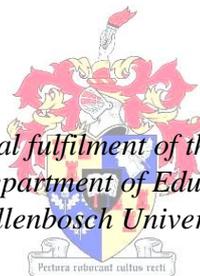# Including Learners with Visual Impairments in a Namibian Mainstream Secondary School

by

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Declaration

By submitting this dissertation electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

T. Knouwds (born: Zulch)

March 2010

SUMMARY

The research problem of this study is how learners with visual impairments are included in a Namibian mainstream secondary school. This study is important since Namibia is new in the inclusion process of learners with visual impairments. This process was made a priority by the Ministry of Education in Namibia since a special school for the blind in Namibia only offers education up to Grade 10. With this study I aimed to analyse and describe how a group of learners with visual impairments were included in a mainstream secondary school. I therefore aimed to analyse the nature of support as well as the adaptations and accommodations made for the learners with visual impairments; and describe the culture and context of the school community using the opinions and experiences of the participants in the study.

In order to obtain the opinions and experiences of the participants in a detailed, descriptive and in-depth manner, I designed a qualitative case study with a mainstream secondary school where the learners with visual impairments were integrated as the 'bounded system'. I purposefully selected the participants and used semi-structured interviews, non-participant observation, and the gathering of artefacts in order to obtain in-depth and rich data from multiple perspectives.

From the research it was found that even though the learners with visual impairments are now physically integrated in the mainstream classes, they are not yet truly included. The teaching methods and materials are not adequately adapted for them and the physical environments within the classes and school grounds are also not yet truly accessible for them. The teachers are not adequately supported and trained, and the parents of most of the learners with visual impairments as well as the community are not involved in the learners' schooling. The school needs relevant resources as well as a change of attitudes – teachers and peers are often negative towards the learners with visual impairments and do not understand the rationale behind inclusive education. However, there are exceptions to this – the Grade 11 class of 2009 have accepted the learners with visual impairments in contrast to the classes before them. Finally, the policies that were developed by the country do not provide clear and practical guidelines of how to make inclusive education a reality in Namibia.

I hope that the findings of this study will be of valuable use to the particular school and to the Ministry of Education with regard to the school's progress in the inclusion of the learners with visual impairments.

Key Concepts: inclusion, disability, impairments, visual impairment, visual disability, blindness, and partially sighted.

OPSOMMING

Die navorsingsprobleem van hierdie studie is hoe leerders met gesiggestremdhede ingesluit word in 'n hoofstroom sekondêre skool in Namibië. Die navorsing is belangrik aangesien inklusiewe onderwys 'n nuwe innovasie in Namibië is. Die insluitingvan leerders met gesiggestremdhede was 'n prioriteit van die Ministerie van Onderwys, aangesien die skool vir blindes in Namibië (Windhoek) net onderrig verskaf van Graad 1 tot Graad 10. Die Graad 11 en 12 leerders moes dus vanaf 2006 ingesluit word in 'n hoofstroom sekondêre skool.

Met hierdie studie het ek beoog om die konsep van inklusie asook die beleidsdokumente aangaande inklusie in Namibië te analiseer; om die tipe asook die wyse van ondersteuning vir hierdie groep leerders met gesiggestremdhede te analiseer en beskryf; en om die kultuur en konteks van die skool te beskryf met behulp van die perspektiewe en ondervindinge van die deelnemers in my studie.

Ek het'n kwalitatiewe gevallestudie ontwerp om 'n ryk, digte beskrywing te verseker. Die deelnemers is doelbewus gekies ten einde in-diepte en spesifieke perspektiewe en ondervindinge te verkry. Die metodes wat gebruik is vir data-insameling sluit semi-gestruktureerde onderhoude, nie-deelnemende waarneming en dokumente-analise in.

Hierdie studie het bevind dat alhoewel die leerders met gesiggestremdhede fisies in die hoofstroomklasse geïntegreer is, hul nog nie waarlik ingesluit word in die hoofstroomskool nie. Die onderrigmetodes word nie genoegsaam aangepas nie en die leerders benodig meer hulpbronne en toerusting om gehalte leer te verseker. Die onderwysers het nie voldoende opleiding om kinders met gesiggestremdhede te onderrig nie en die ouers van die leerders met gesigsgestremdheid en gemeenskap is nie genoeg betrokke by die skool en die leerders nie. Nie die klaskamers of die skoolgronde is toegangklik vir die leerders met gesiggestremdhede nie en die houdings van beide onderwysers en leerders is met enkele uitsonderings negatief teenoor die leerders met gesiggestremdhede. Ten slotte, die nasionale beleidsdokumente aangaande inklusie gee nie praktiese maniere hoe om inklusiewe onderwys 'n werkliheid te maak nie.

Ek hoop dat die bevindinge van hierdie studie van waarde sal wees vir die spesifieke skool asook vir die Ministerie van Onderwys in die ontwikkeling van inklusiewe onderwys.

Sleutelkonsepte: Inklusie, gestremdheid, beperking, gesiggestremdheid, visuele beperking, blindheid, en swak sig.

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CHAPTER 1

CONTEXT AND RATIONALE FOR THE STUDY

"Education is a social process. Education is growth. Education is, not a preparation for life;
education is life itself".
John Dewey

1.1   INTRODUCING THE INQUIRY

This research inquiry aims to explore and describe how learners with visual impairments are included in a Namibian mainstream secondary school. The world-wide inclusive education notion is a very complex issue that requires continual reflection and critical evaluation in order to remain appropriately focussed. By conducting the research, the researcher hoped to gather information on the whole educational experience of learners with visual impairments in a particular school. This information could help the researcher to understand the progress that one project of the Namibian education system is making with regard to inclusive education. The core assumption about inclusion is that it is a process that requires fundamental change at all levels of the school organisation. These changes necessitate support and collaboration to ensure success.

Internationally, the concept of inclusion started with the principle of 'normalisation'. This was introduced in Scandinavia in the 1950's and can be defined as "making available to all handicapped people patterns of life and conditions of everyday living which are close to regular circumstances and ways of life of society" (Nirje in Du Toit, 1996, p. 7). It is argued that the most effective way of creating a just, equal, non-discriminating, welcoming and inclusive society is to start with the youth, making regular schools accessible to all children (UNESCO in Dyson, 2001). Different countries followed different methods to start the process of including children with disabilities and other types of barriers to learning in mainstream schools (Dyson, 2001). For example, the United States of America's first approach was that of mainstreaming, i.e. placing previously excluded learners with the other learners in the mainstream school. The impetus of mainstreaming was on the learners to "fit in". They had to prove that they could "keep up" with the rest of the class (Swart & Pettipher, 2005, p. 7).

In an attempt to improve the education system, an approach of integration followed. Integration is based on the human values of participation and involvement (Engelbrecht, 1999). This approach meant the children spent time participating with their peers in regular classroom activities, but still received considerable teaching in a separate setting or received "special help" in the classroom (Swart & Pettipher, 2005). However, instead of facilitating inclusion, this approach accentuated the differences between different race groups, and between learners with disabilities and the rest of the learners.

Both mainstreaming and integration fail to live up to the standards set by inclusion. These standards include the building of an equitable, democratic society and education system that celebrates diversity arising from "gender, nationality, race, language, socio-economic background, cultural origin and level of educational achievement and disability" (Mittler in Swart & Pettipher, 2005, p. 4). Mainstreaming and integration also fail to live up to one of the main aims of inclusion in schools: To provide QUALITY education for all. A different educational system that would embody the values of inclusion was therefore needed. Inclusive education was born.

Inclusive education is based strongly on a rights perspective (Dyson, 2001). The Education for All initiative states that "Education is a fundamental human right" (World Education Forum, 2000; International Agency Commission, 1990 in Dyson, 2001). The *Salamanca Statement on Principles and Practice in Special Needs Education* (1994) takes this a step further by stating that "Every child has unique characteristics, interests, abilities and learning needs. Education systems should be designed and educational programmes implemented to take into account the wide diversity of these characteristics and needs" (Dyson, 2001, p. 2). This statement was the resolution of the World Conference in Salamanca, Spain in June 1994 and highlights diversity as a core issue of inclusive education.

Dyson (2001) (after analysing a variety of inclusion policies of different countries) presented the following arguments in favour of inclusion: (1) A social argument, (2) an educational argument and (3) a resourcing argument. Socially, inclusive education helps to build a more equitable society. The assumption here is that children (who are the future of the country) will learn to respect and accept people who are different to themselves by spending time with them on a daily basis. On an educational level, inclusive education helps to provide quality education for all. This is because the curriculum and teaching methods are adapted to suit the learning needs of all the different learners. And finally with regard to the resourcing argument, inclusive education promotes cost effectiveness and efficiency. Dyson (2001) also wrote about 'varieties of inclusion'. This means that there are

certain broad principles of inclusion such as social justice, educational equity and school responsiveness to learner diversity that should be interpreted and applied by policy makers and practitioners according to the specific context, culture and circumstances of their particular country. The concept of inclusion will therefore have different meanings for different countries and should be applied in the unique ways that a specific context requires.

Inclusion requires major changes and not just a tinkering of the education system. Most countries had two separate education systems for regular education and special education. It is therefore often argued that to address the variety of learning needs within "common, yet fluid contexts" (Engelbrecht, 1999, p. 8), the education system should be completely restructured. On a national level, this would mean that policies promoting inclusion would be produced and that appropriate governance structures would be put into place (Donald, 1996). With regard to the school system itself, the concept of whole school development is inseparable from inclusive education. This concept is based on organisational and systems theory and holds the view that true change is only possible if every aspect and element of the organisation or system is addressed (Swart & Pettipher, 2005). Of importance in this study are the different elements involved in a school as an organisation that include amongst others leadership and management; policy, aims and strategies; school development; curriculum development and assessment; teaching and classroom practices; human and material resources (the human resources include the parent-teacher relationship as well as collaboration with experts and transdisciplinary teams); school buildings; the external context (this involves the community, NGO's, special schools); and the culture of the school (this involves the attitudes of the teachers and the learners as well as the values of the school) (Lazarus, Daniels & Engelbrecht, 1999). It is maintained that for true inclusion in schools to become a reality, changes in all the different aspects of the education system are necessary. Every element should therefore be developed to reflect the values, principles, and practices of inclusion.

1.2   PROBLEM STATEMENT

I argued in 1.1 that inclusion in schools is a very complex issue because it involves a "wholesale restructuring" (Dyson, 2001, p. 6). I further argued that for inclusion to become a reality, a "reculturing" (Fullen in Swart & Pettipher, 2006) of every aspect of the education system is required. This means that inclusion not only requires education systems to change, but also requires a process of developing democratic values and practices in school communities. Namibia is in the beginning phase of implementing inclusive education (and even more so inclusive education for

learners with visual impairments) and has approached several secondary schools, asking whether they would include learners with visual impairments in the school. Inclusion of learners with visual impairments is important in Namibia because the special school for the Blind in Windhoek only offers education up to Grade 10. The only option for these learners (who want quality education in Grade 11 and 12) is to leave the country to finish their schooling in South Africa or another country. Many of the learners with visual impairments come from extremely impoverished backgrounds and cannot afford international schooling.

Another reason why inclusion of learners with visual impairments was made a priority is because (according to the Education Management Information Systems (EMIS) Educational Statistics, 2008) there are 3,764 learners who are partially sighted and 286 learners who are blind in the country (Ministry of Education: Directorate of Planning, 2008). With regard to finances and resources (Dyson, 2001), they could not be catered for solely in the two special schools for the Blind in the country. Including learners with visual impairments in a mainstream secondary school was therefore regarded a necessity.

Of all the secondary schools in the Khomas Region that the Ministry of Education has approached, only one school agreed to include learners with visual impairments after Grade 10. One of the reasons for this was that the school had a previous experience with a learner who, after three years of attending the school, became blind due to an accident. After he went to the Pionier School for Visually Impaired in Worcester (in South Africa) for training in skills to support his blindness, he came back to the secondary school in Windhoek to finish his schooling. The school made no adaptations for him; his parents bought all the equipment and were very involved in helping him complete his education. The school was therefore ill-informed and inexperienced with regard to inclusive education when they agreed to the inclusion project of the Ministry of Education. As a result it is important to understand how inclusion is happening for these learners with visual impairments and to what extent the restructuring and reculturing of the education system is taking place to provide quality education for everyone in the education system. At present very few adaptations are made in the classrooms of this mainstream secondary school to accommodate the learners with visual impairments. They are taught alongside the other learners with limited specific and individualised support. The specialised equipment that the school received for the learners with visual impairment is kept in a media room and is not used often in the regular classroom environment. The learners who are included in the mainstream school have visual impairments that range from partial sight to complete blindness. They therefore require a range of adaptations and accommodations.

I designed a qualitative case study to analyse and describe data collected from the different systems within the context of the Namibian mainstream secondary school in order to determine how the learners with visual impairments are included and what the experiences of all the role players are. It is assumed that insight gained from this exploratory study will be of valuable use to the school and also to the Ministry of Education of Namibia with regard to how this process is unfolding and experienced by both the school and the learners.

1.3 RESEARCH QUESTIONS

The primary research question this study aims to answer is:
- How are learners with visual impairments included in a Namibian mainstream secondary school?

The following sub-questions have been formulated:
- What is inclusion and what is the framework and policy of inclusion in Namibia?
- What is 'visual impairment' and how can this impairment be supported in a mainstream secondary school?
- How do the different organisational elements of the secondary school in this case study reflect the inclusion of learners with visual impairments?
- What are the experiences and opinions of the principal, teachers, specialist teacher, parents, peer, and learners with visual impairments of the inclusion process?

1.4 AIM OF THE STUDY

In light of the problem statement, I will analyse and describe how learners with visual impairments are included in a mainstream secondary school and present the findings in the format of a case study.

The objectives are to:
- Analyse the concept of inclusion and describe the policy implementation in Namibia
- Analyse and describe the nature of support as well as the adaptations and accommodations made

- Describe the culture and context of the school community using the opinions and experiences of the participants in the study

1.5   CLARIFICATION OF CONCEPTS

Some of the key concepts to be used in this thesis will be defined next, and will be discussed later in the text.

INCLUSION: Definitions for inclusion vary and differ from country to country to reflect the unique context and policies. I therefore opt for a generic description. Inclusion can be described as a process of taking action in order to address the wide diversity of needs of all learners. Inclusion aims to increase participation in learning, cultures, and communities and to reduce exclusion. This process of inclusion involves many changes and adaptations on all levels of the school community: content, approaches, structures, and strategies, with a shared vision that involves all children and a belief that the responsibility to educate all children lies with the regular system (UNESCO, 2005).

DISABILITY: The International Classification of Functioning, Disability and Health (ICF) which is the World Health Organization's (WHO) framework for measuring health and disability, defines disability as "the outcome or result of a complex relationship between an individual's health condition and personal factors, and of external factors that represent the circumstances in which the individual lives" (WHO, 2009). Another definition is that of Wood in Oliver (1996): In the context of health experience, a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.

IMPAIRMENT: This is defined by the ICF as "problems in body function or structure such as significant deviation or loss" (WHO, 2009).

VISUAL IMPAIRMENT: The International Statistical Classification of Diseases, Injuries, and Causes of death, 10th revision (ICD-10) bases its definition of visual impairment on best-corrected vision, i.e. visual acuity obtained with the best possible refractive correction. This is achieved by subjects tested with pinhole or refraction. Measuring the extent of uncorrected refractive errors, the term 'presenting vision' is used. Visual impairments caused by uncorrected refractive errors are defined as visual acuity of less than 6/18 in the better eye that could be improved to equal to or

better than 6/18 by refraction or pinhole (Resnikoff, Pascolini, Mariotti & Pokharel 2008). For more information see 2.6.

VISUAL DISABILITY: Visual impairment in spite of visual correction results in visual disability adversely affecting a learner's academic performance. Effects could include poor handwriting, inattentiveness and losing one's place during reading because of eye discomfort, light sensitivity and dislike of visual tasks (Snyman & Bloem, 2001).

BLINDNESS: This can be defined as a visual acuity (with best possible correction) of 20/400 (maximum and less than) and/or 20/1200 (minimum, equal to or better than). Furthermore, a person who is blind can either have light perception or no light perception (WHO, 2007). See 2.6 for a more detailed discussion.

PARTIALLY SIGHTED: A person with partial sight has a visual acuity (with best possible correction) of 20/70 (maximum and less than) or 20/200 (minimum, equal to, or better than). A person with low vision can also have a maximum and less than acuity of 20/200 or a minimum, equal to or better than acuity of 20/400 (WHO, 2007). According to Resnikoff et al. (2008), a revision of the ICD-10 categories of visual impairments proposed in 2003 by a WHO consultation on the development of standards for the categorization of vision loss, low vision is replaced by two categories: moderate visual impairment (presenting visual acuity less than 6/18 but equal to or better than 6/60) and severe visual impairment (presenting visual acuity less than 6/60 but equal to or better than 3/60). For more information, see 2.6.

1.6   STRUCTURE OF THE PRESENTATION

In Chapter 1, the study is contextualised and the significance is explained. An outline of the problem statement, research aim, and a review of key concepts are provided.

In Chapter 2, a literature review on inclusion of learners with visual impairments is explored.

In Chapter 3, the research paradigm, design and methodology of the study are described. The data collection and analysis as well as ethical aspects are also explained.

In Chapter 4, the research findings are described and interpreted.

Finally, Chapter 5 concludes the study. Emphasis is placed on the limitations and strengths of the study, and recommendations for further research are made.

CHAPTER 2

LITERATURE REVIEW

2.1   INTRODUCTION

The purpose of reviewing the literature relevant to the study is to advance the argument and engage critically with the topic of the research as set out in Chapter 1. The literature review is the framework of the study and serves to organize all the literature relevant to the study (Merriam, 1998). Within this literature review, I will set up a conversation with the literature and act as a host, allowing other speakers to enter the conversation, change the direction of the conversation, and keep it interesting and critical (Henning, Van Rensburg & Smit, 2005).

The chapter will begin with a discussion of the main paradigm shifts and theories that led to the concept of inclusion as was introduced in Chapter 1. I will focus on how the literature describes what inclusion is as well as on the importance of it within the Southern African context. The implementation of inclusion will be looked at next – taking into account every aspect of the education system in Namibia. In the final part of the chapter, the concept of inclusive education will be narrowed down to a focus on how to include learners with visual impairments within a mainstream school. The argument of this literature review will be that in order for inclusion (and more specifically the inclusion of learners with visual impairments) to become a reality, all the different aspects of the education system must be adapted and transformed.

2.2   THEORETICAL FRAMEWORK

This study will be framed within a bio-ecological model. The shift towards this model of Bronfenbrenner (1998, in Swart & Pettipher, 2005) from the medical model greatly influenced the way human development and therefore learners in an education system are portrayed. The medical model locates the problems with regard to learning (such as a disability) solely within the learner. A diagnosis is made that leads to the labelling of the learner. A cure is then searched for. The "cure" is more often than not the placement of the learner in a special school. The bio-ecological model, on the other hand, acknowledges the idea of Vygotsky that no person lives in a vacuum (Donald, Lazarus & Lolwana, 2002). Human beings are embedded in a variety of systems that influence and

are influenced by them. The problem that was once seen as an internal deficit or need of the individual is now seen as a barrier to learning often located in the individual's surrounding systems, or caused by the interaction between the systems. "Barriers to learning" is a shift in language and thinking away from the term "special needs". It is defined as "those factors which lead to the inability of the system to accommodate diversity, which lead to learning breakdown or which prevent learners from accessing educational provision" (Department of Education, 1997, p. 12, in Swart & Pettipher, 2005, p. 17). This change in terminology from *internal problems* or *special needs* to *barriers to learning* has a hopeful effect on the learner as well as on the education system. The possibility is there that if the interactions between the systems adapt and change, the barrier can be accommodated for. In this research I will make use of 'person-first language'. Out of respect for the persons with visual impairment, I will acknowledge them firstly as persons and then I will address the impairment (Swart & Pettipher, 2005).

A theory that emphasizes the important role that language plays in the meanings we attribute to things is that of *social constructionism.* This theory states that the interpretations that are made of our worlds (in this case, of barriers to learning) are influenced by the language and discourses that are used (Schwandt, 2003). The language and discourses to be used should therefore be challenged and critically engaged with in order to see whether they are inclusive or not. The discourses and language used are in turn influenced by the socio-political contexts that people find themselves in. According to Phillips (1997), the knowledge and interpretations that people have of their worlds can therefore not be seen as the truth, rather it is their ideas that correspond with reality. From a *radical constructivist* point of view, Von Glasersfeld stated that people must test their ideas to see whether they are 'viable' and occur in the absence of 'friction or collision' (in Phillips, 1997). This is the best that subjective humans can do since they cannot claim that their knowledge is true. Von Glasersfeld stated that the subjectivity of their knowledge results in individuals constructing different meanings of 'reality'.

At this point a line can be drawn to the bio-ecological theory. Just as there are often multiple causes (situated within the learner's different systems) of a barrier, so there are also multiple interpretations that can be made concerning that barrier. For example, the barrier can be viewed as being the blindness of learners that disenables them access to the curriculum. This way of looking at the barrier leads to a dead end since there is little that can be done about the blindness. The blindness is fixed and therefore the learners will never be able to access the curriculum. However, if the barrier is viewed as being the result of an inflexible curriculum, then there are many options within an inclusive environment that can be considered to overcome the barrier. The curriculum is

something that can be changed and adapted in order to make it inclusive for the learners with visual impairments.

The social model of disability ties in with the above-mentioned theories to a large extent. This was developed in the 1970's by activists in the Union of Physically Impaired Against Segregation (UPIAS) and was given academic credibility by (amongst others) Mike Oliver (1990 and 1996). This model makes a distinction between 'impairment' and 'disability', the former being defined as "lacking all or part of a limb, or having a defective limb, organism or mechanism of the body" and the latter as "the disadvantage or restriction of activity caused by a contemporary social organisation which takes little or no account of people who have physical impairments and thus excludes them from participation in the mainstream of social activities" (Oliver in Shakespeare & Watson, 2002, p. 4, 5) (See 1.5 for concept clarification). Oliver (1996) explained these definitions by stating that the physical impairment is not the disability; rather it is society that causes the disability by isolating and excluding the people with the physical impairment from full participation in society.

Connecting this discussion to inclusion in schools, it can be stated that if the schools do not adapt and change in order to accommodate a learner with an impairment, then the schools are causing the 'disability'. Hevey (1992) described his encounter with the social model:

> I think I went through an almost evangelical conversion as I realized that my disability was not, in fact, the epilepsy, but the toxic drugs with their denied side-effects; the medical regime with its blaming of the victim; the judgement through distance and silence of bus-stop crowds, bar room crowds and dinner table friends; the fear; and, not least, the employment problems. All this was oppression, not the epileptic seizure at which I was hardly (consciously) present. (in Oliver, 1996, p. 50)

The critique against this social model of disability is that it underplays and almost disregards the 'bio' aspect or as is stated in Swart and Pettipher (2005, p. 10), the "person factors" of the bio-ecological approach. In other words to a certain extent, the social model 'ignores' the important fact that impairment is a part of the daily experience of these people; as Shakespeare and Watson (2002) stated: "We are not just disabled people, we are also people with impairments, and to pretend otherwise is to ignore a major part of our biographies" (11). Crow (1996) agreed with this by stating that we cannot just ignore the personal experience of pain and limitation caused by the impairment (in Shakespeare & Watson, 2002). Within this literature review I will, therefore, not minimize impairment by saying that people are "disabled by society, not by their bodies." I will instead argue

that people are "disabled by society as well as by their bodies" (Shakespeare & Watson, 2002, p. 11). I will look at all the ways in which society, or more specifically the school system, can change in order to accommodate people with disabilities, all the while bearing in mind that proper medical care is still an important treatment option (Väyrynen, 2008).

Taking into account these theories surrounding the concept of inclusion, it becomes clear that inclusion is a complex idea. It calls for society to change and its aims to include the person as an entirety − physically, socially, intellectually, and emotionally. I will now describe what inclusive education is.

2.3   WHAT IS INCLUSIVE EDUCATION?

The overall vision of inclusive education, as was set out by the World Declaration on Education for All, adopted in Jomtien, Thailand (1990), is:

> …universalizing access to education for all children, youth and adults, and promoting equity. This means being proactive in identifying the barriers that   many   encounter   in accessing educational opportunities and identifying the resources needed to overcome those barriers (UNESCO, 2009, p. 8).

