alternate means of assessment are utilised, how assistive devices are used, how learning and teaching support materials are adapted, and how the environment is adjusted to support these learners.

The purpose of a research design is to specify a plan for generating empirical evidence that will be used to answer the research questions (McMillan & Schumacher, 2006:22). The most appropriate design must be used in order to draw the most valid, credible conclusions from the answers to the research questions. There are many types of research questions and many types of research designs, so it is important that the question is matched to an appropriate design (McMillan & Schumacher, 2006:22).

Some researchers also refer to research design as research methodology. According to Henning (2005), methodology is about how we come to know, but is more practical in nature – it means that we come to know by inquiring in certain ways. Methodology is also concerned with the specific ways and methods that we can use to try and understand our world better (Henning, 2005:15).

At present there are two well-known and recognised approaches to research, namely the quantitative and the qualitative paradigms (De Vos et al, 2005:73). However, McMillan and Schumacher (2006) adds a third approach, that of the mixed method. Within each major category, there are different types (McMillan & Schumacher, 2006:22).

3.3 QUANTITATIVE RESEARCH

Quantitative research designs were initially developed from research in agriculture and the hard sciences (McMillan & Schumacher, 2006:23). These fields of study adopted a positivist philosophy of knowing that emphasized objectivity and quantification of phenomena (McMillan & Schumacher, 2006:23). As a result, the research designs maximise objectivity by using numbers, statistics, structure and control (McMillan & Schumacher, 2006:23).

In a quantitative study, the focus is on the control of all the components in the actions and representations of the participants. The researcher plans and executes this control in the way the study and its instruments are designed (Henning, 2005:3). The quantitative approach is more highly formalised and its

range more exactly defined than the qualitative approach (De Vos et al, 2005:73). Moreover, the researcher's role is that of an objective observer whose involvement with phenomena being studied is limited to what is required to obtain necessary data (De Vos et al, 2005:73).

Furthermore, Newby (2010:92) states that quantitative research implies using numerical data as the evidence base. Because we collect numerical data, we analyse them using numerical and statistical procedures and we draw our conclusions on the basis of this analysis (Newby, 2010:92).

The character of quantitative research can be succinctly summarised as the identification and explanation of pattern and order (Newby, 2010:95). Two aspects – the derivation of theory and the nature of proof – are particularly significant for quantitative research (Newby, 2010:95). With regard to the derivation of theory, the ultimate purpose of quantitative research is to generate theory – truths about behaviour and relationships that are applicable in a range of situations (Newby, 2010:95).

According to Newby (2010:96), the concept of proof lies at the heart of quantitative research. Whether something can be proved or not depends on the circumstances. Proof is also concerned with philosophy and the process of logical deduction (Newby, 2010:98).

Quantitative research is described as having a hard edge and being concerned with process outcomes, explanation, generalisations and the derivation of laws (Newby, 2010:115). Quantitative approaches are also objective, experimental and value the empirical observation of cause and effect (Newby, 2010:116).

3.4 QUALITATIVE RESEARCH

Qualitative research designs use methods that are different from those used in quantitative designs. Qualitative designs are systematic and emphasise gathering of data on naturally occurring phenomena (McMillan & Schumacher, 2006:26).

Most of the data are in the form of words rather than numbers (McMillan & Schumacher, 2006:26).

According to Newby (2010:92), qualitative research deals much more with the processes that drive behaviour and the experiences of life. Qualitative research is concerned with understanding how people choose to live their lives, the meanings they give to their experiences and their feelings about their condition (Newby, 2010:115). Qualitative research can include approaches such as:

- Ethnography – the processes of observing individuals or groups either as participants or non-participants and of analysing and structuring the record
- Action research – a cyclical research and development procedure that moves from problem to goal, through action to reflection on the result in relation to the goal, and then moves forward by revising action or both
- Case study – an investigation of a single instance, usually with the goal of identifying and perhaps understanding how an issue arose, how a problem was resolved, often with the purpose of isolating critical incidents that act as decision points for change (Newby, 2010:115).

Newby (2010:92) states that it is clear that the nature of qualitative enquiry is different from quantitative enquiry and this difference is reflected in the character of the data (a concern with feelings and values) and also the methods used to analyse such data. Qualitative approaches are soft, descriptive and concerned with how and why things happen as they do (Newby, 2010:116). They draw on insight and interpretation and allow researchers to draw on their subjective responses to evidence (Newby, 2010:116).

In a qualitative study the variables are usually not controlled because the researcher wants to capture the freedom and natural development of action and representation (Henning, 2005:3). In qualitative research the procedures are not as strictly formalised as in quantitative research and the scope of research is more likely to be undefined (De Vos et al, 2005:74). Qualitative research denotes the type of enquiry in which the qualities, the characteristics or the properties of a

phenomenon are examined for better understanding and explanation (Henning, 2005:3).

Cresswell in De Vos et al (2005:102) offers the following reasons for undertaking a qualitative study:

- The nature of the research question relates to “how” or “what”
- A topic needs to be explored’
- There is a need to present a detailed view of the topic;
- It involves a study of individuals in their natural setting;
- The researcher has a preference for writing in a literary style and bringing himself into the study;
- Sufficient time and resources are available to spend on data collection and analysis;
- Audiences are receptive to the qualitative approach;
- The researcher can tell the story from the point of view of the participants rather than as an expert who passes judgement on participants.

3.5 THE IMPORTANCE OF QUALITATIVE AND QUANTITATIVE RESEARCH IN THE CONTEXT OF THE STUDY

The study made use of both the qualitative and quantitative paradigms for gathering data. Qualitative research is appropriate for this study because the researcher was able to find a possible solution to the problem of how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district. The researcher explored a single phenomenon – evaluating how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district from an inclusive education approach. Furthermore, the use of interviews as part of the qualitative research design was based on the experiences of educators who teach Foundation Phase learners who experience severe intellectual barriers to learning. The interviews were significant in evaluating the level of learning support provided to the learners. Furthermore, interviews and

observation as data collection strategies of the qualitative research design enabled the researcher to gain more perceptions from the participants involved in the case study.

The use of questioning in research is also very valuable in data collecting. Questionnaires are often used in research settings because it is very easy to collect a lot of information related to specific questions within a relatively short space of time. Carefully phrased questions can elicit a wealth of information from the participants and provide precise answers to the research questions.

De Vos et al (2005:364) mention that quantitative and qualitative methods are inextricably intertwined. Although they are two different perspectives, each perspective exists only artificially – in the sense of being manufactured – rather than as an independently existing natural entity (De Vos et al, 2005:364). It is argued that it is impossible to express qualitative perspectives and conclusions without communications that are at least partially amenable to quantitative representation and, therefore, quantitative analysis (De Vos et al, 2005:364).

3.6 THE EDUCATORS

26 educators were involved in the questionnaire process of collecting data, while 5 educators from each of the three schools were participants of the follow-up interview and observation process. The same educators were used for both the interviews and the observation in the classrooms. All the educators are experienced teachers who understand the learners well. 88% of the educators who participated in the questionnaire process were female, which is a characteristic of educators in the Foundation Phase at special schools.

3.7 COLLECTION OF DATA

Educators from the schools under research completed questionnaires. A copy of the questionnaire is attached to this research as Annexure B. A letter was also written to the principals of the three schools requesting permission to administer questionnaires to the educators and also to interview and observe educators in

class (Annexure A). Appointments were made with specific educators. Letters of consent were also attached to the questionnaires (Annexure C).

3.8 TIME AND DURATION

The questionnaires were distributed to the educators at the three schools chosen for research. The educators were given a week to complete the questionnaires.

The follow-up interviews were conducted after a week, in order to clarify the answers that were given in the questionnaires. The questions during the interviews were based on the responses to the questionnaires. The responses of the participants were recorded in a book by the researcher. The interviews were completed within two weeks.

3.9 SITE

The research was conducted in KwaZulu-Natal in the three schools in the Pietermaritzburg region. The schools were Open Gate Special School, H S Ebrahim Training Centre and Peter Pan School chosen by purposeful sampling. In this study, the interviews and observation were carried out in the educator's classrooms. Each participant completed the questions in the questionnaire schedule within the specified time limit.

3.10 DATA COLLECTION STRATEGIES

3.10.1 Questionnaire

The questionnaire is a type of quantitative data collection strategy and will be used as the initial instrument to garner information as to how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district. The information gleaned from the questionnaires will be used to formulate structured interviews to gather more information on the above research question. Furthermore, the use of the questionnaire enabled the researcher to get an understanding of the situation.

A questionnaire is a set of questions on a form which is completed by the respondent in respect of a research project (De Vos et al, 2005:166). A typical questionnaire will probably contain as many statements as questions, especially if the researcher is interested in determining the extent to which respondents hold a particular attitude or perspective (De Vos et al, 2005:166). The basic objective of a questionnaire is to obtain facts and opinions about a phenomenon from people who are informed on the particular issue (De Vos et al, 2005:166). Newby (2010:297) states that questionnaires are amongst the most popular of data gathering instruments.

De Vos et al (2005:211) also state that the physical appearance of the questionnaire is very important. The length of the questionnaire, the type and colour of paper used, the letter type and the layout of the typing are of crucial importance in the research study (De Vos et al, 2005:211).

According to McMillan and Schumacher (2006:194), the questionnaire is the most widely used technique for obtaining information from subjects. A questionnaire is relatively economical, has the same questions for all subjects and can ensure anonymity (McMillan & Schumacher, 2006:194). Questionnaires can use statements or questions, but in all cases, the respondents respond to something written for specific purposes (McMillan & Schumacher, 2006:194).

3.10.1.1 Types of questionnaire

- Mailed questionnaires

A mailed questionnaire is a questionnaire which is posted to the respondent in the hope that he/she will complete and return it. The researcher formulates the questionnaire and sends it off with clear, unambiguous instructions within the level of understanding of the target population. The questionnaire is the only channel of communication between the researcher and the respondent (De Vos et al, 2005:167).

- Telephonic questionnaires

The advantages of the telephonic questionnaire is that the researcher gets the opportunity to clarify questions, literacy is not a requirement and the response rate is high because respondents usually do not refuse (De Vos et al, 2005:167-168). This type of data collection also enables researchers to gather data promptly which allows for the immediate investigation of an event.

- Self-administered questionnaires

The self-administered questionnaire is handed over to the respondent who has to complete it on his/her own. There is minimal interaction by the researcher (De Vos et al, 2005:168). This type of questionnaire was used in this study.

- Hand-delivered questionnaires

The hand-delivered questionnaires are a time-saving way of conducting research. Respondents are given the questionnaires by hand which are collected by the researcher within 48 hours (De Vos et al, 2005:168).

- Group-administered questionnaires

In this type of data collection, respondents who are part of a group each complete a questionnaire or questionnaires on their own (De Vos et al, 2005:169). Each respondent completes the questionnaire without discussion with the other members of the group. The greatest advantage of this method is that much time and cost are saved in that a group of respondents is handled simultaneously and consequently also exposed simultaneously to the same stimulus (De Vos et al, 2005:169).

The rules for selecting the type of questionnaire to be utilised for gathering data is flexible. Factors, such as time limitations, financial aspects, the availability of manpower and infrastructure, play a crucial role in the choice of the type of questionnaire selected (De Vos et al, 2005:169).

