IMPACT OF NATIONAL CURRICULUM STATEMENT (NCS) ON LEARNERS WITH SEVERE INTELLECTUAL DISABILITY IN THE RUSTENBURG DISTRICT OF BOJANALA REGION, NORTH WEST PROVINCE

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DECLARATION

I TALITHA MEIKI MPETE declare that IMPACT OF NATIONAL CURRICULUM STATEMENT ON LEARNERS WITH SEVERE INTELLECTUAL DISABILITY is my own work and has not previously been submitted by me for a degree at this or any other university. All the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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ABSTRACT

Background: Learners with severe intellectual disability are those with a serious condition of learning disability due to the limitation in intellectual functioning. These learners participate in the National Curriculum Statement (NCS) approach since there is no special curriculum for them. The purpose of this study was to investigate the characteristics of severe intellectual disability and to find out whether learners of this condition are able to achieve the learning outcomes and assessment standards prescribed by the NCS. To get access to the different age groups of learners, the study investigated both the Middle and Senior phases of the two schools.

Method: Ethnographical study of qualitative research was followed. Data for the study were collected using class observations and educators' questionnaires. Data from the related literature review were also collected.

Results: The results revealed that learners with severe intellectual disability could not achieve the learning outcomes and assessment standards prescribed by the NCS within the whole school period, 8 to 21 years.

Conclusion: Learners with severe intellectual disability could not benefit from participating in the standard school curriculum. Suggestions were given from both the empirical study and the literature on the curriculum that would provide better learning opportunities for learners with severe intellectual disability.

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CHAPTER ONE

1. ORIENTATION

1.1 Introduction and background to the study

Since 1994, the education system of South Africa has been profoundly affected by the social, political and economic changes. It has been restructured and transformed into a single, non-racial system. The transformation and restructuring have brought about fundamental changes to education law and policy aimed at ensuring the realization of the constitutional principles of democracy, freedom equity and equality in all educational institutions.

The curriculum was also transformed which resulted in the introduction of Curriculum 2005 (C2005) in schools in 1998 and implementations were reviewed in 2000, which aimed to develop the full potential of each learner as a citizen of a democratic South Africa (Department of Education, 2002:8). This resulted in the integrated approach to education and training which is competence-based. Competence-based refers to the quality of having the necessary skill or knowledge to do something successfully. The revision of Curriculum 2005 resulted in the National Curriculum Statement (NCS) for Grades R to 9 (Schools), which is not a new curriculum but a streamlining and strengthening of Curriculum 2005 (DOE, 2003:6).

The Education White Paper 6 (DOE, 2001: 11) on Special Needs Education: Inclusive Education that was launched in July 2001 stipulates that our constitution challenge is to ensure that all learners pursue their learning potential to the fullest (Education White Paper 6:11). The policy framework outlined in White Paper 6 outlines the Ministry's commitment to 'the provision of educational opportunities', in particular for those learners who experience barriers to learning and development or who have dropped out of learning because of the inability of the education and training system to accommodate the diversity of their learning needs, and those learners who continue to be excluded from it (DOE, 2001:11).

This study is based on the impact of implementing the NCS approach in teaching learners with severe intellectual disability. As these learners have learning barriers, it intends to investigate whether the NCS policy provides for their learning needs and opportunities.

By definition, intellectual disability refers to substantial limitation in present levels of functioning. These limitations are manifest in delayed intellectual growth, inappropriate or immature reactions to one's environment, and below-average performance in the academic, psychological, physical, linguistic, and social domains. Such limitations create challenges for individuals to cope with the demands they encounter each day, those that other people of comparable age and social or cultural background would be expected to deal with successfully on an ongoing basis (Friend, 2006:287).

By definition, learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual learner, presumed to be due to central nervous system dysfunction and may occur across the life span (Vaughn, Bos & Schumm, 2003:134).

The study intends to investigate whether the National Curriculum Statement (NCS) provides educational opportunities and accommodates the learning needs of learners with severe intellectual disability. McNally, Cole and Waugh (2001:258) define intellectual disability as a student's inability to learn because of substantial limitations in cognitive and adaptive functioning. They define severe intellectual disability as persons with an IQ from 20 to 34, which refers to persons with a somewhat lower level of competence than those with mild intellectual disability.

Children with severe intellectual disability are children who, because of the intensity of their physical, mental, or emotional problems, need highly specialized education, social, psychological, and medical services in order to

maximize their full potential for useful and meaningful participation in society and for self-fulfillment (Turnbull et al., 2004:256).).

In their research study, Pilling, McGill and Cooper (2007:83) discovered that, of the 156 pupils with severe intellectual disabilities attending nine schools, most had limited communication skills, with 75% having an autistic spectrum disorder, only 36% using speech as their main method of communication. All but two of the pupils displayed a high number of challenging behaviours, many of which were severe, including aggression (91%) and self-injury (84%). Several children required medication for epilepsy control (28%) and behaviour management (28%) among others.

According to Whitaker and Read (2006:330), there is evidence that the prevalence of psychiatric disorder is greater in children with intellectual disabilities, compared with children with normal IQs, that it is higher in both adults and children with severe intellectual disabilities compared with people with mild or no intellectual disability.

This investigation has emerged out of the researcher's experience as she is an educator in one of the special schools under study. She is concerned about the outcomes of learners with severe intellectual disability participating in the NCS approach. According to her experience, learners with severe intellectual disability have impaired memory which makes it difficult for them to learn. These learners concentrate for a very short period and have difficulty remembering everything that has been learned in a short time. Most of the learners work at Grade R or Grade 1 level, at secondary school age. They have severe difficulty in reading, spelling, writing and Mathematics.

This chapter presents the statement of the problem, aim of the study, research questions, significance of the study and definition of key concepts.

1.2 STATEMENT OF THE PROBLEM

In participating in the National Curriculum Statement (NCS) approach, learners with severe intellectual disability reach school-leaving age having learned very little because the NCS sets the same learning outcomes(LO) for both the mainstream and special school learners, without considering the disability. The assessment standards (AS) are also set, which describe the level of achievement of the learning outcomes. These assessment standards are the same for both mainstream and special school learners. It is for individual schools to organize teaching and learning in such a way that all learners can achieve these learning outcomes and assessment standards. The problem of this study is to find out whether learners with severe intellectual disability can achieve the same learning outcomes and assessment standards prescribed by the NCS.

1.3 Aim of the study

1.3.1 Main Aim

The main aim of this study is to find out whether learners with severe intellectual disability benefit from participating in the National Curriculum Statement approach.

1.3.2 Specific aims

This study has the following specific aims:

- To investigate the characteristics of learners with severe intellectual disability.
- To investigate whether learners with severe intellectual disability achieve the learning outcomes and assessment standards prescribed by NCS.
- To investigate the strategies that can be used to promote the effective learning and development of learners with severe intellectual disability.

1.4 Research questions

This study was guided by the following research questions:

1.4.1 What are the characteristics of learners with severe intellectual disability?

1.4.2 Do learners with severe intellectual disability achieve the learning outcomes and assessment standards prescribed by NCS?

1.4.3 What strategies can be used to promote the effective learning and development of learners with severe intellectual disability?

1.5 Significance of the study

The information gathered in this study will:

- inform the Department of Education of the severity of the learners' intellectual disability.
- inform both the Department of Education and the educators about the appropriate strategies that can be used in teaching learners with severe intellectual disability.

1.6 Delimitation of the study

This study was delimited to the two special schools for learners with severe intellectual disability in the Rustenburg district of the Bojanala region.

1.7 Ethical considerations

Macmillan and Schumacher (2006:184) regard ethics as the basis upon which the researcher ought to evaluate his/her conduct. Ethics are usually determined to deal with beliefs concerning what is right or wrong, appropriate or inappropriate, moral or immoral. According to Bailey (2007:15), the three major ethical concerns that field researchers face are informed consent, deception and confidentiality.

The researcher contacted the area project manager and asked for permission to conduct the investigation on the site suitable for selection of relevant data. A letter of permission was written which granted permission to commence on the site.

As researchers anticipate data collection, they need to respect the participants and the sites for research. The researcher obtained permission from the respondents after they were informed about the purpose of the investigation. The respondents were assured of their right of privacy and protection from any harm. Many ethical issues which will be discussed in the following paragraphs arise during this stage of the research (Creswell, 2003:64).

1.7.1 Informed consent

Barker, Pistrang and Elliott (2002:188) point out that the researcher should give full information about the study and participants freely choose whether to enter it. In this study, the researcher made the participants aware of the following information:

1. that they are participating in research;
2. the purpose of research;
3. the procedures of research;
4. the risks and benefits of the research;
5. the voluntary nature of the research participation;
6. the right to stop the research at any time;
7. the procedures used to protect confidentiality;
8. .the right to have all their questions answered at any time;
9. other information relevant to the participants;
10. what is required of them if they consent to participate; and
11. that refusal to participate or withdraw at any time will lead to no foreseeable consequences (Bailey, 2007:17; Creswell, 2003:64-65).

The participants who wished to participate were given consent forms to confirm their willingness to participate.

1.7.2 Deception

Giving an example of deception, Bailey (2007:20) noted that deception results when people are not told they are participating in a study, are misled about the purpose or details of the research. Bailey further noted that if such deception occurs during the research, then the participants do not have the opportunity to give informed consent as they are not fully informed. In this study, before the investigation, the researcher visited each site to clarify on the purpose and the nature of the study, for the participants to judge whether they would be able to participate.

1.7.3 Anonymity, Privacy and Confidentiality

During the first visit at the sites, the researcher assured the participants of the anonymity, privacy and confidentiality of the research.

Research is anonymous when the researcher is not able to identify the participants in the study (Bailey, 2007:24). During the interview, the interviewer identified the interviewees by numbers instead of names. Privacy refers to the person's right not to provide information to the researcher. In this study, the researcher was aware of each participant's limits on disclosing information (Barker et al., 2002:193).

In this study, the interviewer assured the interviewees that the information given will be treated with confidentiality. That is, they were assured that data will only be used for the stated purpose of the research and that no other person will have access to interview data (Bless & Higson- Smith, 2000:101).

1.7.4 Protection from harm

Barker, Pistrang and Elliott (2002:191) indicate that harm is most likely to come from such things as stirring up painful feeling or memories, threats to one's self-image, and humiliation. The researcher assured the respondents that they will be indemnified against any physical and emotional harm (Welman et al., 2006:201).

1.7.5 Involvement of the researcher

According to Welman, Kruger and Mitchell (2006:201), researchers should guard against manipulating respondents or treating them as objects or numbers rather than individual human beings. They should not use unethical tactics and techniques of interviewing.

The researcher treated the participants with respect, requested their participation, asked them to observe in their classes and conduct the interviews. The participants were also allowed to ask some questions whenever they feel like doing so and the answers were provided. The researcher also allowed the respondents to withdraw from answering other questions if they so feel.

1.8 Definition of concepts

1.8.1 Intellectual disability

Intellectual Disability is an inability to think as quickly, reason as deeply, remember as easily or adapt as rapidly to new situations, when compared with so-called normal children. For students with intellectual disability, interpreting information, reasoning and problem solving are very difficult processes (Westwood, 2004:137)

1.8.2 Severe intellectual disability

Severe intellectual disability refers to learners who, because of the intensity of their physical, mental, or emotional problems, need highly specialized social, psychological, and medical services in order to maximize their full potential for useful and meaningful participation in society and for self-fulfillment (Turnbull et al., 2004:256).

1.8.3 National Curriculum Statement (NCS)

National Curriculum Statement (NCS) is a streamlined and strengthened version of Curriculum 2005. It uses an Outcomes Based Education (OBE) approach (Harley, Bertram & Mattson, 1999:67).

1.8.4 Outcomes-Based Education (OBE)

'Outcomes- Based Education (OBE) is one of the principles which underpin Curriculum 2005. It is the type of education that is:

- Organised around outcomes.
- Includes knowledge, skills attitudes and values.
- Activity-based and learner centred.
- Emphasizes standards.
- Highlights the role of assessment.
- Expects all learners to succeed.
- Does not prescribe content or method (Harley, Bertram & Mattson, 1999:67)'.

1.8.5 Learning outcomes

Learning outcomes are derived from the critical and developmental outcomes. It is a description of what (knowledge, skills and values) learners should know, demonstrate and be able to do at the end of General Education and Training Band. A set of learning outcomes should ensure integration and progression in the development of concepts, skills and values through the assessment standards. Learning outcomes do not prescribe content or method (DOE, 2002a:14).

1.8.6 Assessment standards

Assessment standards describe the level at which learners should demonstrate their achievement of the learning outcomes and the ways (depth and breadth) of demonstrating their achievement. They are grade specific and show how conceptual progression will occur in a learning area. They embody the knowledge, skills and values required to achieve learning outcomes. They do not prescribe method (DOE, 2002a:14).

1.9 Conclusion

This chapter discussed the introduction and background to the study, the problem statement, aim of the study, research questions and significance of the study. The ethical considerations, delimitation of the study and the definition of concepts were also discussed. The following chapter will address the literature review.

CHAPTER TWO

2. LITERATURE REVIEW

2.1 Introduction

This chapter engages literature that addresses itself to the characteristics of learners with severe intellectual disability and the National Curriculum Statement (NCS).

2.2 Conceptual framework

2.2.1 Different concepts used for intellectual disability

To give the reader a holistic picture of intellectual disability, the researcher will cite different concepts referring to intellectual disability as used by different authors in different international countries. The researcher will then confine the discussion to severe intellectual disability. The concepts include mental retardation, mental impairment, cognitive disability, developmental disability, mental handicap and mental disability.

2.2.2 Intellectual disability

Intellectual disability is one type of developmental disability and generally refers to substantial limitations in present levels of functioning. These limitations are manifest in delayed intellectual growth, inappropriate or immature reactions to one's environment, and below-average performance in academic, psychological, physical, linguistic, and social domains. Such limitations create challenges for individuals to cope with the demands they encounter each day, those that other people of comparable age and social or cultural background would be expected to deal with successfully on an ongoing basis (Westwood, 2004:134)

2.2.3 Severe intellectual disability

Turnbull, Turnbull, Shank & Smith (2004:256) refer to children with severe intellectual disability as children who, because of the intensity of their physical, intellectual, or emotional problems, need highly specialized education, social, psychological, and medical services in order to maximize their full potential for useful and meaningful participation in society and for self-fulfillment.

According to Mash and Wolfe (1999:347), most persons functioning at severe level of intellectual disability require some special assistance throughout their life. During the early childhood years they acquire little or no communication speech; by age 12 they may use some two- to three-word phrases. Between 13 and 15 years of age their academic and adaptive abilities are similar to those of an average 4 to 6 year old. They profit to a limited extend from instruction in pre-academic subjects, such as familiarity with alphabets and simple counting, and can master skills such as learning sight reading of some 'survival' words such as hot, danger and stop.

Kerig and Wenar (2006:112) point out that learners with severe intellectual disability have limited ability to master academic skills. As adults they may perform simple tasks under supervision and adapt to the community by living with their family or home groups like friends and teachers among others. They (2006:113) further indicate that learners with severe intellectual disability from ages 6 to 21 years can talk or learn to communicate; can be trained in elementary health habits; cannot learn functional academic skills; and can profit from systematic habit training.

The discussions above indicate that learners with severe intellectual disability have delayed cognitive development imposed through their disability. The deficit affects their social and emotional development. The NCS requires a

learner-centred and activity-based academic learning which is difficult to implement due to the impairment.

2.3 Causes of intellectual disability

Ashley (2004:562) is for the idea that many cognitive processes can be affected after sustaining a traumatic brain injury. Traumatic brain injury refers to total or partial damage to the brain tissue. This term applies to open or closed head injuries resulting in impairments in one or more areas such as cognition, language, memory, attention, abstract thinking, reasoning, motor abilities, problem solving, sensory information processing and speech (Vaughn, Bos & Schumm, 2000:264). These cognitive processes can impact learning and behaving in the classroom. The processes of attention, processing speed, short- and long-term memory, organization, and problem solving are often challenged. Additionally, impulsive behaviours and receptive, expressive, and pragmatic language skills are potentially problematic. When developmental issues are also considered, challenges to learning are further confounded.

Westwood (2004:137) points out that Intellectual disability is sometimes caused by genetic factors, like in cases of Down syndrome and Phenylketonuria. He sees Down syndrome as a chromosomal disorder with identifiable physical characteristics, resulting in delays in physical and intellectual development. He (2007:287) sees phenylketonuria as an inherited condition that results in intellectual disability from a build-up of toxins from food (such as milk) containing amino acids. It occurs when the body is unable to produce the chemicals needed to convert other toxic chemicals into harmless product.