According to the World Conference on Special Needs Education: Access and Quality, held in Salamanca, Spain (1994) inclusive education is a process of addressing the diversity of barriers to learning in a way that calls for the school system, in all its facets, (content, culture, approaches, structures, curriculum, buildings, assessments, staffing, extra-curricular activities, and school philosophy and ethos) to be transformed along the principles of inclusion in order to allow for an increasing participation of all learners. These principles include respect for diversity, equal opportunity and full participation for every learner in the system. Within an inclusive setting, the regular school in collaboration with other role-players such as special schools take the responsibility of providing quality education for all learners, regardless of the barriers to learning (UNESCO, 2009).

A regular school which adopted the inclusive education values and principles no longer requires of a learner to "fit in", rather the school makes changes in order to "fit" and address the barriers to learning, as well as the strengths of that child. An inclusive school provides quality education to all by allowing for and encouraging the full participation of all the learners. The aim of inclusion is to

prepare all learners to become productive, responsible and non-discriminating members of a democratic society and to be fully part of the community in which they live – not just physically, but also spiritually, emotionally, and socially (UNESCO, 2005).

According to the Final Report of the National Policy on Inclusive Education in Namibia (Väyrynen, 2008), inclusive education does not focus exclusively on the integration of learners with disabilities into mainstream school, it also aims to end segregation and the exclusion of learners on the grounds of race, gender, culture, religion, lifestyle, or disability. Inclusive education in Namibia is based on the principle that all learners have the right to be educated alongside family, friends and peers in their own neighbourhood or local community. Inclusion is therefore a process that increases participation in learning and that strives to identify barriers to learning. These barriers can be due to socio-economic conditions, poor education practices, an impairment, or it may stem from the environment and culture of a learner. An important aspect of inclusive education is that it shifts the focus from blaming the learner for the learning difficulties that he/she may experience and redirects the focus to the interaction between the learner and his/her environment. This interaction concerns the quality of the learner's experience and how he/she is supported to participate fully in school life.

The goal of the Final Report of the National Policy on Inclusive Education in Namibia (Väyrynen, 2008) is to educate all learners in mainstream schools to the fullest extent possible. The two objectives of the policy are: to expand access to and provision of education particularly for educationally marginalised learners; and to support learners with a wide range of individual abilities and needs in compulsory education as well as pre- and post-compulsory education. The goal and objectives of inclusive education in Namibia can be summarized in the words of Sandkull (in Zimba, Möwes, & Naanda, 2006), who wrote that inclusive education pays attention to "children who should be in school, and are not, and children who are in school, but are unable to succeed there" (p. 24).

2.4   INCLUSION IN SOUTHERN AFRICA – A NECESSITY

In this part of the literature review I refer to inclusion in Southern Africa (or more specifically Namibia and South Africa). The reason for this is the important influence that South Africa had (and still has) on Namibia. In many ways the educational contexts in the two countries are similar and therefore the inclusion process in South Africa influences that of Namibia.

In both countries inclusive education is a necessity due to the vast variety of barriers to learning that need to be accommodated for in regular schools. The most prominent barriers in South Africa as identified by the National Commission on Special Needs in Education and Training (NCSNET) and the National Committee for Education Support Services (NCESS) are the following:

1. **Socio-economic** barriers including poverty, domestic violence, gangsterism, lack of housing, unemployment, under nourishment, sexual and physical abuse, crime and HIV/AIDS. The Commission emphasized the fact that the groups that were previously marginalised and disadvantaged under the previous regime suffer most from socio-economic barriers. Unfortunately, these previously excluded groups constitute the largest part of the population; therefore, this barrier affects the most children.

2. **Discriminatory negative attitudes** and prejudices of race, class, gender, culture, language, religion and disability.

3. **An inflexible curriculum** and ineffective teaching materials and methods that don't take into account the different styles and tempos of learning.

4. **Language** can be a large barrier when the learners cannot understand the language of instruction. In most schools, English and Afrikaans are the Languages of Learning and Teaching (LoLT). This poses a problem, as most of the children do not have English or Afrikaans as their mother tongue.

5. **Inaccessible and unsafe constructed environments** can be large barriers when learners with physical disabilities cannot access the school. It is important to take into account the logistics surrounding physical disabilities and to build ramps or install lifts where needed.

6. **Inappropriate, insufficient and, at times, non-existent support services** are large barriers to learning for learners who desperately need them. Without these support services, many children cannot cope in the mainstream classes.

7. **Lack of parental involvement and support** because parents play an important and often irreplaceable part in their children's abilities to progress in school. In many homes in South Africa, there is no 'culture for learning'. Parents place the responsibility for their child's learning entirely on the school. Due to the fact that so many of the barriers to learning are linked to the home, it is crucial that parents are involved in trying to address these problems.

8. **Lack of human resource development**. This includes the effective training of teachers and other key players.

9. **Lack of protective legislation and policy** to enhance the implementation of inclusive education and to support the teachers in their training and workload.

10. **Disabilities**, including sensory impairments, physical, neurological, psycho-neurological, physical and learning difficulties of varying degrees, as well as impairments in speech and communication.

(Lomofsky & Lazarus, 2001, p. 311-312)

The National Education Policy Investigation (1992) found that up to 50% of the children in South Africa are in need of support services because of the barriers to learning. In other words, special education would theoretically end up serving half of the learners (Heuman, 2005). However, because of the great diversity of these needs, they cannot be met through a separate system of special education (Donald, 1996). In monetary and resource terms, separate special schools for all the learners with learning needs would be unaffordable (Dyson, 2001). An inclusive educational system, where the diversity of these needs can be accommodated within a single system that provides a continuum of services, would therefore be the best option. All learners (not just those with learning difficulties) have different learning styles and abilities; therefore, a flexible system that will accommodate all is needed.

Another reason why a single inclusive school system in Southern Africa is essential is because of its racist past. Under the apartheid policy of South Africa (which also influenced Namibia), there were great disparities in educational resources between the white and non-white sections of society. As already mentioned, black schools (who are in greatest need of support) received limited help from the state whereas white schools were amply supplied with resources and the best-qualified teachers. Inclusive education in South Africa is therefore vital and aims to provide all learners with the opportunity of attending schools that will provide them with quality education (Donald, 1996). As Skrtic (1991) said: "equity is the way to excellence" (in Dyson & Forlin, 1999, p. 35). When South Africa became a democracy in 1994 and Namibia in 1990, the goal for both was to build egalitarian societies (Naicker, 1999; Väyrynen, 2008). However, putting this into practice doesn't happen overnight. A radical shift in values only becomes embedded in society with time. It is therefore crucial to start with the future of the country: the children. The values of inclusion should be incorporated in the schools if a true change in society is the goal. Inclusive education can therefore be seen as a vehicle for creating an equal and just society (Lomosfsky & Lazarus, 2001).

Not only is a radical shift in values needed to successfully implement inclusive education, but also a complete restructuring of the whole educational system. I look into what this entails next.

2.5   THE IMPLEMENTATION OF INCLUSIVE EDUCATION

Implementing inclusive education involves a "wholesale restructuring" (Dyson, 2001, p. 6) of the entire education system. Unless every part of the education system adapts to incorporate the values of inclusion, inclusive education will not become a reality. This is in line with Bronfenbrenner's bio-ecological theory that emphasizes how each system is interconnected with and dependent on other systems. In other words, to change the whole, each individual system must be addressed so that the reciprocal influences of the systems can be positive, contributing to the growth and change of the system as a whole. If one of the systems does not make the necessary adaptations to facilitate inclusive education, it will have a negative impact on other systems including the education system as a whole.

2.5.1   National level

On a national level, this would mean that policies promoting inclusion would be formulated and appropriate governance structures would be put in place (Donald, 1996). What follows are the policies formulated in South Africa. The reason why this is mentioned in the review is due to the important influence South Africa and its decisions have on Namibia.

1. The White Paper on Education and Training in a Democratic South Africa (1995).
2. The South African Schools Act (1996). These two documents supported and aided the paradigm shift to inclusive education.
3. The White Paper on an Integrated National Disability Strategy (1997). In this paper, approaches and mechanisms on how to provide access to the curriculum for learners with disabilities are discussed.
4. The combined report of the NCSNET and the NCESS (1997). These reports investigated the concepts of 'special needs' and 'educational support'. It was found that these 'special needs' are the result not simply of an impairment 'within a learner', but rather, of the interaction between the learner and the many systems in which he/she finds him/herself. Therefore, the term 'barriers to learning' was found more appropriate when discussing learners' needs. In order to respond to the great diversity in the barriers to learning, the White Paper on Education and Training (1995) produced the following initiatives:
   a. Outcomes-based education (OBE)
   b. The Culture of Teaching, Learning and Services (COLTS)
   c. The National Qualifications Framework (NQF)

    d. The new Language Policy

(Swart & Pettipher, 2005).

The NCSNET and the NCESS further stated that special schools should now take on the role as resource centres for regular schools, training teachers and working collaboratively with them to address the barriers to learning (Lomofsky & Lazarus, 2001, p. 310).

5. In reaction to the suggestions and findings of the NCSNET and the NCESS reports, the Green Paper on Emerging Policy and Inclusive Education was released. After the public gave feedback, the Department of Education issued Education White Paper 6: Special Needs Education: Building an Inclusive Education and Training System (Lomofsky & Lazarus; 2001). This document provides a framework for the implementation of inclusive education in South Africa, taking into account the wide range of learning needs in context. Certain key principles are highlighted in the paper – these include: "acknowledging and respecting that all people can learn, and that all people learn differently and have different learning needs which are equally valued" (Swart & Pettipher, 2005, p. 18).

6. Finally, in 2009, the National Disability Framework was developed with the aim to remove barriers to equal participation and to eliminate discrimination based on disability (BuaNews, 2009).

Together with South Africa, Namibia was also one of the countries that signed the Salamanca Statement on Principles and Practice in Special Needs Education, thereby committing itself to the movement towards quality and equality in education for all, in other words, inclusive education (UNESCO, 1994). Both countries also signed the Convention on the Rights of Persons with Disabilities at the end of 2006 (Väyrynen, 2008). Adopting the notion of inclusive education is in line with Article 20 (a) of the Namibian Constitution that guarantees the right to education for all.

In Namibia, the policy statement *Toward Education for All* (1993) with its goals of access, equity and equality compels the Ministry of Education to provide education to learners with disabilities and barriers to learning (Zimba et al., 2006). Inclusive education called for the drawing up of a thorough policy and legislative framework that would provide clear guidelines on how inclusive education should be implemented in the Namibian schools (Zimba et al., 2006). This resulted in the National Policy on Disability (1997) that focuses on the principles of inclusion as stipulated in the Salamanca Statement. This policy states that children with disabilities shall have the same (equal) rights as children without disabilities. An Intersectoral Task Force on Educationally Marginalised Children (2000) was established in order to facilitate policy options as well as to enhance the removal of educational barriers. The task force did not comprehensively discuss how to provide

schools with supportive learning environments; however it brought forth a broader definition of 'children with special needs'. This includes children with disabilities; children of farm workers (both commercial and communal); children who belong to indigenous minority groups such as the San and Ovahimba; orphans, street, and vulnerable children; working children; and children who reside in informal settlements.

Other legislative frameworks and policies include the following:

1. The HIV and Aids and Education Policy (2003) that aims to provide support for the schools in general and more specifically the children that have been impacted by the disease;
2. The Education Act 16 of 2001;
3. The National Disability Council Act No. 26 of 2004;
4. The Draft Childcare and Protection Bill (to be enacted in 2010) (Zimba et al., 2006).

All of these policies were drafted in order to set the movement of inclusive education in Namibia into motion. In the words of the Deputy Minister of Education, Dr Ndjozo-Ojo: "The Ministry of Education as evident in the ministerial policies, strategic plans and other documentation has embraced and supports the concept of Inclusive Education" (New Era, 2009).

Unfortunately, according to Zimba et al. (2006), none of the above-mentioned pieces of legislation in Namibia provide a clear and comprehensive framework, or practical guidelines on how to implement the policy. The separate policy options that are currently in use for different groups of learners result in duplication of effort in certain areas and a lack of services in others. It also results in a state of affairs where inclusive education notions and initiatives are started without the appropriate training of teachers, without an adapted curriculum, without adequate support, without effective learning materials and equipment, without support staff, without a change in stakeholders' attitudes and educational paradigms, and without clear legislation to guide the Ministry of Education and other stakeholders on the path to provide quality education for all learners within the mainstream classroom (Zimba et al., 2006). Finally, Zimba et al. (2006) stated that there is a lack of conceptual clarity within the education system. They stated that key terms such as mainstreaming, integration, inclusive education, learning support, compensatory education, and special education are not clearly differentiated from each other. After doing research on the inclusive education policies and its results in Namibia, Zimba et al. (2006) made some recommendations. They suggested that a single, comprehensive legislative framework should be drawn up that will consider all learners within the education system. They also recommended that Namibian educational policies and strategies should be extensively revised and that inclusive education activities should be budgeted for separately. They suggested that appropriate human and material resources should

be built and that the curriculum and Special Needs Education provision should be reformed and developed respectively. Finally, they recommended that the University of Namibia and Colleges of Education integrate both theory and practice about 'special educational needs' within their teacher training programmes.

Following the recommendations provided by Zimba et al. (2006) as well as those made by the Inclusive Education Task Force (2007) that aimed to draw out the priorities and challenges of inclusive education, was the formation of the Draft National Policy on Inclusive Education (2007) and then the Final Report of the National Policy on Inclusive Education (Väyrynen, 2008). This policy links with the Education and Training Sector Improvement Program (ETSIP) (2007) that aims to address the main education sector weaknesses (Väyrynen, 2008). Currently the Final Report of the National Policy on Inclusive Education (Väyrynen, 2008) is once again being adapted in order to produce a shortened and more comprehensive version (Kahikuata-Kakiro, personal communication, June 24, 2009).

2.5.2   Regional level

The next educational level to be addressed is the regional level. There are 12 regions in Namibia. Advisory teachers were appointed at the regional level in order to enhance educational support through training (Väyrynen, 2008). According to the Final Report of the National Policy on Inclusive Education, Namibia aims to establish a Regional Inclusive Education Unit in every region. These Units will co-ordinate the work of various support staff, for example regional/senior school counsellors, regional learning support teachers, HIV and AIDS service providers, school learning support staff, education inspectors, advisory teachers, social workers, para-medical and health professionals, and NGO workers. The Units will also co-ordinate the specialist services provided by special schools to mainstream schools (Väyrynen, 2008).

Of the 12 regions in Namibia, only 3 regions have special schools. Six special schools are in the Khomas region (Windhoek), one in the Omusati region and one in the Oshana region. The special schools are:
- Pionier Boys in Khomas Region: A special school for boys with learning difficulties
- Eros Girls in Khomas Region: A special school for girls with learning difficulties
- Klein Aub in Hardap Region: A special school for learners with emotional and behavioural difficulties

- Outapi Special School in Omusati Region: A special school for boys and girls with learning difficulties

- Eluwa in Oshana Region: A special school for learners with hearing and/or visual impairments

- Dagbreek in Khomas Region: A special school for boys and girls with severe learning disabilities (intellectual impairment)

- NISE Moreson in Khomas Region: A special school for boys and girls with severe learning disabilities (intellectual impairment)

- NISE-Deaf in Khomas Region: A special school for learners with hearing impairment

- NISE-Blind in Khomas Region: A special school for learners with visual impairment.

The Final Report on Inclusive Education in Namibia (Väyrynen, 2008) stated that special schools and other specialized services should be supported in order to enhance their expertise so that they can in turn support the mainstream schools. The document "For All Children to Succeed" (2005) stated that special schools should be incorporated within a school network by offering a two-fold service. The first function will be to offer quality education to learners with disabilities. The second function will be to offer specific services to learners with disabilities who are in mainstream schools. In this way the special schools will be resource centres as well as service providers.

Currently in Namibia many of the special school staff do not have proper training in the area of special needs, however experience seems to make up for this lack to a certain extent. Research shows that a large number of Namibian learners attend special schools designated for learners with "learning difficulties". This suggests that their barriers to learning are not adequately accommodated and supported in the mainstream school (Väyrynen, 2008).

2.5.3 Curriculum

Another aspect that needs to be addressed is curriculum. According to Soudien (2006) the curriculum is a strong inclusionary and exclusionary device. This is because curricula encompass what is believed to be essential for the children to learn in order to become productive citizens in an inclusive society. Curricula embody the values that we espouse and shape the very essence of our teaching – how we teach, what we teach, where we teach. Soudien (2006) suggested criteria for an inclusive curriculum through a two-level schedule. The first level focuses on an adapted version of criteria developed by Lynch (in Soudien, 2006). The criteria are the following:

- Non-discrimination on the basis of characteristics such as race, ethnicity, sex, marital status and disability
- Reflection of the cultural diversity of society, both locally and nationally
- Reduction of stereotyping and elimination of prejudice, discrimination and bias
- Fostering of appreciation of the unity of human kind and respect for its diversity
- 'Culture-fair' and unbiased examinations
- Support for teachers in the achievement of multi-cultural education provisions
- Maintenance and enhancement of multilingualism and mother-tongue competence.

According to Soudien (2006), the second level is awareness of the politics of its construction. The following questions are asked:
- Is it conscious of the politics of its own knowledge?
- Does it understand the multiple forms of exclusion and decentring in which it might be complicit?
- Does it have a sense of how difference is constituted in its presence and as a result of its presence?
- Does it reflect an awareness of its own power?

Soudien (2006, p. 126) suggested that the curriculum of a country should measure itself against these criteria in order to "assess the degree to which it is managing the process of inclusion and exclusion" (Soudien, 2006, p. 126).

UNESCO (2005) stated that inclusive schools do not base their teaching on a criterion of averages, rather, they place learners at the centre of teaching and learning and appreciate the differences in learners' abilities, understanding, feelings, etc. As did Soudien (2006), UNESCO also provided some questions to consider when developing an inclusive curriculum:
- What human values promoting inclusion are being fostered through the curriculum?
- Are human rights and children's rights part of the curriculum? Do they address the coexistence of rights with responsibilities, and how are they taught?
- Is the content of the curriculum relevant to children's real lives and future?
- Does the curriculum take gender, cultural identity and language background into consideration? (UNESCO, 2005, p. 5).

Zimba et al. (2006) argued that the Namibian Curriculum is geared towards the majority of learners who are in mainstream schools. The Final Report of the National Policy on Inclusive Education (Väyrynen, 2008) also pointed to the fact that the Basic Education Broad Curriculum does not adequately address the diverse needs of all learners. In her opening speech at a conference on inclusive education held by SAALED in June 2009, Ndjozo-Ozo stated that currently Namibia is in the beginning process of developing a "special curriculum". Earlier in the year she had also stated that the National Institute for Educational Development (NIED) has been charged with curriculum development. NIED has since appointed an inclusive education officer in order to make sure that the curriculum development is geared towards inclusive education and that support materials for teachers and learners are developed (New Era, 2009).

2.5.4   Instructional and Environmental adaptations

Besides curricular adaptations, instructional and environmental adaptations will also have to be made. Instructional adaptations involve any part of the teaching-learning process, that is, the teacher's instructional methods, materials and strategies; learning activities; performance requirements for each learner; and assessment procedures. Doorlag and Lewis (1999) as well as UNESCO (2005) gave some examples on how to make instructional and environmental adaptations. They suggested that the teacher provides additional instruction and assistance in areas where the learners experience difficulty; structure practice activities to provide learners with enough time to master skills; be flexible with regard to a time-frame; provide special support in particular subjects (e.g. orientation and mobility) over and above the periods allotted for more traditional subjects; and change task requirements so that learners can listen rather than read, or give answers orally rather than write. It is helpful if teachers limit the number of problems that the learners with learning difficulties must solve or the number of paragraphs that they must write. They also recommended that teachers group learners with similar needs for instruction and then change again as needed. Finally, teachers must also allow learners who struggle extra time in their exams and tests and allow them to use aids such as calculators and dictionaries. The Final Report of the National Policy on Inclusive Education in Namibia (Väyrynen, 2008) stated that with regard to exams, a wide range of assessment methods should be developed in order to reflect the diversity of the learners and to not place any learner at a disadvantage due to background, language, or disability.

Westling and Fox (2005) argued the importance of setting up Individualized Education Programs (IEPs) for learners who experience barriers to learning. The IEP should include the present level of

the learner's performance as well as goals and short-term objectives. It should also include the support services as well as the supplementary aids and modifications needed by each learner and the extent to which the learner will be able to participate with other learners in the mainstream class. The IEP should contain a statement of modifications to assessments, alternative assessments, or a statement of why the learner will not be able to participate in the assessment. Furthermore, the IEP should indicate the date on which the support services were started as well as the frequency, location and duration of the support and/or modifications. Beginning at age 14, the IEP must specify transition service needs that focus on the learner's course of study and at age 16, the IEP must provide an individual transition plan that includes interagency responsibilities. Finally, the IEP should show the learner's progress on the individual goals and objectives as well as indicate how the parents of the learner will be informed. In Namibia, the learners who move from a special school to a mainstream school (for example from a school for the Blind to a mainstream secondary school) do not have IEPs that accompany them. The new school therefore do not know what support and modifications have been made and what still need to be made.

Even though there are ample ways in which learners with disabilities can be supported in a regular class, research shows that many learners with disabilities in mainstream schools are not always receiving the special educational services that they need to gain full access to the curriculum. This lack of meaningful participation is more often than not due to inaccessible instructional methods (Hatlen; Hoben & Lindstrom; LaVenture in Ajuwon & Oyinlade, 2008). This is an issue that should be considered with the participants of this particular case study.

Environmental changes are changes in the physical environment of the classroom. For example, a teacher may arrange learner desks or learning materials in such a way as to make it easily accessible to all learners. Learners with hearing impairments for example can be placed in the front of the room. Learners with behavioural problems may also be seated close to the teacher. The classroom itself may be structured so that there are several work stations with activities of different levels of difficulty and activities for different styles of learning (Doorlag & Lewis, 1999). For example, one station can be more visually-based such as maps, diagrams and pictures; another station can focus on auditory learning with a tape recorder or the teacher giving verbal instructions; and lastly another station may have computers where learners can type instead of write and do extra research on the topic of the week.

Unfortunately, in the context of Namibia, these environmental adaptations present challenges due to the large numbers of learners in each class, placing a limit on the space available. Teachers in

Namibia also need specific training on how to make changes to their methods of instruction because many teachers do not know how.

2.5.5 Vision and Mission Statement

Another prerequisite to implement inclusive education successfully is that all the role players of the school share the same vision of inclusion. The vision should include values of equality, tolerance, acceptance and the celebration of diversity (Swart & Pettipher, 2005). The vision should be typed out and set up in places where all role players will be reminded daily of where the school is heading. It is useful to set up a mission statement as well, so that the baby steps to the vision can be clearly spelled out. Zimba et al. (2006) stated that unfortunately many of the key role players in Namibia (policymakers, instructional school managers, teachers, and parents) have not yet made the paradigm shift and do not yet have a thorough understanding of what inclusion is all about. This shift in thinking towards inclusion is crucial as it affects (amongst other things) the culture of a school to a large extent.

2.5.6 School Culture

The culture of the school is the most difficult aspect to address, but it is essential for true inclusion. Swart and Pettipher (2001) wrote that school culture points to the symbolic nature and aspects of school life and can be defined as a number of understandings and meanings shared by a group of people. Sergiovanni and Staratt (in Swart & Pettipher, 2001) distinguished culture to exist on four levels. The most concrete and noticeable level is called the artefacts of culture and is portrayed in what people say, how they behave and how things look. The next level is the perspective or views of people, whereas the third level is the values that are deemed important. Values of an inclusive school include non-discrimination, tolerance, acceptance, and a respect for diversity. The fourth level is the most intangible and consists of implicit assumptions and beliefs that people have about themselves and about their relationships with others. In order to form a truly inclusive culture, the foundation of the inclusive school must be built on all four of these levels. Starting at the fourth level, it is important to challenge the inherent beliefs that people have about humanity as a whole. This is necessary because it will have an impact on the values of the people and therefore also on their perspectives. If a person believes that having an impairment makes someone less of a human, that person's values will be tainted by discrimination and a fear of differences. The negative perspectives of the person will result in prejudice and stereotyping which will be evident in the

behaviour of the person. Lazarus, Daniels and Engelbrecht (1999) wrote of how prejudices and stereotyping lead to cultures of exclusion within schools. Within the participating school in my research study, the culture of the school did not promote inclusive education. See 4.2 for a detailed discussion on this.

The results from a study by Zimba et al. (2007) on the nature of inclusive education support in Namibia found that the majority of learners with special needs are not excluded from social interaction with their peers. However, 50% of the participants in the study reported that teasing of the learners with special needs often takes place in school.