3.10.1.2 Structured questionnaire

Structured questionnaires were used in this study. This type of questionnaire served the purpose of collecting a large proportion of information from the respondents in a short space of time. The researcher administered a questionnaire to gain information about a particular group of educators. In this study, all the educators in the Foundation Phase were the target group. The educators were drawn from the three schools under research.

Two types of questions were used in the construction of the questionnaire. One type was closed questions where the respondents had no leeway in terms of personal input. The other type was open questions where respondents were given the space to answer the questions in their own words. (A copy of the questionnaire is attached as Annexure B.)

The questionnaire was structured into section A and section B. Section A contained the closed questions. The closed questions were included to ease the respondent into answering straight forward questions concerning their age, gender, teaching experience, qualifications, etc. Section B of the questionnaire was structured to contain the open-ended questions. The initial questions in this section focused on general views regarding inclusive education and barriers to learning. The questions in the latter part of this section revolved around the themes of curriculum differentiation, alternate methods of assessment, the implementation of the SIAS document, the utilization of assistive devices, the use of teaching and learning support materials and the adjustment of the learning environment.

In summary, questionnaires are economical, can be anonymous, adopt standard questions and uniform procedures, are usually easy to score and provide time for subjects to think about responses.

3.10.2 Interviews

Interviews as a data collection method were used as a follow-up to the responses gleaned from the questionnaires which were administered and collected. The interview schedule listed all the questions that were asked, with room for the researcher to write answers. The questions were related directly to the objectives of the study. In this study, the interview schedule consisted of structured and semi-structured questions.

With regard to the structured questions, a set of choices was offered to the participants who had to select one of the options. These interview questions highlighted the biographical profile of the respondents. As far as the semi-structured questions were concerned the questions were phrased to allow for individual responses. The questions were open-ended in nature and were structured according to the themes explored in the research question and sub-questions. This combined use of structured and semi-structured questions comprising the interview schedule as a means of data collection was used because it is the most structured way of getting information from respondents. It also allows for a high degree of objectivity and uniformity, yet allows for probing and clarification (McMillan & Schumacher, 2006:204).

Individual interviews were conducted through semi-structured questions. The respondents could give their own comments and arguments on the themes of how the curriculum is differentiated, the utilization of alternate methods of assessment, the implementation of the SIAS document, the use of assistive devices, the adaptation of learning and teaching support materials and the adjustment of the learning environment. The interview was used as a data collection method because it ensures that the limited time is used best and all participants are treated in an equal and fair manner.

Respondents could express themselves freely while responding to questions which were used asked by the researcher. The respondents understood the questions which were explained to them by the researcher. Thereafter, the researcher compiled the responses and analysed them.

According to Newby (2010:338), there is often a thin line between a questionnaire and an interview. However, the flexibility of interviews and their ability to expose issues creates an understanding of processes, events and emotions, all of which makes them particularly suitable in qualitative research (Newby, 2010:338),

In a nutshell, interviews as a data collection method because they are flexible, adaptable, have the ability to probe and clarify, have the ability to include non-verbal behaviour and result in a high response rate. The interviews were conducted in the educators' classrooms and the researcher recorded the responses of the participants in a manuscript book.

In this study, the questionnaires and interviews were used to gather information on the following:

The attitudes of educators towards Foundation Phase learners who experience severe intellectual barriers to learning;

Whether educators at the schools under research provide the necessary learning support to meet the demands of the curriculum;

Whether educators diversify the curriculum in order to meet the challenges of educating Foundation Phase learners who experience severe intellectual barriers to learning;

Whether educators utilize alternate methods of assessment;

If the SIAS process is being implemented at the schools under research and whether learners are assessed according to categories of support rather than categories of disability;

How are assistive devices used, learning and teaching support materials adapted and the environment adjusted to support these learners?

3.10.3 Observation

The data collection strategy of observation was used to record how educators at the special schools under study provided high levels of support to Foundation Phase learners who experience severe intellectual barriers to learning in the Pietermaritzburg district. The researcher kept a record of the activities that took place in the classrooms of the educators who were chosen for observation. The observation period lasted for one lesson of approximately one hour.

Permission was sought from the principals of Peter Pan School and H S Ebrahim School to observe the educators in class. The researcher is the principal of Open Gate Special School and therefore the acting deputy principal was informed of the research study. The principal in turn gained permission from the educators. In observing the lessons, the researcher made himself as unobtrusive as possible. Learners who experience severe intellectual barriers to learning are used to routine; any disruption upsets their programme. The researcher's presence was therefore unobtrusive and blended in with the routine with the classroom. Observation notes were recorded without disrupting the lessons.

The strategy of observation complemented and supplemented the previous strategies of questionnaires and interviews. The observation strategy was structured in terms of the questionnaires and interviews. This third data collection method of a three-pronged approach ensured that all the loose ends were tied up and that the data collected solidified the responses of the questionnaires and interviews. This method of data collection also ensured that the research question and sub-questions could be answered.

What is observed (seen and heard) is the researcher's version of what is "there" (Henning, 2005:81). In general, observation implies seeing as well as observing with the other senses (Henning, 2005:82). Depending on the research question, observation may be brief and serve as a research tool for gathering information (Henning, 2005:82).

Structured, standardised observation means that researchers observe in a site without real participation. They do not “become part of the furniture” and usually go to the scene of everyday life to explore issues that will reveal more about data that they acquired through interviews (Henning, 2005:87-88). According to Henning (2005:100), observation as a method is underused in interview society as the information gleaned from observation fills gaps that are inevitably left by interviews.

McMillan and Schumacher (2006:207) note that in a sense, all techniques of gathering data involve observation of some kind. In general, the word *observation* is used to describe the data that are collected, regardless of the technique employed in the study (McMillan & Schumacher, 2006:207). Observation as a data collection method is very different from the methods of questionnaires or interviews. As a technique for gathering information, the observational method relies on a researcher seeing and hearing things and recording these observations, rather than relying on subjects’ self-report responses to questions or statements (McMillan & Schumacher, 2006:207).

The role of the observer in most quantitative research is to remain detached from the group or process and thus act as a complete observer (McMillan & Schumacher, 2006:207). The role of the observer also depends on the degree of inference that is required. On the one hand, the observer makes high-inference observations, which are inferences based on observed behaviours, while on the other hand, low-inference observations require the observer to record specific behaviours without making judgments in a more global sense (McMillan & Schumacher, 2006:207).

The main advantages of using observation as a data collecting tool is that the researcher does not have to worry about being biased and that the information is not limited to what can be recalled accurately by the subjects (McMillan & Schumacher, 2006:208). The behaviour patterns of the participants can be recorded as it occurs naturally. This advantage is very important for research designed to study what occurs in real life, as opposed to in highly contrived or artificial settings (McMillan & Schumacher, 2006:208).

However, the method of observation as a data gathering tool also has its disadvantages. The most important limitation is with the person who records what is seen and heard – the observer or researcher him/herself. The difficulty lies in obtaining observations that are objective, unbiased and accurate in the sense that the observer has avoided influencing the behaviour of the subjects (McMillan & Schumacher, 2006:209).

In summary, observation as a data collection tool captures natural behaviour, mitigates social desirability, response set and subject effects, is relatively unobtrusive and is reliable for low-inference observations (McMillan & Schumacher, 2006:211).

3.11 RESEARCH DESIGN PRINCIPLES

3.11.1 Reliability

According to De Vos et al (2005:162), the reliability of a measurement procedure is the stability or consistency of the measurement. This means that if the same variable is measured under the same conditions, a reliable measurement procedure will produce identical (or nearly identical) measurements (De Vos et al, 2005:163). In other words, it refers to a measuring instrument's ability to yield consistent numerical results each time it is applied; it does not fluctuate unless there are variations in the variable being measured (De Vos et al, 2005:163).

Reliability refers in general to the extent to which independent administration of the same instrument (or highly similar instruments) consistently yields the same (or similar) results under comparable conditions (De Vos et al, 2005:163). Reliability is primarily concerned not with *what* is being measured, but with *how well* it is being measured (De Vos et al, 2005:163).

McMillan and Schumacher (2006:183), state that reliability refers to the consistency of measurement – the extent to which the results are similar over different forms of the same instrument or occasions of data collection. Another

way to conceptualize reliability is to determine the extent to which measures are free from error (McMillan & Schumacher, 2006:183). If an instrument has little error, then it is reliable, and if it has a great amount of error, then it is unreliable (McMillan & Schumacher, 2006:183).

In terms of this study, the researcher ensured that the data collected through questionnaires, interviews and observation were reliable. The same questionnaires containing the same questions were administered to each of the participants. In other words, there was no room for error which resulted in consistency of measurement. Each participant in the study was also requested to answer the questionnaire on their own. Reliability was also ensured by the questionnaire consisting of more than two questions. The same procedure was also utilised to administer the questionnaires to each participant. The interview questions were also pre-structured and each respondent was asked the same questions. This meant that the data gleaned through the interview process was reliable.

3.11.2 Validity

In psychometric terms, validity asks the question whether we are measuring what we are supposed to be measuring (Henning, 2005:147). In quantitative terms, we ask the question whether, by using certain methods, we are investigating what we say we are investigating (Henning, 2005:147). Furthermore, in positivist terms, the correspondence theory of truth holds that the research findings need to “correspond” with reality (Henning, 2005:147).

To validate is to *check* (for bias, for neglect, for lack of precision), to *question* (all procedures and decisions – critically), to *theorise* (looking for and addressing theoretical questions that arise throughout the process – not just towards the end) and to *discuss* and *share* research actions with peers as critical in-process reviewers (Henning, 2005:148-149).

According to Babbie in De Vos et al (2005:160), validity refers to the extent to which an empirical measure accurately reflects the concept it is intended to

measure. The definition of validity has two aspects: that the instrument actually measures the concept in question and that the concept is measured accurately (De Vos et al, 2005:160). One of the most common and useful classification schemes attempting to categorise the validities underlying measurement is content, face, criterion and construct validity (De Vos et al, 2005:160).

- Content Validity – This is concerned with the representativeness or sampling adequacy of the content of an instrument. In other words, a valid measuring device would provide an adequate, or representative, sample of all content, or elements, or instances of the phenomenon being measured (De Vos et al, 2005:161).
- Face Validity – Face validity concerns the superficial appearance or face value of a measurement procedure (De Vos et al, 2005:161).
- Criterion Validity – Criterion validity moves away from subjective assessments of face validity and provides objective evidence of validity (De Vos et al, 2005:161). This involves multiple measurement and is established by comparing on an instrument with an external criterion known to, or believed to, measure the concept, trait or behaviour being studied (De Vos et al, 2005:161).
- Construct Validity – Construct validity is perhaps the most difficult because it involves determining the degree to which an instrument successfully measures a theoretical construct (De Vos et al, 2005:162).

According to McMillan and Schumacher (2006:324), validity refers to the congruence between the explanations of the phenomena and the realities of the world and addresses the following two questions:

- (1) Do researchers actually observe what they think they see?, and,
- (2) Do inquirers actually hear the meanings that they think they hear?

In other words, validity of qualitative designs is the degree to which the interpretations have mutual meanings between the participants and the researcher (McMillan & Schumacher, 2006:324).