Other factors include malnutrition, maternal substance abuse during pregnancy, maternal rubella, pre-maturity, radiation, toxicity, Rh incompatibility (Westwood, 2004:137). Turkington and Harris (2002:143) state

that pregnant women who are infected with HIV may pass the virus to their children, leading to future neurological damage. Intellectual disability can be caused by birth injuries due to oxygen deprivation (anoxia or asphyxia), umbilical cord accidents, obstetrical trauma, and head trauma. They also include low birth weight (Smith, 2007:286).

Turkington and Harris (2002: 143) indicate that childhood diseases such as whooping cough, chicken pox, measles, and Hib diseases (which may lead to meningitis and encephalitis) can damage the brain, as can accidents such as a blow to the head or near drowning. They also indicate that children in poor families may become intellectually disabled because of malnutrition, disease-producing conditions, inadequate medical care, and environmental health hazards.

Brain damage is a serious and life-long deficit that a person can get. A person with damaged brain is likely to succeed in learning. Learners with severe intellectual disability are likely to meet the requirements of the NCS.

2.4 Categories of intellectual disability and levels of support needs

To give the reader a comprehensive picture of the varying degrees of intellectual disability, the researcher has included mild, moderate conditions, before proceeding to severe intellectual disability, which at certain times include profound disability. The researcher has also included the varying levels of support needs for each category.

Westwood (2004:134) sees the disability as varying in severity and in the characteristics each individual displays. The four degrees of severity are described as mild, moderate, severe and profound.

Table 1: Categories of intellectual disability and levels of support needs.

2.4.1 Categories of intellectual disability	Levels of support needs
2.4.1.1 Mild intellectual disability - Social and communication skills usually develop in preschool years. - Have minimal sensorimotor deficits. - Can acquire about sixth-grade academic skills by late teens. - Usually achieve adult vocation and social skills for self-support. - Many need guidance, assistance, supervised living, but often live successfully in the community.	2.4.1.1 Intermittent support(s) Intermittent supports are required on an as-needed basis, for example, episodic or short-term supports during life-span transitions (e.g. job loss, an acute medical crisis). The support may be needed once after a long time and may last for a short period. Supports may be high or low intensity when provided.
2.4.1.2 Moderate intellectual disability - Communication skills usually develop in early childhood. - Attend to personal care, with support. - Are unlike to progress beyond second-grade academic skills. - Can benefit from social and occupation skills training and do supervised unskilled work. - Adapt well to supervised community living.	2.4.1.2 Limited support(s) Limited supports are required continually but for a limited period of time. The limited intensity of support may require fewer staff members and cost less than more intensive levels of support (e.g. time-limited employment training, during the transition from school to adulthood).
2.4.1.3 Severe intellectual disability	2.4.1.3 Extensive support(s) Extensive supports are

- May learn to talk and minimally care for self at school age. - Have limited ability to profit from pre-academic training. - In adulthood, may perform simple tasks with supervision. - In most cases, adapt well to community living with family or in home groups.	required regularly, (e.g. in every activity the learners do, irrespective of how simple the activity is. The extensive intensity of support is characterized by continuous involvement (e.g. daily) in at least some environments (e.g. work, home). It is usually long-term, not time-limited, support. It includes the support of educators, parents, friends, doctors, therapists and psychologists. It includes educational, emotional, moral, physical and medical support. The support is needed throughout the learner's life.
2.4.1.4 Profound disability - In most cases, have a neurological condition. - Have sensory-motor impairments in childhood. - With training, may show improvement in motor, self-care, communication skills. - May do supervised tasks. - For optimal development, require structure, constant supervision with individual caretaker (Wick-Nelson & Israel, 2003: 311).	2.4.1.4 Pervasive support(s) Pervasive supports are required across environments. They are characterized by their constant, intense, potentially life-sustaining nature and typically involve more staff members and intrusiveness than do extensive or time-limited supports.

Sources: Wehmeyer, 2002:7-8; Turnbull et. al., 2004;227; Friend, 2006:29; Vaughn, Bos & Schumm, 2003:128; Blackbourn, Patton & Trainor, 2004:106; Wick-Nelson & Israel, 2003:298; Parson, Hinson & Sardo-Brown, 2001:127; Mash & Wolfe, 1999:348.

Each level of impairment is related to specific IQ ranges:

Mild intellectual disability	(IQ 50-69)
Moderate intellectual disability	(IQ 35-49)
Severe intellectual disability	(IQ 20-34)
Profound disability	(IQ under 20)

(Friend, 2006:293; Kibel & Wagstaff, 2001:273; Wick-Nelson & Israel, 2003:300).

The supports are the resources and individual strategies necessary to promote the development, education, interests and well-being of a person with intellectual disability. Supports can be provided by a parent, friend, teacher, psychologist, doctor or by any, appropriate person or agency (Phares, 2008: 383).

Students with severe intellectual disability need ongoing assistance in most areas of practical living skills and are generally more dependent on others for care (Ysseldyke & Algozzine, 1995:311). Individuals with severe intellectual disability are likely to be seriously impaired and to require intensive, ongoing support and assistance during their entire life span (Hannell, 2006: 84).

2.5 Characteristics of learners with severe intellectual disability.

The three major characteristics of severe intellectual disability that are discussed in this chapter are limitation in intellectual functioning/ problems

with cognition, limitation/ problem with adaptive behaviour and needs for support to sustain independence (Turnbull et al. 2004:227 & Smith 2007:280).

2.5.1 Limitation in intellectual functioning

Intellectual functioning refers to a score on an intelligence test that is approximately two or more standard deviations below the mean (Blackbourn, Patton & Trainor, 2004:103).The factors influencing intellectual disability are:

2.5.1.1 Learning

Learning by definition involves a change as a result of what one has experienced, and this may be shown in either the way a person thinks (cognitive), acts (psychomotor) or feel (affective) (Mwamwenda, 2004:170). Gargiulo (2003:170) maintains that students with severe intellectual disability encounter difficulties in their academic work. Generally, this deficiency is seen across all subject areas, but reading appears to be the weakest area, especially reading comprehension

The most obvious characteristic of students with severe intellectual disability is that they have significant difficulty in learning almost everything that other children can learn with ease e.g. they are unable to learn letters of alphabets. Individuals with severe intellectual disability exhibit a much slower rate of acquiring, remembering, and applying knowledge (Westwood, 2004:137).

Children who are severely intellectually disabled are naturally slower at acquiring cognitive skills (Westwood, 2004:137). Ysseldyke and Algozzine point out that learners with severe intellectual disability have cognitive deficits which are considered as primary causes of their academic difficulties. These students do not learn as effectively or efficiently as their age mates. They are less able to grasp abstract concepts than their peers (Ysseldyke & Algozzine, 1995:316).

Students who are classified as having a severe intellectual disability have significantly more difficulty learning than most other individuals. Quantitative measures (i.e., IQ scores) as well as qualitative indicators (such as the ability to demonstrate independent adaptive behaviour) indicate that they are functioning below average in cognitive ability. In practical terms, this means that they are weak in certain learning characteristics, resulting in greater amounts of time being required to learn skills, and overall fewer skills being learned as compared with others (Westling & Fox, 2004:14).

As Lerner (2006) puts it, learners with severe intellectual disability have the following characteristics:

- severe deficits in basic academic skills, such as reading, spelling and Mathematics.
- Generalized failure and below-average performance in content-area courses, such as science, social studies and health.
- Deficient work-related skills, such as listening well in class, taking notes, studying for and taking tests.
- Passive academic involvement.
- Inadequate interpersonal skills.

Friend (2008:246-248) points out that the cognitive characteristics of students with severe intellectual disability have a significant impact on several dimensions of cognitive functioning, including, memory, generalization, meta-cognition, motivation, language development and academic skills.
While Inclusive education requires equal education for all learners, the experts in this section consider learners with severe intellectual disability to have severe deficits that they cannot cope with academic work. This implies that their needs cannot be met by the standard school curriculum it is not possible for them to achieve the learning outcomes and assessment standards prescribed by NCS.

2.5.2.2 Attention

Attention denotes the focusing or concentration of intellectual energy on an object or event (Wick-Nelson & Israel, 2003:449).

Lack of attention is one of the characteristics of learners with severe intellectual disability.

Westwood maintains that individuals with severe intellectual disability appear often to have problems in attending to the relevant aspect of a learning situation, for example, when a teacher is showing a student how to use scissors to cut a paper, the student is attracted perhaps to the ring on the teacher's finger or to a picture on the paper rather than the paper itself (Westwood, 2007:20; 2004:138-139).

Gargiulo (2003:170) notes that individuals who are severely intellectually impaired experience difficulty focusing their attention, maintaining it, and selectively attending to relevant stimuli. Parson, Hinson and Sardo-Brown (2001:129) support Gargiulo by stating that the child with severe intellectual disability may pay attention to wrong things or have difficulty allocating their attention properly.

This section shows lack of attention as characteristic of all learners with severe intellectual disability. Lack of attention usually results in a very low level of response and sometimes a high level of distractibility on the side of the learner. This may lead to no learning and no achievement of learning outcomes and assessment standards.

2.5.2.3 Memory

Memory is an individual's ability to recall information or skills previously learnt. It refers to both storage and retrieval of knowledge (Nieman & Monyai, 2006:76).

Turnbull et al. (2004:227) define short-term memory as the intellectual ability to recall information that has been stored for a few seconds to a few hours, such as the step -by-step instructions teachers give their students.
As Westling and Fox (2004:14) put it, remembering skills and information that have been learned previously also presents a challenge to persons with severe disabilities.

Gargiulo (2003:110) points out that memory, which is an important component of learning, is often impaired in children with severe intellectual disability. Generally speaking, the more severe the retardation, the greater are the deficits in memory.
Students with severe intellectual disability have difficulty remembering, especially with regard to those tasks that require complicated or deeper levels of processing, like addition of numbers with carrying, compared to their non-disabled peers (Parson, Hinson & Sardo-Brown, 2001:129).

Westwood (2007:21), maintain that many students with severe intellectual disability also have difficulty in storing information in long-term memory. It is also indicated that the lower the intellectual ability of the student, the greater the amount of repetition and practice required to ensure that information and skills are eventually stored.

Learners with severe intellectual disability have impaired memory which tremendously affects their learning. In trying to offer the solution, the NCS recommends differentiating (see curriculum differentiation in chapter 2) the curriculum to suit the learners, which does not work.

2.5.2.4 Generalization

Generalization is the ability to learn a task or idea and then apply it in other situations. Students with severe intellectual disability have difficulty with generalization on academic tasks, on behaviour expectations, and in social

interactions. (Friend, 2006:295; Westling & Fox, 2004:15; Turnbull et al., 2004:228).

Westling and Fox (2004:15) maintain that one of the most significant learning weaknesses of students with severe intellectual disabilities is their weak ability to generalize acquired skills – to apply what was learned in one situation to another situation e.g. learners are unable to share sweets among learners after division lessons. Generalization is usually considered the demonstration of skills among different people, using different objects or materials, in different settings, and at different times.

Learners with severe intellectual disability typically have difficulty generalizing the skills they have learned in school to their home and community settings, where there are different cues, expectations, people, and environmental arrangements (Turnbull et al., 2004:228). These learners often do not demonstrate learned skills spontaneously and have difficulty generalizing skills to new situations (Cook, Klein & Tessier, 2008:306).

For learners who have severe intellectual disability, the ability to synthesize information and skills is very limited. They often fail to see the relation of one bit of information to another. Therefore, we cannot teach isolated skills and expect them to be cohesively organized for application. Instead, more specific instruction is necessary, and relevant skills must be taught in clusters to better ensure meaningfulness (Westling & Fox, 2004:15).
In this case the NCS emphasizes integration of learning areas which is difficult to implement.

2.5.2.5 Language delay or disorder

Language comprises the ability to express ourselves and to understand what is being said in response (Newman, 2004:94). Cook, Klein and Tessier (2008:306) state that children with severe intellectual disability experience

particular difficulty with language development. They also indicate that language development may be below the child's mental age.

Speech and language development are closely related to cognitive functioning. Speech and language difficulties are more common among individuals with severe intellectual disability than in their non-disabled counterparts. Given the association between severe intellectual disability and speech and language, it is not surprising that students with severe intellectual disability experience a great deal of difficulty with academic tasks such as reading, that require verbal and language competency (Gargiulo, 2003:171). Gargiulo (2003:171) goes on to say that speech disorders are common among individuals with severe intellectual disability. These may include errors of articulation such as additions or distortions, fluency disorders (stuttering), and voice disorders such as hyper nasal speech or concerns about loudness.

There is a strong correlation between intellectual disability and language development - the higher the IQ, the less pervasive the language disorder. Although children with severe intellectual disability acquire language in the same fashion as their non-disabled peers, development occurs more slowly, their vocabulary is more limited, and grammatical structure and sentence complexity are often impaired. Yet language is crucial for the independent functioning of the individual with severe intellectual disability. Deficits in this area represent one of the greatest obstacles hindering the integration of people with severe intellectual disability into the mainstream of society (Gargiulo, 2003:171). Parson, Hinson and Sardo-Brown (2001:129) indicate that delayed or deviant language development is present in nearly all cases of severe intellectual disability.

Learners with severe intellectual disability are behind in language development. Language and speech deficits affect cognitive functioning. Learners with language and speech problems find it difficult to engage in

learner-centred and activity-based learning required by NCS. They find it difficult to achieve the learning outcomes and assessment standards prescribed by NCS.

2.5.3 Social, behavioural and emotional characteristics

Learner-centeredness and activity-based are among the principles of National Curriculum Statement, where learners have to interact appropriately with one another, communicate and form relationships in doing the activities.

Learners with severe intellectual disability display immature behaviours in social relationships that inhibit active involvement or participation, as expected by Outcomes Based Education. Landsberg, Kruger and Nel (2005:414) support this by stating that learners with severe and/or multiple disabilities may have problems with social interaction, including poor conversational skills, egocentricity, poor social judgment, inappropriate behaviour, emotional instability and poor decision-making skills.

Vaughn, Bos and Schumm (2003) allude to the fact that students with severe intellectual disabilities often engage in isolated inappropriate behaviours. A learner with severe intellectual disability may prefer doing his/her work alone, bullying and fighting other learners when they have to work or use learning support material together.

Friend adds that many students with severe intellectual disability have difficulties in social relationships. Students with severe intellectual disability have tended to be less accepted by their peers and more likely to be rejected by them, although inclusive practices may be successful in causing students to be more positive in their thinking about peers with disabilities. The reasons for students' social difficulties can be:

- Many students with severe intellectual disability have immature behaviours that lead other students to avoid them.

- Their ways of dealing with social situations may be inappropriate.
- Students with severe intellectual disability may have difficulty picking up on subtle social cues, and so may misinterpret other students' actions (Friend, 2006:297)'

Learners with severe intellectual disability may experience poor relations with other children due to poor self-concept, which may inhibit active involvement with other learners. Parson, Hinson and Sardo-Brown (2001:129) contend that students with sever intellectual disability often suffer from a variety of social problems such as trouble making friends, and they tend to have poor self-concept. Often, these difficulties are intertwined with delayed language skills and the fact that they do not know how to strike up friendships with others. In addition, some of their typical characteristics, such as inattention, also pose problems as they attempt to interact with others.

As Westwood (2004:137) puts it, children with severe intellectual disability appear to be much less mature than their age peers, exhibiting general behaviours typical of much younger children. Their behaviour patterns, skills and general knowledge are related more closely to their mental age than to their chronological age.

Despite the social, behavioural and emotional characteristics, The NCS requires learners with severe intellectual disability to be active agents in their own learning. They are expected to participate actively with other learners, doing activities together. The possibility of learners meeting the requirements of NCS having such characteristics is questioned.

2.5.4 Limitation in adaptive behaviour

Adaptive behaviour refers to one's ability to cope with the demands of daily life and is manifested in such things as sensory-motor, communication, self-

help, socialization, academic and vocational skills (Blackbourn, Patton & Trainor, 2004:103).

Friend (2006:298) indicates that to be identified as having severe intellectually disabled, students must display the following deficits in adaptive behaviour.

- Communication:- the ability to exchange thoughts, messages, or information with other people, either through speaking, sign language or other means.
- Self-care:- the ability to tend to personal hygiene, eating, and other related tasks.
- Social skills: - the ability to interact appropriately with others.
- Health and safety: - the ability to take precautions and act in ways that do not endanger self or others.
- Self-direction:- the ability to make and implement decisions.
- Functional academics: - the reading, writing, mathematics, and other skills needed for independence.