Research done by Wagner (2004) found that learners with barriers to learning often fail to conform to the expectations of the school and society. Throughout their school careers these learners have faced failures time and again. This may cause them to withdraw and to be too fearful to participate in activities. Such behaviour and the inherent differences caused by the disability often lead to rejection, hostility and fear by peers and teachers (in Doorlag & Lewis, 1999). Koay, Lim, Sim, and Elkins (2006) therefore argued that the success of inclusion relies heavily on the ways in which teachers perceive learners with special needs/barriers to learning. Positive attitudes of teachers enhance inclusion (Koay et al., 2006); for that reason it is crucial that a process of what Fullan referred to as 'reculturing' takes place (in Swart & Pettipher, 2006). Reculturing should happen so that a new culture based on values of equity, social justice, respect, acceptance, belonging, and dignity can replace the old one (Swart & Pettipher, 2006). Voltz, Brazil, and Ford (2001) wrote that "inclusion does not refer to a physical space; it refers to a condition or state of being … a sense of belonging and acceptance" (p. 24). They also wrote that the most important element of successful inclusion is an emotional and social climate where the learners feel appreciated, safe, and accepted by other learners and teachers. Teachers must therefore model a celebration of and a respect for diversity. This they can do through words and actions in which they reinforce the idea that fair does not always mean that every learner gets the same things, but rather that every learner gets what he or she needs (Voltz, Brazil & Ford, 2001).

2.5.7   Collaboration

Another important feature in the process of implementing inclusive education is collaboration of all the systems involved in the lives and learning of learners. Collaboration between educators, parents, learners and professionals (that is nurses, educational psychologists, social workers, counsellors,

physical and occupational therapists, and communication disorder specialists) (Westling & Fox, 2005) is (according to Sands, Kozleski & French, 2000) "at the heart of the inclusive school community" (p.120). Collaboration between various departments of the country (on the national, regional, and district levels) is also essential for the successful implementation of inclusion. Health, welfare and education departments must work together as a multi-disciplinary team, to address the wide varieties of barriers to learning (Donald, 1996). As mentioned earlier, barriers evolve from different contexts. Systemic intervention by the different departments working together as a whole is therefore necessary to provide all learners with quality education and with access to the curriculum (Silberman & Sacks, 1998). Westling and Fox (2005, p. 52) stated that successful collaboration is characterized by (amongst others) the following features:

- Concern with mutual goals
- Recognition of diverse areas of expertise
- Sharing of expertise
- Equality of team members
- Decision making by consensus
- Shared responsibility and accountability.

A well-functioning inclusive school makes efficient use of all the available resources, not just inside the school, but also those inside the community (Swart & Pettipher, 2005). Involving parents, grandparents, businesses and universities can help to make inclusion a reality in a cost-effective way (UNESCO, 2005). Doorlag and Lewis (1999) therefore argue that the community may offer services such as homework assistance (for example a homework hotline with telephone tutors); big brother, big sister programs; and sport activities. Swart (2004) argued that teachers and other professionals should acknowledge the expertise of parents regarding their own children as this can contribute to more successful and balanced collaboration and implementation of inclusive education. However, Belknap, Roberts and Nyewe (1999) explained that in spite of the priceless input parents can give to inclusive education, many of them still feel disempowered and unimportant. They are often unacquainted with their rights in the education of their child and feel that the experts know best. Parents have been led and persuaded to hand over complete responsibility of their children's education to the schools. Teachers frequently judge parents as inadequate and the origin of their children's problems. This creates a hostile atmosphere resulting in parents avoiding school activities.

2.5.8   Teachers

Finally, within the process of completely restructuring all aspects of the school, it is important for schools to establish teacher-support-teams where teachers can encourage, advise and support one another (Hall, Campher, Smit, Oswald, & Engelbrecht, 1999). These teacher-support meetings should be a safe haven where the teachers can share ideas and experiences and express their frustrations and feelings of incompetence. It is important to keep a balance between complaints and positive contributions. Teachers should walk out of the meetings feeling understood and filled with hope. Teachers are the change-agents of the country owing to their daily interaction with the learners. They have to model the values of inclusion in their classrooms. Unfortunately, many teachers have a negative attitude towards inclusive education; they do not readily accept the learners with disabilities (Bryan in Lewis & Doorlag, 1999; Tait & Purdie in Woolfson, Grant & Campbell, 2007). According to Horne (in Wall, 2002) when teachers in a certain study were asked which learners they would least like to teach, most of them mentioned learners with visual impairments. Many studies (Gallagher; Pernell, McIntyre, & Bader; Sack; Stoler; Taylor, Richards, Goldstein & Schilit, in Koay et al., 2006) have found that this is due to a lack of knowledge and experience on the parts of the teachers.

An important way to counter this problem is to offer teacher workshops, seminars and other in-service training opportunities focussing not only on knowledge and skills but most importantly, attitudes and values (Swart & Pettipher, 2005). Teacher training institutions and Universities should also provide inclusive education modules in teacher training. Ndjozo Ojo stated that this is currently the case with regard to the University of Namibia (UNAM) (New Era, 2009). However, Zimba et al., (2006) stated that unfortunately these courses only provide awareness of inclusive education among the learners at UNAM. Research done by Mastropieri and Scruggs (1996) indicated that apart from training, teachers need time, personnel, material resources, and adequate classroom space in order to be able to implement inclusive education. Teachers should also be allowed to take the initiative to plan, act and reflect on their work (cited in Argyropoulos & Stamouli, 2006). In addition, Special school teachers, educational psychologists and other education support professionals should share their expertise on disabilities and learning difficulties with the teachers, thus fostering a feeling of competence (Swart & Pettipher, 2005).

The literature review has been focusing on inclusive education in general and how the different aspects of an education system should adapt in order to accommodate all learners within an inclusive classroom. My main argument is that for inclusive education to become a reality every

aspect of the entire education system must change and adapt along the principles of inclusive education.

The focus will now be narrowed to visual impairment and its relationship with inclusive education. I will define visual impairment and then discuss the specific visual disorders of the two participants with visual impairments in my research. Next, the prevalence of visual impairments as well as the barriers (both intrinsic and extrinsic) of and support for visual impairments will be discussed. Finally, the implications of visual impairments for inclusion will be depicted. The main point of this discussion is to describe visual impairment from a holistic, bio-ecological point of view, thereby taking into account the many environmental elements as well as personal factors that contribute to the barriers caused by the visual impairment.

2.6 DEFINITIONS OF VISUAL IMPAIRMENT

Visual impairment is a complex term that encompasses a vast range of impairments all related to vision. I will therefore use this term when referring to the scope of visual impairments. Visual impairment can be defined as a loss of vision that, even with correction, negatively affects a learner's educational performance (Heller, Alberto, Forney & Schwartzman, 1996). See 1.5 for a more detailed definition of visual impairment.

Teachers and medical professionals have developed several other terms that describe the severity and extent of the loss of vision in order to distinguish the types of services and funding needed (Silberman & Sacks, 1998). These subcategories include legal blindness, functional blindness, and light perception only and entail the following:

Legal Blindness: This is when vision "cannot be corrected to better than 20/400 in the better eye or when the visual field is 20 degrees or less, even with a corrective lens" (Hardman, Drew & Egan, 2005 p. 444; WHO, 2007). As is shown above, legal blindness takes into consideration both the visual acuity and the field of vision (Corn & Koenig in Hardman et al., 2005). The Snellen Test measures visual acuity and by doing so determines the finest detail that the eye can make out. The expression of 20/400 means that "the person with the visual impairment can see an object or symbol at 20 feet that a person with unimpaired vision can see at 400 feet" (Heller et al., 1996, p. 217) or in metrical terms 6/60 meaning the person can see the object at 6 metres that a person with unimpaired vision can see at 60 metres (Landsberg, 2005). The field of vision refers to the ability of one's eyes to see objects in the periphery of one's vision when looking straight ahead. Persons who are

considered blind can only see objects within 20 degrees or less when looking straight ahead; whereas persons with normal vision have a field of vision of 180 degrees (Hardman et al., 2005; Heller et al., 1996).

Functional blindness is the label given to a learner who is unable to use sight and must rely on his/her other senses to learn and get around. In educational terms, blindness is described by focusing on the learner's ability to use vision as a primary means of learning. The reason for assigning this label is to identify the educational adaptations (for example teaching methods that rely on other senses) that need to be made to accommodate a learner with functional blindness (Hardman et al., 2005).

Light perception only refers to individuals who are without sight, but who can distinguish between the presence and absence of light (Heller et al., 1996).

Learners who are *partially sighted* have a visual acuity of less than 6/18 but equal to or better than 3/60 in metrical terms (Resnikoff et al., 2008). They need spectacles and other devices to enhance their residual sight. The literature also refers to this group as learners with *low vision.* They are able to learn by using their visual sense, however, in order to do this they may need to make use of (amongst other measures) magnified print, enhanced contrast or a change in font size and shape (Turnbull, Turnbull, Shank, Smith & Leal in Cox & Dykes, 2001).

Visual impairment results in the following vision problems: (1) poor visual acuity; (2) visual-field deficits; (3) ocular motility abnormalities (ocular motility refers to the movement of the eye which is controlled by six extraocular muscles that surround each eye); (4) impaired light and colour reception; and (5) impaired brain function (Heller et al., 1996).

2.7   VISUAL DISORDERS

Visual impairment is caused by a large variety of visual disorders. Due to the limited scope of the study, the discussion will only focus on the visual disorders that caused the visual impairment of two of the participants in my research study. I will therefore give reference to the manifestations and etiologies of two specific visual disorders to serve as background for understanding some of the data in the case study.

The first participant (referred to as Learner 1) has a receptive eye problem (this is when there is a degeneration or damage to the retina and the optic nerve) called retinitis pigmentosa. This is a disorder that occurs due to too much colouring matter in the retina, causing a slow deterioration of sight. Retinitis pigmentosa develops from the outside inwards, with more and more peripheral vision being lost until only central vision is left (Landsberg, 2005). It therefore appears as if the individual is looking through a narrow tunnel. This condition is accompanied by night blindness and is hereditary. It starts when individuals are about six years old and in a small number of cases, the individuals lose all their sight by the time they are fifteen years of age and older. Learner 1's parents noticed that something was wrong with his eyes when he was only 9 months old. His sight deteriorated rapidly and by the time he was 5 years old, Learner 1 was completely blind with no light perception. Diseases which cause retinitis pigmentosa include: Usher's syndrome, Leber's congenital amaurosis, Laurence-Moon-Biedl syndrome, and Bassen-Kornzweig syndrome (Silberman & Sacks, 1998; Hardman et al., 2005).

The second participant (referred to as Learner 2) has a receptive eye problem called retinal detachment. This is when there is a separation of the neurosensory retina from the underlying retinal pigment epithelium, breaking the connection between the rods and the cones and the pigment layer (Landsberg, 2005). Retinal detachment can occur due to a scarring of the vitreous and retina, or leakage of fluid into the sub retinal space. However, most detachments of the retina are due to breaks in the retina allowing fluid in the vitreous cavity to enter the sub retinal space (Kwon Kang & Luff, 2008). The retina atrophies and a blind spot develops in the visual field. The detachment can be caused by diabetes, a blow to the head, a degenerative myopia, or trauma and is thus not hereditary (Silberman & Sacks, 1998). Without prompt medical care, the detachment might extend across the fovea or central macula, resulting in permanent visual loss and even complete blindness (Kwon Kang & Luff, 2008). This is what happened to Learner 2 who lost all her sight by the time she was 17 years old. She is legally blind with no light perception.

As described above, visual disorders are often congenital in nature. However, a significant number of the disorders are acquired later in life, due to infections and trauma to the eyes. Many babies born with visual disorders have some vision when they are still young, but lose it later in life. It is therefore important to understand the nature of a learner's visual impairment to provide the best possible medical care, learning support and education. In this research study I have found that the teachers in the mainstream school do not have all the important information about the learners' visual impairments. This has a negative impact on the process of including the learners with visual impairments in mainstream schools.

2.8   PREVALENCE OF VISUAL IMPAIRMENT IN SOUTHERN AFRICA

The prevalence of blindness in South Africa is 0.75%. 80% of blindness is avoidable (i.e. either treatable or preventable) by inexpensive and uncomplicated means. Of all the blind people, 80% live in rural areas. The prevalence of blindness in childhood correlates with the under 5 mortality rate and is estimated to be 0.47 per 1000 children. 66% of blindness is caused by cataracts; 14% by glaucoma; and the remaining 20% by all the other eye disorders (Department of Health, 2002). A study in Nigeria indicated that blindness was 2.43 times more prevalent in males than in females. This finding largely coincides with other research done on eye conditions in sub-Saharan Africa (Fasina & Ajaiyeoba, 2003). A study done among 4890 children in South Africa found that refractive error was the cause in 63.6% of 191 eyes with reduced vision, amblyopia in 7.3%, retinal disorders in 9.9%, corneal opacity in 3.7%, other causes in 3.1% and unexplained causes in the remaining 12.0%. The high prevalence of corneal and other anterior segment abnormalities (10.8% in sum) reflects the inadequacy and insufficiency of primary eye care services in the area (Naidoo et al., 2003).

In Namibia, the 2001 Population and Housing census provided data that indicated that 5% of the total population in Namibia are people with disabilities. About 74% of these people live in rural areas and 26% are in urban areas (Väyrynen, 2008). The higher prevalence of disabilities in rural areas may be due to a lack of medical facilities and information available that could have prevented certain disabilities. According to the Education Management Information Systems (EMIS), Educational Statistics (2008), there are 3764 learners who are partially sighted and 286 learners who are blind in the country (Ministry of Education: Directorate of Planning, 2008). These large numbers, as well as the higher prevalence in rural areas, emphasize the importance of inclusive education. There are no special schools in the rural areas and learners with visual impairments have to travel long distances away from their families to attend a special school. Including these learners in the mainstream schools will therefore ensure that the children can go to school in their own town or a town close by. However, they need individualised accommodations and adaptations to enable them to fully participate in classrooms and schools.

2.9   BARRIERS OF AND SUPPORT FOR VISUAL IMPAIRMENTS

Working from a bio-ecological model, I recognize that a person exists in relation to a variety of systems that surround him. These systems are the microsystem, mesosystem, exosystem,

macrosystem and chronosystem (Bronfenbrenner in Swart & Pettipher, 2005). The *microsystem* consists of all the people that have "proximal relationships" with the child. These are all the face-to-face, daily and significant relationships. Parents, family, peers, neighbours and teachers form part of a child's microsystem. The *mesosystem* is characterised by the interactions of the child's microsystems. An example would be that if the child with a visual impairment is rejected by his/her peers, but receives a lot of love and acceptance at home, he or she might still be able to have a good self-esteem. The *exosystem* influences the child indirectly, as it deals with things related to the people with whom the child has proximal relationships. If a parents experience a lot of stress at work, this might then spill over into their personal life and affect a child. The stress of raising a child with a disability on the other hand can also impact on parents' work. The *macrosystem* is the culture, main beliefs and values of the society of which the child is part. Finally, the *chronosystem* consists of the developmental stages in time in which the child is situated and which influences the interaction between the different systems of the child (Swart & Pettipher; 2005). The development of the different disorders of the two participants is one example of this.

The interaction between the person and different systems can either be negative, and therefore result in barriers to learning, or be positive and accommodate for and help to overcome barriers to learning. Barriers to learning can be differentiated into intrinsic and extrinsic barriers. The intrinsic barriers to learning are due to the "bio" aspect of the bio-ecological approach. Using the social model, I interpret the above-mentioned as the intrinsic barriers being a direct result of the "impairment" and its interaction with the environment and different systems. The extrinsic barriers result in the "disability".

The first extrinsic factor that I would like to mention concerns the attitude of society toward individuals with disabilities[1]. Helen Keller said that "it is not blindness, but the attitude of sighted people towards people who are blind that is the hardest to bear" (MacDonagh in Landsberg, 2005, p. 336). Another extrinsic factor connected to the first one is the stereotyping of learners with visual impairments (Landsberg, 2005). People often assume that because they are blind, they must be intellectually impaired as well. In addition, individuals with visual impairments are often excluded from sport and other social activities, such as going to the movies, because others think that they won't be able to cope. People often feel sorry for individuals with visual impairments and assume that these individuals can do very little for themselves. These assumptions and behaviours are very disabling in themselves. Monbeck (1975) referred to this type of relationship between sighted and

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[1] In this text I will refer alternately to people, persons and individuals with visual impairment. I use person-first language to emphasize the focus on the individual, but also the fact that visual impairments are unique and should be treated as such.

non-sighted persons as *The Needy Blind*. In this relationship the sighted person pities individuals with visual impairment and views them as dependent and needy. This strips them of self-worth and personal integrity. In reacting this way, sighted people have a condescending, demeaning and over-considerate attitude towards non-sighted individuals. They appear to expect the individuals with visual impairments to be grateful for all the "acts of kindness" shown to them.

Throughout the ages, people have held many false beliefs and superstitions about individuals with visual impairments. The folklore and mythology about individuals with visual impairments suggested that they are being punished for past sins and are therefore evil and immoral. As a result of these beliefs, individuals with visual impairments were rejected, avoided and feared (Monbeck, 1975). Although these beliefs have been exposed as myths, there are still people who fear and avoid those with visual impairments simply because they are different and "strange". This does a lot of damage to the self-esteem of the persons with visual impairments (Heller et al., 1996).

All of the above-mentioned extrinsic barriers are particularly debilitating since the developmental stage in the chronosystem of the two individuals (and also the rest of the group of learners with visual impairment in the school) in this study is that of adolescence. According to Kirkwood (1997) adolescence is "a time of turbulence and change characterised by those events, biological, psychological and social, that mark the transition from childhood to adulthood" (p.110). During this developmental stage learners are particularly vulnerable with regard to the attitudes of their peers. According to Newman and Newman, (in Wait, Meyer & Loxton, 2003) the psycho-social crisis of adolescence is group identity versus alienation. Adolescents establish their identity to a great extent by the way they relate to and are treated by their peers (Kirkwood, 1997). To be accepted and to be part of a group are therefore key developmental tasks of this period of adolescence (Wait, Meyer & Loxton, 2003).

Other dominant, but generic extrinsic barriers are inappropriate communication; uninvolved parents; an inflexible curriculum; inadequately trained teachers; inaccessible environments; inadequate support services and a lack of adaptations (Landsberg, 2005). According to the social model, all of these extrinsic barriers result in the visual disability.

A lack of medical services such as prenatal, perinatal and postnatal care, including a lack of genetic counseling and vaccinations, is also a common extrinsic barrier. Foetal infections or diseases such as rubella, mumps and measles are significant causes of visual disorders. Prevention depends on the availability of medical care and prophylactic vaccinations. Many of the external factors that are

related to visual disorders can be traced back to poor socio-economic conditions. It has been found that 70% of the 500,000 children who become blind each year do so because of a severe lack of vitamin C (WHO in Hardman et al., 2005*)*. Poor hygiene, due to a lack of water and sanitary facilities is another major cause of certain eye disorders (such as trachoma for example).

It is clear from the above that there are many extrinsic barriers augmenting visual impairment. Many can be prevented. A wide-scope intervention in the different systems and communities is needed to counter these problems. This entails the involvement of a wide variety of different role players. Community development programs which involve the provision of adequate water and sanitary facilities will thus have to be implemented. Feeding schemes to provide (especially children) with essential nutrients, as well as counselling services to help counter physical abuse (often resulting in trauma to the eyes) will also serve to prevent acquired visual disorders. Particularly educational psychologists have the important role of initializing and participating in the comprehensive care of children together with other role players in the education system. This comprehensive care involves the integration of educational, health, and social services within and across agencies and professional disciplines. It also involves the intervention in the various ecological contexts that influence children and adolescents including the school, family, peer group, and community (Nastasi, 2000).

In addition to the above-mentioned extrinsic barriers concerning visual impairments, there are numerous intrinsic barriers resulting from the impairment. These are barriers related to accessing the curriculum; learning; sensing and perceiving; language and speech; motor and physical development; orientation and mobility; daily living; and socializing (Landsberg, 2005; Hardman et al., 2005; Cox & Dykes, 2001; Heller et al., 1996). By making adaptations in the classrooms and by providing adequate support, these barriers may be overcome to a large extent. I will now focus on each of these barriers and on the adaptation and support that is needed by the learners with visual impairments.

2.9.1   Access barriers

According to research done by Richards and Watkins (in Li, 2004) 70% - 80% of all tasks in our current educational programs require vision. The following visual skills are required for learning:

- visual acuity (a measure of the eye's ability to distinguish details)

- visual field (the area that one can see when looking straight ahead – horizontally this is usually 120 – 180 degrees; vertically, this is usually 120 degrees)
- ocular motility (the effects of the extra-ocular muscles on eye movements such as tracking, tracing, gaze shifting and scanning)
- accommodation (the adjustment of the eye to maintain a clear focus when objects are moved at different distances by altering the shape of the lens), and
- visual perceptual skills (visual-spatial relations, visual discrimination, figure-ground, visual closure, visual memory and eye-hand co-ordination) (Li, 2004).

A strong argument in this inquiry is that when a learner lacks these visual skills, he or she will have significant problems with regard to learning and accessing the curriculum in the traditional mainstream way. Apart from adapting the curriculum (which will be discussed in the next section), alternative communication, teaching, and learning devices should be used to enable learners with visual impairments access to the curriculum.

2.9.1.1 Adaptations and alternative and assistive devices

For learners who are partially sighted, video systems that magnify print, handheld magnifiers, magnifiers attached to eyeglasses and other telescopic aids can be used (Keller, 2005). In addition to this, there are five environmental dimensions that can be modified by the teacher to maximize the functional vision of the learner. These are: colour; contrast; time; illumination; and space (size, pattern, distance, detail, and position) (Vaughn, Bos & Schumm, 2000).

The teachers should assess the learner with the visual impairment in order to determine which shades of colours he/she can most easily see. Some learners with visual impairments see bright colours with greater ease, whereas other learners with different visual impairments find it easier to identify dull colours (Cox & Dykes, 2001). This must be accommodated for.

The use of contrast is very valuable when teaching learners who are partially sighted. Providing high contrast between an item and its background aids the visual discrimination of the activity. When holding up a demonstration item, the teacher must make sure that the background is a single, solid colour, for example a well-erased blackboard, and not a busy, multi-coloured bulletin board (Cox & Dykes, 2001).

With regard to time, learners with low-vision take one to one and a half times longer to read and complete the assignment than their sighted peers, whereas learners using Braille take twice as long. It is important to keep this in mind and to give them extra time where needed. Learners with visual impairment also tire visually and may need short breaks or different approaches to the same task, for example, listening to audio tapes after reading a few pages.

Concerning illumination, learners may benefit from additional or reduced lighting, depending on their specific visual disorder Learners with retinal detachments will usually benefit from increased lighting and learners with intact cataracts will need variable lighting or lighting from behind (Heller et al., 1996; Cox & Dykes, 2001).

The final dimension to consider is space. Learners with visual impairment might benefit from moving to different positions in the classroom. A learner with poor distance acuity may perform better by sitting in the front row of the class. A learner with visual field loss may benefit from sitting in a seat that favours the remaining fields. For example, a learner with a loss of his/her left field of vision should sit on the left side of the classroom in order to see the other learners. A learner with a central field loss – as with certain kinds of cataracts and macular dystrophy – might need to use eccentric viewing to take advantage of his/her peripheral vision. The size of the print is another dimension of 'space'. Some learners benefit from enlarged print, whereas others (learners with a reduced field of vision such as with retinitis pigmentosa and glaucoma) may find large print difficult to read because it does not fit into their visual fields. With regards to size, optical devices can be very useful; it can enlarge or reduce the size of the items (Heller et al., 1996; Cox & Dykes, 2001). The Merlin is a very useful device used to enlarge the print for a visually impaired learner. An opaque projector can also be used to enlarge text (Keller, 2005). A recent study done in the UK found that increased letter spacing benefits the reading speed of learners with partial sight. This is useful information for the teacher because it can help solve the problem of time (McLeish, 2007). Another way in which time can be saved for learners who are partially sighted is to help them preview the following day's topic by providing advanced organizers. These advanced organizers show the type of instructional approach and materials that will be used as well as introduce new concepts and vocabulary to be learnt.

Unlike partially sighted learners who can use their remaining vision in combination with other senses, persons who are blind must rely solely on their other senses. For persons who are blind, their tactile sense allows them to enter the world of literature and reading. Braille is the most commonly used tactile medium for teaching reading. Braille writing can be done by using a slate

and stylus. Another innovation in the field of communication mediums for persons who are blind is the Braille 'n Speak. This is a battery-powered, pocket-size Braille note taker which has a small keyboard for data entry and voice output. The device translates Braille into synthesized speech or into print (Hardman et al., 2005).