In the context of this research study, the researcher ensured that the data collected was valid by administering the questionnaires and conducting the

interviews with an adequate, representative sample of educators at the schools under investigation. The data was also valid because all the participants answered the same questionnaires and the same questions were asked of each respondent in the study. The researcher ensured that the data collected was valid because more than one method of data collection was used. In other words, data was collected through questionnaires, interviews and observation.

3.12 CONCLUSION

This chapter provided an in-depth explanation of the processes involved in capturing data to solve the research question of how Foundation Phase who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district

The chapter also discussed at length the quantitative and qualitative research designs that were adopted in the pursuit to finding answers to the research question. How the data was captured, the educators involved in the research study, the time and duration of collecting data and the site of the research were elucidated. Chapter three gave maximum exposure to the methods of data collection, namely, questionnaires, interviews and observation. The principles of reliability and validity were also brought to the attention of the reader.

The next chapter – chapter 4 – will focus on the analysis and interpretation of data collected through the quantitative and qualitative collection methods that were adopted. The analysis and interpretation of the data will enable the researcher to provide answers to the research question of how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district.

The data collected will also shed light on how educators are empowered to assist the learning of Foundation Phase learners who are severely intellectually impaired; how educators implement support programmes with regard to curriculum differentiation and assessment and what alternate means of assessment are used; if the SIAS process is being implemented at special schools and if learners are

categorised according to categories of support rather than categories of disability and whether assistive devices are used, learning and teaching materials (LTSM) adapted and the environment adjusted to support these learners. Chapter 4 will also touch on the findings to a lesser degree.

Chapter 4

ANALYSIS AND INTERPRETATION OF DATA

“I was slightly brain damaged at birth, and I want people like me to see that they shouldn’t let a disability get in the way. I want to raise awareness – I want to turn my disability into ability.” Susan Boyle.

“Research shows that you begin learning in the womb and go right on learning until the moment you pass on. Your brain has a capacity for learning that is virtually limitless, which makes every human being a potential genius.” Michael J. Gelb.

4.1 INTRODUCTION

The two quotes by Susan Boyle and Michael J. Gelb cited above aptly link the analysis and interpretation of the data collected to the research question of how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg region.

It also appropriately connects to the following sub-questions: how educators are empowered/equipped in order to assist the learning of Foundation Phase learners who are severely intellectually impaired; in what way do educators implement the support programmes with regard to curriculum differentiation and assessment and what alternate means of assessment are used; is the SIAS process implemented at special schools and are learners being assessed according to categories of support rather than categories of disability; and how assistive devices are used, learning and teaching support materials adapted and the environment adjusted to support these learners. Both Boyle and Gelb are of the view that learning can and will take place if barriers to learning are minimised and learners are provided with high levels of support during the educational process.

In this section, the data elicited from the questionnaires, interviews and observation schedules that revolve around the research question and sub-questions will be analysed and interpreted. A discussion will follow next on the analysis, interpretation and presentation of quantitative data followed by a discussion on the analysis, interpretation and presentation of qualitative data. The data will be analysed and interpreted from both a quantitative approach as well as from a qualitative approach as both quantitative and qualitative research methods were employed to collect data. A short discourse on how the questionnaires were administered will then precede the analysis and interpretation of the educator information. Thereafter, an analysis and interpretation of educator responses to the questionnaire will follow. The next sub-heading will report on the administration of the interviews, followed by the analysis and interpretation of the findings. The chapter will conclude with how the method of observation was conducted in the classroom culminating in the analysis and interpretation of the findings. The chapter closes with information regarding the contents of chapter five, the concluding chapter of the dissertation.

4.2 ANALYSIS AND INTERPRETATION OF QUANTITATIVE DATA

According to De Vos et al (2005:218), quantitative data in professional research can be analysed manually or by computer. With regard to this study, the quantitative source of data was from questionnaires administered to respondents at the schools under research. The data gleaned from the questionnaires was analysed manually as the sample was relatively small. However, data analysis in itself does not provide answers to the research questions. Answers are found by way of interpretation of the data and the results (De Vos et al, 2005:218).

To analyse means to categorise, order, manipulate and summarise data to obtain answers to research questions, while to interpret is to explain and to find meaning (De Vos et al, 2005:218). The purpose of analysis is to reduce data to an intelligible form so that the relations of research problems can be studied, tested and conclusions drawn (De Vos et al, 2005:218). Interpretations, on the other hand, takes the results of analysis, makes inferences pertinent to the research

relations studied and draws conclusions about these relations (De Vos et al, 2005:218).

4.3 PRESENTATION OF QUANTITATIVE DATA

Quantitative data can be presented in various forms. The most common form is through graphic presentations. Graphic presentations are pictorial devices to illustrate data. They are visually effective and easy to interpret and are often used for frequency distributions. The six principal types of graphic presentation are bar graphs, doughnut graphs, histograms, frequency polygons, pie charts and pictograms (De Vos et al, 2005:227).

Bar graphs are used when the independent variable being studied is measured at the nominal level, while doughnut graphs present data in a visually attractive manner (De Vos et al, 2005:227-228). The data in histograms reflect frequencies in class intervals for continuous variables, whereas in frequency polygons the frequency of values is illustrated with straight, connecting lines (De Vos et al, 2005:229-230). Pie charts are diagrams that do not rely on bars of different heights, but use a circle sub-divided into sections by radial lines (De Vos et al, 2005:231).

4.4 ANALYSIS AND INTERPRETATION OF QUALITATIVE DATA

According to De Vos et al (2005:333), the purpose of conducting a qualitative study is to produce findings. Qualitative analysis therefore transforms data into findings. This involves reducing the volume of raw information, sifting significance from trivia, identifying significant patterns and constructing a framework for communicating the essence of what the data reveal (De Vos et al, 2005:333).

The two qualitative research data collection methods that defined this research study were interviews and observation. De Vos et al (2005:335) note that data collection and analysis typically go hand in hand in order to build a coherent interpretation of the data. However, researchers like Patton (2002:436) in De Vos et al, (2005:335), pose the question of when exactly qualitative analysis begins.

Patton answers his own question by stating that ideas for making sense of the data that emerge while still in the field constitute the beginning of analysis (De Vos et al, 2005:336). But, too much focus on analysis while fieldwork is still going on can interfere with the openness of qualitative inquiry, which is its strength (De Vos et al, 2005:336).

4.5 QUANTITATIVE AND QUALITATIVE RESEARCH METHODS

Both quantitative and qualitative research methods were used to gather data for this research project as the researcher identified the questionnaire, interviews and observation as the methods that would be most appropriate for the type of research problem and sub-problems that are going to be investigated. It is worth mentioning also, that quantitative and qualitative methods are very closely linked to each other.

The questionnaire is a quantitative data method and is a measuring instrument. The questionnaire was used because it succinctly captures data and contains only those questions which are absolutely necessary to collect all the relevant information. It is also long enough to incorporate questions so that a situation does not arise later where information is missing (De Vos et al, 2005:170). The questionnaire also enables the respondents to communicate as much information as possible in the quickest possible time. Another advantage of the questionnaire as a data collection method is that it is neat, clear and easy to follow. Respondents are also given clear and precise directions and instructions on answering questions (De Vos et al, 2005:171). According to McMillan & Schumacher (2006:210), written questionnaires are economical, ensure anonymity and permit the use of standardised questions.

The interview as a qualitative data collection method ensures that the researcher has easy access to and the confidence of the participants. The interview is not a dialogue and the participants do most of the talking. Questions are asked one at a time and lead on to others. The researcher uses the minimal amount of probes to prompt the participants. Interviews are also regarded as “conversations with a purpose” and are used to determine individuals’ perceptions, opinions, facts and

forecasts and other reactions to initial findings and potential solutions (De Vos et al, 2005:292-293).

McMillan and Schumacher (2006:210) mention that the interview as a data collection method provides flexibility and the ability to probe and clarify responses; they note nonverbal as well as verbal behaviour.

Observation is another qualitative data collection method that was used in this research project. Observation as a method of data collection is important as it is a way of naturally observing events related to the phenomenon being studied as well as discovering the extent of the problem. Furthermore, the advantages of using the method of observation are that the researcher does not need to worry about the limitations of self-report bias, social desirability, and response set and that the information is not limited to what can be recalled accurately by the subjects (McMillan & Schumacher, 2006:208). It is also relatively easy and straightforward to record simple behaviour objectively.

4.6 ADMINISTRATION OF THE QUESTIONNAIRES

The questionnaires were compiled with the view to obtaining statistical biographical data of the respondents as well as to ascertain their views and opinions regarding the research question and the sub-questions. It was necessary to obtain information on factors such as the years of total teaching experience, teaching experience at a special needs school, etc., so that the researcher could position the findings in relation to special needs education.

The questionnaires were administered individually to 35 participants at the three schools chosen for research, viz. Open Gate Special School, Peter Pan School and H S Ebrahim School. These schools were chosen because they are the only schools that cater for the severely intellectually impaired learners in the Pietermaritzburg region.

The first set of questionnaires together with the consent forms were handed out to 19 educators at Open Gate Special School. The researcher is also the principal of

this school. This number represents the total number of classes at the school. The educators were requested to complete the questionnaires within the time frame of one week. The researcher indicated that he would personally collect the completed questionnaires.

The second set was handed out to 11 educators at Peter Pan School. This number also reflects the total number of class units at the school. They were also requested to complete the questionnaires by the end of the following week. The researcher indicated that he would pick up the questionnaires at the designated time.

The third set of questionnaires was distributed to five educators at H S Ebrahim School. The reason for this is when the researcher telephoned the principal of the school she indicated that the questionnaires should be limited to five as the school was busy preparing for a concert and that all the educators would not have the time to complete the questionnaires. The principal of the school indicated that she would choose the participants. The researcher informed the principal that he would pick up the questionnaires at the end of the following week.

4.6.1 Analysis and interpretation of educator information

Of the 19 questionnaires that were handed out at Open Gate Special School, 14 were returned on the designated day. The reasons for the non-submission of the other five ranged from the fact that some educators were also studying and completing their own assignments to the fact that some could not find the time to do so.

The five questionnaires that were distributed to educators at H S Ebrahim School were collected on the due date.

Of the 11 questionnaires that were circulated to educators at Peter Pan School, 7 were collected. The reasons here again were that some were busy with their own assignments while others could not find the time to complete them. Therefore, out

of a total of 35 questionnaires, 26 were returned for capturing and 9 were not. This translates to a 74% return ratio.

The analysis and interpretation of the findings of the personal information section of the questionnaires make for interesting reading. Of the 26 participants, 23 (88%) were female while only 3 (12%) were male. Six (23%) fell into the 21-30 age category; two (8%) fell into the 31-40 age category; fifteen (58%) fell into the 41-50 age category; and three (11%) fell into the 51-60 age category.

Of the 26 respondents, eight educators had less than 5 years of special needs education experience; seven had 6 to 10 years special needs education experience; eight had 11 to 20 years special needs education experience, while three had 21 to 30 years special needs education experience.

Furthermore, ten respondents had spent less than five years at their present school; nine had spent 6 to 10 years at their present school; five had spent 11 to 20 years at their present school; and two respondents had spent 21 to 30 years at their present school.