Students with severe intellectual disability are likely to have difficulties in many of these domains (Friend, 2006:298-299).

The possibility of learners with severe intellectual disability achieving the learning outcomes and assessment standards prescribed by the NCS is questioned in learners reflecting deficits in these adaptive behaviour.

2.6 Strategies to improve the learning and development of learners with severe intellectual disability.

Westwood (2004:57) uses the term 'curriculum disabled' to describe the situation where certain students cannot cope with the cognitive demands of the subject matter or the rate at which new concepts and skills are introduced. He further indicates that it is not only teaching methods that can contribute to learning difficulties, the content of the curriculum can also create problems.

Westwood (2004:58) state that confronting students day after day with work that is frustratingly difficult also has a very serious detrimental effect upon their self-esteem and motivation. He suggests that curriculum content should be selected for students with learning difficulties on the bases that it is real, relevant, realistic and rational. In this context, 'real' means the curriculum should cover topics that feature in the child's life and can be taught in concrete or experiential ways. 'Relevant' implies that in learning this topic the embedded knowledge, skills, strategies and values will be useful to the child. 'Realistic' means it is feasible that the child can attempt the work successfully given his or her age, ability, prior knowledge and motivation. 'Rational' implies that the student understands that there is value and purpose in engaging in this learning (Westwood, 2004:58).

Brennan (1985) emphasizes the above mentioned suggestions by means of questions as guidelines for curriculum evaluation as follows:

Is it real? : - Does what the pupils are being required to learn relate to the wider world outside the school? Is there a point of register that may be used? : - Is it relevant? : - Does a point of register have meaning within the outside world as perceived by the pupils? Will the curriculum experiences broaden the pupils' perceptions and extend the area of relevance. Is it realistic? : - Is the learning required achievable by the pupil given his or her potential for learning and a degree of effort of which he or she is capable? Are the proposed stages in the learning appropriate for the pupils? Is any necessary pre-learning firmly established? Is it rational? : - Is the purpose of learning clear to the pupils? If not, can it be explained to them in a manner compatible with their stage of personal development and intellectual competence?

'Is it realistic' is the most critical where the curriculum is concerned with special needs. It focuses on the individual pupils, on his or her needs, strengths and limitations, and is the starting point for individualization of curriculum. It also requires critical judgment from the teacher, who must pitch

demands on the pupil at just the right level. Over-demanding curriculum faces the pupil with the frustration of failure, when under-demanding deprives him or her the excitement and satisfaction of success as a result of personally recognized effort (Brennan,1985)

According to Coutinho and Pepp (1999:160), when determining the relevance of curricula areas to a student's life, one must realize that each student is in school on a time-limited basis. The real test of what has been taught is how useful it is once students leave the program.

Kirk, Gallagher and Anastasiow (2000:192) highlight that the important questions to be answered in the development of curricula for students with severe intellectual disability are, 'What are our goals? What are our immediate objectives to reach that goal?'

The theory in this section is that NCS is inappropriate for learners with severe intellectual disability. It does not recognize the legal rights of learners with severe intellectual disability to appropriate education as mentioned in the Education White Paper 6 (EWP6). This results in learners failure to reach the curricula goals and to become dependent on their parents throughout their lives.

2.6.1 Individualized and comprehensive curriculum

Gargiulo (2003:173) points out that learners with severe intellectual disability represent an especially heterogeneous population of learners with a wide range of skills and abilities. Schools therefore, must base the education of students with severe intellectual disability on individual, not system needs. The curriculum designed for these pupils must be individualized, functional and comprehensive. In addition, programming for the severe intellectually disabled must be forward looking, giving due consideration to the student's current and future needs: that is, the curriculum must be sensitive to the

environments in which individuals will ultimately be expected to adapt and function after leaving school. He refers to this concept individuals will ultimately be expected to adapt and function after leaving concept as the 'criterion of ultimate functioning'.

This chapter indicates that the curriculum must cater for the specific needs of learners with severe intellectual disability, which the NCS does not do. It does not consider preparing learners with severe intellectual disability for situations they will encounter upon leaving school.

2.6.2 Functional curriculum

Ysseldyke and Algozzine (1995:331) are of the opinion that the curriculum for the students with severe intellectual disabilities emphasizes functionality, age appropriate and independence. This means that all students should participate in activities that are appropriate for their chronological age. For students with severe disabilities, this means learning functional skills e.g. self-care – washing the clothes, cleaning the bedroom etc. and practicing them in natural environments in the presence of, or interacting with peers without disabilities.

Gargiulo (2003:174), Smith (2006:207) and Allen and Cowdery (2005:279) recommend functional curriculum. A functional curriculum is one that instructs pupils in the life skills they require for successful daily living and prepares them for those situations and environments they will encounter upon leaving school. These should include the skills required for personal maintenance and development, home making and community life, work and career, recreational activities, and travel within the community.

For severe intellectual pupils, as with their higher-functioning counterparts, areas of emphasis – or domains, as they are sometimes called, are individualized based on the current and future needs of the student. Typical

domains include self-help skills, socialization, communication, and vocational training, along with using community resources and exposure to very basic or 'survival' academics. An example of this last domain might include functional or environmental reading of survival words and phrases such as danger, exit, on, off, gentlemen, fire escape, don't walk, keep out, beware of dog, and other key protective vocabulary. The goal of these activities, and others like them, is to decrease the students' dependence on others and to enhance their ability to live and work independently in their community.

Allen and Cowdery (2005) recommend teaching adaptive and social skills as examples of functional curriculum.

2.6.3 Adaptive skills

Blackbourn, Patton and Trainor (2004:114) and Westwood (2007:19) recommend adaptive skills. Adaptive skills include those behaviours that we think of as self-care and independent skills, often referred to as functional skills. Allen and Cowdery (2005), define functional skills as those skills that, if a child cannot perform, someone must perform for the child. In the case of young children, functional skills are also those skills that make a child easier to care for (Allen and Cowdery, 2005). Common examples of functional skills for young children include toileting and dressing. Just as important are independent play skills and the ability to make and implement choices (Allen and Cowdery, 2005:279).

Pierangelo and Giuliani (2007:114), Westwood, (2007:19) and Blackbourn, Patton and Trainor (2004:114) recommend the following adaptive skills:

- Communicating with others.
- Taking care of personal needs.
- Health and safety.
- Self-care and daily living skills.
- Basic academic skills.

- Self-regulation and self-direction.
- Independent functioning in the community.

2.6.4 Self- determination: Self-determination as an adaptive skill refers to allowing people with severe intellectual disability to take an active role in making choices about their own life. In early childhood, these choices may be related to how to spend free time, what outfit to wear, or what to have for snack. These minor decisions are the foundation that children with severe intellectual disability need to make more important decisions as they get old (Allen and Cowdery, 2005:279-280).

2.6.5 Social skills

Social skills relate to getting along with others:

- interacting with children and adults, in a variety of ways, at home and away from home.
- Participating in group activities through listening, taking turns, and contributing to group efforts (Allen & Cowdery, 2005:298; Kirk, Gallagher & Anastasiow, 2000:192)

According to Mwamwenda (2004:336), most of the education severe intellectually disabled children receive focuses on developing acceptable attitudes, adequate personal health and safety habits, oral language and acceptable work habits.

Parson, Hinson and Sardo-Brown (2001) recommend the following steps for teaching students with severe intellectual disability:

- Planned activities need to be as practical as possible, focusing on how this population can take care of themselves, such as on dressing skills.

- Have students actually experience the settings in which they are learning to apply their skills, such as visiting a local store in order to practice the skill of buying food.
- Services offered by speech, physical and occupational therapists for students with severe intellectual should be integrated into authentic, real-life situation as much as possible.

In this chapter the researcher started discussing the literature review. In the following section she shifted to the government policy on the National Curriculum Statement.

2.7 Inclusive Education

In July 2001 the Ministry of Education launched the Education White Paper 6, Special Needs Education: Building an Inclusive Education and Training System. White Paper 6 reminds us that our constitution challenges us to ensure that all learners pursue their learning potential to the fullest (DOE, 2001:11).

White Paper 6 defines inclusive education and training as:

- Acknowledging that all children and youth can learn and that all children and youth need support.
- Accepting and respecting the fact that all learners are different in some way and have different learning needs, which are equally valued.
- Enabling education structures, systems and learning methodologies to meet the needs of all learners.
- Acknowledging and respecting differences in children, whether due to age, gender, ethnicity, language, class, disability, HIV status, etc.
- Broader than formal schooling, and acknowledges that learning occurs in the home, the community, and within formal and informal modes and structures.

- Changing attitudes, behaviours, methodologies, curricular and environments to meet the needs of all children.
- Maximizing the participation of all learners in the culture and the curriculum of educational institutions and uncovering and minimizing barriers to learning (DOE, 2004:26)

The new understanding accepts that learners have diverse needs, and that the system might be inadequate to respond to those needs. In other words, rather than seeing individual learners as being inadequate to fit into the system, the emphasis is on examining the system itself and identifying the factors within the system that are not learner-friendly (DOE, 2004:26)

Education White Paper 6 on Inclusive Education sets out to address the needs of all learners in one undivided education system. It moves from categorization of learners according to disability to assessing the needs and levels of support required by individual learners to facilitate their maximum participation in the education system as a whole. The focus is on ensuring that there is sufficient differentiation in curriculum delivery to accommodate learners' needs and making the support systems available for learners and schools (DOE, 2001:11).

2.8 Principles of the National Curriculum Statements (NCS)

According to training guide (2004:143-144), the National Curriculum Statement has the following principles:

The National Curriculum Statements (NCS) Grades R-9 (Schools) builds on the vision and values of the Constitution and Curriculum 2005 (C2005). These principles include:

2.8.1 Social Justice, a Healthy Environment, Human Rights and Inclusivity.

The National Curriculum Statements adopts an inclusive approach by specifying minimum requirements for all learners. The special educational,

social, emotional and physical needs of learners are addressed in the design and development of appropriate Learning Programmes.

2.8.2 Outcomes Based Education (OBE)

Outcomes Based Education forms the foundation of the NCS.

By means of Learning Area Statements, the NCS identifies the goals, expectations and outcomes to be achieved through related learning outcomes and assessment standards. These outcomes and assessment standards emphasize participatory, learner centred and activity based education. They leave considerable room for creativity and innovation on the part of teachers in interpreting what and how to teach. The South Africa version of OBE is intended to ensure that all learners are able to develop and achieve to their maximum ability and are equipped for lifelong learning.

2.8.3 A high level of skills and knowledge for all

The NCS aims to provide for a stronger base from which to enable the development of a high level of skills and knowledge and skills to be achieved by learners in each grade and setting high, achievable standards in all the learning areas.

2.8.4 Progression and integration.

The principle of integrated learning is integral to OBE. Integration ensures that learners experience the learning areas as linked and related. It supports and expands their opportunities to attain skills, acquire knowledge and develop attitudes and values encompassed across the curriculum (DOE, 2004:143).

2.8.5 Curriculum differentiation.

Curriculum differentiation refers to modifications that relate specifically to instruction or content of a curriculum. Curriculum differentiation deals with adaptation, modification and any adjustment to: (i) learning, teaching and

assessment environment, (ii) learning, teaching and assessment techniques, (iii) learning, teaching and assessment support material that enhances a learner's performance or allows at least partial participation in a learning activity, (iv) structure and number of learning programmes and (v) assessment.

Differentiation in the NCS should not be viewed as creating a new or alternative curriculum to the NCS (DOE, 2005:9)

2.9 Conclusion

In this chapter the focus was on the review of the literature about learners with severe intellectual disability and the National Curriculum Statement. The term severe intellectual disability was intensively discussed, with its causes, categories, levels of support needs and characteristics. The principles of NCS and how inclusive education is to be implemented were also discussed. The following chapter will focus on research design and methodology.

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter discusses the process of the empirical study for this investigation. It focuses on qualitative research design and ethnography as an interactive design of qualitative method. The chapter also includes the selection of participants, as well as observations and questionnaires as data collecting instruments to answer the research questions.

3.2 Research design

Maree (2010: 70) defines research design as a plan or strategy which moves from the underlying philosophical assumptions to specifying the selection of respondents, the data gathering techniques to be used and the data analysis to be done. The purpose of research design is to specify a plan for generating empirical evidence that will be used to answer the research questions. The intent is to use a design that will result in drawing the most valid, credible conclusions from the answers to the research questions (McMillan & Schumacher, 2006:22).

3.2.1 Ethnography

The researcher used ethnography as an interactive design of qualitative method. Maree (2010:76) defines ethnography as the description of a community or group that focuses on social systems and cultural heritage. The aim is to describe a culture or way of life from the perspective of a folk or people by making sense of the inherent meanings of gestures, displays, symbols, songs, sayings and everything else that has some implicit or tacit meaning in that culture. The researcher assumed that learners with severe intellectual disability behave differently compared to other people because of some reasons. The purpose of this ethnographic study was to understand the culture of learners with severe intellectual disability and the reason behind their actions and behaviour.

The researcher entered the special schools for learners with severe intellectual disability, to study their behaviour I the real classroom situations, when going about their daily routines. The researcher's aim was to gain first-hand experience of the learners' actions and behaviour. She took the role of a non-participant observer and wrote in the form of words, a detailed narrative description of what actually took place when learners with severe intellectual disability participated in the activities of the NCS approach. The focus was on actions that happened again and again. She interpreted the meaning behind the learners' actions, informed by the research questions.

The observation focused on the research questions which investigated: (a) the characteristics of severe intellectual disability, (b) whether learners with severe intellectual disability were able to achieve the learning outcomes and assessment standards prescribed by NCS and (c) the educators' opinions about the strategies to promote the effective learning and development of learners with severe intellectual disability.

3.2.2 Qualitative research design.

In this study, the researcher used the qualitative approach. A qualitative approach is a study of human and social problems in their natural settings and attempts to make sense of these problems in terms of the meanings people bring to them (Fink,2005:136).

As learners with severe intellectual disability were the focus of this study, the researcher went directly to their special schools to collect data by directly observing the learners and giving educators questionnaires to answer. For observation purposes, the researcher identified predetermined categories of behaviour that she would like to observe. The categories included the characteristics of severe intellectual disability distilled from the literature (Maree, 2007:85). The categories were developed as checklists to record predetermined

actions or behaviour of learners. During observation the researcher was able to study the learners' social and academic problems in the actual settings in which they occurred.

The observations and questionnaires focused on studying the characteristics of severe intellectual disability and to investigate whether learners with severe intellectual disability were able to achieve the learning outcomes and assessment standards prescribed by National Curriculum Statement (NCS). The questionnaires also required the educators' views about the strategies to promote the effective learning and development of learners with severe intellectual disability.

As noted by McMillan and Schumacher (2006:26), qualitative data are gathered in the form of words than numbers, and in general, the researcher must search and explore with a variety of methods until a deep understanding is achieved.

Before the empirical research, the researcher made an introductory visit to each of the two special schools. During these visits, the researcher explained to the educators the purpose and nature of the study, methods of data collection and assured them that their response would be treated anonymously and confidentially.

3.3 Research instruments

In this study two major research instruments that were used to collect data are individual observation and questionnaires.

3.3.1 Observation

The researcher decided to use observation as another data-gathering technique of qualitative field research. Fox and Bayat (2007:84) define observation as the systematic recording of occurrences on the behaviour patterns of subjects without questioning or communicating with them.

The researcher used structured observation for recording observational data. Here the researcher identified predetermined categories of behaviour that she would like to observe. These categories were distilled from the literature and included the characteristics of severe intellectual disability and the learning outcomes and assessment standards prescribed by the National Curriculum Statement (NCS).The categories were developed into checklists to record predetermined actions or behaviour (Maree, 2007:85).

For this study, the researcher entered the classes for learners with severe intellectual disability in order to gain first-hand experience of their interactions in the learning process. Observation has the advantage that it allows us to hear, see and begin to experience reality as participants do (Maree, 2010:84).The researcher observed learners with severe intellectual disability in real classroom situation during the teaching-learning periods.

The researcher observed the interactions of learners with severe intellectual disability in the Literacy/Language and Numeracy/Mathematics activities of the classrooms. The main focus of the observation was to investigate whether the interactions were of quality that resulted in the achievement of the learning outcomes and assessment standards prescribed by NCS and whether learners with severe intellectual disability display the characteristics found in the literature review.

The researcher watched and listened how learners with severe intellectual disability interacted with one another, with the educators and with the activities, how they responded to educators' questions, how they did the activities together, and whether they did the activities correctly and with success. As noted by McMillan and Schumacher (2006:347), the researcher also observed the verbal and non-verbal behaviour of learners like facial expression, tone of voice, body movement, that suggested the subtle meaning of language.