The Optacon Scanner is a device that does not use the Braille system, but relies on the tactile sense. Printed material is exposed to a camera that produces the printed material on a finger pad by using a set of vibrating pins. These pins are tactile reproductions of the print. Thousands of people use this device; however, reading still remains a laborious and slow process and great tactile sensitivity is needed to "read" well. For those who struggle with reading Braille; reading machines that convert printed material into synthetic speech can be very useful. These machines can also convert print into Braille. JAWS for Windows is a powerful program that allows persons with visual impairment to access and use any of the information and applications on a computer by converting the text displayed on the screen into speech or into a refreshable Braille display (Highsmith, 2007). There are also devices on the market for helping individuals with mathematics. Examples are talking calculators, rulers and compasses. The Cranmer abacus is an ingenious device for the quick calculation of basic math functions, decimals and fractions (Vaughn et al., 2000).

All of the above-mentioned innovations greatly increase a learner's chances of being able to access the curriculum. If the learning environment is not adapted to the learner's specific needs, then the learner's intrinsic barrier of not being able to see and therefore not being able to access the curriculum in the 'normal' way, becomes an extrinsic barrier. Unfortunately, many of the adaptations that are needed are too expensive for many mainstream schools to afford. Many teachers in mainstream schools are not trained to work with these apparatus. As a result, it is advisable that learners go to special schools for the first few years of their education to learn how to effectively use the specialized equipment as well as other specific skills needed (Lewis, 1994). However, the issue that remains is the fact that they will need access to these assistive devices should they then be placed in mainstream schools.

2.9.1.2 Curriculum Adaptations

Apart from adapting the way in which the curriculum is accessed (by means of specific instructional methods and equipment), the curriculum in itself must be adapted. Hatlen (1996) and Lohmeier (2006) maintain that together with the core curriculum, learners with visual impairments need an

expanded core curriculum in order to accommodate the various barriers to learning that visual impairments bring to education. Sands et al. (2000) add to this by stating that the most important goal of curricular adaptation and modification is to try and match the cognitive, communicative, emotional, and physical aspects of the curriculum with the abilities, strengths and needs of the learners. For learners with visual impairments, this is not the case when the basic curriculum is not adapted for them. Hatlen (1996) quotes a woman who is blind who said that what people with visual impairment really need from society is "the opportunity to be equal, and the right to be different." Hatlen (1996) writes that the existing curriculum of sighted learners allows learners with visual impairment the "opportunity to be equal", however, the "right to be different" implies that they will need additional help and services in order to be truly included. Together with the core curriculum for the sighted population, the additional services make up the expanded core curriculum for the learners with visual impairment. The areas covered in this expanded core curriculum are directly related to the barriers to learning experienced by these learners. Hatlen (1996) argues that the development and implementation of the expanded core curriculum for learners with visual impairment should be thoroughly planned.

What follows are the key components to an expanded core curriculum (as set out by Hatlen, 1996; also in Lohmeier, 2006) for learners with visual impairments:

1. *Orientation and Mobility*: This is especially important during the first few weeks of school. The learners should be taught how to move around the school independently. Obstacles should be pointed out to them and safe routes should be shown. A model is an effective way to allow the learners to "feel" the structures and build of the school, and in this way create a mental picture. The learners with visual impairment should also be taught how to travel independently, not only in rural areas, but also in big cities.

2. *Social interaction skills*: This second component states that social skills must be deliberately taught to the learners with visual impairments due to the fact that they cannot see and therefore cannot 'read' the visual cues of non verbal behaviour. Teachers must be available for these learners should they require help to deal with a specific social situation. Role plays and relevant stories are good ways to address important social issues.

3. *Independent (daily) living skills*: To help the learners to fully participate within society, they must be taught responsibilities such as banking, taking care of health needs, using public and private services, shopping etc.

4. *Recreation and leisure skills*: Learners with visual impairments should be included in sport activities. It is important to help them develop recreational activities which they can enjoy throughout their lives. This must be planned and purposefully taught. In a study done by Bruce, Harrow and Obolenskaya (2007) it was found that adults with visual impairment who have hobbies and who go out to do shopping etc., receive more social support by the community in which they live.

5. *Visual efficiency skills*: It is important to teach and train learners with visual impairments to actively utilize their remaining vision (Cox & Dykes, 2001). A functional assessment should be done after which planning should take place with regard to activities and ways to effectively utilize vision. According to Hatlen (1996), the teaching of these visual efficiency skills is the responsibility of the trained teacher of learners with visual impairments. In Namibian mainstream schools, where the classrooms are filled to the brim, teachers often do not have the time to teach the learners with visual impairments these skills. Parents, therefore, often have to fulfil this role.

6. *Career training*: Unfortunately the unemployment rate for learners with visual impairments is high. It is therefore vitally important to offer these learners not only general career guidance opportunities, but also career training classes geared specifically to learners with visual impairments. In a study done by Gray and Wilkins (2005) in England and Northern Ireland, it was found that Business Management, Accounting, Information and Computer Science, and Art and Designing are amongst the most popular areas of study for learners with visual impairments. Psychology is also a preferred choice of these learners.

7. *Transition services*: In addition to career counselling, Pankaskie (2000) writes that "transition services" must be provided to learners with disabilities. The Individuals with Disabilities Education Act (IDEA) of the USA describes transition services as "a co-ordinated set of activities for a learner, designed within an outcome-oriented process which promotes movement from school to post school, tertiary education, vocational training, integrated employment, continuing and adult education, adult services, independent living, and community participation. The coordinated set of activities shall be based upon the individual learner's needs, taking into account the learner's preferences and interests" (Pankaskie, 2000, p. 351). Another form of 'earlier' transition services is those that aim to support the learners with their movement from the special school to the mainstream school. This success of this transition is crucial and therefore an organized set of

services should be provided to prepare the learners for the transition and to provide follow-up after the placement in the mainstream school (Hall, et al., 1999).

With regard to the move from secondary school to post-secondary living in Namibia, there is a service centre to support people with visual impairments. At the service centre they are taught independent living skills, receive orientation and mobility training, and are taught to read and write in Braille effectively (Shuuya, personal communication, August 21, 2009). Teaching the reading and writing is in line with the Secretary's Commission on Achieving Necessary Skills (SCANS) Report (1991) in the USA which identified five academic skills critically needed for functioning in the world of work. These are: reading, writing, figuring computations, estimating, and using time effectively (Pankaskie, 2000).

Beside these basic skills, the IDEA (as well as advocates for learners with disabilities such as Hatlen, 1996) specified the need for a curriculum that will incorporate the needs of the learners and prepare them for employment. Unfortunately, according to the California Education Transition Center (1990) many learners with barriers to learning do not have the privilege of a curriculum that adequately prepares them for employment. Apart from an adequate curriculum, the IDEA also specifies the need for community experiences as part of the transition programme. The reason is that learners then learn to translate the skills acquired in the classroom to real-life situations. Two vitally important skills that learners have to be actively taught are self-determination and self-advocacy (also mentioned earlier). One way of doing this is to involve learners in setting up their own Individualized Education Programme (IEP). This is an educational programme specifically tailored for the needs of a specific learner. The Transition IEP (TIEP) goes one step further by addressing the learner's post-school desires and needs. Together with the teacher, the learner must be actively involved in setting up this TIEP – especially with regard to the goals and objectives concerning the learner's future (Pankaskie, 2000). In Namibia, the learners with visual impairments have been moved from the special school to the mainstream school in order to complete Grade 12. After completing Grade 12, they ought to have gained the skills to step into the grown-up society as independent persons. The TIEP can help to prepare the learner for this.

For those learners with barriers to learning who want to pursue tertiary and further education, teachers (or in many cases the school counsellor) must teach study and organizational skills to help with the increased workload. Teachers must ensure that these learners not only enrol in the appropriate programs according to their strengths, but also that they receive the necessary accommodation and support in accordance with their barriers to learning (Hicks-Cooley & Kurtz in

Pankaskie, 2000). For the learners who aim to work after school, teachers must provide instruction on how to search for employment, how to write a resume, how to fill out an application and how to prepare for an interview. It is also important for the learners to have a course in job-maintenance skills (Pankaskie, 2000). Finally, it is important for teachers to bear in mind that there are functional career assessment measures that can be used to assess the readiness of the learner (in terms of skills and work-related behaviours and attitudes) for the world of work. This will provide insight into the training still needed by the specific learner to prepare him/her for a job (Pankaskie, 2000).

All of the above-mentioned activities within the expanded core curriculum link the learners with visual impairments with the outside community. Unless they are actively taught these skills, they are at risk of not being able to function productively within the community. Ajuwon and Oyinlade (2008) argued that in the absence of an expanded core curriculum, many learners with visual impairment will graduate from secondary school without the required skills and knowledge for postsecondary education, productive employment, independent living and active community involvement.

In order to support teachers, special schools should open their doors as resource centres. The idea is that teachers should be assisted by district and school-based support teams (Hall et al., 1999). However, Namibian state schools do not have these support teams. It is helpful for teachers and learners if the teachers gather as much information as possible on the nature of impairment in order to be able to accommodate the possible barriers specifically related to visual impairment.

In Namibia, it is vital for schools to take the lead in preparing and supporting the learners with visual impairment to become productive members of society. Most learners with visual impairment come from impoverished backgrounds and from rural or smaller towns. Many of their parents are not involved in their schooling and are not able to give financial support (Fransman, principal of NISE-Blind, personal communication, August, 21, 2009).

Summing up, the barriers relating to accessing the curriculum have been discussed including ways of adapting the curriculum and using alternative communication, teaching, and learning devices. The environment within which this curriculum should be taught was described earlier (see 2.5.4). Other barriers and ways to accommodate for learners with visual impairments will be discussed next. Within this study, it is important to mention the barriers to learning that might be experienced by the learners with visual impairment as well as the ways in which these barriers can be accommodated. Barriers are a reality for the teachers and the learners; however, they should not be

the sole focus. The focus should be on how to accommodate and support the learners with visual impairment in inclusive classrooms and schools. Since Namibia is in the beginning phase of including learners with visual impairments, it is crucial to discuss the many adaptations that should be made to truly include these learners.

2.9.2   Learning barriers

The cognitive abilities of learners with visual impairments vary independent of their visual impairment. Learners with visual impairments may reach developmental milestones at different rates than other learners due to their lack of sensory input and restricted interactions with the environment. This contributes to their incomplete concept development. This can later affect their ability to infer, comprehend, predict, and create during learning activities (Bardin & Lewis, 2008). Learners with visual impairments may lack concepts such as positioning the body; object characteristics (short, long); time; spatial awareness; actions (throw); quantity; environmental awareness; and certain symbols (for example green means go) (Heller et al., 1996). As a result of this, teachers should make their lessons as concrete as possible. Learners with visual impairments should also be given direct exposure to objects, sounds, smells and tastes. This can be done by means of expeditions and outings; apparatus; models; blocks; stuffed animals; embossed maps; mathematical forms; natural products; raw materials; etc. (Cox & Dykes, 2001).

An American study revealed that 49.9% of learners with visual impairments have failed at least one course in general mainstream education (Wagner; Blackorby & Hebbler in Bardin & Lewis, 2008). Another US study showed that 15.2% fewer learners with visual impairments score at state-defined levels of proficiency or higher in reading and nearly 20% of them score lower in math. One of the causes is that they are not able to fully participate in the lessons in the mainstream classroom (Bardin & Lewis, 2008). A study by Frederick (1977) reported that high-achieving learners with visual impairments were engaged in the classroom activities 75% of the time, and low-achieving learners 51% of the time (in Bardin & Lewis, 2008). Teachers should be encouraged and helped to develop strategies to ensure that these learners participate fully in the whole range of educational opportunities offered throughout the day (Bardin & Lewis, 2008).

In the Southern African context, many learners have foetal alcohol syndrome (Rosenthal, Christianson & Cordero, 2005). This is a disorder (resulting from the alcohol consumption of the mother during pregnancy) that causes damage to the brain structure, the central nervous system and

the neurons of the child. It also causes cognitive and functional disabilities and often other mental, physical and behavioural problems (Henry, Sloane & Black-Pond, 2007). Furthermore, alcohol consumption by the mother often results in the premature birth of the baby. The babies then have a high risk of developing *retinopathy of prematurity*. A study by Stromland (2004) found a clear link between foetal alcohol syndrome and many visual disorders. In serious cases the syndrome may lead to complete blindness. These learners have to contend with the visual impairment, as well as learning difficulties that arise from foetal alcohol syndrome. Here it is clear how an external factor (alcohol in this case) can later result in serious barriers to learning.

2.9.3   Sensory and Perceptual barriers

Learners with visual impairment come to the learning environment with large barriers related to their sense of vision and visual perception. It is therefore very important that teachers support their other senses and organize the learning environment in a way that will allow the learners to utilize their other senses. The hearing, kinaesthetic (which includes movement and touch), smell and taste senses of learners with visual impairments should be continually and purposefully stimulated by the teacher. By fully employing the senses, they will gain in effectiveness and efficiency. The sense of hearing is a very important sense for learners who are blind, it helps them to differentiate between, and localize environmental sounds and estimate the distance between themselves and the particular sound. This encourages the learners to move around and explore their environment (Cox & Dykes, 2001; Landsberg, 2005). The development of a strong auditory memory is also crucial for persons who are blind in order for them to remember telephone and ID numbers, their addresses and large pieces of text when they study for written as well as for oral exams.

A well-developed tactile sense in learners with visual impairment will help them to identify the shapes and forms and textures of objects. The teacher can help develop this sense by placing unfamiliar objects in the child's hands and then pointing out the different characteristics of the object. The development of touch and kinaesthesia are also very important for Braille reading and writing. To move their fingers in a straight line over the Braille dots and then interpret the combinations of the dots require a fine tactile discrimination sense and well-developed fine motor co-ordination. The sense of touch is limited in that it cannot give learners an idea of the objects outside their tactile reach (like buildings and mountains), objects that move (such as a rolling wheel), objects too delicate and small (such as bubbles), and ephemeral objects (such as flames). In

these instances, models can be very useful to give the learners some mental idea of what an object looks like (Landsberg, 2005).

A learner's sense of smell and taste can be developed by letting them taste and smell something and then describing it to them, e.g. chocolate is sweet. It is important to develop these senses; the sense of smell for example can lead learners to the kitchen or the flower shop etc. (Landsberg, 2005).

Finally, learners with low vision should be taught to use their residual vision together with their other senses. They should be encouraged to use their eyes as much as possible, (it improves the effectiveness of the eyes) but must refrain from straining their eyes (Webster & Roe, 1998).

Most of these aspects should have been addressed in the special school. The mainstream teachers, especially in the context of this case study, should be aware of the availability of all the other senses of the learners with visual impairments and should therefore use different approaches to teaching (not just the visual approach) in order to provide the best learning experience possible for the learners with visual impairments.

2.9.4   Language and Speech barriers

For children who are able to see, speech and language development mainly occurs through the integration of visual experiences and symbols of the spoken word (Hardman et al., 2005). For this reason the language of learners who are blind initially lags behind their peers. With a lot of support and stimulation from parents and teachers, they can largely overcome this barrier, usually around 11 to 12 years of age. Learners with visual impairments tend to use words that they don't know the meaning of. This is called verbalism. In order to counter this, they need many concrete experiences. Objects can be described in detail to them while they are touching them and parents and teachers can give running commentary of things that are happening around them. It is also important that the learners with visual impairments have practical experiences in order to understand events that are often learnt visually (Webster & Roe, 1998). For example, in Biology, learners can feel how the plant is growing in the different stages.

To improve the vocabulary of the learners, stories can be read (Landsberg, 2005). For secondary school learners (like those who participated in my study), an effective way to enhance their vocabulary is by using Descriptive Video. This is a program that has a described audio track,

activated by using the Secondary Audio Program feature on the television or DVD player. Descriptive Video was developed to give individuals with visual impairments access to visual media such as films and television programs. The audio track of the program contains narration that describes the film's visual elements such as the actor's gestures and facial expressions, unusual costumes, or a car chase (Hoffner, Baker & Quinn, 2008).

2.9.5   Motor and Physical Developmental barriers

The development of movement occurs as an integrated part of the whole development of the child. This includes sensation, perception, language, intellect and socio-emotional interaction. All of these processes are interlinked and have an impact on one another. Development progresses from one stage to another as the Central Nervous System matures. This process of maturation is directly influenced by information received, interpreted and integrated from the sensory organs of sight, touch, hearing, smell, taste, proprioception, and from the vestibular system (Van der Velde, 1991).

From birth, visually impaired learners' motor and physical development trails behind that of their seeing peers (chronosystem) because they are not stimulated visually to reach out or to move towards certain objects in their surroundings. Parents are often over-protective, thus further limiting the children's interactions with the environment. In this way, the parent systems can be a barrier to the children's motor and physical development. Children with severe visual impairment show specific delays in the development of head control and weight bearing on their arms while prone. Children primarily lift up their heads in order to look around. This results in the development of neck muscles and trunk control linked with the bearing of weight on the arms. The visual stimuli continue to capture the interest of the children until they learn to transfer their weight on to the one arm so that they can reach out to the visual stimuli with their other arm. Without this initial stimulus, children who are blind have no motivation or reason to lift up their heads. In addition to this, they cannot explore, since they need both hands to provide them with support. All of this leads to a delay in head control, weight bearing on the arms, and a delay in reaching (Van der Velde, 1991; Webster & Roe, 1998). Without these basic developmental milestones, the children are unable to crawl and move around. Crawling has been found to have an impact on a child's scholastic performance – particularly reading. Children with visual impairments should be taught with the help of sounds and touch how to crawl and walk (Landsberg, 2005).

When children with visual impairments reach the adolescent phase, the physical changes of puberty may pose particular challenges to them. To the sighted adolescent, the physical changes such as growth of breasts in girls and facial hair in boys are obvious. They can look in the mirror to observe the changes and compare their own bodies with that of their peers. This brings a measure of reassurance. A young person who cannot see has to rely on a spoken description to understand the changes, and touching taboos in our society may limit the opportunities for them to explore the changes of their bodies. As a result clear information should be given to them about the body changes before puberty starts. Teachers should encourage questions and invite open and frank discussions (Kirkwood, 1997).

For the adolescent group (which forms part of this study) it is important to encourage participation in sport as this will improve their balance, posture, muscle tone, and fitness. Research shows that learners with visual impairment have lower levels of cardiovascular fitness, unhealthy body-composition profiles, and diminished levels of physical activity compared to their sighted peers (Lieberman & McHugh in Holbrook, Caputa, Perry, Fuller, & Morgan, 2009). According to Webster and Roe (1998), there is a tendency amongst learners with visual impairments to withdraw from physical exercise as they get older. In the Physical Education classes at school, the learners with visual impairments should be deliberately included in order to contribute to their general fitness, mobility, co-ordination, spatial-awareness, and confidence. Some adaptations that can be made are the use of big, brightly coloured audio balls with bells or a Velcro bat and balls. The targets should also be bright and easily visible for those learners with partial sight (Webster & Roe, 1998).

2.9.6   Orientation and Mobility barriers

Learners with visual impairments often find it difficult to orientate and find their way in a strange place. It is important for teachers to teach the learners with visual impairments about their basic body image and their laterality as this correlates positively with orientation and mobility (Cox & Dykes, 2001). Learners should be taught how to move safely and independently whether they are in a well-known environment, a strange rural area, or busy city (Hatlen, 1996). Learners with visual impairments should also be taught to use certain aids that will help them to move independently. The Mowat Sensor is a "hand-held ultrasound travel aid that uses high-frequency sound to detect objects. Vibration frequency increases as objects become closer; the sensor vibrates at different rates to warn of obstacles in front of the individual. The device ignores everything but the closest

object within the beam" (Hardman et al., 2005, p. 453). The laser cane "converts infrared light into sound as light beams strike objects in the path of the person who is blind. It uses a range-finding technique with a semiconductor laser and a position-sensitive device. Proximity to an obstacle is signalled by vibrations at different levels of frequency" (Hardman et al., 2005, p. 454). The Sonic guide "emits ultrasound and converts the reflections of sound from objects into audible noise in such a way that the individual can learn about the structure of the object. Loudness indicates size: The louder the noise, the larger the object" (Hardman et al., 2005, p. 454). Guide dogs are still widely used as reliable guides for people with visual impairment. Teaching learners to use these aids can help them to overcome the barriers related to their movement. Teachers in inclusive schools must also ensure that the classrooms are arranged in a way that will allow the learners with visual impairment to move around freely and safely (Hardman et al., 2005). Since learners who are blind rely greatly on their memory in learning and in moving around (Landsberg, 2005), teachers should make sure that the physical environment of the school and classroom remains the same.

2.9.7   Daily living barriers

Visual impairment causes barriers to everyday tasks such as dressing, eating, table manners, managing money, cooking, time monitoring, shopping, organization, etc. These are tasks that learners with sight acquire by means of incidental and casual observation of others. For this reason, learners with visual impairments might never learn, unless purposefully taught. The home economics classes provided in Namibian schools, for example, solely will not meet this need; they assume a basic level of knowledge about daily living tasks, which learners with visual impairments might not have. Teachers should explicitly teach these daily living tasks to the learners. This is often overlooked in the mainstream classes due to limited time and expertise. Consequently, parents should support the teachers in this and teach their children these tasks at home.

In adolescence, learners become particularly aware of the great emphasis placed on physical attractiveness in our society. Young people with visual impairments may be anxious about their physical appearance and things like greasy hair and spots. Adolescents with a visual impairment will therefore need clear advice on grooming and personal hygiene (Kirkwood, 1997). Sexuality and relationships should also be discussed with the learners with visual impairments (Wagner, 2004). A school counsellor or educational psychologist could be very helpful in this regard.

2.9.8   Social barriers

Rodney (2003) wrote that, looking through the lens of psychology, a physical impairment is a social disorder. In a study by Wolffe and Sacks (1997) it was found that there were large differences regarding social engagements between learners with visual impairments and those without. According to the study, the learners with sight are twice as likely to spend time with their friends than learners who are blind and four times more likely than learners who are partially sighted (in Vaughn et al., 2000). However, learners who have visual impairment are not necessarily socially or emotionally maladjusted.

The attitudes of parents, family, teachers, other professional people and peers have a large impact on the individual's social and emotional adjustment. Research has shown that sighted individuals may encourage optimum emotional and social development of a person who is blind by accepting him as a human being, regardless of his visual impairment. Like with any other human beings, individuals with visual impairments accept themselves to the extent that they are accepted by others; their self-esteem is closely related to the approval of others (Konarska, 2005). As young as 4 or 5 years, children are able to view themselves as being evaluated by others. With regard to these comparisons, some may experience anxiety (Wait, Meyer & Loxton, 2003). The negative attitudes of others can be a significant barrier to the general well-being of learners with visual impairment. As Wahl (1996) asked: "How can a child develop a positive self-esteem if he or she is constantly receiving messages that he or she is laughable, pitiable, sad, abnormal, unfortunate and valueless?" (in Ziegler, 2001, p. 4). This confirms Monbeck's (1975) argument cited earlier about the relationship of pity between the sighted and non-sighted persons. In this relationship sighted individuals pity individuals with the visual impairment and view them as dependent and needy. This strips individuals with visual impairment of self-worth and personal integrity. Sighted individuals then have a condescending, demeaning and over-considerate attitude towards the non-sighted person. They expect individuals with visual impairment to be grateful for all the "acts of kindness" shown to them. Due to all of this, it is of utmost importance that teachers explicitly address the attitudes of learners toward those with visual impairments.

In the Namibian context, the mainstream school that participated in this study was unprepared with regard to the arrival of the learners with visual impairments. This meant that the learners of the school were not taught about accepting and respecting learners with visual impairments. As was mentioned earlier, the age group (adolescence) in which the learners with visual impairments fall are particularly vulnerable with regard to the attitudes and acceptance of peers.

To help the learners with visual impairments feel part of a group, it is important that they spend time with their sighted peers. The use of co-operative learning and group assignments and activities may lead learners to spend time with each other (Conroy, 2008). 'Circle of friends' groups or a 'Buddy system" is helpful, where learners support one another with particular needs. It is important that the learners with visual impairments get ample opportunities to display their strengths; in so doing they get a chance to be the helper instead of always being the 'helped' (Vaughn et al., 2000). Learners with visual impairment should be taught assertiveness skills so that they can be their own advocates in the outside world (Wagner, 2004). Independency skills can also promote the development of a healthy self-image of a learner with a visual impairment. They need to be given plenty of opportunities where they can exercise control and make decisions for themselves. Constructive criticism and positive feedback should then be given to them to develop these skills in a safe space (Kirkwood, 1997).