In terms of professional qualifications, all respondents indicated that they had achieved their matriculation qualifications. The questionnaire revealed that 12 respondents had obtained teaching diplomas while 11 had obtained Bachelor's degrees. Fourteen respondents indicated that they had studied for and obtained post graduate diplomas. However, of the 26 respondents, only six had achieved Honours degrees while no-one had read for a Masters degree.

A statistic that needs to be highlighted from this study is that only six respondents had a qualification in special needs education. Five had attained diplomas in special needs education while only one respondent had a degree in special needs education. This could be because teacher training colleges and universities train educators to teach learners who do not experience barriers to learning. As a result, educators who are deployed to special schools learn through experience about barriers to learning and few see the need to study further.

4.7 ANALYSIS AND INTERPRETATION OF EDUCATOR RESPONSES TO THE QUESTIONNAIRE

With regard to the first question in the questionnaire, all respondents knew what the term 'learners who experience barriers to learning' meant. Common among their understanding were terms such as 'challenges', 'obstacles' and 'difficulties'. Respondents were also able to elucidate that barriers to learning can be caused by intrinsic or extrinsic factors.

All respondents were also able to define the concept 'learners who experience severe intellectual barriers to learning'. Respondents understood that a severe cognitive impairment results in learners experiencing severe intellectual barriers to learning. They were also able to explain that these learners cannot cope with the mainstream curriculum offered by the Department of Education and that these learners need a differentiated programme within the classroom. Respondents revealed that they were familiar with the factors that contribute to learners experiencing severe intellectual barriers to learning.

As far as the question on knowledge of Education White Paper 6 is concerned, respondents revealed that they are aware of the changes to the education system that this White Paper envisions. The common thread of all respondents was that all children can learn and they all need support.

Question 5 of the questionnaire revolved around the concept of Inclusive Education. The responses showed that the educators are familiar with the policy and are aware of the legislation regarding Inclusive Education. Various interpretations of the policy were put forward, ranging from the political to the social. Participants of the questionnaire highlighted the fact that the policy focused on providing support for learners on three levels and strives for the full and equitable participation of everyone in the education system. Respondents also mentioned that learners who experience barriers to learning are not seen as the problem and do not have to change, but rather the learning and teaching environment has to change to meet the needs of the learners.

The question relating to special schools and special schools resource centres was included in the questionnaire because they form an integral part of the paradigm shift towards Inclusive Education and educators ought to be familiar with the changing roles of these schools.

Respondents were able to differentiate between the two concepts (special schools and special school resource centres). The common definition of special schools is that they are equipped to deliver education to learners requiring intense levels of support by using various support strategies, while special school resource centres were explained as special schools transformed to accommodate learners with intense support needs and should only admit learners who require high levels of support. Respondents stated that special school resource centres should support ordinary and full service schools.

The collective response with regard to the question on the constant changes to the curriculum is that it is disruptive, frustrating, confusing and unnecessary, not only for educators, but also for learners. Respondents were of the view that there are too many changes to the curriculum with very little being done for special schools, especially special schools that cater for learners who experience severe intellectual barriers to learning. These constant changes to the curriculum disadvantages a whole generation of learners, especially if implemented on a trial basis. Just as educators become knowledgeable about the current curriculum, there is a change. There is a strong emphasis on 'paperwork' rather than an emphasis on teaching. Educators are so busy trying to keep up with the changes that too much time is spent on administration and preparation and not enough time on actual teaching.

Furthermore, it was noted that the Department of Education expect educators from special schools to differentiate the curriculum and assessment standards to suit the needs of learners. The once-off workshops held by the Department of Education are not adequate. These workshops should be on-going. With the introduction of the new curriculum called Curriculum and Assessment Policy Statements (CAPS) the department again does not cater specifically for special

schools in general and for special schools that cater for learners who experience severe intellectual barriers to learners.

The respondents to the question on whether learners who experience severe intellectual barriers to learning should be taught the same curriculum as their mainstream counterparts were unanimous in their views that learners who experience severe intellectual barriers to learning should not be taught the same curriculum as their mainstream counterparts. Many felt that it is unfair on the learners. Being taught the same curriculum would not serve the purposes of the severely intellectually impaired learner as the level and extent of their learning ability is not the same as their mainstream counterparts.

Respondents noted that the concepts that are expected to be taught are too difficult for Foundation Phase learners to grasp. Furthermore, respondents added that to teach them the same curriculum is demoralizing and adds unnecessary stress. It breaks down their confidence and their perception of self-worth. There is a tendency amongst these learners to develop an inferiority complex.

Respondents also felt that a task team should get together and formulate a curriculum for learners who experience severe intellectual barriers to learning. This curriculum should focus on life skills as many learners do not find employment after leaving school and cannot live independent lives. Educators at special schools and special school resource centres should be intimately involved in the formulation of this curriculum as they have hands-on experience of learners who experience severe intellectual barriers to learning. However, this new curriculum must fall within the ambit of the National Curriculum Statement (NCS) and the new Curriculum and Assessment Policy Statement (CAPS).

The majority of respondents stated that they are not adequately equipped or trained to provide high levels of support to learners who experience severe intellectual barriers to learning. This stems from the fact that only six of the respondents had qualifications in special needs education. Although many felt that they have theoretical and practical knowledge and a passion for their vocation, they very often feel inadequate and helpless. They cited a number of factors that

act as barriers to them being effective in the classroom. These included the relatively large class sizes (up to 15 learners in a class), the lack of resources, learner teacher support materials (LTSM), the curriculum itself and the lack of support from the various stakeholders, including parents, the Institution-based Learner Support Teams (ILST's) and the District-based Support Team (DBST).

On the other hand, respondents noted that more on-going workshops organised by the Department of Education would better equip them to deal with learners who require high levels of support. Other ways to become better equipped would be for class sizes to be reduced, the Department of Education to provide Learner Teacher Support Materials (LTSM) and assistive devices.

As far as curriculum differentiation was concerned, respondents recorded that their schools were doing just that, although to a greater or lesser extent. In some instances, educators in the various phases are given the flexibility to work out their own term and year plans using the NCS policy document as a guide. Educators choose themes with their learners in mind. They take into account the learners strengths and weaknesses, interests and abilities.

The respondents of the questionnaire revealed that in differentiating the curriculum to cater for learners who experience severe intellectual barriers to learning, the two areas of focus were methodology and content. Educators adapt their methodology by being learner-centred rather than teacher-centred. A hands-on and practical approach is adopted. Respondents stated that when a method used to teach the class does not suit a particular learner, then an alternative method is used. Multi-level teaching methods are employed that cater for different learning styles. Drama therapy and role play activities are also used for learners who enjoy learning by actually doing.

Educators whose classes consisted of iSiZulu-speaking learners revealed that they had to modify their methodology by learning to speak iSiZulu in order to communicate with them. Educators also adopted the 'buddy' system whereby learners who understand English explain to their 'buddies' in their mother tongue.

Educators also noted that in multi-lingual classes, code switching across languages was an effective way to get their message across.

In terms of adapting the content, the curriculum is modified by 'straddling' to another grade by including basic self-help skills and everyday basics such as teaching colours, the days of the week, name and number recognition, etc. Educators accommodate the needs of learners by choosing learning outcomes (LO's) and assessment standards (AS's) from grades above or below the grade being taught. This is called 'straddling'. The content is differentiated by making it relevant to the context and breaking it down into simple components to ultimately achieve a learning outcome. Assessment standards within a grade are also reduced or designed down.

The responses to the question on additional support highlighted the fact that educators at the special schools under research all offer additional support in terms of literacy, numeracy and life-skills. This, however, is dependent on the ability of the individual learner. In all three learning areas, additional worksheets are provided. Worksheets may be simplified, or more appropriate material added, depending on the needs of the particular learner or group. The class is divided into smaller groups or learners taught individually. Positive verbal feedback is offered as often as possible. Additional support is also offered through individual 'one-on-one' sessions with learners who require such assistance. Peer teaching is often used. Educators and auxiliary support staff, like therapists and nurses, work together to provide high levels of support to learners.

The question on alternative methods of assessment showed that all educators included in the study employ alternative methods of assessment. Assessment is done on a continuous basis and is either written or observed. Assessment is based on the learner's written work in workbooks, simple projects, posters, etc. Discussions in the classroom and observations outside the classroom, during play sessions, while learners are actively involved in practical work and verbal and non-verbal responses also form the basis of assessment. Observations are also recorded in the educator's record sheets immediately they complete a given task.

Respondents also noted that more time is allocated for learners to complete a task and that the levels of questions are adapted. Fewer examples are assessed and assessments are done formally and informally.

The question that focused on how educators use assistive devices to make learning more meaningful elicited a variety of responses. The common response was that assistive devices form an important part of learning in the schools under research. The use of assistive devices was dependent on the needs and impairments of each learner. Learners who are hard of hearing are provided with hearing aids and those who have visual impairments are provided with spectacles or glasses to assist learning. Wheelchairs and walkers are provided for learners who cannot walk. Wheelchair users are given tables of the right heights so that they can sit comfortably in class.

This question revealed that computers are also being used as an assistive device. Learners who cannot write are now able to type and save documents using the computer. Writing boards and communication boards, the use of the abacus, enlargement of worksheets, flash cards and embossed diagrams are some of the other assistive devices that are used to make learning more meaningful.

Respondents reacted with mixed views on the question which focused on the implementation of the Screening, Identification, Assessment and Support (SIAS) document. Some were of the view that this should be implemented at mainstream schools while in some schools the SIAS process is in the early stages of implementation. Another response was that special schools should not be part of the process because learners are screened, identified and assessed by the Psychological, Guidance and Special Education Services (PGSES) sub-directorate of the Department of Education before they are sent to special schools. But it must be noted that the SIAS strategy is part of education legislation and must be implemented in terms of Inclusive Education. Respondents also felt that there is a lack of support from the District-Based Support Team in implementing this process.

In those schools where the process has started, the implementation involves only new admissions to the school. Only new learners are part of the process. Reports collated from the last school attended, from doctors, psychologists, therapists and parents provide the input for the implementation of the document. With the input from the afore-mentioned stakeholders, support packages are designed for the learners according to their needs determined by the SIAS process. They are then supported at the appropriate level.

Learning and Teaching Support Materials (LTSM) are an integral part of any curriculum. This is more evident at schools that cater for learners who experience severe intellectual barriers to learning. Responses to the question on the adoption and adaptation of LTSM reveal that learners learn through different means, therefore educators adopt and adapt LTSM to meet the needs of each individual learner. Some of the LTSM's include visual schedules, individual workstations, books, magazines, newspapers, posters, charts, pictures, models, counters, calculators, puppets, toys, videos and the use of computers. Communication boards are also used very effectively for learners who cannot speak. Furthermore, other audio-visual equipment like radios, CD's and DVD's are also utilised to assist learning. The computer and computer software can be both LTSM and an assistive device depending on the purpose of its use.

Responses to the question of how the classroom and outside environment is adjusted to support learners revealed that educators do take the trouble to make the learning experience as interesting as possible. Educators reported that the classroom must be stimulating and spacious. Bright charts and toys are made available to the learners. Teaching is carried out in context using practical items that the learners are familiar with. Objects and pictures are used to make learning as relevant as possible.