When recording the observation, the researcher used a predetermined list of actions observed. After each list, a space left for the teacher to fill in her reflection of what happened during the observation. Under 'Actions observed' space, the researcher wrote a thick description of what actually took place. Here, the researcher included no value judgements. Under 'Reflection', the researcher looked back critically at what happened in the classroom activities. The researcher then wrote her own thoughts or ideas about the meaning of what was observed (Maree, 2010:85).

3.3.2 Questionnaire

The researcher used questionnaires as another data gathering technique of qualitative field research. This was to validate information the researcher obtained by observing learners with severe intellectual disability.

Fox and Bayat (2007:88) define a questionnaire as a list of questions on a specific topic compiled by a researcher and to which answers and information are required. The researcher preferred to use a questionnaire for it is cost-effective when compared to face-to-face interviews. It is easy to analyze and are less intrusive than face-to-face surveys (Fox & Bayat, 2007:88).

In this study, the researcher used a self-constructed questionnaire. The questionnaire was closed and structured. The one section of the questionnaire contained rating questions that required 'Agreed', 'Strongly agree' and 'Strongly disagree' response. The other section contained questions that required 'Yes'/'No' response. According to Cohen, Manion and Morrison (2006:247), highly structured, closed questions are useful in that they can generate frequencies or response amenable to statistical treatment and analysis. They also enable comparisons to be made across groups in the sample.

The first section of the questionnaire contained demographic information. It is the section where the educators filled in the information about the gender and age of learners in their classes. The gender of educators was also included.

The second section consisted of statements about the characteristics of severe intellectual disability. The section required the educators' degree of agreement or disagreement (Agree, Strongly Agree, Disagree, Strongly Disagree) whether learners with severe intellectual disability reflect those characteristics.

The third section focused on English (First Additional Language) and Mathematics as 'core' learning areas of the NCS approach. The section consisted of closed-ended (Yes/No) questions that required educators to express their agreement or disagreement regarding the learners' achievement of the learning outcomes and assessment standards

The fourth section consisted of a set of open-ended questions directed at the educators' experiences and views about the outcomes of implementing NCS in teaching learners with severe intellectual disability. Open-ended questions enabled the respondents to write their free response in their own terms, to explain and qualify their responses and avoid the limitations of pre-set categories of response (Cohen, Manion & Morrison, 2006:248). The questions also asked for the educators' suggestions about the strategies that could be used to promote the effective learning and development of learners with severe intellectual disability.

3.4 Population

The population for this study comprised of learners with severe intellectual disability and their educators in the two special schools in the Rustenburg District of the Bojanala Region, in the North West Province. The learners included are between the ages of eight and twenty-two who are severely disabled that they are functioning at an early childhood level in areas of development.

The population of the two special schools was as follow:

School 1 = 191 learners 17 educators

School 2 = 327 learners 21 educators

The total number of learners in the two special schools was 518

The total number of educators in the two special schools was 38.

3.4.1 Sampling

Out of the population of 38 educators, a sample N=16 completed the questionnaire. Out of the population of 518 learners (38 classes), a sample N=16 classes were observed. Purposive sampling was used in this study. Purposive sampling is sampling in which members of the population, in this case learners with severe intellectual disability are selected with the aim of meeting the specific characteristics required for the research. In order to select members to meet the required characteristics, the researcher employed simple random type of probability sampling. This was done to give every age group of learners in the population an equal chance of being drawn, and to generalize the sample to the larger population.

As noted by Maree (2010:79), sampling in qualitative research is flexible and often continues until no new themes emerge from the data collection process–called data saturation. In each of the two schools, the researcher decided that saturation had been reached after she observed repeated behaviour from eight different classes. The researcher decided that due to the purpose of this study

The researcher contacted the Rustenburg area project manager and asked for a permission to conduct an investigation in the specified site. Written permission was granted for the investigation to commence on the site.

3.5 Validity

The validity of an instrument refers to the extent to which it measures what it is supposed to measure (Maree, 2010:216). To evaluate the validity of the questionnaire, the researcher used pilot study. The researcher's colleagues were asked to complete the questionnaires to remove any items that were unnecessarily included.. It also helped to check whether all the questions and instructions were clear. This would help the participants (educators) in the main study to complete the questionnaires without any difficulties.

Apart from the demographic information section, the questionnaire was divided into two sections. The first section contained the characteristics of severe intellectual disability distilled from the literature. From piloting the researcher learnt that the section was too long for the respondents to answer. The second section contained the learning outcomes (LO) and assessment standards (AS) of the learning areas Literacy/English and Numeracy/Mathematics distilled from the NCS policy document of the Department of Education. This section was also very long which resulted in the wrong numbering of the questionnaire.

The observations also validated the questionnaires as they both focused on investigating the characteristics of severe intellectual disability, whether learners were able to achieve the learning outcomes and assessment standards prescribed by NCS and the educators' opinions about the strategies to promote the effective learning and development of learners with severe intellectual disability.

3.6 Conclusion

The research design in this study was helpful in planning how the empirical investigation was run. The research method and instruments, as well as sample selection were discussed. The following chapter will focus on data analysis and interpretation.

CHAPTER FOUR

4. DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The purpose of this chapter is to analyze and interpret the research findings pertaining to the aim of this study. The aim of this study was to investigate: (a) whether learners with severe intellectual disability benefit from participating in the National Curriculum Statement (NCS) approach. This formed the primary aim. Secondary aims generated from the primary aim were:

To investigate the characteristics of severe intellectual disability.

To investigate whether learners with severe intellectual disability can achieve the learning outcomes and assessment standards prescribed by NCS.

To achieve these goals, class observations were made and questionnaires administered to answer the research questions.

The chapter is divided into four sections. The first section outlines the demographic information, the second describes the characteristics of severe intellectual disability, the third displays the learning outcomes (LO) and assessment standards (AS) of the learning areas English (First Additional Language) and Mathematics, prescribed by NCS. The fourth section asked about the end results of learners with severe intellectual disability participating in the NCS approach and the strategies/measures to improve their learning and development.

This chapter presents the responses of the respondents and the analysis and interpretation of data. It starts with the demographic information of the respondents, followed by the responses of the questionnaire and the field notes of the observations. The field notes are included here because during the observations, the focus was on the contents of the questionnaire. Although observation is included, questionnaire is always mentioned in this chapter.

The questionnaire was organized as themes. The themes presented the research questions and constituted the four sections of the questionnaire. The researcher divided the data into sub-themes for analysis. The first section of the questionnaire consisted of the demographic information. The demographic information sheds light on the profile of the respondents. The second section contained the characteristics of severe intellectual disability distilled from the literature. The third section contained the learning outcomes and assessment standards of the learning areas Literacy/English (First Additional Language) and Numeracy/Mathematics from the NCS policy document of the Department of Education. The fourth and last section contained open-ended questions asking for the educators' views concerning the end results of learners with severe intellectual disability participating in the NCS approach. The fourth section also asked the educators' suggestions on the strategies/measures to improve the learning and development of learners with severe intellectual disability. Interpretations of responses were made after each set of questions and were made according to percentages of response.

4.2 Demographic information

4.2.1 Summary of demographic information of educators in percentile frequencies N=16

Variables	Educators	TOTAL
Gender	Male	6 (38%)
	Female	10(62%)
	TOTAL	16(100%)

Of the sixteen educators for learners with severe intellectual disability who answered the questionnaire, 10 (62%) were female and 6 (38%) were male. This shows that the majority of educators for learners with severe intellectual disability in the Rustenburg district are females.

4.2.2 Summary of demographic information of learners in percentile frequencies N=16

Variable		TOTAL
Age groups	8-10 years	3(19%)
	11-14 years	4(25%)
	15-17 years	5(31%)
	18-21 years	4(25%)
	TOTAL	16(100%)

Of the sixteen educators who answered the questionnaire, 5 (31%) were for learners 8 – 10 years, 4 (25%) for learners 11 – 14 years, 5 (31%) for learners 15 - 17 years and 4 (25%) for learners 18 – 21 years. This shows that the problem under investigation refers to all age groups of severe intellectual disability.

4.3 Summary of the characteristics of severe intellectual disability,

4.3.1 Giving attention to relevant aspect of the learning situation N=16

Variables	Agree	Strongly Agree	Disagree	Strongly Disagree	TOTAL
Fail to carry out simple instruction.	4(25%)	11(69%)	1(6%)	None	16(100%)
Fail to concentrate for a 30 minutes period.	5(31%)	10(63%)	1(6%)	None	16(100%)
Fail to count from 1 to 100.	8(50%)	7(44%)	1(6%)	None	16(100%)
Fail to sequence objects from the smallest to the biggest.	5(31%)	9(56%)	2(13%)	None	16(100%)
Fail to classify objects into sets of the same.	7(44%)	7(44%)	2(12%)	None	16(100%)

- Fail to carry out simple instructions.

The majority of the respondents, 11(69%) strongly agreed and 4(25%) agreed that learners with severe intellectual disability fail to carry out simple instructions. In total, the respondents who agreed plus those who strongly agreed counted 15(94%). Only 1(6%) of the respondents maintained that learners with severe intellectual disability do not fail to carry out simple instructions.

- Fail to concentrate for a 30 minutes period.

The majority of the respondents, 10(63%) strongly agreed and 5(31%) agreed that learners with severe intellectual disability fail to concentrate for a 30 minutes period. The total number of the respondents who strongly agreed plus those who agreed counted 15(94%). Only 1(6%) of the respondents maintained that learners with severe intellectual disability do not fail to concentrate for a 30 minutes period.

- Fail to count from 1 to 100.

The majority of the respondents, 8(50%) agreed and 7(44%) strongly agreed that learners with severe intellectual disability fail to count from 1 to 100. The total number of respondents who agreed plus those who strongly agreed counted 15(94%). Only 1(6%) of the respondents maintained that learners with severe intellectual disability do not fail to count from 1 to 100.

- Fail to sequence objects from the smallest to the biggest.

The majority of the respondents, 9(56%) strongly agreed and 5(31%) agreed that learners with severe intellectual disability fail to classify objects from the smallest to the biggest. In total, the respondents who strongly agreed plus those who agreed counted 14(87%). Only 2(13%) of the respondents maintained that learners with severe intellectual disability do not fail to sequence objects from the smallest to the biggest.

- Fail to classify objects into sets of the same.

The majority of the respondents, 7(44%) agreed and 7(44%) strongly agreed that learners with severe intellectual disability fail to classify objects into sets of the same, Altogether the respondents who agreed with the statement

counted 14(88%). Only 2(12%) of the respondents maintained that learners with severe intellectual disability do not fail to classify objects into sets of the same.

According to the response, a very low percentage of educators disagree that learners with severe intellectual disability fail to attend to relevant aspect of learning situation. This leads to non-achievement of learning outcomes and assessment standards prescribed by NCS.

4.3.2 Learners' memory N=16

variables	agree	strongly agree	disagree	strongly disagree	total
Fail to recall the spelling of simple words.	4(25%)	12(75%)	None	None	16(100%)
Fail to recall instructions.	5(31%)	10(63%)	1(6%)	None	16(100%)
Fail to recall what they have just heard.	7(44%)	8(50%)	1(6%)	None	16(100%)
Fail to recall a poem that was recited in class during a language period.	2(12%)	14(88%)	None	None	16(100%)

- Fail to recall the spelling of simple words.

The majority of the respondents, 12(75%) strongly agreed and 4(25%) agreed that learners with severe intellectual disability fail to recall the spelling of simple words. All the respondents, 16(100%) agreed with the statement. No respondents maintained that learners with severe intellectual disability do not fail to recall the spelling of simple words.

- Fail to recall instructions.

The majority of the respondents, 10(63%) strongly agreed and 5(31%) agreed that learners with severe intellectual disability fail to recall instructions. Only

1(6%) of the respondents maintained that learners with severe intellectual disability do not fail to recall instructions.

- Fail to recall what they have just heard.

The majority of the respondents, 8(50%) strongly agreed and 7(44%) agreed that learners with severe intellectual disability fail to recall what they have just heard. Altogether the respondents who strongly agreed plus those who agreed counted

15 (94%). Only 1(6%) of the respondents maintained that learners with severe intellectual disability do not fail to recall what they have just heard.

- Fail to recall a poem that was recited in class during a language period.

14(88%) of the respondents strongly agreed while 2(12%) agreed that learners with severe intellectual disability fail to recall a poem that was recited in class during a language period. No respondents disagreed with the statement. The response shows that learners with severe intellectual disability fail to recall information from short-term memory. This contributed to learners' failure to achieve the learning outcomes and assessment standards prescribed by the NCS.

4.3.3 Learners' academic involvement N=16

Variables	Agree	Strongly Agree	Disagree	Strongly Disagree	TOTAL
Fail to respond to simple questions.	7(44%)	8(50%)	1(6%)	None	16(100%)
Fail to exchange thoughts, messages or information with other learners in learner-centred activities.	4(25%)	10(63%)	2(12%)	None	16(100%)
Concentrate for a short time only.	5(31%)	10(63%)	1(6%)	None	16(100%)

Do not complete work (within allocated time in class.	9(56%)	7(44%)	None	None	16(100%)

- Fail to respond to simple questions.

The majority of the respondents, 8(50%) strongly agreed and 7(44%) agreed that learners with severe intellectual disability fail to respond to simple questions. In total, the respondents who strongly agreed plus those who agreed counted 15(94%). Only 1(6%) of the respondents disagreed that learners with severe intellectual disability fail to respond to simple questions.

- Fail to exchange thoughts, messages or information with other learners in learner-centred activities.

The majority of the respondents, 10(63%) strongly agreed and 4(25%) agreed that learners with severe intellectual disability fail to exchange thoughts, messages or information with other learners in learner-centred activities. In total, the respondents who strongly agreed plus those who agreed counted 14(88%). Only 2(12%) of the respondents disagreed with the statement.

- Concentrate for a short time only.

The majority of the respondents, 10(63%) strongly agreed and 5(31%) agreed that learners with severe intellectual disability concentrate for a short time only. The total number of the respondents who strongly agreed plus those who agreed counted 15(94%). Only 1(6%) of the respondents maintained that learners with severe intellectual disability do not concentrate for a short time only.

- Do not complete work (within allocated time in class).

The majority of the respondents 9(56%) agreed that learners with severe intellectual disability do not complete work. 7(44%) strongly agreed with the statement. The respondents who agreed plus those who strongly agreed made a total of 16(100%). No respondents maintained that learners with severe intellectual disability complete work.

The response showed that learners with severe intellectual disability have passive academic involvement which led to failure to achieve the learning outcomes and assessment standards prescribed by NCS.

4.3.4 Learners' interactions N=16

Variables	Agree	Strongly Agree	Disagree	Strongly Disagree	TOTAL
Fail to get on well with other learners.	9(56%)	5(31%)	2(13%)	None	16(100%)
Fail to talk freely and clearly to other learners and to the teacher.	8(50%)	6(38%)	2(12%)	None	16(100%)
Fail to work in a group and take turns.	7(44%)	7(44%)	2(12%)	None	16(100%)

- Fail to get on well with other learners.

The majority of the respondents, 9(56%) agreed and 5(31%) strongly agreed that learners with severe intellectual disability fail to get on well with other learners. The total number of the respondents who agreed plus those who strongly agreed counted 14(88%). Only 2(12%) of the respondents maintained that learners with severe intellectual disability do not fail to get on well with other learners.

- Fail to talk freely and clearly to other learners and the teacher.

The majority of the respondents, 8(50%) agreed and 6(38%) strongly agreed that learners with severe intellectual disability fail to talk freely and clearly to other learners and the teacher. The number of the respondents who agreed plus those who strongly agreed counted 14(88%). Only 2(12%) of the respondents maintained that learners with severe intellectual disability do not fail to talk freely and clearly to other learners and the teacher.

- Fail to work in a group and take turns.

The majority of the respondents, 7(44%) agreed and 7(44%) strongly agreed that learners with severe intellectual disability fail to work in a group and take turns. Altogether the respondents who agreed plus those who strongly agreed counted 14(88%). Only 2(12%) of the respondents maintained that learners with severe intellectual disability do not fail to work in a group and take turns.

The respondents maintained that learners with severe intellectual disability fail to interact in the learner-centered activities as the principle of outcomes-based education (OBE). This contributed to the learners' failure to achieve the learning outcomes and assessment standards prescribed by NCS.