Rodney (2003) stated "social education" must be part of the curriculum when teaching learners with visual impairments. According to Bullis and Foss (1986), a lack of social skills is often the primary reason why people with visual impairments are unemployed (cited in Pankaskie, 2000). Research done by (amongst many others) Hatlen (2000) and Sacks and Silberman (2000) found that learners with visual impairments lack social competence (cited in Wagner, 2004). Social competence can be defined as a multidimensional concept that consists out of social skills and social capabilities that have a significant impact on the individual's self-concept, assertiveness, self-esteem, and ability to accept the impairment as part of the self (Wagner, 2004). Learners with visual impairments often lack social competence because they are unable to incidentally observe and then model non-verbal behaviours for example eye contact, facial expressions and body positions. As a result of all of this, these learners need direct instruction in social competency skills (Wagner, 2004).

2.9.9   Assessment barriers

Learners with visual impairments cannot be assessed in exactly the same manner as the learners without visual impairments. Tests should be modified to make them accessible to learners with visual impairments. All these modifications should be considered keeping the individual needs of the learners in mind. For example, tests can be read orally to the learner who can then answer back orally or write down the answer using his/her Brailler. Enlarged print can be provided as well as real objects or models for pictures. Pictures can also be coloured to make them easier to see.

Learners with visual impairments should be allowed extra time to complete the tests since learners who read Braille need twice as much time as other learners. It is estimated that learners who read enlarged print need time and a half to complete a test (Vaughn et al., 2000). McCall (2000) wrote that what has been really helpful for teachers in the UK is the introduction of national performance criteria for children who cannot adequately access the National Curriculum. He writes that these criteria give the teacher a framework from which they can assess progress in language, literacy, maths, as well as personal and social development. These national performance criteria support the development of cohesive practice. It is important that these adaptations are made to prevent assessment from becoming an extrinsic barrier to learning for the learners with visual impairments.

2.9.10 Conclusion

It is clear that a variety of unique barriers is implicated in the daily life of learners with visual impairment. They exist because of the impairment, but with adequate support, they can be compensated for. Due to the interconnectedness of the intrinsic and extrinsic barriers of visual impairment, it is important to include all the environmental systems in providing support (Landsberg, 2005). Teachers of learners with visual impairments should be thoroughly trained to provide quality education. Parents should be educated on how to stimulate their children with visual impairments and peers should be encouraged to display attitudes of respect and acceptance. It is important that a transprofessional team works together to minimize the effects of the barriers on the learners' learning. These professionals should include occupational therapists, speech therapists, physical therapists, school psychologists, school nurses, and audiologists. All of them must work together in a trans-disciplinary manner. In other words, all the decisions regarding the learners are made by the group as a whole. The services provided are all integrated and are based on a consistent teaching approach (Silberman & Sacks, 1998).

To include a learner with a visual impairment in a mainstream class is a complex and complicated endeavour. In Namibia, all the current programmes designed to reach learners with disabilities function outside of the mainstream education system. This appears to have resulted in a situation where teachers consider the education of learners with severe disabilities as not being part of their everyday teaching in the mainstream school, but the responsibility of special education. This shows that despite the generally adopted idea of inclusive education in Namibia, the true concept, practice and focus is vague. A lot of change, both practically (this includes content, approaches, strategies and structures) and of mindsets, has to be made to make inclusive education a reality in Namibia (Väyrynen, 2008). These adaptations and changes will cost a great deal of money. As Leney states:

"If the government is adamant about implementing inclusive education, they must realize that it doesn't come cheap" (in Venter, 2007). In Namibia, the Deputy-Minister, Ndjozo-Ojo, stated in her speech during the launch of an inclusive education project, that the budget for implementing inclusive education through program development (amongst other things) is very limited. This is the case even though the Ministry of Education is the greatest recipient of the national budget; however most of the budget allocation goes into salaries (New Era, 2009). This is why Argyropoulos and Stamouli (2006) argue that without (amongst many other things) qualified teachers, appropriate resources and necessary equipment, one cannot place learners with disabilities in mainstream classrooms. Sadly, in Namibia, this seems to be the case (Zimba et al., 2006). As Anderson (2006) wrote: "the fly caught in the spider web is included, but victimized". The learners with visual impairments are victimized due to the fact that their visual impairments become visual disabilities because of the many barriers to learning that often cannot be accommodated in the mainstream classrooms due to insufficient funds and limited knowledge.

From this literature review it has become clear that visual impairments implicate many unique elements of endeavour for inclusion. The final section will describe some of these implications.

2.10 IMPLICATIONS OF VISUAL IMPAIRMENTS FOR INCLUSION

Literature (for example Lewis, 1994; Dominguez, 1994; Hatlen; LaVenture in Ajuwon & Oyinlade, 2008), stated that the complex learning needs of learners with visual impairments are best met when they have an array of placement options to choose from. This "array of options" range from a least restrictive to a most restrictive environment and placement depends on the developmental period or specific needs of the learner. It is often advised that learners, who first enter school, spend the first two years in a specialized environment where they will receive specialized teaching on reading and writing Braille and other disability specific skills. Throughout their schooling, there may be times when they will be withdrawn from the regular classroom for a period or two (to learn impairment specific competencies from trained professionals) (Spungin & Ferrell in Ajuwon & Oyinlade, 2008), or they may be placed in a special class for a few months to a year depending on their needs. They might also attend enrichment programs offered by the special schools. Countries such as the UK, Denmark, and the USA follow this flexible education system (Mrug & Wallander, 2002). Argyropoulos and Stamouli (2006) stated that in Greece learners with visual impairments attend mainstream schools in the mornings and in the afternoons they receive additional lessons from the centre of education and rehabilitation for the blind. A study in the US reported that learners with

visual impairments spend 86.8% of their day in general education classes (Wagner et al., in Bardin & Lewis, 2008). This flexible system ensures that all aspects of the learning needs of learners with visual impairments are met and that, as a result, they receive quality education.

After investigating the process of inclusion in the UK, McCall (2000) reported that many teachers feel that the war cry of the new Labour Government has changed from "Education, Education, Education" to "Relocation, Relocation, Relocation". Care must be taken not to become too preoccupied with relocation (placing learners with disabilities into mainstream school and often closing special schools) that quality education suffers as a result. The South African White Paper 6 of 2001 supported the notion that special schools still have an important role to play in inclusion by stating that special schools will not close down, but will be strengthened as resource centres in order to cater for learners with severe disabilities (Venter, 2007). White Paper 6 also stated that the ideal, when looking at inclusion, will be full-service schools, that is, mainstream schools that have been changed and adapted in order to provide quality education for ALL learners, regardless of their barriers to learning. These full-service schools will be supported by special schools and will make adaptations in accordance with the special needs of the learners (in Venter, 2007).

Developing an inclusive education system does not happen over-night. The Final Report on Inclusive Education in Namibia (Väyrynen, 2008) therefore stated that inclusive education should be gradually phased in. This will be done in the sense that no learner may be denied access to a mainstream school unless an educational and learning environment assessment is carried out. The school's capacity and ability to cater for the needs of that specific learner will then be outlined. If the school is unable to reasonably provide for the needs of the learner, the Ministry of Education should allow the learner access to a school with a special class or to a special school. If an opportunity such as this is not available, the mainstream school should make the necessary adaptations to accommodate the learner for at least some of his education. The placement of learners in special classes should be seen as a short-term measure and they should be allowed to take some of their studies in the regular classes. The special class teacher should collaborate and co-teach with the teachers of regular classes. Educational resources should be geared more toward providing support to regular classes instead of pull-out support. The teacher of the special class should therefore share skills, knowledge and resources with the teacher of the mainstream class. The underlying assumption is that the mainstream environment should be developed and supported to enable them to include learners with disabilities.

The role of the special schools is important in developing an inclusive education system. They should be strengthened to become an educational resource for the mainstream schools. The special schools that cater for learners with severe disabilities such as those with visual impairments should provide short-term intensive programs such as foundational skills in Braille and mobility for the learners who are studying in mainstream schools. In-service training and consultation in these skills should be provided to the mainstream teachers. Special schools could also be designated to store and maintain highly specialized equipment such as Braille machines to be used by mainstream schools as well. The numbers of learners who attend the special schools in Namibia should be reduced and gradually special schools (as we know it) should be phased out. The final goal is that in the future, the previous special schools will be renamed and redesigned in order to adapt their curricula to accommodate a wider range of impairments of learning needs and subjects. They will then continue to develop their skills and resources to accommodate more and more learners from the local community in an inclusive setting (Final Report of the National Policy on Inclusive Education, 2008). The above-mentioned plans have not yet been implemented, but they are the goals of the Ministry of Education in Namibia for the future.

2.11 CONCLUSION

This review is an attempt to illustrate that inclusive education is a complex notion and involves more than providing education for all; it is about providing *quality* education for all in an environment that celebrates diversity and that endorses the view that all humans are equal (Salamanca Statement, 1994). For inclusive education to become a reality, the entire school system with all its facets (curriculum, instruction and environment, vision and mission, culture, collaboration, teachers) and on all levels (national, regional, and district) must change and adapt. This literature review took inclusion a step further to look specifically at the inclusion of learners with visual impairments in the mainstream school. Theory emerging from the review clearly shows what a challenge inclusion of learners with visual impairments can be. This is because together with visual impairments comes a wide variety of extrinsic and intrinsic barriers to learning. Working from a bio-ecological viewpoint, the extrinsic barriers are generated from negative interactions between the individual and his or her different systems. Examples of these barriers are negative attitudes, stereotyping, false beliefs and superstitions, inappropriate communication, uninvolved parents, an inflexible curriculum, inadequately trained teachers, inaccessible environments, inadequate support services, and a lack of adaptations.

The intrinsic barriers to learning are due to the "bio" or personal aspect of the bio-ecological approach and their interaction with the external environment. Examples of the intrinsic barriers to learning experienced by learners with visual impairments are: access barriers, learning barriers, sensory and perceptual barriers, language and speech barriers, motor and physical developmental barriers, orientation and mobility barriers, daily living barriers, social barriers, assessment barriers as well as other unique barriers. The literature review suggests many ways in which these barriers can be accommodated in the mainstream classroom. It also suggests that learners with visual impairments spend some time of their schooling in a special school in order to learn specific skills demanded by their impairment. Special schools must therefore be strengthened so as to support mainstream schools in their endeavour to include learners with disabilities. It is evident from the review of the literature that for inclusion to become a reality, funding, resources and trained professionals will be needed. Namibia has decided to embrace the concept of inclusive education, but perhaps without embracing the full implications of this decision. The question arises whether Namibia is truly including its learners with disabilities, specifically those with visual impairments, or are these learners like flies in a spider web, included, but victimized? (Anderson, 2006). This study attempts to add some perspective on the question.

CHAPTER 3

RESEARCH DESIGN AND –METHODOLOGY

3.1 INTRODUCTION

As was discussed in Chapter 1, the aim of this study is to attempt, through a qualitative study, to analyse and describe how learners with visual impairments are included in a Namibian secondary school. The following research questions were formulated:

- What is inclusion and what is the framework and policy of inclusion in Namibia?
- How can learners with visual impairment be supported in a mainstream secondary school?
- How do the different organisational elements of the school reflect the inclusion of learners with visual impairments?
- What are the experiences and opinions of the principal, specialist teacher, parents, peer, and learners with visual impairments of the inclusion process?

Further questions were formulated to structure my thinking processes:

- What are the structures needed for collaboration (with for example a transprofessional team) and support in the school?
- Within the classrooms, what alternative communication, teaching, learning and assessment devices/methods are used?
- What role does the special school for the blind play in supporting the learners with visual impairments in the mainstream school?
- How has the curriculum been adapted for the learners with visual impairments?
- What is the vision and mission statement of the school with regard to inclusion?
- What are the human and material resources available for the learners?
- How has the school building been adapted for the learners?
- What is the culture of the school like? In other words, what are the attitudes of the learners and staff; are there any prejudices and stereotypes concerning the learners with visual impairments?
- To what extent is the external community involved?
- Have the teachers received training and do they receive support?

To best reach the aim and answer the research questions, I chose a specific research design and research methodology (Durrheim, 1999). The figure below, (Figure 3.1: Outline of the Research Design and Methodology followed) gives an outline of the chapter and shows that it will end with ethical considerations relevant to the study.

CHAPTER 3
Research Design and Methodology

Design

Methodology:
Qualitative Case Study

Validity and Reliability

Ethical Considerations

Purpose: Conclusions- Basic, Exploratory, Qualitative

Paradigm: Interpretivist/ Constructivist

Context: A Higher Technical School in Windhoek

Techniques: Interviews, Observation, Artefacts -

Selection of Participants: Purposive Sampling

Interviews: Semi-structured

Observation: Non- participant observation

Artefacts and Documents: Letters, Newspaper, Policy

Data Analysis: Thematic Field Analysis

Contextualized – Consequentialist Model

Informed Consent

Anonymity and Confidentiality

3.2   DESIGN

A research design guides the preparation of conditions for the collection and analysis of data. A research design makes sure that a study fulfils a certain purpose and that the research can be completed with available resources (Durrheim, 1999). According to Durrheim (1999) the research design consists of the following dimensions: The purpose of the study, the theoretical paradigm, the context and the research methods used for the sampling, collection and analysis of data.

3.2.1   The Purpose of the study

The purpose of the study relates to the object or unit of analysis of the study and the conclusions that I want to draw about it (Durrheim, 1999). For the purposes of this study, I want to draw conclusions about the inclusion of learners with visual impairment in a mainstream secondary school in Namibia. I want to find out how they are included, taking into account not only their academic inclusion, but also their physical and social/emotional inclusion in the mainstream secondary school.

Another purpose is what Marshall and Rossman (in McMillan & Schumacher 2006) called 'descriptive-exploratory'. This means that I aimed to explore little understood / unknown phenomena and discover themes of the meanings assigned to the phenomena. This I used to form a detailed description of the phenomena being studied. The phenomenon that I studied was the inclusion of learners with visual impairments in a Namibian mainstream secondary school. I hope that the findings gained from this study can be used to add to the understanding of the inclusion of the learners with visual impairments in the Namibian mainstream secondary school (Durrheim, 1999).

3.2.2   Research Paradigm

According to Merriam (1998), the paradigm of a study provides the frame and structure of the study, and guides the researcher's actions. It functions as a plan or a

guide for scientific societies, determining significant problems or issues for members to address and defining adequate theories or explanations, methods and techniques to explain defined problems (Usher in O'Donoghue, 2007). The nature of the research problem as well as the way in which that problem will be studied is determined by the paradigm. The paradigm of a study influences the nature of reality (ontology), the relationship between the knower and the known (epistemology), as well as the way in which information and knowledge is gathered (methodology) (Denzin & Lincoln, 2005; Terre Blanche & Durrheim, 1999).

This study is be rooted in an interpretive and constructivist paradigm. Interpretivism is concerned with the meanings that people assign to their experiences; how it is "lived, or felt, or undergone" (Sherman & Webb in Merriam; 1998, p. 6). The methodology that I chose for this study focused specifically on gathering information of the meanings that people assign to events and experiences. The interpretive paradigm functions on the assumption that there is no fixed reality, rather people make individual, subjective meanings of their world as they interact with it. These meanings are influenced by an individual's particular cultural, historical and political background. Thus multiple meanings and interpretations of the world are constructed (Henning, Van Rensburg & Smit, 2005; Nieuwenhuis, 2007). This point is an important link between interpretive and constructivist paradigms. The constructivist paradigm supports the above-mentioned relativist ontology of multiple realities (Patton, 2002). Due to the fact that there are multiple interpretations of the world, the constructivist paradigm claims that the knower (researcher) and the respondent (participant) come together in order to shape one another and to co-create understandings of the world. This is called a subjectivist epistemology (Denzin & Lincoln, 2005). While I was interacting with the participants in the research study, I realized that the questions that I asked (according to the semi-structured questionnaire which I set up in line with literature) guided the participant to think in a certain direction and as a result my questions and his/her answers co-created meaning (Merriam, 1998).

At this point a further link can be made between the constructivist paradigm and hermeneutics. Gadamer, a philosophical hermeneutic, stated that it is impossible to separate ourselves from our biases, with regard to our experiences (in Schwandt,

2002). In other words we can never be completely objective when striving to understand another human being. Even though I strived for an empathic understanding of the participants' experiences (this is again congruent with the interpretive paradigm), I realised that my mind can never be a clean slate when interacting with the participant; it is coloured by my background and prior experiences. However, objectivity is not the aim. The aim is to create an understanding between the researcher and the participant that is participative and conversational (Bernstein; Grondin; & Taylor in Schwandt, 2002). Peshkin wrote that subjectivity with regard to the researcher's prior knowledge and personal qualities can be a valuable contribution to the research (in Merriam, 1998). An important personal quality that I portrayed in the research study was that of trust – I tried to create a safe environment in which the participants would feel free to express their true selves.

Up to this point I have explained the ontology and epistemology of the paradigm chosen. The appropriate methodology will be discussed later in this chapter. The next aspect to be discussed is the context in which the research was conducted.

3.2.3   Context

The context of the research was a mainstream secondary school in Windhoek, Khomas Region, Namibia. The school opened in 1972 as an all-boys school offering only technical subjects. In 1986 the first girls entered the school, enrolling in the N secretarial programmes. After independence in 1990, the Ministry of Education stopped the N programmes, changing to the Cambridge practical programme together with academic programmes. In 2003, the school offered a plain academic programme; an agriculture programme with an academic course; and a technical programme with an academic course. At present, the school is more academic orientated than technical orientated. The ratio of boys to girls is about 3:2. The school has 601 learners and 31 teachers.

In 2005, the Director of Education in the Khomas region and the Senior Education Officer at the Directorate of Programs and Quality Assurance visited certain secondary schools in Windhoek, asking whether they would include learners with

visual impairments in the school from Grade 11 to 12. These learners were in the special school (called the National Institute for Special Education (NISE) – Blind) up to Grade 10 which is the final year offered by the school. To have a clearer understanding of where the special schools of Namibia fit within the organogram of the Ministry of Education, I have drawn a diagram. The diagram shows just one of the directorates under the Ministry of Education.

Figure 3.2   Organogram of the Directorate of Programs and Quality Assurance
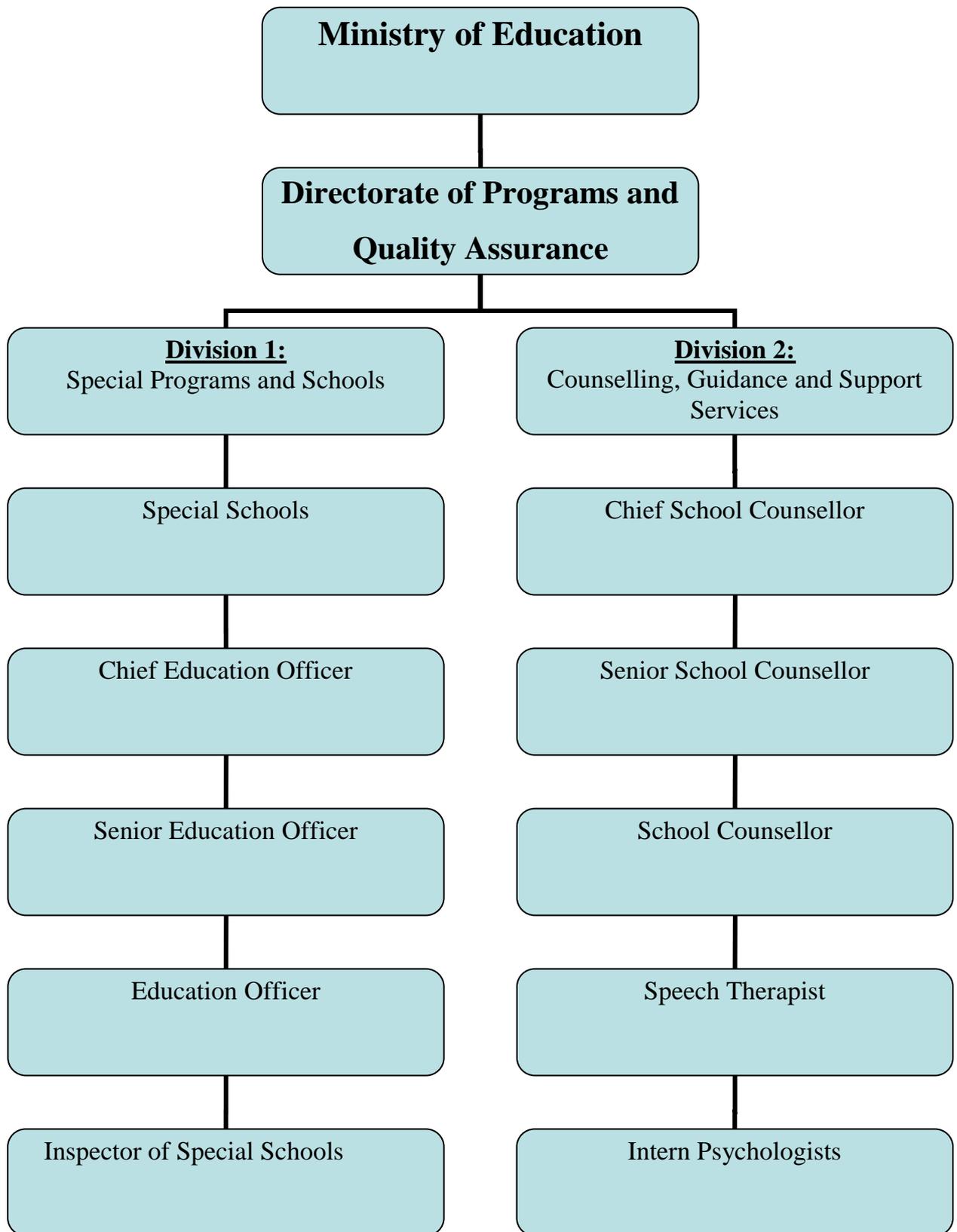
All, except one of the schools that the Ministry of Education approached, refused to include the learners with visual impairments. The one school that agreed is the school that participated in this inquiry. This school previously had one blind learner. This learner entered the school as a sighted person, but in 2003 he lost his eye sight as a result of a motor cycle accident. After he went to Pionier School for Visually Impaired in Worcester (in South Africa) for training in skills to support his blindness, he returned to the school. The parents of the boy bought all the necessary equipment allowing him to finish his schooling in the mainstream secondary school. The school made no adaptations for the boy, since the parents gave their full support. As a result, the school was not aware of the large responsibility they had agreed to in taking in the learners from the NISE-Blind.

After agreeing to include the learners from the NISE-Blind, a planning meeting was held between the principal of the mainstream school, the principal of the NISE-Blind and the Senior Education Officer at the Division Special Programs and Schools. Staff members of the special school then offered classes to the teachers of mainstream school to teach them about Braille. In 2006, the first eight learners with visual impairments arrived at the school. In 2007, seven – more arrived and moved the numbers up to 15 learners with visual impairments. In 2008 there were 12 learners with visual impairments in the school and in 2009 (this current year), 18 learners are attending the school. The school still does not have a policy for Inclusive Education and the current vision and mission statement of the school do not include all the essential values and principles of inclusion.

The vision of the school is "to be the preferred school of excellence for every career-minded learner". The mission statement of the school is the following:

- The school seeks to provide the best possible education for the Windhoek community as well as the rest of Namibia.
- The school perceives its mission as being primarily the preparation of its learners for tertiary education, whether in formal institutions or more informally in the workplace.

- It further seeks to produce loyal, mature and responsible young adults with a balanced education who will be a credit not only to their families, but to the wider community as well.

- At the same time due recognition is be given to parental involvement which is encouraged as sharing in the partnership of education.

- And it finally seeks to lead the learners to a discovery and recognition of their true abilities and talents so that they are able to make sensible decisions about their future and would be prepared and equipped for the high demands of the post-school years.

See 4.2.2 for more information on the context of the case.

3.3   METHODOLOGY

According to Durrheim, the research design usually provides information on the methods used in the sample selection, data collection and analysis. Methods are techniques which take on a specific meaning according to the methodology in which they are used (Silverman, 2000). I will now look at the methodology of the study as well as the types of methods chosen and the reasons behind the choice of methods.