Educators have adjusted the classroom environment by creating learning centres within the classroom. These include an Art Centre, Music Centre, Computer Centre and Library Centre to accommodate the diverse needs of learners. Learning centres are very effective for ADHD and autistic learners. Water troughs and materials are also made accessible for wheelchair learners. Lighting and

curtains are adjusted for visually-impaired learners. The furniture in the classroom is arranged in such a way as to support group learning. Desks and other furniture are made suitable for learner needs.

Ramps have been installed to cater for wheelchair learners and benches strategically placed outside classrooms. There are also pictures or signage indicating toilets and exits.

4.8 ADMINISTRATION OF THE INTERVIEWS

The follow-up interviews were conducted two weeks after the collection of the questionnaires. Leading on from the responses in the questionnaire, a structured interview schedule leading to a semi-structured interview schedule was designed. This is attached as annexure D.

Questions 1 to 3 of the interview schedule consisted of structured questions to which there were no right or wrong answers, respondents merely had to state their age, number of years of special needs teaching experience and their special needs education qualifications. These questions were posed to make the interviewees feel comfortable and to 'break the ice'. Questions 4, 5, 6 and 7 focused on the personal views of the interviewees in order to glean more information regarding their experiences and training at special needs schools. Questions 8 to 14 highlighted the themes covered in the questionnaire and were couched in a manner to get more information than that obtained from the questionnaire.

A random selection of interviewees from each school was made. Five educators were interviewed from Open Gate Special School and Peter Pan School, while all five educators were interviewed from H S Ebrahim School. The interviews took place in the classrooms of the educators after teaching time was over. The interviewees were made to feel comfortable by the researcher who stressed that confidentiality was an important part of the research. It took about 45 minutes to conduct each interview. The researcher took down copious notes during the course of the interview.

4.8.1 Analysis and interpretation of interview findings

All the educators who were interviewed answered question 4 by stating that, given the choice, they would rather teach at a special school than at a mainstream school. When pressed for reasons, they highlighted factors such as smaller classes (as compared to mainstream schools), less paperwork and the fact that they did not have to set and mark tests and examinations.

Answers to question 5 revealed that all the educators did not start out at their present schools. They all started out in mainstream primary schools, teaching both junior and senior phases across all grades and subjects. Two of the educators were re-deployed to their present schools while the others joined their schools either as Unprotected Temporary Educators (UTE's) or applied for vacant posts at their respective schools.

Question 6 elicited the responses that once they settled down at their schools these educators attended workshops to broaden their knowledge about special needs education, although these workshops were few and far between. Educators attended a skills development programme which lasted for a week during the Easter holidays and a second skills development programme, also lasting a week, during the September school holidays in 2008. The third training session was held for one week during the July holidays in 2009. Prior to these in-service training workshops educators indicated that they received training on the Classic Programme in 2001.

In response to question 7, educators stated that the first training session equipped them to understand why the social model is a better model than the medical model. The training session also helped educators to identify barriers to learning for learners who require high levels of support and to understand the role of the SIAS process. The strategy on Screening, Identification, Assessment and Support was discussed in detail and educators were taught how to utilise the toolkit.

Interviewees also stated that the second training session was very intensive and equipped them with skills on differentiation within a lesson plan, differentiation of learning activities, understanding the components of curriculum differentiation, how to use the curriculum adaptation ladder, preparing and adapting the learning environment, differentiating of teaching methods, types of facilitation strategies and the preparation of learning. The role of the Institutional Level Support Team (ILST), the District-Based Support Team (DBST), Full Service Schools (FSS), Special Schools (SS) and Special Schools as Resource Centres (SSRC's) was explained.

The second training session ended with educators receiving a portfolio of evidence to complete. Educators also received certificates as well as accreditation certificates of 15 points. Curriculum co-ordinators were instructed to start the implementation of NCS at all special schools.

At the third training session educators learnt about different assistive devices, how to use them and how to make their own simple assistive devices to support learners.

Interviewees responded to question 8 by stating that they do differentiate the curriculum in order to provide their learners with high levels of support. However, they mentioned that the implementation of the National Curriculum Statement (NCS) was a huge change from the Classic Programme. This adaptation was a mammoth one, since three levels of planning according to the NCS had to be completed. Educators responded that the curriculum had to be differentiated to make it accessible and work schedules and lesson plans had to be drawn up. Furthermore, educators were informed that learning programmes were no longer necessary.

In differentiating the curriculum, the following changes were instituted:

- Differentiating assessment standards;
- 'Designing-down', 'breaking-down' or 'scaffolding' of assessment standards into manageable units for individual learners or groups of learners;
- The work schedules and lesson plans are developed on the basis of the needs and strengths of learners;
- The content is differentiated by making it relevant to the real life context of the learner and is presented in a simple manner;
- Teaching and learning methods and strategies are differentiated so that learning activities are designed to cater for different learners;
- Learner Teacher Support Materials (LTSM) are adapted so that it is accessible to the learner;
- The Assessment Tasks are adapted so that assessments are made accessible to all learners;
- Differentiation of activities is clearly reflected in the lesson plans.

Question 9 focused on the alternate means of assessment. The interviewees stated that they utilise a plethora of alternate assessment methods. These include:

- Baseline assessment tasks at the beginning of each year to establish the nature and extent of barriers to learning;
- Informal assessment. These are the daily observations that an educator makes, that informs further teaching;
- Formal Assessments are also used;
- Assessment tasks are reflected in an Assessment Schedule. This is a departmental requirement;
- The assessment schedule reflects all learning outcomes and assessment standards to be assessed;
- Tasks are simplified for learners;
- More time is allocated for the completion of tasks;
- Tasks are read out to learners who cannot write;
- Oral answers are accepted;
- Signs and charts are used to communicate answers;

- The computer is used to demonstrate answers;
- Individual assistance is given when needed.

Interviewees responded to question 10 on the use of assistive devices as a means to support learners by noting that although many assistive devices are used, they would like to use other devices but are unable to access them. The assistive devices that are used include hearing aids, spectacles, wheel chairs and assistive computer technology.

The responses of the interviewees to question 11 on the purpose of the SIAS process unveiled the fact that the process is applicable to both full service schools and special schools. Both schools need to determine the barriers to learning experienced by learners and the level of support that has to be provided. It is very important for special schools as this strategy identifies the barriers to learning and development that a learner who requires high levels of support, experiences. This will enable the ILST to monitor the progress of the learner and if further support is needed, the ILST should be able to ask for assistance from the DBST. The SIAS strategy is also designed for special schools to access assistive devices.

Assessments are currently being done in consultation with doctors/other medical specialists, the medical teams at schools, the head of department, educators as well as parents/guardians.

Interviewees answered question 12 by disclosing that the following adaptations to learning and teaching support materials (LTSM's) were made to facilitate the learning process:

- Technology and media are used in classrooms to support presentations;
- Audio tapes, DVD's and even pictures in books and magazines are used. For learners whose strength is being a visual learner, this alternative use of presenting is extremely beneficial to learning;
- Actual scenes or pictures and large text fonts also help to facilitate comprehension as well as helps to maintain attention;

- Learners who experience aural barriers to learning as well as learners who suffer from conditions such as attention deficits (ADHD) are seated closer to the educator;
- When modifying materials, the lesson plans were the starting point, which entailed adaptations, substitutions and additions of LTSM's. Educators found that the addition or adaptation of materials is the most preferable options.

The following responses were elicited from the interviewees with regard to question 13 on the ways the classroom environment is adapted to render high levels of support to Foundation Phase learners who experience severe intellectual barriers to learning:

- ❖ Materials and supplies are within easy reach of learners in wheel chairs;
- ❖ Appropriate furniture like special desks, tables and standing tables are provided;
- ❖ When learners are moved from their wheel chairs, soft chairs are provided. The learners do not remain seated in the wheel chairs for the entire day;
- ❖ Computers and water troughs are easily accessible to wheel chair learners;
- ❖ Railings and/or chairs are within easy reach of wheel chair learners so that they can access their bags and crutches;
- ❖ Furniture is moved from the middle of the classroom to enable wheel chair learners to manoeuvre their wheel chairs to fetch library books, crayons, etc. The intention is to minimise dependence of any sort. Learners are encouraged to be as independent as possible;
- ❖ The physical arrangement of the classroom is constantly reviewed according to learners changing needs and adapted to make them comfortable;
- ❖ Educators ensure that there is correct lighting to minimise the glare for learners who experience visual barriers to learning;
- ❖ Educators use only yellow and white chalk so that learners can see clearly;

- ❖ A positive learning environment is created by educators by posting spiritual messages and charts for learners.

The last interview question regarding ways educators adjust the environment outside the classroom resulted in the following responses:

- Educators requested that breaks during the school day be short;
- Benches are provided for learners to enable them to be seated during breaks;
- When embarking on excursions, the excursion venues must be wheel chair friendly;
- Ensuring that all learners, including those in wheel chairs, are accommodated at all school functions, i.e. seating as well as active participation in all programmes, e.g. sports gala and fun day programmes;
- Bins, water troughs and toilets are easily accessible.

4.9 OBSERVATION IN THE CLASSROOM

After the completion of the interviews, permission was sought from the same educators who were interviewed to observe a lesson in the classroom. The reason for observing the same educators who were interviewed was to validate and correlate what was written on the questionnaires and what was said at the interviews and to ensure that the findings were reliable.

The observation took place two weeks after the completion of the interviews in the respective classrooms. The observation spanned a single lesson so as not to disrupt the normal routine of the classroom. The researcher tried to be as unobtrusive as possible and took down copious notes.

After the completion of observation as a data gathering method, the researcher then studied the notes taken and attempted to analyse and interpret them.

4.9.1 Analysis and interpretation of observation findings

Observation in the classroom focused on the following themes which emanate from the sub-questions of the research:

- ✓ How is the curriculum differentiated to cater for learners who experience severe intellectual barriers to learning?
- ✓ What alternate means of assessment are utilised to assess learners who experience severe intellectual barriers to learning?
- ✓ How are assistive devices used to make learning more meaningful to learners?
- ✓ How learning and teaching support materials (LTSM) are adapted to provide support to learners
- ✓ How the classroom environment is adjusted to support learners who experience severe intellectual barriers to learning.

With regard to the theme it was clear that educators differentiate the curriculum in order to support learners who experience severe intellectual barriers to learning. Educators broke down the content into manageable units so that learners were not bombarded with a tsunami of work. Furthermore, the content taught was relevant to the real life content of the learners. The themes chosen fell within the life experiences of the learners.

Educators under observation were able to flit through a number of different methods in delivering their lessons. In other words, methodology became learner-centred rather than teacher-centred. Some educators started with teaching the whole class. After the initial discussion and explanation of concepts, learners were put into groups and were given worksheets to consolidate learning. Learners who required very little attention and support worked on their own while those who required additional support were given individual attention.

Learners who were on medication like ADHD learners were also catered for. These learners prefer to learn through 'doing' rather than listening. In these cases educators adapted their methodology from narration to role play. Educators also adopted a hands-on and practical approach to teaching.

In all the classes that were observed, the home language of the majority of learners is iSiZulu. However, the language of teaching and learning at all the schools is English. Educators therefore adapted their teaching methodology by

code switching in order to get instructions across. Some of the educators also asked other learners in the class to translate the instructions to their classmates.