4.3.5 Learners' emotions N=16

Variables	Agree	Strongly Agree	Disagree	Strongly Disagree	TOTAL
Have difficulty fitting in with other learners.	8(50%)	5(31%)	3(19%)	None	16(100%)
Fail to control their feelings.	10(62%)	3(19%)	3(19%)	None	16(100%)

- Have difficulty fitting in with other learners.

The majority of the respondents 8(50%) agreed and 5(31%) strongly agreed that learners with severe intellectual disability have difficulty fitting in with other learners. The total number of the respondents who agreed plus those who strongly agreed counted 13(81%). Only 3(19%) of the respondents maintained that learners with severe intellectual disability have no difficulty fitting in with other learners.

- Fail to control their feelings.

The majority of the respondents 10(62%) and 3(19%) strongly agreed that learners with severe intellectual disability fail to control their feelings. Altogether the respondents who agreed plus those who strongly agreed counted 13(81%). Only 3(19%) of the respondents maintained that learners with severe intellectual disability do not fail to control their feelings.

Failure to engage in learning activities contributed to non-achievement of the learning outcomes and assessment standards prescribed by NCS.

4.4. Learning outcomes (LO) and assessment standards (AS).

LEARNING AREA: ENGLISH (First Additional Language)

4.4.1 LO 1: LISTENING

The learners will be able to listen for information and enjoyment, and respond appropriately and critically in a wide range of situations.

4.4.1.1 Learners' listening skills (understanding stories) N=16.

Assessment standard	Yes	No	TOTAL
1. Predict what will happen next	None	16(100%)	16(100%)
2. Respond individually to the story	None	16(100%)	16(100)
3. Retell the story	None	16(100%)	16(100%)

- Predict what will happen next.

All the respondents 16(100%) agreed that learners with severe intellectual disability cannot listen to, understand stories and predict what will happen next.

- Respond individually to the story.

All the respondents 16(100%) agreed that learners with severe intellectual disability cannot listen to, understand stories and respond individually to it.

- Retell the story.

All the respondents 16(100%) agreed that learners with severe intellectual disability cannot listen to, understand the story and retell it.

4.4.1.2 Learners' listening and respecting others N=16

Assessment standard	Yes	No	TOTAL
1. Give them a chance to speak.	6(38%)	10(62%)	16(100%)
2. Listen to other learners.	5(31%)	11(69%)	16(100%)
3. Encourage them to speak their additional language.	None	16(100%)	16(100%)
4. Express an opinion and give a reason for it.	None	16(100%)	16(100%)
5. Control feelings.	5(31%)	11(69%)	16(100%)

- Give them a chance to speak?

The majority of the respondents 10(62%) disagreed while 6(38%) agreed that learners with severe intellectual disability can respect other learners and give them chance to speak.

- Listen to other learners?

The majority of the respondents 11(69%) disagreed while 5(31%) agreed that learners with severe intellectual disability can respect other learners and listen to them.

- Encourage them to speak their additional language?

All the respondents 16(100%) maintained that learners with severe intellectual disability cannot express an opinion and give a reason for it.

- Control their feelings?

The majority of the respondents 11(69%) disagreed while 5(31%) agreed that learners with severe intellectual disability can control their feelings.

4.4.2 LO 2: SPEAKING:

The learners will be able to communicate confidently and effectively in spoken language in a wide range of situations.

Learners' speaking (interacting in an additional language N=16

Assessment standards	Yes	No	TOTAL
1. Ask simple questions?	4(25%)	12(75%)	16(100%)
2. Give short answers to questions?	6(38%)	10(62%)	16(100%)
3. Take part in a short conversation on a familiar topic?	3(19%)	13(81%)	16(100%)

- Can they interact in an additional language?

The majority of the respondents 12(75%) disagreed while 4(25%) agreed that learners with severe intellectual disability can interact in English as an additional language and ask simple questions.

- Give short answers to questions?

The majority of the respondents 10(62%) disagreed while 6(38%) agreed that learners with severe intellectual disability can interact in English as an additional language and give short answers to questions.

- Take part in a short conversation on a familiar topic.

The majority of the respondents 13(81%) disagreed while 3(19%) agreed that learners with severe intellectual disability can interact in English as an additional language and take part in a short conversation on a familiar topic.

The response indicated that learners with severe intellectual disability are unable to interact in English as an additional language. This contributed to failure to achieve the learning outcomes and assessment standards prescribed by NCS.

4.4.3 LO 3: READING AND VIEWING

The learners will be able to read and view for information and enjoyment, and respond critically to the aesthetic, cultural and emotional values in texts.3.

Learners' reading and viewing N=16

Assessment standards	Yes	No	TOTAL
1. Recognize differences in pronunciation between home and additional language?	None	16(100%)	16(100%)
2. Understand letter-sound relationships	None	16(100%)	16(100%)
3. Recognize and make meaning of letters and words?	None	16(100%)	16(100%)
4. Make sense of a picture story	8(50%)	8(50%)	16(100%)
5. Match pictures and words	3(19%)	13(81%)	16(100%)
6. Match a sentence (a caption) to a picture	None	16(100%)	16(100%)
7. Answer short oral questions about the story	5(31%)	11(69%)	16(100%)
8. Retell the story	5(31%)	11(69%)	16(100%)

- Recognize differences in pronunciation between home and additional language?

All the respondents 16(100%) disagreed that learners with severe intellectual disability cannot recognize differences in pronunciation between home and additional language.

- Understand letter-sound relationships?

All the respondents 16(100%) disagreed that learners with severe intellectual disability cannot understand letter-sound relationships.

- Recognize and make meaning of letters and words?

All the respondents 16(100%) disagreed that learners with severe intellectual disability cannot recognize and make meaning of letters and words.

- Make sense of a picture story?

8(50%) of the respondents agreed and 8(50%) disagreed that learners with severe intellectual disability can make sense of a picture story.

- Match pictures and words?

The majority of the respondents 13(81%) disagreed while 3(19%) agreed that learners with severe intellectual disability can match pictures and words.

- Match a sentence (a caption) to a picture?

All the respondents 16(100%) maintained that learners with severe intellectual disability cannot match a sentence (a caption) to a picture.

- Answer short oral questions about the story?

The majority of the respondents 11(69%) disagreed while 5(31%) agreed that learners with severe intellectual disability can read and answer short oral questions about the story.

- Retell the story?

The majority of the respondents 11(69%) disagreed while 5(31%) agreed that learners with severe intellectual disability can read and retell the story.

The response revealed that learners with severe intellectual disability are unable to read English as first additional language. Reading English is a requirement for achieving the learning outcomes and assessment standards prescribed by NCS.

4.4.4 LO 4: WRITING

The learners will be able to write different kinds of factual and imaginative texts for a wide range of purposes.

Learners' writing N=16

Assessment standards	Yes	No	TOTAL
1. Use phonic knowledge to begin to spell words correctly.	3(19%)	13(81%)	16(100%)
2. Spell simple words correctly from memory.	2(13%)	14(87%)	16(100%)
3. Identify and correct spelling errors in simple words.	2(13%)	14(87%)	16(100%)
4. Write simple words from dictation?	2(13%)	14(87%)	16(100%)
5. Write words in alphabetical order?	3(19%)	13(81%)	16(100%)
6. Use punctuation- capital letters, full stops, commas, etc.?	3(19%)	13(81%)	16(100%)
7. Complete sentences by filling in missing words?	None	16(100%)	16(100%)
8. Write a caption for a picture?	None	16(100%)	16(100%)

- Use phonic knowledge to begin to spell words correctly.

13(81%) of the respondents indicated that learners with severe intellectual disability cannot while 3(19%) indicated that they can use phonic knowledge to begin to spell words correctly.

- Identify and correct spelling errors.

14(87%) of the respondents indicated that learners with severe intellectual disability can while 2(13%) indicated that they can identify and correct spelling errors in simple words.

- Write simple words from dictation.

14(87%) of the respondents indicated that learners with severe intellectual disability cannot write simple words from dictation. Only 2(13%) of the respondents agreed with the statement.

- Write words in alphabetical order.

13(81%) respondents disagreed while 3(19%) agreed that learners with severe intellectual disability can write words in alphabetical order.

- Complete sentences by filling in missing words.

13(81%) respondents disagreed while 3(19%) agreed that learners with severe intellectual disability can complete sentences by filling in missing words.

- Write a caption for a picture.

All the respondents 16(100%) indicated that learners with severe intellectual disability cannot write a caption for a picture.

The response shows that learners with severe intellectual disability are unable to write English as first additional language. Failure to write contributed to non-achievement of learning outcomes and assessment standards.

4.4.5 LO 5: THINKING AND REASONING

The learners will be able to use language to think and reason, as well as to access, process and use information for learning.

4.4.5.1 Learners' thinking and reasoning N=16

They can understand concepts and vocabulary relating to:-

Assessment standards	Yes	No	TOTAL
1. Identity (e.g. 'My name is...)	5(31%)	11(69%)	16(100%)

2. Numbers (e.g. one, two...)	6(38%)	10(62%)	16(100%)
3. Shape (e.g. circle, square)	2(13%)	14(87%)	16(100%)
4. Size (e.g. big, small)	6(38%)	10(62%)	16(100%)
5. Direction (e.g. left, right)	4(25%)	12(75%)	16(100%)
6. Sequence (e.g. first, second)	4(25%)	12(75%)	16(100%)

- Identity

11(69%) of the respondents disagreed while 5(31%) agreed that learners with severe intellectual disability can understand concepts and vocabulary relating to identity.

- Numbers

10(62%) of the respondents disagreed while 6(38%) agreed that learners with severe intellectual disability can understand concepts and vocabulary relating to numbers.

- Shape

14(87%) of the respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can understand concepts and vocabulary relating to shape.

- Size

10(62%) of the respondents disagreed while 2(38%) of the respondents agreed that learners with severe intellectual disability can understand concepts and vocabulary relating to size.

- Direction

12(75%) of the respondents disagreed while 4(25%) agreed that learners with severe intellectual disability can understand concepts and vocabulary relating to direction.

- Sequence

12(75%) of the respondents disagreed while 4(25%) agreed that learners with severe intellectual disability can understand concepts and vocabulary relating to sequence.

4.4.5.2 Learners' use of language N=16

Assessment standards	Yes	No	TOTAL
1. Identify similarities and differences (e.g. 'Put all the circles together,' 'Find the one that is different')	4(25%)	12(75%)	16(100%)
2. Identify parts from the whole (e.g. parts of the face, a body)	5(31%)	11(69%)	16(100%)
3. Sequence things (e.g. from biggest to smallest)	3(19%)	13(81%)	16(100%)
4. Classify things	3(19%)	13(81%)	16(100%)
5. Understand and use some mathematical language (e.g. add, subtract, etc.)	2(13%)	14(87%)	16(100%)

- Similarities and differences

The majority of the respondents 12(75%) disagreed while 4(25%) agreed that learners with severe intellectual disability can identify similarities and differences in objects.

- Identify parts from the whole

The majority of the respondents 11(69%) disagreed while 5(31%) agreed that learners with severe intellectual disability can identify parts from the whole.

- Sequence things

The majority of the respondents 13(81%) disagreed while 3(19%) agreed that learners with severe intellectual disability can sequence things.

- Classify things

The majority of the respondents 13(81%) disagreed while 3(19%) agreed that learners with severe intellectual disability can classify things.

- Use some mathematical language

The majority of the respondents 14(87%) disagreed while 2(13%) agreed that learners with severe intellectual disability can understand and use some mathematical language.

The response showed that learners with severe intellectual disability are unable to use English first additional language to think and reason, and for learning. They do not understand concepts and vocabulary of the language. Knowledge of language is a prerequisite for learning

4.4.6 LO 6: LANGUAGE STRUCTURE AND USE.

The learners will be able to use the sounds, words and grammar of the language to create and interpret texts.

4.4.6.1 Learners' use of language structure N=16

Assessment standards	Yes	No	TOTAL
1. Understand question forms in oral texts (e.g. What...?, Who...?, How many.../much/old? Etc.)?	3(19%)	13(81%)	16(100%)
2. Understand simple sentences in oral texts (e.g. 'I want to go home'.)?	2(13%)	14(87%)	16(100%)
3. Understand plurals of nouns in oral texts (e.g. book books), including some irregular forms (e.g. tooth, teeth)?	2(13%)	14(87%)	16(100%)

4. Understand some negative forms in oral texts (e.g. 'I don't like meat', 'I can't swim')?	2(13%)	14(87%)	16(100%)
5. Understand some personal pronouns in oral texts (e.g. my, your, his, her, our, their book)?	2(13%)	14(87%)	16(100%)
6. Understand some prepositions in oral texts (e.g. in, at, on, to)?	2(13%)	14(87%)	16(100%)
7. Understand a few adjectives (e.g. big, small)?	2(13%)	14(87%)	16(100%)

13(81%) of the respondents disagreed while 3(19%) agreed that learners with severe intellectual disability can understand question forms in oral texts.

- Understand question forms.

14(87%) of the respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can understand simple sentences in oral texts.

- Understand simple sentences.

14(87%) of the respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can understand plurals of nouns in oral texts.

- Understand plurals of nouns.

14(87%) of the respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can understand some negative forms in oral texts.

- Understand some negative forms.

14(87%) of the respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can understand personal pronouns in oral texts.

- Understand personal pronouns.

14(87%) of the respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can understand some prepositions in oral texts.

- Understand a few adjectives.

14(87%) of the respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can understand a few adjectives.

The response showed that learners with severe intellectual disability do not know the structure and use of English as first additional language. The learners were unable to use sounds, words and grammar of the language which caused failure to achieve the learning outcomes and assessment standards prescribed by NCS.

4.5 LEARNING AREA: MATHEMATICS

4.5.1 LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

The learners will be able to recognize, describe and present numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

4.5.1.1 Learners' performance in Mathematics

Assessment standards	Yes	No	TOTAL
1. Count forward and backward in a variety of intervals between 0 and at least 1 000.	3(19%)	13(81%)	16(100%)
2. Perform mental calculations involving			
i. addition and subtraction of numbers to at least 1 000	2(13%)	14(87%)	16(100%)
ii. multiplication of whole numbers to at least 10 x 100	2(13%)	14(87%)	16(100%)

3. Recognize the place value of digits in whole numbers to at least 4-digit numbers	3(19%)	13(81%)	16(100%)
4. Know, read and write number symbols and names from 1 to 1 000	2(13%)	14(87%)	16(100%)
5. Perform calculations, using appropriate symbols, to solve problems involving:-			
i. addition and subtraction with whole numbers	2(13%)	14(87%)	16(100%)
iii. Multiplication of whole 4-digit by 2-digit numbers	2(13%)	14(87%)	16(100%)
iii. Division of at least whole 2-digit by 1-digit numbers.	1(6%)	15(94%)	16(100%)

- Count forward and backward

The majority of the respondents 13(81%) disagreed while 3(19%) agreed that learners with severe intellectual disability can count forward and backward in a variety of intervals between 0 and 1 000.

- Mental calculations involving addition and subtraction

The majority of the respondents 14(87%) disagreed while only 2(13%) agreed that learners with severe intellectual disability can perform mental calculations involving addition and subtraction of numbers to at least 1 000

- Mental calculations involving multiplication.

The majority of the respondents 14(87%) disagreed while 2(13%) agreed that learners with severe intellectual disability can perform mental calculations involving multiplication of whole numbers to at least 10x100.

- The place value of digits.

The majority of the respondents 13(81%) disagreed while 3(19%) agreed that learners with severe intellectual disability can recognize the place value of digits in whole numbers to at least 4-digits numbers.

- Know, read and write number symbols.

14(87%) of the respondents disagreed while 2(13%) agreed that learners with severe intellectual disability know, can read and write number symbols and names from 1 to 1 000.

- Solve problems involving addition and subtraction.

14(87%) of the respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can perform calculations using appropriate symbols, to solve problems involving addition and subtraction with whole numbers.

- .Solve problems involving multiplication 14(87%) of the respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can perform calculations using appropriate symbols, to solve problems involving multiplication of whole 4-digit by 2-digit numbers.

- Solve problems involving division 15(94%) of the respondents disagreed while 1(6%) agreed that learners with severe intellectual disability can perform calculations, using appropriate symbols, to solve problems involving division of at least whole 2-digit by 1-digit numbers.

The response showed that learners with severe intellectual disability did not know and could not read and write number symbols. They could not count estimate, calculate and solve problems.

4.6 SECTION D: Educators' views in response to the questionnaire

4.6.1 According to your view, does NCS prepare learners with severe intellectual disability for life after leaving school?

Educators' response N=16.

	Yes	No	TOTAL
Educators	None	16(100%)	16(100%)

.All the respondents 16(100%) maintained that NCS does not prepare learners with severe intellectual disability for life after leaving school.