Crotty (in O'Donoghue, 2007) defined methodology as the plan of action or process lying behind the choice and use of specific methods and linking this to required outcomes. In other words, it justifies why certain methods are chosen (Clough & Nutbrown, 2008) and determines how one will go about studying a phenomenon (Silverman, 2006). Henning, et al. (2005) wrote that within an interpretive paradigm, a qualitative approach to research methodology is most applicable. Qualitative research is a multi-method approach to research that aims to study phenomena in their natural settings, trying to make sense of, or interpret happenings in terms of the meanings people bring to them (Denzin & Lincoln, 1998). It is inductive in nature, building theories and ideas rather than testing an existing theory (Merriam, 1998). Qualitative research emphasizes the socially constructed nature of reality, the close relationship between the researcher and what is being studied, and the contextual limitations that shape inquiry (Denzin & Lincoln, 1998). The social constructs studied by qualitative research are always changing and evolving, thus complicating precise

measurement (Gorman & Clayton, 2005). Taylor and Bogdan (in O'Donoghue, 2007) wrote about qualitative research:

> …any good qualitative study, no matter how theoretical, contains rich descriptive data; people's own written or spoken words, their artefacts, and their observable activities … researchers try to convey a sense of being there and experiencing settings firsthand … researchers attempt to give readers a feeling of 'walking in the informants' shoes' − and seeing things from their point of view" (p 53).

As is clear from the above quote, qualitative research aims to obtain a wealth of thickly described, detailed, and in-depth data. The strategy of qualitative research to be chosen should therefore be able to generate the rich, descriptive data as well as be in line with the interpretive paradigm that underlines the study. For the purposes of this study, a case study has been chosen as the format to present the findings of the inquiry (Stake, 2005). The "bounded system" was a mainstream secondary school in Windhoek, Khomas Region, Namibia. In identifying the unit of inquiry of the study, the focus was on the interaction between the context (that is the how, where, when, and why) and the inclusion of the learners with visual impairments (Henning, Van Rensburg & Smit 2005). In other words, my unit of analysis was the experiences of and opinions about the processes of how the learners with visual impairments were included within this particular school.

A case study can be defined as a holistic description and analysis of a single entity, phenomena, social unit, or bounded system (Merriam, 1988; Smith, 1978, in Merriam, 1998). Qualitative case studies in particular can be defined as being *particularistic* (focusing on a particular phenomenon), *descriptive* (the end product being a rich, thick description), and *heuristic* (illuminating the reader's understanding of the phenomenon being studied) (Merriam, 1998). Yin (in Bassey, 2000) distinguishes between three forms of case study: exploratory, explanatory and descriptive. For the purposes of this study I chose the descriptive case study and thus provided a complete description of a phenomenon within its context. The case study was also intrinsic in nature in that it focuses on a particular case, irrespective of outside concerns (Stake, in Bassey, 2000).

The case study links with the interpretivist perspective in that it aims towards a holistic and comprehensive understanding of how participants interact with one another within a specific setting and how the participants make meaning of the phenomena being studied (Nieuwenhuis, 2007).

Another link can be drawn here to Bronfenbrenner's bio-ecological theory (in Swart & Pettipher, 2005). This theory emphasizes the important reciprocal influences that different elements within a system as well as different systems can have on each other. Through focusing on a single entity or case, the researcher aims to uncover and understand the interaction between important factors, elements and parts within the bounded system being studied (Merriam, 1998; Bloor & Wood, 2006). As Stake argued: "A case is an integrated system. The parts may not be working well...but it is a system" (in Bassey, 2000, p.27). Within the school system that I have identified as my case study, I will investigate some of the elements and the interactions between them in order to have a better understanding of the phenomenon being studied (Berg, 2007).

The final aspect of case studies to be mentioned is that they are multi-perspective in nature, with a focus on the views and meanings of a variety of role players relevant to the phenomena being studied (Nieuwenhuis, 2007). Here a link can be drawn to the constructivist paradigm that also seeks multiple meanings and perspectives. In order to attain the perspectives of a variety of role players and to "spread the net of evidence widely" (Bromley in Merriam, 1998) a specific way of sampling is used, as well as a wide range of interconnected methods for collecting data. This wide range includes interviews, observation, and artefacts (Tuckman, 1994; Gay, Mills & Airasian, 2006; Denzin & Lincoln, 1998).

As a researcher, I was the primary instrument for data collection and analysis; I mediated the data-collection and personally visited the settings to interview and observe the participants and the environment.

3.3.1 Selection of Participants

I purposefully selected the participants for this study. This means that the participants were selected due to some defining quality that made them holders of the data needed for the research. The sampling decisions were made precisely in order to obtain the richest possible information to answer the research questions (Nieuwenhuis, 2007; Mertens & McLaughlin, 2004). The research questions revolved around including learners with visual impairments in the mainstream school. Qualitative research endorses the notion of diverse perspectives on the same phenomenon (Denzin & Lincoln, 1998); therefore the sample of this research study consisted of a variety of participants to get a clear understanding of the phenomenon.

For the purposes of the study I selected the following participants: The principal of the school; two learners with visual impairments; a peer of the learners with visual impairments; the parents of the learners with visual impairments; two teachers that teach the learners with visual impairments; as well as the specialist teacher designated to support the learners with visual impairments. All of these participants were selected because they were directly involved in the inclusive education implementation project of the Ministry of Education in Namibia. Henning, et al. (2005) referred to these participants as the 'theoretical population' because they were spokespersons for the topic of inquiry.

Because of the limited scope of the study and the need to produce in-depth, 'thick' data, I decided to select two participants with visual impairments. The principal directed me to the specific learners since they had failed Grade 12 and were therefore in the mainstream school for the third year. As a result, they had a lot of knowledge about the school and its inclusion process. They also volunteered to participate. This helped me to gather in depth information on the phenomenon of including learners with visual impairments in a Namibian mainstream secondary school. The two learners attended the NISE-Blind school in Windhoek; Learner 1 from Grade 1 to Grade 10 and Learner 2 from Grade 3 to Grade 10. Before that time Learner 2 was in Eluwa Special School in the Oshana Region in the far north of the country. Her mother lived in the far outskirts of Windhoek, and Learner 2 therefore, had to travel

about 700km to reach the Eluwa Special School in the Oshana region, which was the only special school for learners with visual impairments at the time. Learner 1 was about 11 years old when he went to Grade 1 in the year 1997. This is the time that the NISE-Blind opened in Windhoek. His family lived in Usakos (a small town close to the central coast) and they did not consider sending their child to the Eluwa Special School which is about 800km away.

When the 2 learners went to school in NISE-Blind, both of them stayed in the hostel and did not see their families often. For Learner 1 this was very hard; he only started to adapt to the hostel life in Grade 5. His mother used to ride the train with him from Usakos to Windhoek. Even though Usakos is just 240km from Windhoek, the ride by train took the entire night. Learner 1 had five brothers and two sisters. Learner 2 only lived with her mother. She had three brothers and three sisters. Both Learners 1 and 2 came from poor socio-economic backgrounds. As was mentioned in Chapter 2, Learner 1 lost his eye-sight due to a visual disorder called retinitis pigmentosa. His extent of vision loss was categorized as legally blind. The visual disorder that caused the loss of eye-sight of Learner 2 is called retinal detachment. She was completely blind by the time she was 17 years old. Both learners have the Grade 2 Braille level.

3.3.2   Interviews

O'Donoghue (2007) argued that the qualitative research interview is a conversation with a purpose. The intention is therefore to collect descriptions of the life-world of the interviewee (Kvale 2007). These descriptions can be collected in a number of ways, but face-to-face interviews are the most commonly used. Face-to-face interviews are synchronised in time and place, therefore they can take advantage of social cues such as voice, body language, intonation, facial expressions, etc. of the interviewee. These social cues provide a lot of extra and valuable information to the interviewing process that can help the researcher to gain a better understanding of the participant's feelings, perspectives, hopes, dreams, fears, opinions, and experiences on a certain topic (Opdenakker, 2006).

Merriam (in O'Donoghue, 2007) has identified three major types of interviews: the highly structured, semi-structured, and the unstructured. In this research, the semi-structured interview was used. This type of interview acknowledges the epistemological assumption of multiple realities, but uses a set of loosely defined questions to guide the interview. The semi-structured interview allowed me to probe as deeply as possible into the participants' perspectives and personal experiences of the phenomena that is being studied (Byrne, in Silverman, 2006; O'Donoghue, 2007). In the words of Cohen and Manion, (in O'Donoghue, 2007, p.133) semi structured interviews allow "greater depth than is the case with other methods of data collection".

The 'loosely defined questions' of the semi structured interview were used as an "aide-memoire" (Burgess in O'Donoghue, 2007, p.166). This 'aide-memoire' or interview guide provided me with a guide to make sure that all the issues were covered in the interview. However, it still permitted the kind of flexibility that allowed me to respond and probe further (Merriam in O'Donoghue, 2007). The questions in the interview guide were structured to gather thematic, relevant information around support and collaboration, school culture, and curricula of the mainstream school used in the research. Interviews were conducted with the principal of the school, with the specialist teacher, with a peer of the learners with visual impairments, with the parents of the learners with visual impairments, and finally with two learners with visual impairments. The participants were interviewed individually and the learners with visual impairments were interviewed both individually and together. All of the interviews that were conducted lasted about an hour and a half to two hours each, except the interviews with the parents of the learners with visual impairments.

The fact that the interviews were long allowed for rapport to be established between myself and the participant (O'Donoghue, 2007). (Examples of the interview guides for the participants are attached as Addendum A). The interviews were transcribed (a part of a transcription is attached as Addendum B). All the interviews apart from the interview with the peer and the interviews with the parents of the learners with visual impairments took place at the school. The peer was already on holiday when I conducted the interview with her; therefore this took place at her house. The parents

were interviewed telephonically as they live far from the school (this is also the reason why their interviews were much shorter than the other interviews). The interviews were conducted at the end of the academic year and again in the middle of the new year. This is an example of an ongoing process of data collection and analysis: while I analysed the data I recognized gaps in my research and therefore I went back to gather more information from the participants. See 3.3.5 for more on this ongoing process.

3.3.3 Observation

As a qualitative data gathering method, observation was used to enhance the information gathered form the interviews. I could, therefore, obtain a deeper and more intimate knowledge and understanding of the phenomenon being studied. Observation is an activity during which I used my five senses as well as my intuition to gather information on all the aspects of the context in which the research was conducted (Nieuwenhuis, 2007; Merriam, 1998). In this study, I adopted the role of a non-participant observer, looking at the situation from a distance. I visited the school setting on two different days and observed the physical environment and the media room of the learners with visual impairments. I took notes of everything that I saw, heard or felt without becoming a participant within the setting (as is the case with participant-observation) (Nieuwenhuis, 2007). I obtained permission from the teacher of the media room to observe the activities and equipment in the media room. However, I did not inform the learners of the observation due to the fact that they might have acted differently if they knew that they were being observed.

Prior to my observation, I set up an observation schedule for the media room, listing all the phenomena that should be observed (attached as Addendum C). An inspection was then made of the media room of the learners with visual impairments. I observed the physical school environment next. After observing the physical environment I typed field notes that contained two basic types of information: (1) descriptive and detailed information of things that I observed and heard and (2) reflective information concerning my personal thoughts regarding the observations (Gay, Mills & Airasian, 2006). This planned and organized nature of observation differentiates it from

everyday observation (Durrheim, 1999). Observation is important for triangulation, a procedure, during which multiple methods of data collection are used in order to add to the validity of the study (Merriam, 1998).

3.3.4 Artefacts

Artefacts are the name that Merriam gave to documents. They can be defined as a product of a specific context, grounded in the real world (in O'Donoghue, 2007). Due to the characteristics of artefacts, a researcher is able to analyse them and in so doing gain valuable insights relevant to the research problem (O'Donoghue, 2007). When using artefacts as a data collection source, Nieuwenhuis (2007) suggested that the researcher takes into account all types of written communication that may present bits of information on the phenomenon that is being investigated. In this research study I analysed letters written by the principal of the school to the Ministry of Education. Other documents that were used was a Namibian newspaper, the New Era (January 2009), as well as the Final Report of the National Policy on Inclusive Education in Namibia (2008). This documentation was used to corroborate evidence gained from the other sources (O'Donoghue, 2007).

3.3.5 Data Analysis

The aim of data analysis is to convert information into an answer to the research question (Durrheim, 1999). It is therefore a process during which the researcher brings order, structure and meaning to the data that was gathered (Gorman & Clayton, 2005). This process is ongoing and takes place throughout the research process. In the words of Merriam (1998): "Without ongoing analysis the data can be unfocused, repetitive and overwhelming. Data that have been analysed while being collected are both parsimonious and illuminating" (p. 162). According to Henning, et al. (2005), to analyse literally means to take apart words, sentences and paragraphs in order to make sense of, deduce and then theorise the data. This is done by organizing, condensing and describing the data. The data analysis strategies that were used by the researcher were carefully considered to ensure that the design was coherent, meaning that the

analysis matched the type of data, the purposes of the research, and the research paradigm (Durrheim, 1999). The research paradigm of this study was interpretivism. Interpretive research aims to gather thick and in-depth data.

I used the constant comparative method of data-analysis to make sense of the data (Merriam, 1998). The first stage of this analytical process was the gathering of the data, that is, the interview transcripts, documents and observations and the chronological organizing of it. In a process known as open coding, the data was then re-read and examined several times to get an overview of all the data that was gathered. This was important because open coding is an inductive process, whereby the codes were chosen on the basis of what the data meant to me. The next step was the identification of units of meaning (using a highlighter) and the assigning of codes to these meanings by using different colour pens. The codes were then grouped in categories under 'names' coinciding with the information in my literature review (Henning, et al. 2005). Here I paid particular attention to the reliability of the process by making sure that the categories that I chose will also be recognised by different researchers looking at the same data (Silverman, 2006). Finally, these categories made up the themes that led to the argument that I aimed to make (Holliday, 2007). An example of how the units of meaning were assigned codes and then grouped into categories can be seen in Table 3.1.

Table 3.1 Example of open coding

Extract from group interview: Learners with VI	Codes	Categories
L1: The girls are not really helpful… I don't have many friends here in the school.	Attitudes	Perspectives and Artefacts
L2: The kids here (at the school) are very inconsiderate, they push us around in the lines and they push us out of the lines. There are a lot of kids in the class; they (the teachers) can't pay a lot of attention to us.	Behaviours	Reasons for present culture
	Feeling Overwhelmed	
L1: I asked a teacher to help, she said she wants to, but doesn't know how… she's never been trained.	Lack of training	Teacher-support-teams
L2: Teachers (at the special school) were fighting to get things done…if textbooks are late. Here (at the mainstream school) it is different.	Carelessness	

In the end, the categories that were identified were the following:

- Practical support: finances and resources

- Special schools

- Teacher-support-teams

- Multiprofession teams

- Community

- Parent-school collaboration

- Artefacts, perspectives, values, beliefs

- Reasons for the present culture

- Core curriculum

- Instructional methods and equipment

- Physical Environment

After the categorizing, I looked at the whole picture and ascertained relationships between the categories. I grouped the categories into three themes, namely: support and collaboration, school culture, and curriculum. These will be discussed in detail in Chapter 4.

The research as described above and as was carried out by the researcher was coherent. One of the reasons for this is because the techniques of sampling, data

collection, interpretation, as well as the context of the study was in line with the interpretive paradigm as well as with the overall purpose of the study (Nieuwenhuis, 2007).

3.4 VALIDITY AND RELIABILITY IN QUALITATIVE RESEARCH

3.4.1 Validity

Validity is the degree to which the qualitative data that was collected accurately reflects the social phenomena to which it refers (Gay et al., 2006; Hammersley, 1990, in Silverman; 2000). A common term used in qualitative research for validity is trustworthiness. The trustworthiness of the study was established by my understanding of and addressing descriptive validity, interpretive validity, theoretical validity, and evaluative validity (Gay et al., 2006).

Descriptive validity refers to the accuracy of the information in the study. I did not stray from the information presented in the research; instead, I strived to portray the information as it was presented to me. Interpretive validity concerns the meaning attributed to the behaviour and words of the participants. Following a hermeneutic approach, I realized that I can never be completely objective in understanding the participants; the participants and I cooperated to construct meanings. This is in line with the constructivist approach. Theoretical validity has to do with my ability to interpret data in relation to theory. The theory used in the study was relevant and adequate, therefore allowing me to accurately interpret the findings. Finally, evaluative validity refers to my aim to be truly empathic in the data collection and reporting (Gay et al., 2006)

The above-mentioned types of validity show that the credibility in qualitative research depends on the ability, effort and characteristics of the researcher rather than an instrument, as is the case for quantitative research (Golafshani, 2003).

Two other forms of validating qualitative research that I used are:
(1) Employing a variety of data collection methods (interviews, observation, artefacts) as well as multiple perceptions (of a variety of different participants) to clarify meaning. This process of using multiple methods and perceptions is known as triangulation. Triangulation was also used in the analysis of the data by "searching for

convergence among multiple and different sources of information to form themes or categories in a study" (Creswell & Miller, in Golafshani, 2003, p. 604). The aim of triangulation is not to attain an objective reality, as this can never be captured. The aim, however is to attain the best understanding possible of the data (Denzin, Fielding & Fielding, in Denzin & Lincoln, 1998; Silverman, 2006). Triangulation is in line with constructivism, one of the paradigms of this study. Constructivism values multiple realities and uses multiple methods and multiple perceptions to gather data and to gain understanding on a particular phenomenon.

(2) Taking the findings back to the participants for verification. This is known as respondent validation. If the construction of reality (by both the participants and myself as the researcher) written down in the research is plausible to those who constructed it, one can be more confident of the validity of the study (Kincheloe & McLaren, 1998; Silverman, 2006). I made a second appointment with the participants and during this session I gave feedback to them about the findings and I asked them to verify whether what I had written was in fact what they had said.

3.4.2   Reliability

Reliability refers to the degree of consistency with which phenomena are placed in the same category by different observers or by the same observer at different times and/or different occasions (Hammersley in Silverman, 2000). I did this by going through the data a while after the first analyses to determine any change in category for the same data. In this study I also considered the reliability of the research techniques that I used to gather data. I examined the data to determine whether the data would be consistently collected using the same techniques at different times and occasions. I also made certain that the findings of the study were relevant to the research questions as well as to the audience of the research (Gay et al., 2006).

According to Golafshani (2003) and Patton (in Golafshani, 2003), a way to determine the reliability of a qualitative research study is to test its quality. This study aimed for quality by creating understanding (Stenbacka, in Golafshani, 2003) and by refraining

from confusing its readers (Eisner, in Golafshani, 2003). The lay-out of the study was organized and systematic, with each topic following logically on the topic before.

Finally, I aimed to satisfy the reliability criteria of Moisander and Valtonen (in Silverman, 2006) in the following two ways: by making the research process transparent through describing my strategies and analysis methods in adequate detail; and by paying attention to 'theoretical transparency' by making clear my theoretical stance (bio-ecological, interpretivist and constructivist) and showing how this produces particular interpretations (in-depth personal meanings and multiple perceptions).

3.5   ETHICAL CONSIDERATIONS

Denzin and Lincoln (2005) wrote that qualitative researchers are guests in the private space of the participants' worlds. As a result, their manners should be good and their code of ethics strict and sound. Cohen and Swerdlik (2005) described ethics as a body of principles of right, proper, and good conduct. Case study research portrays a deep interest in personal perspectives and circumstances of people. Those people whose personal viewpoints and meanings of the world are portrayed, risk exposure, embarrassment, as well as loss of social standing, employment and self-esteem. It is therefore of utmost importance that case study researchers go beyond the rules of ethics and protect their participants (Denzin & Lincoln, 2005).

In considering ethics, Namibia acknowledges the South African Xhosa saying "Ubuntu urgauntu ngabanye abantu" (people are people through other people). This "Ubuntu Principle" recognizes the rights of every citizen and aims to promote individual and societal well-being (Social Work and Psychology Council of Namibia, 2004). The values that guided my behaviour during the research (which promoted individual and societal well-being) were (amongst other values) equality, democracy, and emancipation. I was attentive to the fact that the relationship between me and the participants was influenced by roles, status, language, and cultural norms and therefore it was of utmost importance to protect the participants (Gay et al., 2006).

A step that I took to protect the participants was to send my research proposal to the Ethical Committee of the University of Stellenbosch to solicit clearance. The research was approved and the ethical clearance number that I received is 215/2009. The approval letter is attached as Addendum D. Throughout the research, the ethical stance I followed was the *contextualized-consequentialist model* of House and Smith (in Denzin & Lincoln, 1998). The three principles that this model entails are "mutual respect, non-coercion and non-manipulation; the support of democratic values and institutions; and the belief that every research act implies moral and ethical decisions that are contextual … with immediate and long-range consequences" (Denzin & Lincoln, 1998, p. 38). Within the research I strived to have empathy and a caring attitude towards the participants. Establishing a trusting and non-oppressive relationship between me and the participants was given priority (Denzin & Lincoln, 1998).

In the research, the principles from the APA Ethics Code (in Swenson, 2007) were followed:

- Beneficence (the results of this study will aid in the understanding of how the learners with visual impairments are included in the secondary school; and non-malfeasance (I strived to protect the welfare and rights of the participants);
- Fidelity and responsibility which I showed by establishing a trust relationship with the participants;
- Integrity – I strived to give through an accurate and truthful depiction of the findings within the study and did not use deception or dishonesty to convince the participants to partake in the research (Elmes, Kantowitz & Roediger, 1999);
- Justice. I followed this principle by being aware of my biases and taking precautions not to let this, as well as my limited expertise, cause the study to be unjust. I was aware of the fact that I can never completely strip myself of personal thoughts and beliefs.
- Respect for people's rights and dignity. Throughout the research I was aware of and respected the differences caused by aspects like ability, culture, age,

gender, race, socio-economic activity. This was important as the learners with visual impairments differed from me in all those aspects (Swenson, 2007).

Respecting the human rights of a participant also means that the participants will give their informed consent and will be reassured of their anonymity and confidentiality.

Informed Consent: In order to participate in the research, participants need to give their informed consent. In qualitative research informed consent is particularly important due to the personal and in-depth nature of the data to be collected (Duffy, 2008). The APA Ethics Code gives certain guidelines for the consent form. These are: participants must understand: the purposes of the research; the expected duration and procedures; their right to decline to participate and to withdraw from the research; the foreseeable consequences of declining or withdrawing; the potential risks, discomfort or adverse effects due to participation; the prospective benefits; the limits of confidentiality; the incentives for participation; and whom to contact with regard to questions about the research and their rights (Swenson, 2007). These guidelines for informed consent are also in line with those provided by the Health Professions Council of South Africa's (HPCSA) Code of Ethical Conduct (2008) and that of the University of Stellenbosch.

Participants in this research study were asked to give their consent to participate in the research. All the participants were 18 years and older. According to the Namibian Healthcare Jurisprudence and Ethics Manual (Social Work and Psychology Council of Namibia, 2004), they are age-appropriate to give consent; however, due to the fact that the learners with visual impairments are a vulnerable group and still learners at a school, I asked them to give their assent and their parents to give their consent in writing by signing a form. This form contained all the ethical aspects relevant to the study. The researcher read this letter to the learners with visual impairments in the presence of their trusted teacher. Ethically it was important for an outside party (the trusted teacher) to be present because the learners with visual impairments are a vulnerable group and are therefore susceptible to exploitation (Duffy, 2008). They were directed where to sign. A copy of the assent form is attached as Addendum E. The consent forms of the parents, teacher, specialist teacher, peer, and principal are

attached as Addendum F. The other participants were all age appropriate and received a similar, but personalized form to sign.

Henning, et al. (2005) stated that the institution where the research will be conducted should also sign a form giving consent to use the site and name. Permission was obtained from the principal of the school to conduct the research within the school. This permission letter is attached as Addendum F.

Anonymity and confidentiality: The Health Profession Council of South Africa's (HPCSA) Code of Ethical Conduct (2008) defined anonymised data as data from which the client cannot be identified by the receiver of the information. The name, address, and full postal code must be deleted, together with any information which, in combination with other data held by or disclosed to the receiver, could identify the client. To conceal the identities of the participants in this study, I used pseudonyms and codes. Non-disclosure of the name of the school in the case study was adhered to. As there are only a few learners with visual impairments in the school, their identities might be revealed through the information that they shared. Before the interviews they were made aware of this potential danger and I made an effort to protect them from embarrassment by keeping the transcripts of their documents confidential and safe (Gay et al., 2006).

Finally, adhering to ethical standards in dealing with reporting of results, no fabrication or plagiarism was practiced, neither was previously published data published as being original.

3.6   CONCLUSION

In this chapter the research paradigm, design and methodology were discussed in detail. Methods used for sample and data collection, analysis and interpretation were explained. Finally validity and reliability as well as ethical considerations regarding the research process were highlighted. The research findings will be discussed in Chapter 4.