In terms of literacy, educators differentiated the curriculum by employing innovative and creative strategies. These included group and shared reading where learners who could read, read to those who could not. Educators also made liberal use of newspapers, magazines, games, songs, pictures and flash cards.

The numeracy lessons focused on money and time. Simple calculations involving basic addition, subtraction and multiplication were carried out. In one class learners had access to their own calculators which were used as an assistive device. Here again, the curriculum was differentiated to include content that is relevant to the learner's life experiences.

With regard to the second theme focusing on what alternate methods of assessment are utilised by the educators, it came to light that both formal and informal assessment are adopted. Assessment is done on a continuous basis. The most common form of assessment is through observation by the educator. However, learners were given fewer written tasks and more time to complete them. Once completed, the educators assessed the work in the workbooks. These were then recorded in the educator's assessment schedule.

Learners who could not provide written answers were given the opportunity to give verbal or oral answers. These were also recorded in the assessment schedule. In some cases learners were allowed the use of computers to demonstrate their answers. In others, learners who could not express themselves in English were asked to speak in iSiZulu. In a nutshell, the observation of the lessons revealed that assessments are differentiated according to the ability of the learner.

Theme 3 focused on what assistive devices are used by educators to provide high levels of support to their learners. The observation of lessons revealed that educators do use different types of assistive devices to make learning more meaningful to learners, but more needs to be accessed. Educators who have

wheel chair learners in their classes use a variety of strategies to accommodate them. This includes re-arranging the furniture in the classroom.

Other forms of assistive devices that are used by learners include hearing aids, spectacles, magnifying glasses, walkers, crutches, communication boards, scissors for left-handed learners, winding a rubber band around a pencil to assist with grip, abacus, calculators, audio-visual equipment like radios, CD's, DVD players and computers.

In terms of utilising learning and teaching support materials (LTSM) to provide support for learners, the observation of lessons disclosed that educators are really innovative in this regard. LTSM encompassed books, magazines, newspapers, posters, worksheets, large print texts, models, embossed diagrams, puppets, toys, drama therapy, picture cards, puzzles, games, videos, television sets, audio-visual equipment and computers. All these LTSM were used according to the needs of the learners.

With regard to the last theme, that of adjusting the environment to support these learners, the visit to the classrooms to observe lessons was really an eye-opener for the researcher. As indicated in the questionnaires and articulated in the interviews, educators have really gone to great lengths and the extra mile in adjusting the classroom environment to facilitate and support learners who experience severe intellectual barriers to learning.

All the classrooms were stimulating, spacious and welcoming. Bright charts and posters adorned the walls of the classrooms. Furniture was neatly arranged and shelves were filled with toys, books and magazines. All classrooms were clean and tidy, with no litter in sight. The learners sat at comfortable desks and tables and the environment was conducive to teaching and learning.

Educators who had wheelchair learners in their classes ensured that they were comfortable and were within reach of their bags, crutches, library books and writing materials. Learners with visual impairments were also accommodated by

being seated in areas that had the correct lighting which minimised the glare of the sun.

4.10 CONCLUSION

This chapter focused on the analysis and interpretation of data gathered to answer the research question of how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district. The chapter begins with a short introduction followed by discussions on the analysis and interpretation of quantitative data, the presentation of quantitative data, the analysis and interpretation of qualitative data and an outline of quantitative and qualitative research methods. This is followed by sections on how the questionnaires were administered, an analysis and interpretation of educator information and responses emanating from the questionnaires, the administration of the interviews, an analysis and interpretation of interview findings, how observation was conducted in the classroom and an analysis and interpretation of the observation findings.

The analysis and interpretation of the data gathered through the research methods of questionnaires, interviews and observation resolves the research question of how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district.

In the next chapter, chapter 5, which is the concluding chapter, the findings will be revealed and emanating from it, recommendations will be made for future research and further study. The limitations of the study will then be discussed and a short, succinct conclusion will bring the chapter to an appropriate end.

Chapter 5

FINDINGS, RECOMMENDATIONS AND LIMITATIONS

“The important thing is not so much that every child should be taught as that every child should be given the wish to learn.”

John Lubbock

5.1 INTRODUCTION

John Lubbock’s quotation cited above aptly captures the essence of the research problem investigated in this project. It is important that every child be given the opportunity to learn and children who need additional support be provided with the required levels of support. The research findings of this project show that Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district.

The previous chapter provided a detailed account of how the questionnaires and interviews were administered and conducted. It also analysed and interpreted the data from these two types of data collection procedures. The chapter further revealed that data was collected via the means of observation of lessons in the field and this data was also analysed and interpreted.

In this chapter the findings, recommendations and limitations of the research study will be discussed and elucidated.

5.2 FINDINGS

The main research question interrogated in this study was how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district. The research also focused on the following sub-questions, viz., how the curriculum is

differentiated to provide high levels of support to learners, what alternate means of assessment are utilised by educators, how different types of assistive devices are used, what learning and teaching support materials (LTSM) are adopted, whether the SIAS document is implemented at the schools and how the environment is adjusted to support learners who experience severe intellectual barriers to learning.

The analysis and interpretation of data collected through quantitative and qualitative collection methods, as explored in the previous chapter, leaves the researcher in no doubt that educators at the schools under research do employ a number of strategies to provide high levels of support to these learners and that the research question and sub-questions are more than adequately answered. However, it can also be concluded that the National Department of Education and the various provincial departments can do more to support educators to provide high levels of support to learners who experience severe intellectual barriers to learning.

As far as curriculum differentiation is concerned, educators at these schools are simply asked to adapt the curriculum to suit the needs of their learners. It is also very clear that there is a lack of expertise and qualified personnel among education department officials to give clear direction to take the process further.

Furthermore, it came to light that since 2008, the Department of Education has conducted only three week-long training workshops during holidays. Many educators plan and go on holiday during school breaks and it is not the appropriate time to host these workshops. Another detrimental fact that emerged was that the training sessions were very intensive and top heavy with a theoretical bias.

The research found that in order to provide high levels of support to Foundation Phase learners who experience severe intellectual barriers to learning, the curriculum is the starting point. Educators were unanimous that adapting the curriculum, which is geared towards mainstream learners who do not experience significant barriers to learning, is not the route to take. The curriculum, which has

undergone numerous changes (the Classic Programme, Outcomes-Based Education, the National Curriculum Statement, the Revised National Curriculum Statement and now the Curriculum and Assessment Policy Statement [CAPS]) is not conducive to learners who experience cognitive barriers to learning. Nevertheless, educators have taken up the cudgels and have made the best of a bad situation.

In terms of the content of the curriculum, it was brought to light that educators design down and present smaller units of work to learners at a time. Learning programmes are differentiated in line with identified barriers and are appropriate to meeting the needs of the learners. The content is relevant to the life experiences of the learners and is presented in a very simple way.

The research found that educators differentiate the curriculum through diverse multi-level teaching methods or strategies. The trend is for methodology to be learner-centred, incorporating more practical activities. It was discovered that educators do not use a single-pronged approach when presenting their lessons. When a method is not suitable for an ADHD learner for example, educators adapt their methodology from a narrative discourse to role play. ADHD learners prefer to learn through 'doing' rather than listening and being passive participants in lessons.

One of the most pertinent outcomes of the study with regard to the adoption of different teaching methods is the fact that educators see the need to code switch in terms of the medium of instruction. Although the medium of instruction at all the schools is English, the home language of the majority of learners is isiZulu. In order to communicate effectively educators saw the need to switch between languages so that the learners understood the concepts and instructions. It was also found that code switching is not only confined to educators. Educators have very effectively instituted a 'buddy' system whereby learners who understand English explain to the other learners in their mother tongue.

With regard to the theme of alternate methods of assessment, the researcher found through the collection of data that educators do not rely only on traditional or

formal methods of assessment like tests and examinations to assess learners. Innovative and creative alternative informal and formal methods are also utilised to find out whether teaching and learning has been effective.

Learners are assessed on tasks that are covered in numerous learning situations. The assessment tasks are adapted so that assessments are made accessible to all learners. More time is allocated for the completion of tasks, fewer examples are given and the level of questioning is adapted. Baseline assessment tasks are embarked upon at the beginning of the year to establish the nature and extent of barriers to learning.

A feature of the responses elucidated from educators is that assessment is continuous and takes many forms. Every educator makes use of an observation book in which he or she records the daily activities of the learners. The observations are used to inform further teaching and learning. In situations where learners cannot write down their responses, oral and pictorial responses are accepted by the educators, as well as the use of signs, charts and computers to communicate their answers.

As far as the use of assistive devices is concerned, the research unveiled that save for the normal everyday assistive devices like wheel chairs, walkers, crutches, hearing aids, spectacles and assistive computer technology, access to other forms of assistive devices via the Department of Education was minimal. Educators are left to their own devices in accessing these much sought-after assistive devices.

A valuable low vision aid for learners who experience visual barriers to learning is a pair of spectacles. However, educators, in liaison with the therapists and nurse of the school have to make the necessary arrangements with eye-care specialists to conduct eye screening tests and to access the spectacles. This often comes at a cost to the parents and/or guardians who can ill afford them. In some instances, through the goodwill of the consulting opticians, learners are sponsored their spectacles.

The research also found that educators employ practical measures to create their own assistive devices. Rubber bands are wound around pencils so that learners with low muscle tone can grip the pencils easier. Learners whose feet dangle above the floor are provided with blocks or telephone directories to enable them reach the floor. Learners who suffer from epileptic seizures are provided with cycling helmets that protect them if they fall to the ground.

In the absence of spectacles, magnifying glasses and large print texts are used for learners who experience visual barriers to learning. In the absence of hearing aids, learners who are hard of hearing are situated closer to the educator so that they can hear properly.

The study revealed that computers and computer-aided technology are being used more and more as an assistive device. Many learners are computer literate and can type, save, retrieve and print documents. Computers assist learners who cannot write but who can recognise the letters on the keyboard. Other assistive devices that are used by educators to make learning more meaningful include audio-visual equipment like radios, CD's and DVD's.

With regard to the implementation of the SIAS strategy, three streams of thought were articulated by educators. The first stream was of the opinion that the process should be done in mainstream schools, while the second stream was of the view that it must be implemented at special schools. The third stream took the middle road and noted that the strategy must be implemented at both mainstream and special schools. Both schools need to determine the barriers learners experience and the level of support that must be provided.

It was established from the research that those schools that have implemented the SIAS strategy realise that it is important for special schools to do so as this strategy identifies the barriers to learning and development that learners experience and establishes the level of support that these learners require. The research also ascertained that the SIAS strategy is in the early stages of implementation. In implementing the strategy, all stakeholders are involved and reports collated from doctors, psychologists, social workers and parents are taken

into consideration. However, assistive devices cannot be accessed through this system as yet. The research further established that the DBST must be more supportive and the ILST has to be more functional.

With regard to the use of Learning and Teaching Support Materials (LTSM), the research concurred that LTSM is being used by educators to provide high levels of support to learners who experience severe intellectual barriers to learning. The LTSM can take many forms. They include books, magazines, newspapers, posters, worksheets, picture cards, games, puzzles, calculators, toys, embossed diagrams, models, puppets, drama therapy, videos and computers as well. However, they are adapted to suit the learner's needs. Pictures and words are enlarged to cater for learners who experience visual barriers to learning. Simple pictures are more effective than those with a lot of detail. For beginner readers the pictures and words increase as the learner's confidence increases.