4.6.2 If your answer to question above is no, what intervention strategies do you think can be used to help the learners?

Educators' answers:

Learners with severe intellectual disability can be taught the following:-

- Self-care skill e.g. dressing, eating, personal appearance, care of the body, care of clothes.
- Social and emotional adjustment e.g. to interact with others, to maintain positive relationships with others, recreational and group activities.
- Safety measures e.g. Reading of 'survival' words and phrases such as danger, exit, on, off, gentlemen, beware of dog, etc.
- Pre-vocational skills training such as cooking, knitting, sewing, crafting, etc.
- Vocational skills training (for older learners)

4.6 Conclusion

In this chapter, the responses of the questionnaire and the field notes of the observations were analyzed and interpreted. The conclusions of these responses and recommendations are discussed in the next chapter.

CHAPTER FIVE

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings and their interpretations. The conclusions and the recommendations are given at the end of the chapter.

5.4 Research methods

5.4.1 Review of literature

Fink (2005:3) defines literature review as a systematic, explicit and reproducible method of identifying, evaluating and synthesizing the existing body of completed and recorded work produced by researchers, scholars and practitioners.

5.4.1.1 Learners' characteristics

The review of related literature indicated that learners with severe intellectual disability fail to meet the cognitive, academic, behavioral and communication expectations. These learners are said to demonstrate attention, memory, motor and information-processing disorders. They are said to be anxious; to have temper tantrums and to be overly aggressive, disruptive, dependant and impulsive (Ysseldyke &Algozzine, 1995:316).

5.4.1.2 The achievement of learning outcomes and assessment standards

As one of the research questions, this study intended to investigate whether learners with severe intellectual disability can achieve the learning outcomes and assessment standards of the learning areas Literacy/English and Numeracy/Mathematics distilled from the NCS policy document of the Department of Education. These learning outcomes and assessment standards were developed into a questionnaire for empirical investigation. A questionnaire is included in this study as an appendix.

5.4.1.3 Strategies/measures to promote the effective learning and development of learners with severe intellectual disability.

As one of the research questions, this study intended to investigate from the literature what strategies/measures can be taken to improve the learning and development of learners with severe intellectual disability. The suggestions are given later in this chapter, under "suggestions on the curriculum for learners with severe intellectual disability".

5.4.2 Empirical research

As an ethnographic method of qualitative research, the study was conducted in the two special schools where learners with severe intellectual disability were observed when going about their daily classroom activities. The focus of the observation was to study the learners' characteristics and their interactions with other learners, with the educators and the activities. The intention was to study whether the interactions were of quality that could result in the achievement of the learning outcomes and assessment standards. The questionnaires were issued to educators to answer. The questionnaires included questions about the learners' characteristics, the achievement of the learning outcomes and assessment standards and the strategies to improve the learning and development of learners with severe intellectual disability.

5.5 Summary of findings, conclusions and recommendations

5.5.1 Demographic information

5.5.1.1 Gender

Of the 16 educators who participated in this study, 10(62%) were female and 6(38%) were male. The response indicated that the majority of educators of learners with severe intellectual disability in the Rustenburg district were females.

5.5.1.2 Age of learners

Of the 16 educators who participated in this study, 5 (31%) were for learners 15-17 years, 4 (25%) for learners 11-14 years, 4 (25%) for learners 18-21 years and 3(19%) for learners 8-10 years. The percentages indicated that the problem under investigation included all age groups of severe intellectual disability.

5.5.2 The characteristics of learners with severe intellectual disability

5.5.2.1 Learners' attention to the relevant aspect of learning situation.

The majority 11(69%) of the respondents strongly agreed, 4(25%) agreed that learners with severe intellectual disability fail to carry out simple instruction. Only 1(6%) disagreed with the statement. 10(63%) respondents strongly agreed, 5(31%) agreed and only 1(6%) disagreed that they fail to concentrate for a 30 minutes period. 8(50%) of the respondents agreed, 7(44%) strongly agreed and 1(6%) disagreed that learners fail to count from 1 to 100. 9(56%) strongly agreed, 5(31%) agreed while only 2(13%) disagreed that learners fail to sequence objects from the smallest to the biggest. 7(44%) strongly agreed, 7(44%) agreed while only 2(12%) disagreed that learners fail to classify objects into sets of the same. This indicated that without concentrating in the lesson no learners would be able to grasp anything and no learning outcomes and no assessment standards would be achieved.

5.5.2.2 Learners' memory.

12(75%) of the respondents strongly agreed, 4(25%) agreed and no one disagreed that learners with severe intellectual disability fail to recall the spelling of simple words. 10(63%) strongly agreed, 5(31%) agreed while 1(6%) disagreed that they fail to recall instructions. 8(50%) strongly agreed, 7(44%) agreed while 1(6%) disagreed that learners with severe intellectual disability fail to recall what they have just heard. Without memory, no learning can take place. No learning outcomes and assessment standards can be achieved .without short-term memory.

5.5.2.3 Learners' passive academic involvement.

The majority of the respondents 8(50%) strongly agreed, 7(44%) agreed and 1(6%) disagreed that learners with severe intellectual disability fail to respond to simple questions. 10(63%) strongly agreed, 4(25%) agreed while 2(12%) disagreed that learners with severe intellectual disability fail to exchange thoughts, messages or information with other learners in learner-centred activities. 10(63%) strongly agreed, 5(31%) agreed while only1(6%) disagreed that they concentrate for a short time only. 9(56%) agreed, 7(44%) strongly agreed and no one disagreed that learners do not complete work within allocated time in class. These lead to the learners' failure to achieve the learning outcomes and assessment standards prescribed by NCS.

5.5.2.4 Learners' failure to interact appropriately with others.

9(56%) of the respondents agreed, 5(31%) strongly agreed while 2(12%) disagreed that learners with severe intellectual disability fail to get on well with other learners. 8(50%) agreed, 6(38%) strongly agreed while only 2(12%) disagreed that they fail to talk freely and clearly to other learners and to the teacher. 7(44%) agreed, 7(44%) disagreed while 2(12%) agreed that learners fail to work in a group and take turns. No learning outcomes and assessment standards were achieved.

5.5.2.5 Learners' failure to deal effectively with emotions.

The majority of the respondents 8(50%) agreed and 5(31%) strongly agreed while 3(19%) disagreed that learners with severe intellectual disability have difficulty fitting in with other learners. 10(62%) agreed, 3(19%) strongly agreed while 3(19%) disagreed that they fail to control their feelings. These result in learners' failure to achieve the learning outcomes and assessment standards prescribed by NCS.

5.5.2.6 Summary and conclusions pertaining to characteristics of learners with severe intellectual disability.

The first finding of this research was that an overwhelming majority of respondents indicated that learners with severe intellectual disability reflect the characteristics that lead to failure to achieve the learning outcomes and assessment standards prescribed by NCS. These characteristics include lack of attention/concentration, short-term memory, passive academic involvement, failure to interact with others and to deal with emotions. The literature review supported it by indicating that learners with severe intellectual disability have problems with social interaction, including poor conversational skills, egocentricity, poor social judgment, inappropriate behavior, emotional instability and poor decision-making skills. The conclusion from these findings is that learners with severe intellectual disability cannot be able to achieve the learning outcomes and assessment standards prescribed by NCS.

5.5.3 Findings concerning the achievement of learning outcomes and assessment standards.

5.5.3.1 LO1: LISTENING: Learners' ability to listen for information and enjoyment, and respond appropriately and critically in a wide range of situations.

Assessment standards:

All 16 (100%) respondents agreed that learners with severe intellectual disability cannot listen and understand stories, that is, they cannot predict what will happen next, cannot respond individually to the story and cannot retell the story.

The majority of the respondents 10(62%) disagreed while 6(38%) agreed that learners with severe intellectual disability can respect other learners and give them chance to speak. 11(69%) disagreed while 5(31%) agreed that learners can respect other learners and listen to them. All 16(100%) respondents disagreed that learners cannot encourage other learners to speak their

additional language. All 16(100%) respondents disagreed that learners with severe intellectual disability can express an opinion and give a reason for it. 11(69%) respondents disagreed while 5(31%) agreed that learners with severe intellectual disability can control their feelings. Learning outcome 1 (Listening) cannot be achieved without the achievement of these assessment standards.

5.5.3.2 LO 2: SPEAKING: Learners' ability to communicate confidently and effectively in spoken language in a wide range of situations.

Assessment standards:

The majority of respondents 12(75%) disagreed while 4(25%) agreed that learners with severe intellectual disability can interact in an additional language and ask simple questions. 10(62%) disagreed while 6(38%) agreed that learners can give short answers to questions. 13(81%) disagreed while 3(19%) agreed that learners with severe intellectual disability can take part in a short conversation on a familiar topic. Learners with severe intellectual disability cannot achieve this learning outcome (LO2) without the achievement of these assessment standards.

5.5.3.3 LO 3: READING AND VIEWING: Learners' ability to read and view for information and enjoyment, and to respond critically to the aesthetic, cultural and emotional values in texts.

Assessment standards:

All 16 respondents (100%) indicated that learners with severe intellectual disability cannot recognize differences in pronunciation between home and additional language, cannot understand letter-sound relationships and cannot recognize and make meaning of letters and words. 8(50%) respondents disagreed and 8(50%) agreed that learners cannot make sense of a picture story, 13(81%) disagreed while 3(19%) agreed that they cannot match pictures and words. All 16(100%) respondents indicated that learners with severe intellectual

disability cannot match a sentence (a caption) to a picture. 11(69%) respondents disagreed while 5(31%) agreed that learners can answer short oral questions about the story. 11(69%) respondents disagreed while 5(31%) agreed that learners with severe intellectual disability can retell the story.

The response indicated that learners with severe intellectual disability are unable to read English as first additional language. Reading is a requirement for achieving the achieving the learning outcomes and assessment standards. Learning outcome 3 (Reading and viewing) was not achieved.

5.5.3.4 LO 4: WRITING: Learners' ability to write different kinds of factual and imaginative text for a wide range of purposes.

Assessment standards:

The majority of respondents 13(81%) disagreed while 3(91%) agreed that learners with severe intellectual disability can use phonic knowledge to begin to spell words correctly. 14(87%) disagreed while 2(13%) agreed that learners can spell simple words correctly from memory. 14(87%) respondents disagreed while 2(13%) agreed that learners can identify and correct spelling errors in simple words. 14(87%) respondents disagreed while 2(13%) agreed that learners can write simple words from dictation. 13(81%) disagreed while 3(19%) agreed that learners can write words in alphabetical order. 13(81%) respondents disagreed while 3(19%) agreed that learners can use punctuation- capital letters, full stops, commas, etc. All 16(100%) respondents indicated that learners with severe intellectual disability cannot complete sentences by filling in missing words. All 16(100%) respondents indicated that learners with severe intellectual disability cannot write a caption for a picture. Learners with severe intellectual disability could not achieve learning outcome (LO 4).

5.5.3.5 LO 5: THINKING AND REASONING: Learners' ability to use language to think and reason, as well as to access, process and use information for learning.

Assessment standards:

11(69%) of the respondents disagreed while 5(31%) agreed that learners with severe intellectual disability can understand concepts and vocabulary relating to identity. 10 (62%) respondents disagreed while 6(38%) agreed that learners can understand concepts and vocabulary relating to numbers. 14(87%) respondents disagreed while 2(13%) agreed that learners can understand concepts and vocabulary relating to shape. 10(62%) respondents disagreed while 6(38%) agreed that learners can understand concepts and vocabulary relating to size. 12(75%) respondents disagreed while 4(25%) agreed that learners can understand concepts and vocabulary relating to direction. 12(75%) respondents disagreed while 4(25%) agreed that learners can understand concepts and vocabulary relating to sequence. 13(81%) respondents disagreed while 3(19%) agreed that learners with severe intellectual disability can understand concepts and vocabulary relating to ability.

12(75%) of the respondents disagreed while 4(25%) agreed that learners with severe intellectual disability can identify similarities and differences in a language. 11(69%) respondents disagreed while 5(31%) agreed that learners can identify parts from the whole. 13(81%) respondents disagreed while 3(19%) agreed that learners can sequence things. 13(81%) disagreed while 3(19%) agreed that learners can classify things. 14(87%) respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can understand and use some mathematical language.

The response showed that the majority of learners with severe intellectual disability could not achieve the above mentioned assessment standards. Learning outcome 5 (thinking and reasoning) could not be achieved.

5.5.3.6 LO 6: LANGUAGE STRUCTURE AND USE: Learners' knowledge and ability to use sounds, words and grammar of the language to create and interpret texts.

Assessment standards:

13(81%) of the respondents disagreed while 3(19%) agreed that learners with severe intellectual disability can understand question forms in oral texts. 14(87%) respondents disagreed while 2(13%) agreed that learners can understand simple sentences in oral texts. 14(87%) respondents disagreed while 2(13%) agreed that learners can understand plurals of nouns in oral texts. 14(87%) respondents disagreed while 2(13%) agreed that learners can understand some negative forms in oral texts. 14(87%) respondents disagreed while 2(13%) agreed that learners can understand some personal pronouns in oral texts. 14(87%) respondents disagreed while 2(13%) agreed that learners can understand some prepositions in oral texts.14(87%) respondents disagreed while 2(13%) agreed that learners with severe intellectual disability can understand a few adjectives.

The response indicated that learners with severe intellectual disability could not achieve the above assessment standards. Learning outcome 6 (Language structure and use) could not be achieved.

5.5.3.8 Learners' achievement of Mathematics' learning outcomes and assessment standards.

LO 1: NUMBERS OPERATIONS AND RELATIONSHIPS: The learners' ability to recognize, describe and present numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

13(81%) of the respondents disagreed while 3(19%) agreed that learners with severe intellectual disability can count forward and backward in a variety of intervals between 0 and 1 000. 14(87%) respondents disagreed while 2(13%) agreed that learners can perform mental calculations involving addition and subtraction of numbers to at least 1 000. 14(87%) respondents disagreed while 2(13%) agreed that learners can perform mental calculations involving multiplication of whole numbers to at least 10×100. 13(81%) respondents disagreed while 3(19%) agreed that learners recognize the place value of digits in whole numbers to at least 4-digit numbers. 14(87%) respondents disagreed while 2(13%) agreed that learners know, can read and write number symbols and names from 1 to 1 000. 14(87%) respondents disagreed while 2(13%) agreed that learners can perform calculations, using appropriate symbols, to solve addition and subtraction of whole numbers. 14(87%) respondents disagreed while 2(13%) agreed that learners can perform calculations, using appropriate symbols, to solve problems involving multiplication of whole 4-digit by 2-digit numbers.15(94%) respondents disagreed while 1(6%) agreed that learners with severe intellectual disability can perform calculations, using appropriate symbols, to solve problems involving division of at least whole 2-digit by 1-digit numbers.

The response showed that learners with severe intellectual disability could not achieve the learning outcomes and assessment standards for the learning area Mathematics.

5.5.4 Summary and conclusions pertaining to the achievement of learning outcomes and assessment standards

The first finding of this section was that all the respondents 16(100%) indicated that learners with severe intellectual disability cannot listen and understand stories. Listening is a prerequisite of learning. Failure to listen leads to failure to achieve the learning outcomes and assessment standards.

The review of related literature revealed that learners with severe intellectual disability experience particular difficulty with language and speech development,

which are closely related to cognitive functioning. Given the association between severe intellectual disability and speech and language, it is not surprising that learners with severe intellectual disability experience a great deal of difficulty with academic tasks such as reading and writing that require verbal and language competency. The overwhelming majority of respondents supported the statement and indicated that reading, writing and using language to think and reason were big problems to learners with severe intellectual disability

The related review of literature indicated that learners with severe intellectual disability have limited vocabulary, and their grammatical structure and sentence complexity are often impaired. The majority of respondents supported the statement by indicating that learners do not know the structure and use of English as first additional language. They cannot use the sounds, words and grammar of the language to create and interpret texts.

In summary to the achievement of learning outcomes and assessment standards for Mathematics, the overwhelming majority of respondents and the literature indicated that learners with severe intellectual disability cannot count, estimate, calculate and check with competence in solving problems.

5.5.5 Recommendations on the curriculum for learners with severe intellectual disability

The review of related literature and the empirical study recommended the following as curriculum for learners with severe intellectual disability:

5.5.5.1 Individualized and comprehensive curriculum.

Schools must base the education of learners with severe intellectual disability on individual, not system needs. The curriculum designed for these learners must be individualized, functional and comprehensive. In addition, programming for the severe intellectual disabled must be forward looking, giving due consideration to the learner's current and future needs: that is, the curriculum

must be sensitive to the environments in which the learner will ultimately be expected to adapt and function after leaving school. As an example, a learner who shows an interest in working in the garden may be trained in the skills of planting and caring either vegetables or flowers.