CHAPTER 4

FINDINGS AND DISCUSSIONS

4.1   INTRODUCTION

As was discussed in Chapters 1 and 3, the aim of the study was to attempt, through a qualitative study, to analyse and describe how the learners with visual impairments are included in a Namibian secondary school. The other research questions that guided the data generation and case description are: How do the different organisational elements of the school reflect the inclusion of learners with visual impairments? And what are the experiences and opinions of the principal, specialist teacher, parents, peer, and learners with visual impairments of the inclusion process?

Within this chapter, I will present an exposition of the research findings in answer of the research questions as well as a detailed discussion and interpretation of the identified themes and categories in the format of a case study. The interpretation of the themes and categories will be in accordance with the literature presented in Chapter 2. I selected the format of a case study so that I can discuss the phenomenon under study in depth (Merriam, 1998). In this chapter I will also describe the context that frames the case study, linking it to the description in Chapter 3.

4.2 EXPOSITION OF RESEARCH FINDINGS

4.2.1   Introduction

Table 4.1 below presents the findings in the study. It illustrates the three themes as well as the main categories within each theme. The three themes and their categories all aimed to answer the main research question of how the learners with visual impairments are included in the mainstream secondary school. I will first situate the case by describing the context of the school and the learners with visual impairments.

I will then describe the themes identified in the data. The first theme of this chapter will deal with the support and collaboration of the study. The second theme developed through the collected data is the culture of the school and the effect of it on inclusion of the learners with visual impairments. The third and final theme revolves around the practical side of the inclusion of the learners with visual impairments.

Table 4.1: Themes and categories identified in the findings

THEMES	CATEGORIES
1. Support and Collaboration	Practical support: finances and resources Special schools Teacher-support-teams Multi-professional teams Community Parent-School Collaboration
2. School Culture	Artefacts, perspectives, values, beliefs Reasons for the present culture
3. Curriculum	Core Curriculum Instructional methods and Equipment Physical Environment

4.2.2 Situating the case

In case study research a contextual understanding of the case is important. In the words of Yin (in Creswell, Hanson, Clark Plano, & Morales, 2007): "You would use the case study method because you deliberately wanted to cover contextual conditions – believing that they might be highly pertinent to your phenomenon of study" (p. 245).

The contextual conditions and background of this 'bounded system' (Merriam, 1998) (as was mentioned in 3.2.3) is one where the mainstream secondary school was approached by the Ministry of Education with the request to include learners with visual impairments after Grade 10. These learners came from the NISE-Blind (special

school) in Windhoek. They entered the mainstream school in Grade 11 since the special school can only accommodate the learners up to Grade 10. Most of them (including the two learners who participated in the study) come from impoverished and rural backgrounds. They stay in the hostel next to the school and seldom see their parents. The mainstream school went the extra mile to make space available in the hostel for the learners with visual impairments.

The visual impairments of the learners range from functional blindness to low vision. Unfortunately, I was not able to gather the disorders that caused the impairments or the extent of the impairments of all the learners. This is because the special school did not send reports to the mainstream school of all the learners with visual impairments. Only 13 reports out of 18 were received by the mainstream school. The reports that the school received were not comprehensive and did not provide any support strategies for the learners with visual impairments. This lack of communication and information had a negative impact on the inclusion of the learners because specific needs and therefore specific support could not be identified. Table 4.2 provides an indication of the range of disorder and impairments of the learners in the mainstream school.

Table 4.2: Range of visual disorders and impairments in the mainstream school

LEARNER	VISUAL DISORDER	VISUAL IMPAIRMENT
1	Retinal Detachment	Partially sighted
2	Albinism with associated eye deficiencies	Partially sighted
3	Disorder not specified	Partially sighted
4	Disorder not specified	Partially sighted
5	Disorder not specified	Partially sighted
6	Bilateral Optic Nerve Hypoplasia	Legally blind
7	Bilateral Optic Atrophy	Partially sighted
8	Oculocutaneous Albinism	Partially sighted
9	Albinism with associated eye deficiencies	Partially sighted
10	Albinism with associated eye deficiencies; Nystagmus	Partially sighted
11	Disorder not specified	Partially sighted
12	Disorder not specified	Partially sighted
13	Keratoconus	Partially sighted
14		
15		
16		
17		
18		

When the learners with visual impairments were placed in the mainstream classes with the sighted learners, the teachers were not prepared to include them in the class environment. This was because (apart from the Braille lessons) they did not receive any training in including learners with visual impairments. The limited and unspecific information received on each learner (as table 4.2 indicates) complicated matters further. Literature indicated that visual impairments result in a variety of barriers to learning (see 2.9). A variety of unique adaptations therefore have to be made for the learners with visual impairments in the school. This did not happen in this particular case. The learners stayed in the classes with the sighted learners throughout the day and were only withdrawn for Computer Studies. They then went to their media room where they were taught computer skills.

In the classrooms there were about 38 learners with one teacher and no classroom assistant. A specialist teacher was assigned to the school in 2007 to support the learners with visual impairments. However, she spent a lot of her school hours doing the Brailing work, either at the NISE-Blind school or at the Service Centre or at the University of Namibia. The rest of her time she had to teach mathematics for Grade 11 and 12. As a result she did not have time to truly support the learners with visual impairments. In 2008 the specialist teacher was relieved from teaching mathematics and could therefore focus solely on supporting the learners with visual impairments. Besides Brailing and de-Brailing test and exam papers as well as notes, the specialist teacher went into the classes to support the learners with visual impairments. She sat next to them and would re-explain the work at a slower pace so that the learners could Braille it. She also assisted the teachers and would advise them on strategies to use in class in order to support the learners with visual impairments.

4.2.3   Theme 1: Support and Collaboration

The first theme revolves around support and collaboration. According to Johnson and Green (2006), support in an inclusive setting is called "educational support", rather than "learning support" as was used under the medical model. The term educational support provides for a wider understanding of the word support and includes not only the learner system, but also the wider systems that have an impact on the learner. Support should aim to not only alleviate barriers within the variety of systems within

a learner's ecological-system, but also to prevent problems and work towards improving the overall well-being of all learners. Support within an inclusive setting is provided through the collaboration of different ministerial departments in the country, educators, principals, administrators, parents, learners and professional support personnel (Stanovich, 1996; Wood, 1998; in Engelbrecht, 2001). Collaboration means cooperative planning, decision-making and problem solving towards a universal goal by different parties with unique perspectives, ideas, experiences, and theories, all carrying equal weight and importance (Givner & Haager, 1995; Idol & West, 1991; Stanovich, 1996; Stainback & Stainback, 1996; all in Engelbrecht, 2001).

Support and collaboration will be discussed in terms of the following: practical support in the form of finances and resources; special schools; teacher-support-teams; multiprofessional teams and community; and parents. On this particular theme, the principal of the school had the most knowledge and therefore her voice came out the strongest during the analysis.

- **Practical support: finances and resources**

The principal of the school, who was interviewed, was very negative about the practical support that the school received from the Ministry of Education. According to her, policies regarding inclusive education were formulated; however at ground level the school did not receive sufficient support in the form of finances and resources. In a letter to the Ministry of Education dated 8 December 2007 she wrote: "On paper inclusive education has been implemented, but (in practice) we are not really catering for the needs of the learners with visual impairments and they are not able to reach their fullest potential under the current situation". Zimba et al. (2006) confirmed this when they stated that the legislation on inclusion in Namibia does not provide clear and practical guidelines on how inclusion should be implemented. The learners with visual impairments who were interviewed agreed that they are not reaching their full potential. They said that they had never failed a Grade until they came to the mainstream school. Now they are repeating Grade 12; for them this means that something is not right within the school system. Tables 4.3 and 4.4 show the symbols obtained by the learners in the special school, from the time they entered it until Grade 9. The Grade 10 marks were not available in the records.

Table 4.3: Symbols obtained from Learner 1 in the special school

Learner 1	GRADE							
SUBJECT	**1/2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
English 2nd Language	B	B	B	A	B	B	D	B
Afrikaans			D	C		C	C	C
Maths	B	B	B	B	A	C	E	D
Computers							B	B
Environmental studies	B	C	C					
Handwriting/Braille	C	C	B					
Natural science & health education				B	C	B		
Social studies			C	B	A	B		
History							E	C
Geography							F	D
Art and Craft	C	B	C	B	C			
Physical education	C	B	D	C				
Religious education	B	A	B	B				
Music	C	A	A	A	A			
Home ecology						B	C	A
Life science							B	B
Physical science							C	A

Table 4.4: Symbols obtained from Learner 2 in the special school

Learner 2	GRADE						
SUBJECT	**3**	**4**	**5**	**6**	**7**	**8**	**9**
English 2nd Language	B	C	A	B	C	D	C
Afrikaans	D	D	C		B	C	C
Maths	B	B	B	A	B	B	A
Computers						E	C
Environmental studies	C	C					
Handwriting	C	B					
Natural science & health education	C	C	B	D	B		
Social studies		C	A	A	B		
History						B	B
Geography						A	B
Art and Craft	D	C	B	C			
Physical education	D	C	C				
Religious education	D	C	C				
Music	C	D	C				
Home ecology					A	A	B
Life science						A	B
Physical science						A	B

The symbols show that Learners 1 and 2 performed on an average to above average level in the special school. Unfortunately, the mainstream school did not have their

Grade 11 and 12 marks (of the year that they failed) on record anymore. (This is another issue for inclusive education). What is known is that Learners 1 and 2 both failed Grade 12. As was mentioned by them in the previous paragraph, one of the reasons for this might be due to the lack of resources and support provided by the mainstream school.

The principal requested support from the Ministry of Education. She was informed that the Division of Special Programs and Schools under the Directorate of Programs and Quality Assurance of the Ministry of Education said that they had already spent a lot of money on equipment and textbooks for the learners with visual impairments; the rest was therefore the responsibility of Mainstream Education. The Division of Special Programs and Schools was responsible for the learners with visual impairments up to Grade 10. After this they were moved to the mainstream school, as a result they moved to the responsibility of the Mainstream Education. The principal said that it is this reluctance to take responsibility that slowed down the process of providing support to the school. Literature stated the importance of teamwork within a country: according to Donald (1996), the different departments (and divisions within departments) of a country must work together to make inclusion a reality. Zimba et al. (2006) wrote that the current policy options concerning mainstream education and special education in Namibia are not effective, nor helpful for inclusion. On a critical level questions could be asked about the effectiveness of the decision to transfer these learners in the beginning of the much more academic challenging Year 11.

- **Special Schools**

The Final Report of the National Policy on Inclusive Education in Namibia (Väyrynen, 2008) stated that special schools should be strengthened in order to become an educational resource for the mainstream schools. Collaboration with and support for mainstream schools are therefore vitally important. The special schools should for example provide in-service training and consultation in foundational skills in Braille for the teachers in the mainstream school. The special schools should also be designated to store and maintain highly specialized equipment such as Braille machines to be used by mainstream schools as well. The principal of the school said that in the beginning of the process of including the learners with visual impairments, a teacher from the NISE-Blind school used to visit the mainstream school once a

week in order to do the Brailing. The teachers of the secondary school also received training in Braille for a short period of time. The specialist teacher mentioned that she does the Brailing and de-Brailing of the learners' work at the special school. She said that the special school is also very helpful in answering questions and providing guidance where it is requested by the mainstream school.

The principal said that the learners with visual impairments stay in the NISE-Blind school up to Grade 10; because this is the final year offered by the special school. They then move over to the mainstream secondary school in order to complete the rest of their school years (Grade 11 and 12). Literature within the context of the United States of America, by amongst others, Lewis (1994) and Dominguez (1994), advised that learners with visual impairments who have been identified early spend their first few years in a specialized environment where they receive specialized teachings and training on Braille reading and writing as well as other disability specific skills. They will then move to the mainstream schools for all or most of their instruction. The participants in this study did not have the option of moving to the mainstream school earlier than that. Learner 1 said that it would have been easier for them to adapt if they were allowed to move to the mainstream school earlier. He said that when they arrived at the mainstream secondary school in Grade 11 it was difficult to grasp and understand the ways of acting and doing of the sighted learners. It was also difficult to adapt to the level of work and ways of the teachers.

Hall et al. (1999) argued that the special school must be active in supporting the transition process of the learners with visual impairments from the special school to the mainstream school. They must prepare them for the changes: socially, emotionally and academically and must be willing to follow-up and support the learners once they are in the mainstream school. According to one of the learners, the special school did nothing of the sort, but he mentioned that it would have been very helpful if they had prepared them to a certain extent for what to expect at the mainstream secondary school.

- **Teacher-support-teams**

According to Hall et al. (1999) teacher-support-teams are important, because they provide a safe haven where teachers can express their frustrations and where they are

encouraged, supported and advised. The principal said that the teachers in the school do not have the support of such a teacher-support-team. They have nowhere within the school to go in order to vent their frustrations and according to the peer of the learners with visual impairments that was interviewed:: "One or two of the teachers used to talk behind the backs of the blind learners, but in front of the blind learners they are polite" (translated from: Een of twee onnies sal agteraf hul opinies oor die blinde kinders aan ons uitmaak, maar voor die blinde kinders is hul polite). One of the learners with visual impairments said that when she asked a teacher for help the teacher said that she wants to help, but doesn't know how. This shows that the teachers do not know where to go for advice and guidance on how to support the learners with visual impairments. The two teachers confirmed the fact that they do not have the support and guidance of a teacher-support-team, but that this would be very helpful. One teacher said that he has been teaching for 18 years, but that he has no experience in supporting a learner with a visual impairment. Within a teacher-support-team teachers can share their expertise and therefore support each other. According to the Final Report of the National Policy on Inclusive Education in Namibia (Väyrynen, 2008) advisory teachers were appointed at regional levels in order to enhance educational support through training.

- **Multi-professional team and community**

According to literature, collaboration between educators, parents, learners and professionals (that is nurses, educational psychologists, social workers, counsellors, physical and occupational therapists, and communication disorder specialists) is at the centre of the inclusive school community (Westling & Fox; 2005 and Sands et al., 2000). According to the principal, the school does not have the support of a multi-profession team that works collaboratively with the school. The principal and the specialist teacher said that many of the learners with visual impairments in the school are orphans or come from neglected backgrounds. They often cannot afford school fees, hostel fees, school uniforms, or stationary. Most of them have never been to an eye-specialist before, nor have they received treatment for their eyes. Due to a lack of finances, these learners were not able to attend the Grade 12 Farewell ceremony, nor were they able to buy the Grade 12 Blazers. As a result, the principal said that the community should be made aware and help the school meet these basic needs of the learners. The school itself also needs other specific support from the community, for

example technical help. They have received some equipment, (for example a tiger printer) but need help installing and servicing it. One of the learners with visual impairments that was interviewed (Learner 1) mentioned that he received support from his church in the form of sponsored music lessons for one year in 2007. He now plays the key board in the church band.

- **Parent – School Collaboration**

Swart (2004) wrote how important it is for parents to collaborate with the teachers regarding their child's schooling since they are experts on their own children and because this collaboration contributes to the successful implementation of inclusive education. The interviews with the parents of the learners with visual impairments revealed that they are unaware of what is happening or not happening within the school. When I asked a parent how she feels about the support and inclusion of her child she answered: "Oh, I'm very happy, very happy" (O, ek's baie gelukkig, baie gelukkig). She said this while her child is clearly very concerned about passing Grade 12 for the second time. A parent of the second learner with visual impairments said: "I don't actually visit the school a lot" (Ek kom nie eintlik baie by die skool uit nie). The first parent said that for her it is only important that her child can now finish school in the country without them having to send him to South Africa. The learners with visual impairments said that their parents are not involved in their school activities, especially not financially. Learner 1 said that both of his parents are pensioners and still have two other school-aged children to support. They therefore cannot afford assistive devices like a Braille machine or a talking calculator.

It also became clear from the interviews that the parents have very little contact with the teachers of the school. One parent asked: "Oh, may I visit the principal and the school out of my own?" (O! Mag ek uit my eie die hoof en die skool besoek?). This shows that the communication channels between the parents and the school are not open. When the principal was asked what the school did to involve the parents of the learners with visual impairments she answered that nothing more was done for them than was done for the other parents of the school. She also said that because many of the parents of the learners with visual impairments live in other towns, it was not easy to meet with them. One of the teachers said that you can see whether parents support the child or not in the child's academic and social functioning.

Literature stated that in spite of the vital input parents can give to inclusive education, many of them still feel disempowered and unimportant. They are unacquainted with their rights in the education of their child and feel that the experts know best (Belknap, Roberts & Nyewe; 1999). See 2.5.7 for a more detailed discussion on the literature.

4.2.4 Theme 2: School Culture

An inclusive school culture is a cornerstone in the building of a unified, healthy, and caring school community (Harris & Muijs, in Swart & Pettipher, 2006). The culture of a school can be defined as "moving mosaics of beliefs, values, understandings, attitudes, norms, symbols, rituals and ceremonies, preferred behaviours, styles and stances and power structures" (Day, Harris, Hadfield, Tolley & Bereford, in Swart & Pettipher, 2006, p. 107). School culture is the deeply rooted in unique patterns of behaviour, thought and norms, as well as the 'why' behind these patterns (Swart & Pettipher, 2006). Because of the limited scope of this study, I did not intend to do an ethnographic case study. However, the elements of school culture presented as a strong theme. This theme will look at how inclusive the school culture is towards learners with visual impairments.

- **Artefacts, perspectives, values, and beliefs**

In describing what the culture of the school in the study looked like, I will address the four levels of culture as explained by Sergiovanni and Staratt: artefacts, perspectives, values, and beliefs (see 2.5.6). In order to form a truly inclusive culture, the foundation of the inclusive school must be built on all four of these levels. In discussing the different levels, I will start with beliefs and then move back to perspectives and artefacts.

Beliefs: One of the inherent beliefs that the school's teachers and learners have about the learners with visual impairments is that (due to their disability) they are different. The peer of the learners with visual impairments who was interviewed said: "This is not their place" (Dis nie hul omgewing die nie). She also said that some teachers of the school have said that the learners with visual impairments do not belong at the

school because of the difficulties that they experience with regard to learning. However, one teacher said that he treats the learners with visual impairments with the same respect as he treats the other learners.

It became clear from some of the rest of the interviews that the differences between the learners of the school and the learners with visual impairments are accentuated and that an 'us' and 'them' tendency exists in the school. The peer said: "We don't have the same interests as they have". One of the learners with visual impairments said that every child that comes from the special school will feel "different". This is because the two schools are so different in every way. He went on to say that this feeling of being different does not have so much to do with the impairment itself as it has to do with the effects of the impairment. He gave two examples: "If they talk about a yellow BMW then I don't know how that looks!" (As hulle van 'n geel BMW praat, dan weet ek nie hoe dit lyk nie) and "The other guys like to watch TV and make a lot of noise. They don't understand that I need silence otherwise I can't hear what's going on. So then I don't watch a lot of TV" (Die ander ouens hou daarvan om te raas terwyl hulle TV kyk. Hulle verstaan nie dat ek stilte nodig het om te kan hoor wat die mense sê nie. So nou kyk ek maar nie baie TV nie).

Values: Swart and Pettipher (2005) wrote that the values of an inclusive school should be those of equality, tolerance, acceptance, and the celebration of diversity. These values should be typed up in the vision of the school and should be set up in a place where all the learners and teachers will be reminded of it daily. From the interviews, it appears that there is not a culture of equality within the school. The peer said that the learners of the mainstream school feel that the learners with visual impairments receive a lot of privileges that the rest of the school's learners do not receive. The learners with visual impairments are for example, allowed to braid their hair, whereas the other learners are not allowed to braid their hair should they want to. According to the peer, the learners with visual impairments are allowed to follow a different set of rules than the rest of the learners. If the prefects try to reprimand them for doing something wrong, then the prefects will get into trouble with the specialist teacher that works with the learners with visual impairments. The perception of the peer is that the learners with visual impairments take advantage of their impairment by expecting special treatment. The teachers that were interviewed both said that some of the

learners with visual impairments see themselves as special and would therefore want to be spoon-fed. They would also sometimes make excuses to skip classes and to go and sit in their media room. This is unfair towards the rest of the learners.

The peer told of how the sighted learners in the school feel that *they* are being discriminated against because of the learners with visual impairments. She gave an example of this by stating that the prefects of the school were always 'kicked' out of their prefect room when the learners with visual impairments had to write their exams. According to the peer, the other learners in the school refer to the learners with visual impairments as the "VIPs" (Very Important People). While interviewing the teachers I heard that they also talk about the learners with visual impairments as the "VIPs". One teacher also mentioned that the principal had a "very soft spot" for the learners with visual impairments.

With regard to the value of acceptance, Wait, et al. (2003) stated that acceptance from peers and belonging to a group are key developmental tasks during the adolescent phase. The peer said that the younger learners accepted the learners with visual impairments more easily. She said that this is because when the Grade 8's arrived in the school, the learners with visual impairments were already there. However, for the older learners who knew how things were before the arrival of the learners with visual impairments, this inclusion process was not very welcome. She said of herself and the rest of the older learners: "We are not used to them, this makes it difficult to accept them" (Ons is nie gewoond aan hulle nie, dit maak dit dus moeiliker om hulle te aanvaar). One of the learners with visual impairments said that the peers at the mainstream school do not really understand him – why he struggles and why he is still at school even though he is older than they are. This lack of understanding makes acceptance difficult.

One of the teachers mentioned that this year's (2009) Grade 11s accepted the learners with visual impairments and readily included them in the class. Ironically, this specific class is the "difficult" class of the school. The Grade 12's of this year on the other hand, who (according to the teacher) consider themselves as the "good guys" did not accept the learners with visual impairments into their group.

The principal said that when the learners with visual impairments first came to the school, the teachers were "very helpful and positive" about the learners entering the school. However, as time went by they became frustrated with the situation. The one teacher said: "I want to give them a chance, but the lack of teaching aids makes them (learners with visual impairments) distance themselves from the academics". This means that the learners with visual impairments do not WANT to learn and this was frustrating for the teacher.

Perspectives and artefacts: With regard to the attitude of the principal of the school (towards the learners with visual impairments), the learners with visual impairments said that she is very helpful and supportive. The principal herself mentioned that when the Ministry of Education approached the school to ask whether they would include the learners with visual impairments she said yes. The reason for this is she wanted to serve society and the community. The learners with visual impairments said that some of the teachers were positive, however, many teachers appeared careless to them. They said that at the special school the teachers endeavoured to get the textbooks and notes ready in time. At the mainstream school, only some teachers went out of their way to get summaries brailed for the learners with visual impairments. One of the teachers said that he is in general positive about the learners with visual impairments; however, their lack of motivation to learn and work sometimes creates an attitude of negativity in him. Another teacher said "many teachers do not want to teach the learners with visual impairments". According to her a reason for this is the "extra work" that including these learners requires. Koay et al. (2006) argued the importance of positive attitudes of teachers towards learners with barriers to learning (visual impairments in this case) because of the large impact it has on the success of inclusion.

According to the peer as well as the specialist teacher and the other two teachers, many of the learners in the school also have negative attitudes with regard to the learners with visual impairments. They get irritated when the learners with visual impairments work at a slower pace and they say mean things about the learners with visual impairments. Negative perspectives often result in prejudice towards and stereotyping of learners with visual impairments. Lazarus et al. (1999) wrote of how prejudices and stereotyping lead to cultures of exclusion within schools. Helen Keller

said that "it is not blindness, but the attitude of sighted people towards people who are blind that is the hardest to bear" (MacDonagh, in Landsberg, 2005, p. 336). The peer that was interviewed mentioned that she feels sorry for the learners with visual impairments and that she sees them as being helpless. Learners 1 and 2 confirmed this attitude that sighted people in the school have towards them and interpret it as underestimating and patronizing. This view of people with visual impairments as helpless is in line with literature by Monbeck (1975). (See 2.9).

The principal said that another stereotype that she believes many teachers and learners in the school have with regard to the learners with visual impairments is that they are less intelligent. She said that because they cannot access the curriculum in the same way that sighted learners can and that correct adaptations were not made for them, they did badly in tests and thus confirmed the stereotype that they are less intelligent. This is in line with literature (Landsberg, 2005) that stated that people often assume that because they are visually impaired, they must be intellectually impaired as well.

Monbeck (1975) wrote that because of all the superstitions and stereotypes regarding people with visual impairments, they are often rejected, avoided and feared. This appeared in my findings when the peer that was interviewed said that she does not want to get involved with the learners with visual impairments and therefore avoids them.