In so far as the theme revolving around the adjustment of the classroom and outside environment is concerned, the research divulged that educators have used immense resourcefulness, creativity, imagination and inspiration in adjusting the classroom and outside environment to support learners who experience severe intellectual barriers to learning.

The one notable feature of this section of the study was that all the classrooms that were visited were immaculate. The classrooms were stimulating, spacious and conducive to the culture of learning and teaching. The walls of the classrooms were brightly decked out with charts and posters. Books and magazines were neatly arranged in book cases and toys were stacked appropriately. Other resources were clearly marked and housed in specific areas.

The furniture and desks in the classrooms were arranged in such a way to make it suitable for the learner's needs. The seating of learners also took into account their individual needs to optimise learning. Learners who suffer from epilepsy were not seated close to furniture that could cause injury during a seizure. Educators ensured that wheelchair learners did not spend the entire day in their wheel chairs by providing soft chairs for these learners. Sufficient space was available for

wheelchair learners to manoeuvre around the class. Ramps have been constructed so that wheelchair users can easily access the classrooms without too much difficulty. The intention of this is to minimise dependence and maximise independence.

With regard to learners who experience visual barriers to learning, educators ensured that there was the correct amount of lighting for them to minimise glare. For the benefit of these learners also, educators used only yellow and white chalk for writing on the chalkboard. These are the colours that are most conducive for visual acuity. On the whole, a warm, safe, friendly and positive learning environment is created within the classroom by the educators with the intention to minimise barriers to learning.

Other educators opted for the creation of learning centres within their classrooms. These included an Art Centre, Music Centre, Computer Centre, Library Centre and a TV Centre. These centres were set up to accommodate the diverse needs of the learners. Learning centres were effectively used for ADHD and autistic learners. There is easy access to these centres aided by the strategic arrangement of furniture.

For learners that do not have speech, visual cards are made which pictorially depict various activities so that learners can point out their needs. This also helps the learners when activities change. Learners with poor fine motor skills and whose muscles are still developing are given larger pictures to colour in, whilst others have more intricate pictures.

As far as the outside environment is concerned, the study revealed that educators have adjusted this environment to provide high levels of support to learners who experience severe intellectual barriers to learning. The adjustments include the following:

- Breaks are kept short;
- Benches have been provided for learners to be seated during breaks;

- Ensuring that all learners, including those in wheelchairs are accommodated at all school functions;
- Ensuring that bins, water troughs and toilets are easily accessible;
- Railings installed in bathrooms;
- Ensuring that the playgrounds are levelled for wheelchair access;
- Ensuring that all excursion venues have wheelchair access;
- The playgrounds are properly fenced;
- Ramps installed for wheelchair access;
- The pool area is secure when not in use.

5.3 RECOMMENDATIONS

Emanating directly and indirectly from this research study a number of recommendations can be made to ensure that learners who experience severe intellectual barriers to learning at special schools in the Pietermaritzburg region, as well as learners who experience other barriers to learning at all special schools across the country, receive the highest possible levels of support from all stakeholders.

With regard to the theme on curriculum differentiation, it is recommended that a separate curriculum be designed and implemented specifically for learners who experience severe intellectual barriers to learning. Educators at special schools are frustrated at the constant changes to the curriculum. There are too many changes with very little being done for special schools. Special schools are required by legislation to use the same curriculum as ordinary or mainstream schools. When the curriculum changes for ordinary schools, special schools have to follow suit. Yet the curriculum does not cater for learners who experience severe intellectual barriers to learning.

The Department of Education expects educators at special schools to differentiate the curriculum and assessment standards to cater for the needs of their learners. This is definitely not a professional approach. The once-off workshops conducted by provincial departments of education are also inadequate and the lack of experts

in the various components of special needs education, especially curriculum experts, is of deep concern. It is therefore recommended that educators at special schools do not differentiate a curriculum which caters for mainstream learners but design an entirely new curriculum specifically geared towards learners who experience severe intellectual barriers to learning. Aligned to this, it is recommended that classroom practitioners at these schools be fully involved in the design of the new curriculum, as they are the experts on curriculum matters and interact daily with their charges. It is also recommended that the Department of Education, through the district-based support team (DBST), becomes more active in providing support to educators at special schools.

Another recommendation from this study emanating from the theme of alternate assessment methods is that the new curriculum incorporates assessment methods that take into account the diverse barriers to learning of each learner. The traditional assessment standards like formal tests and examinations are not feasible for learners who experience severe intellectual barriers to learning. Continuous, informal and innovative assessment strategies must be incorporated into the curriculum.

With regard to the theme of access to different types of assistive devices, the outcomes of the study recommend that more assistive devices be made accessible to educators at special schools. At present, it is left to the schools themselves to access these devices, sometimes at exorbitant costs. It is recommended that the Department of Education provide these assistive devices as it is of crucial importance if learners at these schools are to receive high levels of support. The SIAS policy has a mandate to do this, but in reality this is not happening. Assistive devices cannot currently be accessed through this process.

Aligned to this and based on the theme of accessing learning and teaching support materials, it is recommended that just as the Department of Education provides Learning and Teaching Support Materials (LTSM) for ordinary schools, equal funding must be made available for LTSM for special schools. Special schools have for long been regarded as the 'orphans' of the education system and have been disadvantaged as far as funding is concerned. In reality, during the last

few years, the subsidy allocation for special schools has been decreased. The provision of LTSM for special schools will enable them to provide high levels of support to learners who experience severe intellectual barriers to learning. It is recommended that a separate budget be set aside for special schools to access learning and teaching support materials.

With regard to the theme of the implementation of the SIAS document, it is recommended that the SIAS strategy be applicable to both full-service schools as well as special schools. The process of admitting a learner into a special school will be so much easier if this document is also completed at the transferring school. The receiving special school will then be in a position to make informed decisions regarding what attempts were made at addressing barriers to learning and thereafter design support packages for these learners in order to enable them to be provided with high levels of support.

Stemming from the main research problem of how Foundation Phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district, the implementation of the following recommendations will ensure that these learners are provided with the high levels of support that they richly deserve:

It is imperative that educators who are employed at special schools are suitably qualified in special needs education. The study picked up that from a sample of 26 educators across all the special schools under research, only 6 educators were professionally qualified to teach learners who experience severe intellectual barriers to learning. This is certainly a disservice to the learners at the designated schools. Teaching at a special school is not akin to teaching at a mainstream school. Educators must be 'specialised' and specialists in identifying the various barriers to learning, differentiating the curriculum, adapting methodology, employing alternative assessment methods, utilising assistive devices, etc.

However, special schools have recently become a 'dumping ground' for surplus educators. Common practice for the Department of Education is to re-deploy educators who are declared in excess at their mainstream schools to special

schools. This happens despite protestations from principals of special schools. These educators, through no fault of their own, are initially out of their depth and have to adjust to a new environment and system. It takes many months for educators to latch onto their new terms of reference and in the meantime, the learners are at a disadvantage. This is certainly not providing high levels of support to learners. It is recommended that if an educator does not have qualifications and/or experience in special needs education, they should not be redeployed to special schools.

It is strongly recommended that universities and teaching training colleges include courses or modules on special needs education or barriers to learning in their teaching qualifications. Every educator who graduates as a professional must be able to recognise barriers to learning and to teach learners who experience barriers to learning at a special school.

The researcher also recommends that the University of South Africa (UNISA) re-instate the Diploma in Specialised Education, specialising in the various barriers to learning. This would enable educators who have no qualifications in special needs education, but who are re-deployed to special schools, to re-train and become professionally qualified.

The Department of Education has also designated that special schools eventually be converted into special school resources centres. In order to be recognised as a special school resource centre, certain adjustments must be made to the infrastructure of the school, for example the erection of ramps, railings and wheelchair-friendly facilities. However, little or no funding has been forthcoming from the department of education to carry out these changes. It is recommended that the department of education provide the funding for these changes to be made to the infrastructure of special schools.

5.4 LIMITATIONS

The title of this research study – ‘Learner support to Foundation Phase learners who are intellectually impaired: A case study’, demarcates very clearly the scope

of the researcher's terms of reference. The field of study is exclusively confined to Foundation Phase learners and to special schools within the general geographic area of Pietermaritzburg that cater for learners who experience severe intellectual barriers to learning.

The most obvious limitation is the fact that the scope of study has not been expanded to include other special schools that cater for other impairments within the Pietermaritzburg district. One of the schools provides education for learners who experience visual barriers to learning, another for learners with physical challenges and the third for learners who exhibit developmental and behavioural problems. These schools are also grappling to come to terms with differentiating the curriculum and to provide high levels of support to their learners.

In the case of the school that provides education for visually impaired learners, expecting totally blind and partially-sighted learners to access the same curriculum and at the same pace as their sighted mainstream counterparts, is not feasible. Due to their visual deficits, these learners have to work at a slower pace and rely on assistive devices to aid learning. Every learner's eye condition is different and educators rely on assistive devices such as magnifiers, tape aids, large print text and worksheets, the lastron, Braille and embossed diagrams. The national curriculum is biased towards a visual world and clientele, which is a form of discrimination against learners who are visually impaired. The other two schools also have problems in implementing the curriculum.

Therefore, the limitation of the study is that it did not include special schools that cater for learners who experience other types of impairments. The study focused only on schools that cater for learners who experience severe intellectual barriers to learning.

Another limitation is that the focus was only on Foundation Phase learners. The justification for this is that severely intellectually impaired learners do not reach the same milestones at the same age as their mainstream colleagues. Learners at schools for the severely intellectually impaired generally are in the Foundation Phase for a longer period of time and do not progress with their age cohort as in

ordinary schools. In terms of academic performance, the majority of learners do not progress beyond the Foundation Phase during their schooling career.

5.5 CONCLUSION

This chapter elaborates on the findings of the research study and suggests possible recommendations that emanate from them. The limitations of the study are also discussed. The researcher hopes that the recommendations will be taken in the spirit in which it is intended and be acted upon. Only if they are acted upon will Foundation Phase learners who experience severe intellectual barriers to learning, access quality high levels of support which they desperately need to take their rightful place in society.

References

About South Africa. 2011. [online]. Available at:

<http://www.info.gov.za/aboutsa/education.htm> (1 June 2011).

Bennet, P. 2003. *Abnormal and clinical psychology. An introductory textbook*. Philadelphia: Open University Press.

Cheminais, R. 2004. *How to create the inclusive classroom: Removing barriers to learning*. London: Fulton Publishers.

Cherry, K. 2010. Stages of psychosocial development. [online]. Available at: <http://psychology.about.com/od/theoriesofpersonality/a/psychosocial-2htm> (1 June 2011).

Definition Special School. 2011. [online]. Available at: <http://www.dictionary.cambridge.org/define.asp> (1 June 2011).

Department of Education. 1997. *Quality Education for All: Overcoming barriers to learning and development. Final report of the National Commission on Special Needs in Education and Training (NCSNET) and National Committee on Education Support Services (NCESS)*. Pretoria: Department of Education.

Department of Education. 2001. *Education White Paper 6: Special Needs Education: Building an Inclusive Education and Training System*. Pretoria: Department of Education.