5.5.5.2 Functional curriculum

A functional curriculum is one that instructs learners in the life skills they require for successful daily living and prepares them for those situations and environments they will encounter upon leaving school. The curriculum should emphasize functionality, age appropriate and independence. All learners should participate in activities that are appropriate for their chronological age. Areas of emphasis- or domains, as they are sometimes called, include self-help skills, socialization, communication, and vocational training, along with using community resources and exposure to very basic or "survival" academics. An example of this last domain might include functional or environmental reading of survival words and phrases such as danger, exit, on, off, gentlemen, fire escape, don't walk, keep out, beware of dog, and other key protective vocabulary.

5.5.5.3 Pre-vocational training

Individual learner's interest should determine the skill to be engaged in. Skills may include knitting, sewing, needle work, gardening, crafting, welding, brick laying etc.

In concluding the answers to the first research question, this study concluded that the National Curriculum Statement has a negative impact on learners with severe intellectual disability. The conclusion for the second research question indicated that there is no way that learners with severe intellectual disability can achieve the learning outcomes and assessment standards prescribed by NCS. At the end learners remain dependant of their parents throughout their lives, hence it is concluded that NCS has a negative impact on learners with severe intellectual disability. In conclusion to the third question, the strategies for

intervention included self-care skills, social and emotional adjustment, safety measures, pre-vocational and vocational training as curriculum for learners with severe intellectual disability

5.5 Recommendation to further study

The researcher found that there is little research conducted in this field of investigation and therefore recommends that further study about the curriculum for learners with severe intellectual disability in the North West Province be conducted. A new curriculum would help the Department of Education to draw a clear-cut policy on the education and training of learners with severe intellectual disability.

5.6 The researcher's recommendation

According to the response of the participants to the research questions, the researcher deems it necessary that the Department of Education should involve educators of learners with severe intellectual disability when drawing their curriculum. The Department should consult with the educators, hear their opinions about the suitable curriculum for these learners. Educators of learners with severe intellectual disability should also be represented in the panel for the curriculum development.

5.7 Conclusion

This chapter summarized the research problem, the methodology and the findings from the literature and the empirical study. The conclusions were made, followed by the recommendations.

REFERENCES

ALLAN, K.E. & COWDERY, G.E. 2005. The exceptional child: Inclusion in early childhood education (5th Ed). USA: Thomson Delmar Learning.

AMMERMAN, R.T., HERSEN, M. & THOMAS, J.C. 2006. Comprehensive handbook of personality and psychopathology (vol3). New Jersey: John Wiley & Sons, Inc.

ASHLEY, M. J. 2004. Traumatic brain injury: Rehabilitative treatment and case management (2nd Ed). USA: CRC Press.

BABBIE, E. 2004.The practice of social research (10th Ed). USA: Thompson/Wadsworth.

BAILEY, C.A. 2007. A guide to qualitative field research (2nd Ed). Thousand Oaks: Pine Forge Press.

BARKER, C., PISTRANG, N. & ELLIOTT, R. 2002. Research methods in clinical psychology: An introduction for students and practitioners (2nd Ed). Great Britain: John Wiley & Sons, Ltd.

BATSHAW, M.L & SHAPIRO, B. 2002. Mental retardation. In M.L. Batshaw (Ed), Children with disabilities (5th Ed., pp 287-305). Baltimore: Paul H. Brookes.

BEIRNE-SMITH, M., ITTENBACH, R.F. & PATTON, J.R. 2002. Mental retardation (6th Ed). Upper Saddle River, NJ: Merrill-Prentice Hall.

BELL, J. 2006. Doing your research project: A guide for first-time researchers in education, health and social science (4th Ed). England: Open University Press.

BERNARD, H.S. 2000. Social research methods: Qualitative and quantitative approaches. Great Britain: Sage Publications Inc.

BLACKBOURN, J.M., PATTON, J.R. & TRAINOR, A. 2004. Exceptional individuals in focus (7th Ed). Upper Saddle River, New Jersey; Pearson Merrill Prentice Hall.

BLAXTER, L., HUGHES, C. & TIGHT, M. 2001. How to research (2nd Ed). Burkingham: Open University Press.

BLESS, C. & HIGSON-SMITH, C. 2000. Fundamentals of social research methods: An African perspective (3rd Ed). Cape Town: Juta.

BLOEMBERG, L.D. & VOLPE, M. 2008. Completing your qualitative dissertation: A roadmap from beginning to end. London: Sage.

BOWE, F G. 2007. Early childhood special education: Birth to eight (4th Ed). USA: Thomson Delmar Learning.

BRENNAN, W.K. 1985. Curriculum for special needs: Children with special needs. Philadelphia: Open University Press.

CHADWICK, O., CUDDY, M., KUSEL, Y. & TAYLOR, E. 2005. Handicaps and the development of skills between childhood and early adolescence in young people with severe intellectual disabilities. *Journal of intellectual disability research*. 49(12), 877-888, December.

COHEN, L., MANION, L. & MORRISON, K. 2006. Research methods in education (5th Ed). USA: RoutledgeFalmer.

COOK, R.E., KLEIN, M.D. & TESSIER, A. 2008. Adapting early childhood curricula for children with special needs (7th Ed). Upper Saddle River, New Jersey: Pearson Merrill Prentice Hall.

CRESWELL, J.W. 2007. Qualitative inquiry and research design: Choosing among five approaches. Thousand Oaks: Sage publications

CRESWELL, J.W. 2003. Research design: Qualitative, quantitative and mixed methods approaches (2nd Ed). Thousand Oaks: Sage publications.

COUTINHO, M.J & REPP, A.C. 1999. Inclusion: The integration of students with disabilities. USA: Wadsworth Publishing Company.

DENSCOMBE, M. 2005. The good research guide: For small-scale social research projects (2nd Ed). London: Open University Press.

DEPARTMENT OF EDUCATION (DOE). 2006. Implementing White Paper 6: Inclusive learning programmes. Pretoria: Department of Education.

DEPARTMENT OF EDUCATION (DOE). 2005. Guidelines for Inclusive learning programmes. Pretoria: Department of Education.

DEPARTMENT OF EDUCATION (DOE). 2004. Revised National Curriculum Statement Grades R-9: Training Guide, Intermediate Phase. Pretoria: Department of education.

DEPARTMENT OF EDUCATION (DOE). 2002a. Revised National Curriculum Statement Grades R-9 (Schools) Policy: Overview. Pretoria: Department of Education.

DEPARTMENT OF EDUCATION (DOE). 2002b. Revised National Curriculum Statement Grades R-9 (Schools) Policy: English – First Additional Language. Pretoria: Department of Education.

DEPARTMENT OF EDUCATION (DOE). 2002c. Revised National Curriculum Statement Grades R-9 (Schools) Policy. Mathematics. Pretoria: Department of Education.

DEPARTMENT OF EDUCATION (DOE). 2001. Education White Paper 6. Special needs education: Building an inclusive education and training system. Pretoria: Department of Education.

DEPARTMENT OF EDUCATION (DOE). 1997. Report of the National Commission on Special Needs in Education and National Committee on Education support services. Quality education for all: Overcoming barriers to learning and development. Pretoria: Department of Education.

DYKENS, E.M., HODDAP, R.M. & FINUCANE, B.M. 2000. Analysis and intervention in people with severe intellectual disabilities (2nd Ed). UK: Cambridge University Press.

EMERSON, E. 2001. Challenging behaviour: Analysis and intervention in people with severe intellectual disabilities (2nd Ed). UK: Cambridge University Press.

ENGELBRECHT, P. & GREEN, L. 2003. Promoting learner development: Preventing and working with barriers to learning. Pretoria: Van Schaik Publishers.

FOX, W. & BAYAT, M.S. 2007. A guide to managing research. Cape Town: Juta.

FRIEND, M. 2008. Special education: Contemporary perspectives for school professionals (2nd Ed). USA: Pearson Education, Inc.

FRIEND, M. 2006. Special education: Contemporary perspectives for school professionals. USA: Pearson Education, Inc.

FINK, A. 2005. Conducting research literature reviews (2nd Ed): From the internet to paper. Thousand Oaks: Sage publications.

FINK, S. (Eds). 2005. Doing postgraduate research. Thousand Oaks: Sage publications.

FOX, W. & BAYAT, M.S. 2007. A guide to managing research. Cape Town: Juta.

FRAENKEL, J. R. & WALLEN, N.E. 2006. How to design and evaluate research in education (6th ed). Boston: McGraw-Hill.

GARGIULO, R.M. 2003. Special education in contemporary society: An introduction to exceptionality. USA: Wadsworth/Thompson Learning.

GLATTHORN, A.A. & JOYNER, R.L. 2005. Writing the winning thesis or dissertation: A step-By-Step guide (2nd ed). Thousand Oaks, California: Corwin Press.

GRAY, D.E. 2005. Doing research in the real world. New Delhi: Sage publications.

HANCOCK, B. 2002. Trent focus for research and development in primary health care: An introduction to qualitative research. Nottingham: Trent Focus Group.

HANNELL, G. 2006. Identifying children with special needs: Checklists and action plans for teachers. Thousand Oaks: Corwin Press.

HARDMAN, M. L., DREW, C.J.& EGAN, M.W. 2002. Human exceptionality (7th ed). Boston: Ally & Bacon.

HARLEY, K.., BERTRAM, C. & MATTSON. E. 1999. Classroom studies: Researching teacher roles in policy and practice. Pietermaritzburg: University of Natal.

HERBERT, M. 2005. Developmental problems of childhood and adolescence: Prevention, treatment training. Australia: BPS Blackwell Publishing.

HERSEN, M. & AMMERMAN, R. T. 2000. Advanced abnormal child psychology (2nd Ed). New Jersey: Lawrence Erlbaum Associates.

HODAPP, R.M & DYKENS, E.M. 2003. Mental retardation. In E. J. Mash & R.A. Barkley (eds). Child psychology (2nd Ed)(486-519). New York: Guilford Press.

HODAPP, R.M. & FIDLER, D.J. (1999). Special education and genetics: Connections for the 21st century. *Journal of special education*, 33, 130-137.

HUNT, N. & MARSHALL, K. 2002. Exceptional children and youth (3rd Ed). Boston: Houghton Mifflin.

HUYSAMEN, G.K. 2001. Methodology for the social and behavioral sciences. Cape Town; Oxford University Press.

JACOBS, M., VAKALISA, N. & GAWE, N. 2004. Teaching-learning dynamics: A participative approach for OBE (3rd Ed). Sandown: Heinemann Publishers.

KARTEN, T. J. 2005. Inclusion strategies that work: Research-based methods for the classroom. California: Corwin Press.

KEARNEY, C. A. 2006. Casebook in child behavior disorders (3rd Ed). USA: Thomson Wadsworth.

KENDAL, P. C. 2000. Child disorders. East Sussex, UK: Psychology Press.

KERIG, P. & WENAR, C. 2006. Developmental Psychopathology: From infancy through adolescence (5th Ed). USA: McGraw-Hill.

KIBEL, M. A. & WAGSTAFF, L. A. 2001. Child health for all: A manual for Southern Africa (3rd Ed). South Africa, Cape Town: Oxford University Press.

KIRK, S.A., GALLAGHER, J.J., &ANASTASIOW, N. J. 2000. Educating exceptional children (11th Ed). Boston: Houghton Mifflin Company.

KISHIDA, Y. & KEMP, C. 2006. *Journal of intellectual and developmental disability*. 31(2): 101-114.

KRAJEWSKI, J.J. & HYDE, M. S. 2000. Comparison of teen attitudes towards individuals with mental retardation between 1987 and 1998: Has inclusion made a difference? *Education and training in mental retardation and developmental disabilities, 35: 284-293.*

LANDSBERG, E., KRUGER, D. & NEL, N. 2005. Addressing barriers to learning: A South African perspective. Pretoria: Van Schaik Publishers.

LERNER, J. W. 2006. Learning disabilities and related disorders: Characteristics and teaching strategies (10th Ed). New York: Houghton Mifflin Company.

LEEDY, P.D. & ORMOD, J. E. 2005. Practical research: Planning and design (8th ed). Upper Saddle, New Jersey: Pearson Prentice Hall.

LEEDY, P.D & ORMOD, J. E. 2001. Practical research: Planning and design. (7th ed). Ohio: Merrill Prentice Hall.

MACGIVERN, Y. 2006. The practice of market and social research: An introduction (2nd Ed). England: Prentice Hall.

MACMILLAN, J. H. & SCHUMACHER, S. 2006. Research in education: Evidence-based inquiry (6th Ed). Boston: Pearson Education.

McNALLY, R.D., COLE P.G. & WAUGH, R.F. 2001. Regular teachers' attitudes to need for additional classroom support for the inclusion of students with intellectual disability. *Journal of intellectual and developmental disability* 26(3): 257-273.

MAREE, K. 2010. First steps in research. Pretoria: Van Schaik.

MAREE, K. 2007. First steps in research. Pretoria: Van Schaik Publishers.

MAREE, K & VAN DER WESRHUIZEN, C. 2009. Head start in designing research proposals in social sciences. Cape Town: Juta

MASH, E. J. & WOLFE, D.A. 1999. Abnormal child psychology. Belmont, CA: Wadsworth Publishing Company.

MOUTON, J. 2001. How to succeed in your master's and doctoral studies: A South African guide and resource book. Pretoria: Van Schaik.

MWAMWENDA, T.S. 2004. Educational psychology: An African perspective (3rd Ed). Sandton, South Africa: Heinemann Publishes.

NETHETON, S. D., HOLMES, D. & WALKER, C.E. 1999. Child and adolescent psychological disorders: A comprehensive textbook. New York: Oxford University Press.

NEWMAN, S. 2004. Stepping out: Using games and activities to help your child with special needs. London: Jessica Kingsley Publishers.

NIEMAN, M.M. & MONYAI, R.B. 2006. The educator as mediator of learning. Pretoria: Van Schaik Publishers.

PARSONS, R.D., HINSON, S.L. and SARDO-BROWN, D. 2001. Educational psychology: A practitioner research model of teaching. USA: Wadsworth/Thomson Learning.

PAYNE, G. & PAYNE, J. 2005. Key concepts in social research. Thousand Oaks, California: Sage Publications Inc.

PIERANGELO, R. & GIULIANI, J.G. 2007a. Special education eligibility: A step-by-step guide for educators. California: Corwin Press.

PIERANGELO, R. & GIULIANI, J.D. 2007b. The educator's diagnostic manual of disabilities and disorders. San Francisco: John Wiley and Sons, Inc.

PIERANGELO, R. & GIULIANI, G. A. 2004. Transition services in special education: A practical approach. USA: Pearson Education, Inc.

PHARES, V. 2008. Understanding abnormal child psychology (2nd Ed). USA: John Wiley and Sons, Inc.

PILLING, N., McGILL, P. & COOPER, V. 2007. Characteristics and experiences of children and young people with severe intellectual disabilities and challenging

behaviour attending 52-week residential special schools. *Journal of intellectual disability* (51): 184-196.

POTTER, S. 2002. Doing postgraduate research. Thousand Oaks: Sage Publications.

PUNCH, K. F. 2005. Introduction to social research: Quantitative and qualitative approaches (2nd Ed). Thousand Oaks, California: Sage Publications Inc.

SHELTON, C. F. & POLLINGUE, A. B. 2000. The exceptional teacher's handbook: The first-year special education teacher's guide for success. Thousand Oaks, California: Corwin Press Inc.

SMITH, D.D. 2007. Introduction to special education: Making a difference (6th Ed). USA: Pearson Education, Inc.

SMITH, D. D. 2006. Introduction to special education: Teaching in an age of opportunity (5th Ed). USA: Pearson Education, Inc.

SOMEKH, B. & LEWIN, C. 2006. Research methods in the social sciences. New Delhi: Sage Publications, Inc.

STICHTER, J.P., CONROY, M. A. & KAUFFMAN, J. M. 2008. An introduction to students with high-incidence of disabilities. Upper Saddle River, New jersey: Pearson Merrill Prentice Hall.

STRUWIG, F. W. & STEAD, G.B. 2001. Planning, designing and reporting research. Cape Town: Maskew Miller & Longman.

STRYDOM, H. 2002. Ethical aspects or research in the social sciences and human service professions. In : Research at grass roots. For the social sciences

and human service professions, edited by A. S. De Vos. Pretoria: Van Schaik: 62-75.

SYMONS, F. J., CLARK, R.D., ROBERTS, J.P. & BAILEY, D.B. 2001. Classroom behavior of elementary school-age boys with fragile X syndrome. *Journal of special education*, 34, 194-202.

TAYLOR, G. R. 2002. Using human learning strategies. Maryland: The scarecrow Press.

TURKINGTON, C. & Harris, J.R. &. 2002. The encyclopedia of learning disabilities. USA: Facts On File, Inc.

TURNBULL, A., TURNBULL, R & SHANK, M. 2004. Exceptional Lives: Special education in today's schools (4th Ed). Upper Saddle River: Merrill Prentice Hall.

VAUGHN, S., BOS, C. S. & SCHUMM, J. S. 2003. Teaching exceptional, diverse and at-risk students in the general education classroom. Needham Heights, Boston: Pearson Education, Inc.

VAUGHN, S., BOS, C. S. & SCHUMM, J. S. 2000. Teaching exceptional, diverse and at-risk students in the general education classroom. Needham Heights: Pearson Education.

WEHMEYER, M.L., SAND, D.J., KNOWLTON, H.S. & KOZLESKI, E.B. 2002. Providing access to the general curriculum: Teaching students with mental retardation. Baltimore: Paul H. Brookes Publishing Co.

WELLINGTON, J. J. 2000. Educational research: Contemporary issues and practical approaches. London: Continuum.

WELMAN, C., KRUGER, F. & MITCHELL, B. (2006). Research methodology (3rd Ed). Cape Town: Oxford University Press.

WENAR, C. & KERIG, P. 2006. Developmental psychopathology: From infancy through adolescence (5th Ed). New York: McGraw-Hill.

WESTLING, D. L. & FOX, L. 2004. Learning and learning difficulties (3rd Ed). Upper Saddle, New Jersey: Pearson Merrill Prentice Hall.

WESTWOOD, P. 2007. Commonsense methods for children with special educational needs (5th Ed). London: Routledge Falmer.

WESTWOOD, P. 2004. Learning and learning difficulties: A handbook for teachers. Great Britain: David Fulton Publishers.

WHITAKER, S. & READ, S. 2006. The prevalence of psychiatric disorders among people with intellectual disabilities: An analysis of the literature. *Journal of applied research in intellectual disabilities*. 19: 330-345.

WICK-NELSON, R. & ISRAEL, A. 2003. Behavior disorders of childhood (5th Ed). Upper Saddle River, New Jersey: Prentice Hall.

WINKLER, G. 2001. All children can learn: A South African handbook on teaching children with learning difficulties. Cape Town: Francolin Publishers.

YSSELYKE, J.E. & ALGOZZINE, B. 1995. Special education: A practical approach for teachers (3rd ed). Boston: Houghton Mifflin.

APPENDIX A

QUESTIONNAIRE FOR EDUCATORS

The purpose of this questionnaire is to find out the characteristics of learners with severe intellectual disability and whether these learners achieve the learning outcomes and assessment standards prescribed by NCS.

All information will be treated as confidential. Your participation will be highly appreciated. Please respond to all questions.

SECTION A

DEMOGRAPHIC INFORMATION

1. Gender (Mark with X)

Male	
Female	

2. Age of participants (Mark with X)

8 years – 10 years	
11 years – 14 years	
15 years – 17 years	
18 years – 21 years	

SECTION B

CHARACTERISTICS OF SEVERE INTELLECTUAL DISABILITY

Please respond by crossing either Agree (A), Strongly Agree (SA), Disagree (D) or Strongly Disagree (SD):

Learners with severe intellectual disability fail to attend to relevant aspect of learning situation (e.g. concentrating on what is taught). They:-

3. Fail to carry out simple instructions	A	SA	DA	SD
4. Fail to concentrate for a 30 minutes period.	A	SA	DA	SD
5. Fail to count from 1 to 100.	A	SA	DA	SD
6. Fail to sequence objects from the smallest to the biggest	A	SA	DA	SD
7. Fail to classify objects into sets of the same.	A	SA	DA	SD

Learners with severe intellectual disability fail to recall information that has been stored for few seconds to a few hours. They:-

8. Fail to recall the spelling of simple words.	A	SA	D	SD
9. Fail to recall instructions.	A	SA	D	SD
10. Fail to recall what they have just heard.	A	SA	D	SD
11. Fail to recall a poem that was recited in class during a language period.	A	SA	D	SD

Learners with severe intellectual disability have passive academic involvement. They:-

12. Fail to respond to simple questions.	A	SA	D	SD
13. Fail to exchange thoughts, messages or information with other learners in learner-centered activities.	A	SA	D	SD
14. Concentrate for a short time only.	A	SA	D	SD
15. Do not complete work (within allocated time in class.	A	SA	D	SD

Learners with severe intellectual disability fail to interact appropriately with others:-

16. Fail to get on well with other learners.	A	SA	D	SD
17. Cannot talk freely and clearly to other learners and the teacher.	A	SA	D	SD
18. Cannot work in a group and take turns.	A	SA	D	SD

Learners with severe intellectual disability fail to deal effectively with emotions:-

19. Have difficulty fitting in with other learners.	A	SA	D	SD
20. Fail to control their feelings.	A	SA	D	SD

SECTION C

LEARNING AREA: ENGLISH (FIRST ADDITIONAL LANGUAGE (FAL)

Learning outcomes (lo) and assessment standards (as).

Are learners with severe intellectual disability able to achieve the following learning outcome and assessment standards? Respond by crossing either 'Yes' or 'No'.

LO 1: LISTENING:

The learner will be able to listen for information and enjoyment, and respond appropriately and critically in a wide range of situations.

Assessment Standards

Can learners with severe intellectual disability understand stories (told or read to them)?

Can they:-

21. Predict what will happen next?	Yes	No
22. Respond individually to the story?	Yes	No
23. Retell the story?	Yes	No

Can learners with severe intellectual disability respect other learners:-

Can they:-

24. Give them a chance to speak?	Yes	No
25. Listen to other learners?	Yes	No
26. Encourage their attempt to speak their additional language?	Yes	No
27. Express an opinion and give a reason for it?	Yes	No

28. Control feelings?	Yes	No

LO 2: SPEAKING:

The learner will be able to communicate confidently and effectively in spoken language in a wide range of situations.

Assessment Standards

Learners with severe intellectual disability are able to interact in an additional language.

Can they?

29. Ask simple questions?	Yes	No
30. Give short answers to questions?	Yes	No
31. Take part in a short conversation on a familiar topic?	Yes	No

LO 3: READING AND VIEWING:

The learner will be able to read and view for information and enjoyment, and respond critically to the aesthetic, cultural and emotional values in texts.

Assessment Standards

Can they:-

32. Recognize differences in pronunciation between home and additional language?	Yes	No
33. Understand letter-sound relationships?	Yes	No
34. Recognize and make meaning of letters and words?	Yes	No
35. Make sense of a picture story?	Yes	No
36. Match pictures and words?	Yes	No
37. Match a sentence (a caption) to a picture?	Yes	No
38. Answer short oral questions about the story?	Yes	No
39. Retell the story.	Yes	No

LO 4: WRITING

The learner will be able to write different kinds of factual and imaginative texts for a wide range of purposes.

Assessment Standards

Learners with severe intellectual disability can:-

40. Use phonic knowledge to begin to spell words correctly.	Yes	No
41. Spell simple words correctly from memory.	Yes	No
42. Identify and correct spelling errors in simple words.	Yes	No
43. Write simple words from dictation.	Yes	No
44. Write words in alphabetical order.	Yes	No
45. Use punctuation – capital letters, full stops, commas, etc.	Yes	No
46. Complete sentences by filling in missing words.	Yes	No
47. Write a caption for a picture.	Yes	No

LO 5: THINKING AND REASONING

The learner will be able to use language to think and reason, as well as to access, process and use information for learning.

Assessment Standards

Can learners with severe intellectual disability understand concepts and vocabulary relating to:-

48. Identity (e.g. 'My name is...')?	Yes	No
49. Numbers (e.g. one, two...)?	Yes	No
50. Shape (e.g. circle, square)?	Yes	No
51. Size (e.g. big, small)?	Yes	No
52. Direction (e.g. left, right)?	Yes	No
53. Sequence (e.g. first, second)?	Yes	No
54. Ability (e.g. 'I can...)?	Yes	No

Can learners with severe intellectual disability use language for thinking? : -

Can they:-

55. Identify similarities and differences (e.g. 'Put all the circles together', 'Find the one that is different')?	Yes	No
56. Identify parts from the whole (e.g. parts of the face, a body)?	Yes	No
57. Sequence things (e.g. from biggest to smallest)?	Yes	No
58. Classify things?	Yes	No
59. Understand and use some mathematical language (e.g. add, take away from)?	Yes	No

LO 6: LANGUAGE STRUCTURE AND USE

The learner will know and be able to use the sounds, words and grammar of the language to create and interpret texts.

Assessment Standards

Do learners with severe intellectual disability:-

60. Understand question forms in oral texts (e.g. What...?, Who...?, How many.../much/old? etc.)?	Yes	No
61. Understand simple sentences in oral texts (e.g. 'I want to go home'.)?	Yes	No
62. Understand plurals of nouns in oral texts (e.g. book, books), including some irregular forms (e.g. tooth, teeth)?	Yes	No
63. Understand some negative forms in oral texts (e.g. 'I don't like meat'. 'I can't swim')?	Yes	No
64. Understand some personal pronouns in oral texts (e.g. my, your, his, her, our, their book)?	Yes	No
65. Understand some prepositions in oral texts (e.g. in, at, on, to)?	Yes	No
66. Understand a few adjectives (e.g. big, small)?	Yes	No

LEARNING AREA: MATHEMATICS

LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

The learner will be able to recognize, describe and present numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.

Assessment Standards

Can learners with severe intellectual disability:-

67. Count forward and backward in a variety of intervals between 0 and at least 1 000?	Yes	No
68. Perform mental calculations involving i. addition and subtraction of numbers to at least 1 000 ?	Yes	No
ii. multiplication of whole numbers to at least 10 x 100 ?	Yes	No
69. Recognize the place value of digits in whole numbers to at least 4-digit numbers?	Yes	No
70. Know, read and write number symbols and names from 1 to 1 000?	Yes	No
71. Perform calculations, using appropriate symbols, to solve problems involving:- i. addition and subtraction with whole numbers?	Yes	No
ii. multiplication of whole 4-digit by 2-digit numbers?	Yes	No
iii. division of at least whole 2-digit by 1-digit numbers?	Yes	No

SECTION D: Educators' views in response to the questionnaire.

74. According to your view, does NCS prepare learners with severe intellectual disability for life after leaving school? Give your reasons.

---

75. If your answer to question 1 above is No, what intervention strategies do you Think can be used to help the learners?

THANK YOU

APPENDIX B

CLASSROOM OBSERVATION SCHEDULE

Observation date: _____

Purpose of observation: To find out whether learners with severe intellectual disability benefit from participating in the National Curriculum Statement (NCS) approach.

Objectives: 1. To find out the characteristics of learners with severe intellectual disability.

2. To find out whether learners with severe intellectual disability achieve the learning outcomes and assessment standards prescribed by NCS.

Participants:_____

Age group: _____

Learning Area: _____

LearningOutcome:_____

_____

_____

_____

_____

_____

AssessmentStandard:_____

_____

_____

_____

_____

Content:_____

1. Learning environment

1.1. Was there an atmosphere of respect for each other?

1.2. Did learners feel free to express themselves without fear?

1.3. Was the classroom environment attractive with bright colours?

1.4. Were desks arranged to suit the learning activities?

Teacher's reflection

_____

_____

_____

_____

2. Memory (Recall information)

2.1. Could learners recall instructions?

2.2. Could they recall what they have just heard?

Teacher's reflection:

_____

_____

_____

_____

3. Academic involvement

3.1. Did learners respond to simple questions?

3.2. Did they exchange thoughts, messages or information with other learners in learner- centred activities?

Teacher's reflection:

4. Learner interactions

4.1. Did learners get on well with other learners?

4.2. During group work, how well did they work together?

4.3. Did the group members take turns to participate?

4.4. Did learners listen to each other?

4.5. Did all the members of the group help with a group task?

Teacher's reflection:

5. Dealing with emotions

5.1. Was it easy for learners to fit in with others?

5.2. Were learners able to control their feelings?

Teacher's reflection:

LEARNING AREA: ENGLISH (First Additional Language)

Learning Outcomes (LO) and Assessment Standards (AS)

6. Listening/Concentrating

6.1. Could learners concentrate for a 30 minutes period?

6.2. Could learners listen to the story and predict what would happen next?

6.3. Could they respond individually to the story?

6.4. Could they retell the story?

Teacher's reflection:

_____

_____

_____

_____

7. Speaking

7.1. Could learners with severe intellectual disability ask simple questions?

7.2. Could they give short answers to questions?

7.3. Could they take part in a short conversation on a familiar topic?

Teacher's reflection:

_____

_____

_____

_____

8. Reading and viewing

8.1. Could learners understand letter-sound relationships?

8.2. Could they make meaning of letters and words?

8.3. Could they make sense of a picture story?

8.4. Could they match a sentence to a picture?

8.5. Could they answer short oral questions about the story?

8.6. Could they retell the story?

Teacher's reflection:

_____

_____

_____

_____

9. Writing

9.1. Could learners use phonic knowledge to begin to spell words correctly?

9.2. Could they spell simple words correctly from memory?

9.3. Could they identify and correct spelling errors in simple words?

9.4. Could they write simple words from dictation?

9.5. Could they use punctuation – capital letters, full stops, commas, etc.?

9.6. Could they complete sentences by filling in missing words?

9.7. Could they write a caption for a picture?

Teacher's reflection:

_____

_____

_____

_____

10. Thinking and reasoning

Could learners understand concepts and vocabulary relating to:-

10.1. Identity?

10.2. Numbers?

10.3. Shape?

10.4. Size?

10.5. Direction?

10.6. Sequence?

10.7. Ability?

Teacher's reflection:

_____

_____

_____

_____

11. Language Structure and Use

Did learners:-

11.1. Understand question forms in oral texts?

11.2. Understand simple sentences in oral texts?

11.3. Understand plurals of nouns in oral texts?

11.4. Understand some negative forms in oral texts?

11.5. Understand some personal pronouns in oral texts?

11.6. Understand some prepositions in oral texts?

11.7. Understand a few adjectives?

Teacher's reflection:

_____

_____

_____

_____

LEARNING AREA: MATHEMATICS

Learning Outcomes (LO) and Assessment Standards (AS)

12. Numbers, Operations and Relationships

Could learners:-

12.1. Count forward and backward?

12.2. Perform mental calculations involving addition, subtraction, multiplication

12.4. Know, read and write number symbols and names?

12.5. Perform calculations to solve problems?

Teacher's reflection:

_____

_____

_____

_____

APPENDIX C

Kutlwanong School For The Deaf
P O Box 288
Rustenburg
0300
26 August 2009

The Area Project Manager
Private Bag X82103
RUSTENBURG
0300

Sir/Madam

REQUEST TO DO RESEARCH IN SCHOOLS

I am a Masters Degree student at North West University, Mmabatho campus, doing Special Needs in Education. I therefore have to do a research project as part fulfillment of the requirements of the degree. My topic for research is 'The impact of National Curriculum Statement (NCS) on learners with severe intellectual disability'.

I therefore request your permission to do research in the two special schools for learners with severe intellectual disability, in the Rustenburg District of the Bojanala Region. I will be doing observations in the form of class visits and give questionnaires to educators in each of the two schools.

Hoping that my application will be considered.

Yours faithfully
T M Mpete (Mrs)

APPENDIX D

Education
Lefapha la Thuto
Onderwys Departement
Department of Education
NORTH WEST PROVINCE

OFFICE OF THE AREA MANAGER: RUSTENBURG AREA PROJECT OFFICE

To : **Ms. T.M. Mpete**
School Principals
Rustenburg Area

From : **Mrs. M.J. Paledi**
Rustenburg Area Manager

Date : 02 October 2009

SUBJECT: **RESEARCH - MASTERS DEGREE**

Kindly be informed that Ms. T.M. Mpete, has requested to visit schools within Rustenburg Area (especially Kutlwanong and Iteko Special Schools), in order to do research for her Masters Degree in Special Education.

Kindly give her the necessary support but ensure that no teaching and learning time are compromised simply because of this.

Your support is always appreciated.

Sincerely,

Mrs. M.J. Paledi
Rustenburg Area Manager.

cc Institutional Support Coordinators