Department of Education. 2002. *Draft conceptual and operational guidelines for the implementation of inclusive education*. Pretoria: Department of Education.

Department of Education. 2003. *National report on systemic evaluation. Inclusive education, foundation phase*. Pretoria: Department of Education.

Department of Education. 2005. *Draft Guidelines for Inclusive Learning Programmes*. Pretoria: Government Printer.

Department of Education. 2008. *National Strategy on Screening, Identification, Assessment and Support: School Pack*. Pretoria: Government Printer.

De Vos, A.S., Strydom, H., Fouche, C.D. & Delport, C.S.L. 2005. *Research at grassroots for the social Sciences and human service professions*. Pretoria: Van Schaik.

Engelbrecht, P., Green, L., Naicker, S. & Engelbrecht, L. 2001. *Inclusive Education in action in South Africa*. Pretoria: Van Schaik.

Engelbrecht, P, & Green, L. (eds) 2007. *Responding to the challenges of inclusive education in Southern Africa*. Pretoria: Van Schaik.

Henning, E. 2005. *Finding your way in qualitative research*. Pretoria: Van Schaik.

Intellectual Disability. 2010. [online]. Available at: <http://www.ids.org> (12 February 2010).

Intellectual Impairment. 2010. [online]. Available at: <http://www.playcare.unitingchurch.org.au/intellectual.html> (12 February 2010).

Intellectual Impairment: Teaching and Learning. 2010. [online]. Available at: <http://www.education.qld.gov.au/student-services/learning/disability> (12 February 2010).

Jooste, C, & Jooste, M. 2008. In Landsberg, E. (ed), Kruger, D. & Nel, N. *Addressing barriers to learning. A South African perspective*. Pretoria: Van Schaik.

King-Sears, M.E. 2008. Facts and Fallacies: Differentiation and the general education curriculum for students with special educational needs. *Support for learning*, 23(2), 55-62.

KZN Department of Education. 2005. *The implementation of Inclusive Education: A discussion document*. Pietermaritzburg: KZN Department of Education.

Learner Support. 2011. [online]. Available at: <http://www.thedataservice.org.uk> (1 June 2011).

Loreman, T., Deppeler, J. & Harvey, D. 2005. *Inclusive Education: a practical guide to supporting diversity in the classroom*. Crow's Nest, NSW: Allen & Unwin.

Newby, P. 2010. *Research methods for education*. Harlow, England: Pearson Education Ltd.

McMillan, J. H. & Schumacher, S. 2006. *Research in education. Evidence-based inquiry*. Boston: Pearson .

Mental Retardation. 2010. [online]. Available at: <http://www.answers.com/topic/mental-retardation> (5 February 2010).

Mutepfa, M.M., Mpofu, E, & Chataika, T. 2007. Inclusive education in Zimbabwe. Policy, curriculum, practice, family and teacher education issues. *Childhood Education*, 83(6): 342-346.

Piaget's theory of cognitive development. 2011. [online]. Available at: <http://www.en.wikipedia.org/wiki/Piaget's-theory-of-cognitive-development> (1 June 2011).

Santrock, J. W. 2006. *Life-Span development*. 10th edition. New York: McGraw-Hill.

Sebastian, C. S. 2002. Mental Retardation: What it is and what it is not. *eMedicine Journal*. [online]. Available at: <http://www.users3.ev1.net/drtony/Mrinfo.htm> (12 February 2010).

Singal, Nidhi. 2008. Working towards inclusion: Reflections from the classroom. *Teaching and Teacher Education*, 24(6): 1510-1529.

South Africa Info. 2011. [online]. Available at: <http://www.southafrica.info/pls/procs/iac> (1 June 2011).

Special School. 2010. [online]. Available at: <http://www.thefreedictionary.com/special+school> (5 February 2010).

Special Schools. 2010. [online]. Available at:
<http://www.wikipedia.org/wiki/specialSchools> (5 February 2010).

The Ecological Systems Theory. 2010. [online]. Available at:
<http://www.edfd127.wikispaces.com/The+Ecological+Systems+Theory>
(13 October 2010).

Theories of Child Development. 2011. [online]. Available at:
<http://www.ed.uiic.edu/courses/edpsy313/notes/hh03.htm> (1 June 2011).

Types of Special Educational Needs. 2010. [online]. Available at:
<http://www.nelincs.gov.uk/NR> (12 February 2010).

UNESCO. 1994. *The Salamanca statement and framework for action on special needs education. World conference on special needs education: Access and quality, Salamanca, Spain, 7-10 June 1994*. Paris: UNESCO.

Van Kraayenoord, C. E. 2007. School and classroom practices in inclusive education in Australia. *Childhood Education*, 83(6):390-394.

Vogel, H. M. 2006. *Introduction to inclusive education, Section B: Learner support. Only study guide for HBEDIE-6*. Pretoria: Unisa.

What is the Foundation Phase? 2010. [online]. Available at:
<http://www.wales.gov.uk/topics/educationandskills/policy-strategy-and-planning> (5 February 2010).

Woolfolk, A. 2007. *Educational psychology*. 10th edition. Boston: Pearson Education.

ANNEXURE A: CONSENT DOCUMENT: SCHOOL PRINCIPAL

10 Scorpio Drive
Allandale
Pietermaritzburg
3201

The Principal/SGB Chairperson

REQUEST FOR CONSENT TO CONDUCT RESEARCH AT YOUR SCHOOL

Dear Sir/Madam

I, Jordan Erradu, am currently conducting research towards the completion of my Masters Degree in Education (Inclusive Education).

I hereby request that I be allowed to conduct my research project at your school.

My research study entails finding out how foundation phase learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district from an inclusive education approach.

In order to access this information, I will have to administer questionnaires, conduct interviews and observe a lesson.

Kindly be assured that data collected will be strictly confidential and will only be used for my M Ed degree. Data can only be used for other purposes after the participants have granted permission to that effect.

Thanking you in anticipation

Jordan Erradu

Researcher

ANNEXURE B: QUESTIONNAIRE FOR EDUCATORS

SECTION A: EDUCATOR INFORMATION

Please tick the relevant boxes

1. NAME:

2. GENDER:

MALE	FEMALE
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3. AGE

21-30	31-40	41-50	51-60
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4. LSEN TEACHING EXPERIENCE

<5 yrs	6-10 yrs	11-20 yrs	21-30 yrs
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5. OVERALL TEACHING EXPERIENCE

<5 yrs	6-10 yrs	11-20 yrs	21-30 yrs
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6. YEARS IN PRESENT SCHOOL

<5 yrs	6-10 yrs	11-20 yrs	21-30 yrs
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7. GRADE PRESENTLY TEACHING

Grade R	Grade 1	Grade 2	Grade 3	Grade 4
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8. PROFESSIONAL QUALIFICATIONS

Matric	
Diploma	
Bachelor's Degree	
Post Graduate Diploma	
Honours Degree	
Masters Degree	

9. LSEN QUALIFICATIONS

Diploma	
Degree	

SECTION B: EDUCATOR VIEWS

Please answer the following questions. If you need additional space, please use a separate page.

1. What do you understand by the term ‘learners who experience barriers to learning?’

2. What do you understand by the term “learners who experience severe intellectual barriers to learning?”

3. What are some of the factors that contribute towards learners developing severe intellectual barriers to learning?

4. Do you have any knowledge of Education White Paper 6? If so, please summarise the policy.

5. What do you understand by the concept of “Inclusive Education?”

6. Explain the concepts of special schools and special schools resource centres (SSRC's).

7. How do you feel about the constant changes to the curriculum?

8. What are your views on learners who experience severe intellectual barriers to learning being taught the same curriculum as their mainstream counterparts?

9. Do you feel that you are adequately equipped/trained to provide high levels of support to learners who experience severe intellectual barriers to learning? If not, how can you be helped?

10. Does your school have a flexible curriculum to cater for the needs of learners who experience severe intellectual barriers to learning? Please discuss.

11. How have you differentiated the curriculum to cater for learners who experience severe intellectual barriers to learning with regard to:

1) Methodology

2) Content

12. What additional support do you offer to learners with regard to:

1) Literacy

2) Numeracy

3) Life Skills

13. What alternative methods of assessment have you utilised to assess learners who experience severe intellectual barriers to learning?

14. Explain how you use assistive devices to make learning more meaningful to the learners under your care.

15. Is the Screening, Identification, Assessment and Support (SIAS) document being implemented at your school and how have you applied it to the learners in your class?

16. How have you adapted learning and teaching support materials (LTSM) to provide support to learners under your care?

17. How have you adjusted the classroom and outside environment to support learners who experience severe intellectual barriers to learning?

Thank You
Jordan Erradu
Researcher

ANNEXURE C: INFORMED CONSENT DOCUMENT: EDUCATORS

Dear Colleague

I, Jordan Erradu, am currently conducting a research study as part of my Masters Degree in Education (Inclusive Education).

My research study entails finding out how learners who experience severe intellectual barriers to learning are provided with high levels of support at special schools in the Pietermaritzburg district from an inclusive education approach.

In order to access this information, I will have to administer a questionnaire, conduct a short interview and observe a lesson. Kindly be assured that the data collected will only be used for my M Ed degree and can only be used for other purposes if you grant permission to that effect. Please note that your anonymity and confidentiality is of utmost importance and will be maintained throughout the study.

I appreciate the time and effort it would take to participate in this study. I would be very grateful for your participation as it would enable me to complete the research project.

Thanking you in anticipation

Jordan Erradu
Researcher

ANNEXURE D: STRUCTURED INTERVIEW SCHEDULE LEADING TO SEMI-STRUCTURED INTERVIEW

Good morning. Thank you for allowing me to interview you. Please be at ease and do not think that this is a test of any sort. It is merely an attempt to get more information than that that was provided in the questionnaire.

My first few questions are fairly simple.

Question 1

In which age category do you fall into:

A

21 -30

B

31-40

C

41-50

D

51-60

Question 2

How many years of LSEN teaching experience do you have?

A

< 5 years

B

5-10 years

C

11-20 years

D

21-30 years

E

31-40 years

Question 3

Please state your LSEN teaching qualification.

A

Undergraduate

B

graduate

C

post graduate

Question 4

Given the choice, would you prefer to teach at this school or at a mainstream school?

Question 5

Can you please tell me how you became involved in education for learners who experience severe intellectual barriers to learning?

Question 6

Have you received in-service training in order to teach learners who experience barriers to learning in general and learners who experience severe intellectual barriers to learning in particular?

Question 7

How has this training equipped you to handle learners who are intellectually challenged?

Question 8

In what ways do you differentiate the curriculum in order to provide your learners with high levels of support?

Question 9

In so far as assessment is concerned, what alternate means of assessment do you use to check on the progress of your learners?

Question 10

Mention some of the assistive devices that you use as a means to support your learners and are there other devices you would like, but are unable to access?

Question 11

Comment on the purpose of the SIAS document. Is it more applicable to full service schools or to special needs schools?

Question 12

Elaborate on the learning and support materials (LTSM) you have adapted to facilitate the learning process.

Question 13

Mention the ways you have adjusted your classroom environment to support the learners in your class.

Question 14

Mention some of the ways you have adjusted the environment outside your classroom to provide high levels of support to your learners.

Thank you for your time.