The peer and the principal mentioned how the sighted learners often tease the learners with visual impairments and say things like: "You don't belong here. Go back to where you came from!" (Jul hoort nie hier nie, gaan terug daar waar jul vandaan gekom het). The learners with visual impairments told of the negative attitudes of the learners: "They are sometimes very inconsiderate and would push us around and out of the lines". Even though the specialist teacher mentioned that some learners are helpful with regard to the learners with visual impairments, the principal said that these helpful learners are often partially sighted and help others who are like them. Learner 2 added to this by saying: "the girls are not really helpful … in this school, I don't have many friends". In a study by Wolffe and Sacks, it was found that there were large differences with regard to social engagements between learners with visual impairments and those without. According to the study, the learners with sight are

twice as likely to spend time with their friends than are the learners who are blind, and four times more likely than the learners who are partially sighted (in Vaughn et al., 2000).

It is clear from the above findings that the culture of the school is not inclusive for the learners with visual impairments. The learners with visual impairments are integrated but do not fully participate in the life of the school. This was also confirmed by the principal, the peer, and the specialist teacher.

- **Reasons for the present culture**

The participants identified several reasons for the present culture. According to all participants, one reason was that no-one in the school was made aware of the reasons behind including the learners with visual impairments. Neither was anyone in the school trained as to how to include them in the school – either socially or academically. The peer stated her confusion around the inclusion of the learners with visual impairments in the following words: "We don't understand. Why not the school for the blind?" (Ons verstaan nie. Hoekom nie die skool vir blindes nie?).

According to Horne (in Wall, 2002), when teachers in a certain study were asked which learners they would least like to teach, most of them mentioned learners with visual impairments. One of the main reasons for this is that teachers feel that they haven't been properly trained, nor do they have any experience and knowledge to deal with the situation. The specialist teacher and the principal acknowledged the important role that training of the teachers would play in making inclusion a reality. Both of the teachers said that they desperately needed the training because they do not know how to include the learners in the class. One of the teachers told of the shock that she got when she was writing on the board and suddenly a learner was standing next to her. She said: "What are you doing here?!" and then realized that the learner came to the board to be able to see well. The peer also said that it would've been easier for the learners to accept the learners with visual impairments if they were acknowledged in the decision making processes and if they were orientated and made aware of the reason the learners with visual impairments were included in the mainstream school.

Other contributing factors to the exclusion of the learners with visual impairments are described in the research findings of Wagner (2004). According to the findings, learners with disabilities (such as learners with visual impairments) often fail to conform to the expectations of the school and society. The learners with visual impairments in this study have also faced failures time and again particularly in the mainstream school. This may cause them to withdraw and to be too fearful to participate in activities. Such behaviour and the inherent differences caused by the disability often lead to rejection, hostility and fear by peers and teachers. Further research done by (amongst many others) Hatlen (2000) and Sacks and Silberman, (2000) confirmed the above-mentioned findings by stating that learners with visual impairments often lack social competence (cited in Wagner, 2004). Social competence can be defined as a multidimensional concept that consists of a range of social skills and social capabilities that have a large impact on the individual's self-concept, assertiveness, self-esteem, and ability to accept the impairment as part of the self (Wagner, 2004) (see 2.9.8). Self competence is especially essential in the adolescent phase of the learners with visual impairments (Kirkwood, 1997).

Learners with visual impairments often lack social competence because they are unable to incidentally observe and then model non-verbal behaviours such as eye contact, facial expressions and body positions. The principal confirmed this when she stated that the learners with visual impairments are often shy to go to dances or dinners with the rest of the learners because "their table manners are lacking". They eat with their hands and this is very embarrassing for them and repulsive to some of the sighted learners. One of the learners with visual impairments said that at the special school they didn't have to be shy because everyone had the same problems; as a result they had more friends. The principal mentioned that Learner 2 sometimes bursts into tears out of frustration of her lack of a social life. It is clear that she did not know how to initiate a social encounter. After school she goes straight to the hostel for lunch and then stays in her room for the rest of the day. The peer also said that she very seldom sees Learners 1 and 2 on the playground. They are mostly in their media room during breaks. Finally, the peer said: "I don't have anything in common with them" (Ek het nie iets met hul in gemeen nie).

4.2.5 Theme 3: Curriculum

According to Soudien (2006), the curricula that we as educators follow embody what we teach (the content of the work); how we teach (what instructional methods and equipment we use); and where we teach (the physical environment of the school and classroom). (See 2.5.3)

- **Content**

With regard to the 'what' we teach, Hatlen (1996) wrote that the core curriculum should be adapted for learners with visual impairments to accommodate the unique barriers resulting from the visual impairment. These adaptations include (amongst others) orientation and mobility, social interaction skills, recreation and leisure, and career training and transition services. On this matter the principal of the mainstream school in Namibia said: "No special syllabus has been prepared for the blind learners". What she means is that the curriculum in Namibia has not been adapted to accommodate the learners with visual impairments. At the NISE-Blind, the learners had the following subjects from Grade 8 until Grade 10: Physical Science, Life Science, Mathematics, English, Afrikaans, Business Studies, History and Computer Studies. These subjects are part of the Namibian National Curriculum for Grades 8 to 10. In a Namibian mainstream school the jump from Grade 10 to Grade 11 is large, since the learners then have to start with the Cambridge Curriculum. One of the teachers who were interviewed said that the learners who came from NISE-Blind had "huge backlogs in specifically maths and science". He also said that they cannot think independently as the Cambridge Curriculum requires because they have been "spoon-fed" at the special school. This is in contrast to literature (Wagner, 2004; Kirkwood, 1997) that argued that learners with visual impairments should be specifically taught how to be independent and assertive.

As did the Mathematics teacher, the specialist teacher also mentioned that the learners with visual impairments struggled a lot with the concepts in Physical Science, but they had to take the subject. The principal mentioned that in the end, the school allowed the learners to give up Physical Science. Business Studies was offered instead. The specialist teacher still argued that subjects such as Biology and Agriculture are irrelevant to the learners with visual impairments. The learners with

visual impairments agreed to this and said it is difficult for them to take Biology and Agriculture due to the many diagrams. The specialist teacher said that they needed subjects that are future-minded and career orientated, for example Computer Studies, would be much more appropriate to their needs. Even though the learners with visual impairments had Computer Studies up to Grade 10 at the special school, the mainstream school only introduced the course in 2008. However, according to Learner 1, the Grade 12s of his year did not have Computer Studies as a subject. Zimba et al. (2006) stated that the Namibian Curriculum is geared towards the majority of the learners who are in mainstream schools. The Final Report of the National Policy on Inclusive Education (2008) also pointed to the fact that the Basic Education Broad Curriculum does not adequately address the diverse needs of all learners.

According to the principal, the fact that the curriculum has not yet been adapted has implications for assessment as well. She had approached the Directorate for National Examinations and Assessment (DNEA) to request an adapted question paper for the learners with visual impairments. At the NISE-Blind the learners wrote the same external examination paper as sighted learners in the mainstream schools. However, the principal felt that the way in which the questions are posed could be adapted, making them more descriptive, rather than giving tables, graphs and pictures. Learner 2 said that even if someone described a picture to her, she still did not grasp or make sense of it. Unfortunately, according to the principal, DNEA responded to her request by saying that they cannot adapt their papers unless NIED adapts the content of the curriculum. On this issue Soudien (2006) argued that assessment is an aspect of the curriculum, therefore a joint attempt should be made by DNEA and NIED to make the curricula (and as a result the assessment) more inclusive. With regard to assessment, The Final Report of the National Policy on Inclusive Education (2008) stated that a wide range of assessment methods should be developed to reflect the diversity of the learners and the examinations should be flexible in order to accommodate all.

It became clear from the interviews conducted that Namibia does not yet have an adapted curriculum for the learners with visual impairments. During the interviews I probed the participants to determine whether some aspects of Hatlen's (1996) core

curriculum are addressed within the standard range of teaching that takes place in the school.

Orientation and mobility

With regard to orientation and mobility, the learners with visual impairments did not receive any orientation training after arriving at the school. According to them they experienced the school as "big, noisy, and confusing". At the NISE-Blind school there was a system obliging everybody to walk on the right of the pathways, thus preventing learners from bumping into one another. At the mainstream school this is not the case. Learner 1 said: "We loved to walk around fast (at the special school), but this school slows us down". According to the learners with visual impairments they find other learners very inconsiderate and would be pushed out of the queues and bumped into. The noise on the pathways in the school makes it difficult or impossible for the learners with visual impairments to find their way. They explained to me that they use hearing to help them find their way – focusing on sounds echoing from the walls; if the echoing noise stops they know they must turn round a corner. They are thus obliged to be guided; as Learner 2 stated: "I hate it when people have to guide me". However, Learner 2 went on to say that she is fearful of walking around on her own: "the way kids walk around here … am I going to be safe?" Hatlen (1996) stated that children should be taught to move safely and independently whether they are in a known environment, or strange rural area, or busy city. Mobility training is therefore important as well as the environment in which it takes place.

Social interaction skills

Rodney (2003) stated that "social education" must be part of the curriculum when teaching learners with visual impairments. A life skills class is an ideal setting to address social issues. According to the principal, in the mainstream school they do have life skills for one period a week. The learners, however, see this period as a free home work period and do not use it effectively. The learners with visual impairments mentioned that a counsellor would have been very helpful as they often want to talk about things. Kirkwood (1997) argued that in adolescence, learners become particularly aware of the great emphasis placed on physical attractiveness in our society. A young person with a visual impairment may be anxious about their physical appearance and things like greasy hair and spots. The adolescent with a visual

impairment will therefore need clear advice on grooming and personal hygiene. Sexuality and relationships should also be openly discussed with the learners with visual impairments (Wagner, 2004). Learner 1 said that he met a girl, but all she sees is his blindness; in situations such as these he would appreciate the guidance and support of a counsellor.

Conroy (2008) stated that it is very important for learners with visual impairments to spend time with sighted peers. Vaughn et al. (2000) therefore suggested that a 'circle of friends' or a 'buddy system' is effective where learners with particular needs can support each other with particular needs. According to the principal, there is no such system in place within the mainstream school. They are of the opinion that good table manners, for example, were the responsibility of the special school to teach to the learners with visual impairments from a young age.

Recreation and Leisure

The learners with visual impairments said that they cannot take part in sport in the school as adaptations have not been made: "I would love to take part in a lot of stuff". "Nobody really knows about blind cricket. We had a choir … but it died out. I play the piano, but it is an out of school activity for which the church pays". According to Learner 1, the principal goes out of her way to try including them in social events. For example: "Today I'm performing (playing the piano) at a principals' conference". The learners also mentioned that the school library does not have any Braille books that they can read for recreation. "There are so many books that we want to read", they said. Bruce, Harrow and Obolenskaya (2007) stressed the importance of actively teaching recreational activities to the learners with visual impairment which will give them enjoyment throughout their lives. Adults with visual impairments who have hobbies receive more social support from the community in which they live. This was shown in my research. According to the principal, Learner 1 is socially more adapted than Learner 2; one reason for this can be that Learner 1 takes part in an extra-mural activity, whereas Learner 2 does not. As was stated under *orientation and mobility,* this might also have to do with the fear of Learner 2 to walk around on the school grounds and take part in activities.

Career training and transition services

The transition process from a special school to a mainstream school is an important aspect in inclusive education. The learners with visual impairment should be supported and guided throughout this process by the special school. In Namibia, the NISE-Blind met with the mainstream school to discuss the process. They then offered classes in Braille to the teachers in the mainstream school. However, the teachers mentioned that this was not really helpful – they didn't have the lessons often enough to really learn Braille. According to the principal of the mainstream school, this is as far as the special school's help with the transition process went. One of the learners with visual impairments also said that they did not receive any transition services or support from the NISE-Blind when they moved to the mainstream school. However, according to the learner, this would have been very helpful.

Hicks-Cooley and Kurtz (in Pankaskie, 2000) advised that specific support (often with the help of a TIEP) should be provided for the learners with barriers to learning when they leave school. This support should be geared towards their further studies or their job applications and maintenance. (See 2.9.1.2) Learners 1 and 2 said that they had not been given any career guidance or career-orientated support in the school. They mentioned that the University of Namibia came to visit the school to market the university programmes, but they never mentioned accommodating learners with visual impairments at the University. The principal of the school mentioned that the absence of career guidance is a big weakness in the school.

All of the above-mentioned activities, within the expanded core curriculum, link the learners with visual impairments with the outside community. Unless they are actively taught these skills, they are at risk of not being able to function productively within the community. Ajuwon and Oyinlade (2008) argued that in the absence of an expanded core curriculum, many learners with visual impairment will graduate from secondary school without the required skills and knowledge for postsecondary education, productive employment, independent living, and active community involvement. In Namibia, the curriculum has not been expanded to include the learners with visual impairments – once again a systems issue. The principal said: "When the learners with visual impairment in Grade 12 leave this school, they are not equipped to take up any career".

Returning to Soudien's (2006) definition of curriculum that was mentioned earlier, I will now look at the 'how educators teach' aspect of the curriculum, taking into account the equipment used as well as the instructional methods employed by the teachers.

- **Equipment and Instructional Methods**

Equipment

Literature makes it clear that learners who are blind will need a variety of specialised equipment (or assistive devices) in order to help them access the curriculum. Examples of the equipment were described in 2.9.1.1 and include the Mountbatten Brailler, the Braille 'n Speak, an Optacon Scanner, and computer software like Jaws for Windows (Vaughn et al., 2000; Hardman et al., 2005). At the NISE-Blind in Namibia they use Braillers, CCTVs, TV readers, Jaws and Zoom Text Programmes, and the Duxbury Braille Translator software (Fransman, personal communication, September, 8, 2009).

In a letter written to the Ministry of Education in Namibia in June 2006, the principal of the mainstream school requested: a second Jaws license (the school received one, but it was out of order); Braille paper for the use of the learners; Braille paper for the printer; embosser paper; a third Braille type-writer to keep as standby; electricity channels for the electronic equipment; blinds for the media centre where all the equipment can be installed; burglar bars for the media centre; and curtains (some learners with visual impairments are very sensitive to light). Of the equipment requested, the school received the Braille and embosser paper. They did not receive the blinds or curtains and no electricity channels were installed. The third Braille type-writer was bought out of the school budget. In the same letter, the principal requested the engagement of a specialist teacher to Braille all the notes for the learners with visual impairments and then de-Braille their work. This specialist teacher should act as a guardian for the learners with visual impairments and assist them in their daily tasks and problems. In January 2007, the Ministry of Education assigned such a teacher to the school. However, in another letter dated 8 December 2007, the principal wrote that the specialist teacher is seldom at the school; she has to do all the Brailing work either at the NISE-Blind school or at the Service Centre or at the University of Namibia. The support system that the learners were used to and

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trained to use in the special school does therefore not exist in the mainstream secondary school.

In February 2008, the principal wrote another letter to the Ministry of Education requesting the following: Equipment to enable the learners who are blind to record and replay the lessons; special equipment to assist the learners with low vision in the classrooms such as TV readers; talking calculators (crammer abacus); a scanner to scan all the text books and notes for Brailing; a computer supplied with an internet connection (a great deal of assistance is available for learners with visual impairments on the internet); an English Bible in Braille or audio; any reading materials in Braille – story books, magazines; study materials. Of the above-mentioned equipment requested, the school received 4 TV readers. They did not receive anything else. My observations of the media room of the learners with visual impairments revealed the following: very light blinds; a scanner and four computers, one with a software program called Duxbury Braille Translator. This device changes normal print and pictures into Braille and is very fast and effective. I also saw a Tiger printer (used to print Braille) that was out of order and a Fuse Heater that is used to emboss pictures. There was a file of embossed pictures and two magnifiers in the cupboard. Finally, I observed four TV readers used to enlarge print for learners with low vision. This shows that the school has some equipment, but it is not sufficient for the needs of all the learners with visual impairments in the school.

One teacher mentioned that of the 13 learners with visual impairments in his class, only three learners have CCTVs that they work on. The other teacher said that the learners who do Higher Levels or the learners with the very low vision usually get a CCTV to work on. Both teachers mentioned several times that the school needs more equipment, aids and resources to make inclusion a reality for the learners with visual impairments.

Instructional Methods
In her letter dated December 2007, the principal of the school wrote that Braille textbooks in only three subjects had been received. According to the learners with visual impairments, this is why they failed Grade 12 and had to come back in 2008 to repeat the year. Things were still not in place when they returned in 2008. In their

words: "We could study if things were in place, but we didn't get our notes on time (for the exams in 2008)". "Everyone is studying; they cannot help by reading summaries so that I can Braille it. I have to wait for John who has low vision. He reads it to me in off periods". "All of this is very stressful". "Brailing takes a lot of time. Some of the notes that we receive are brailed, but others we have to do ourselves".

Literature stated that within the classrooms, teachers have to make adaptations such as using contrasts and different colours; providing additional or reduced lighting (depending on the type of visual impairment); allowing learners to sit in the front rows of the class; providing them with enlarged or Brailed notes, or notes with increased spacing between letters; installing different working stations in the class where the learners can type, rather than write and make use of auditory learning (using a tape recorder); and providing them with extra time (Heller et al., 1996; Cox & Dykes, 2001; McLeish, 2007).

The teachers who were interviewed mentioned that they "carry on as normal". In other words, they do not make sufficient adaptations for the learners with visual impairments. According to them this is partly because they do not know how and partly because they have limited time. One teacher, however, mentioned that she used a tape recorder to allow the learners with visual impairments to listen to the literature on tape, since they did not have the literature books in Braille. The other teacher said that when he worked slower to accommodate the learners with visual impairments, the other learners would get irritated at the situation.

The principal of the school also said that adaptations to the teaching methods were seldom made in the classrooms for the learners with visual impairments. Beside examinations, the learners with visual impairments did not receive extra time in tests etc. The learners with visual impairments said that they seldom wrote tests in the school because they weren't brailed for them. This made the exams more difficult. They also mentioned that the teachers didn't explain pictures well to them; neither did they emboss the pictures for them. Learners 1 and 2 said that many teachers cannot really pay much attention to them; there are just too many other learners that demanded attention.

Westling and Fox (2005) wrote of the importance of setting up Individual Education Programs (IEPs) for learners who experience barriers to learning, such as learners with visual impairments. These IEPs must include the present level of the learner's performance as well as goals and short term objectives. It must include the support services as well as the supplementary aids and modifications needed by each learner and the extent to which the learner will be able participate with other learners in the mainstream class. No IEPs were set up for the learners with visual impairments in the Namibian mainstream secondary school.

Up to this point I have discussed 2 main aspects of the curriculum: content, and equipment and instructional methods. I will now discuss the third 'where we teach' aspect, focusing on the physical environment of the school and classroom.

- **Physical Environment**

According to the principal, the learners with visual impairments were physically in the class with the rest of the mainstream learners. They followed the regular range of periods as the others. The principal suggested in a letter to the Ministry of Education in December 2007 that the learners with visual impairments should be separated from the other learners and placed in a different class. A few "volunteers" from the rest of the learners in the class would be asked to join them. The class would then have approximately 16 learners. This suggestion was not accepted. With regard to this placement matter of learners with visual impairments, some authors (for example Lewis, 1994 and Dominguez, 1994), argued that the complex learning needs of learners with visual impairments are best met when they have an array of placement options to choose from. This "array of options" ranges from (what is referred to as) a least restrictive to a most restrictive environment. Placement therefore depends on the developmental period or specific needs of the learner and should be flexible. Throughout their schooling, there may be times when they will be withdrawn from the regular classroom for a period or two each week (to receive specific instruction such as career training or counselling), or when they will be placed in a special class for a few months to a year depending on their needs. They might also attend enrichment programs offered by the special schools.

The approach followed by the school that participated in my study differs from that followed in countries such as the UK, Denmark and the USA. These countries follow the above-mentioned flexible education system (see 2.10). The principal in this study mentioned that the learners with visual impairments are in the class with the rest of their peers for the whole day. It is only during Computer Studies that they are taken by the specialist teacher to their media room where they can practice their computer skills. Other than that, no support program is offered to the learners during or after school hours.

With regard to the physical environment of the school grounds, the principal and the learners with visual impairments said that it is not really "blind friendly". There are a lot of stairs since it is a building with three stories. In one part of the school, the windows open towards the corridor resulting in the learners with visual impairments often bumping their heads if they are not warned. The principal also said that the waste bins that were attached to the poles faced the inside of the corridor. These had to be moved around to face the outside. Learners 1 and 2 also mentioned that there are too many poles and trees on the school grounds and the pavements are uneven which make it difficult to walk. At the special school, the sides of the pavements were made of different types of course bricks to warn the learners when they were getting near to the sides of the pavement. Learner 1 said that the people in the mainstream school are very careless; they would leave things such as bookcases lying around. The learners with visual impairments would then often trip. The teachers mentioned that the physical environments of the classrooms are also not inclusive for learners with visual impairments. The two examples they gave were that the classes are too light with no blinds and that the black boards are too small. They have to write big enough so that the learners with low vision can see what is written, but then the amount of work that can be written on the board at a time is greatly reduced. According to them, this is very frustrating for learners who want to work at a faster pace in order to get more done.

4.3   CONCLUSION

Within this chapter the research findings were portrayed and discussed around three themes: support and collaboration; school culture; and curriculum. The themes were

further divided into categories to make for a more coherent understanding and clearer display of the findings. In the next chapter the focus will fall on the concluding remarks, recommendations and implications for future research, and finally strengths and limitations related to the study.

CHAPTER 5

CONCLUDING REMARKS AND RECOMMENDATIONS

5.1   INTRODUCTION

As was mentioned before, this research enquiry explored how learners with visual impairments are included within a Namibian mainstream secondary school. The research findings suggested that the learners with visual impairments were integrated but not fully included in the mainstream school at the time of the research.

This chapter will present concluding remarks on the main findings of the research, discuss recommendations, reveal limitations and strengths of the study, and formulate suggestions for further research. The chapter will close with the researcher's final reflections.

5.2   CONCLUDING REMARKS

Namibia was one of the countries that signed the Salamanca Statement on Principles and Practice in Special Needs Education (UNESCO, 1994), as well as the Convention on the Rights of Persons with Disabilities at the end of 2006 (Väyrynen, 2008) thereby committing itself to the movement towards quality and equality in education for all, in other words, inclusive education (UNESCO, 1994). Inclusive education is a complex notion because it calls for the school system in all its facets, (content, culture, approaches, structures, curriculum, buildings, assessments, staffing, extra-curricular activities, and school philosophy and ethos) as well as policies on a national level, to be transformed along the principles of inclusion, in order to allow for an increasing participation of all learners. These principles include respect for diversity, equal opportunity and full participation for all learners. An important viewpoint on inclusive education is to support learners in a way that takes into account their individual needs. This support takes place in a least restrictive environment that ranges from full time placement in a special school to part time placement in a

mainstream school to full time support in a mainstream school (Lewis, 1994; Dominguez, 1994; Hatlen; LaVenture in Ajuwon & Oyinlade, 2008). In Namibia, the long term goal for inclusive education is to redesign and rename special schools so that they can broaden their curriculum to include all kinds of impairments (Väyrynen, 2008).

After signing the Salamanca Statement, Namibia started to develop policies in order to set the movement towards inclusive education into motion. However, Zimba et al. (2006) stated that the legislation on inclusion in Namibia does not provide clear and practical guidelines on how to implement it. In 2005 the mainstream secondary school that participated in this study agreed to the Ministry of Education's request to include learners with visual impairments in the mainstream school. I designated this mainstream school as the case study of my research and visited the school on a few occasions, asking the participants questions concerning the practical implementation of inclusion in the school. The questions addressed the above-mentioned facets of a school that need to be transformed in order to truly embrace inclusion. The data gathered from the participants was categorized into three themes: (1) support and collaboration; (2) school culture; (3) curriculum.

With regard to support and collaboration, it was found that due to (amongst other reasons) perceived disagreements concerning budgeting for inclusive education between the Directorate of Programs and Quality Assurance and Basic Education, the school did not receive all the resources that it needed. Not having books or adequate equipment left the learners with visual impairments and the teachers very frustrated. It was found, however, that the special school (NISE-Blind) provided their support and services to the mainstream school where it was needed. Unfortunately, the mainstream school did not have the support of and collaboration with a multi-professional team, nor did the teachers have support in the form of a teacher-support-team within the school. The community surrounding the school was, to a large extent, unengaged in the process of inclusion and needed to be made aware of the needs of the learners with visual impairments. Finally, the parents of the learners with visual impairments were uninvolved in their children's schooling and were unaware of the important role that they should play in supporting the teachers to make inclusion a

reality for their children. The parents were also unaware of the rights to education of their children.

Concerning the school culture, it was found that the inherent belief that the sighted individuals within the school had about the non-sighted individuals was that the non-sighted individuals are different and therefore do not belong in the mainstream school. The findings also revealed that values of equality and non-discrimination were not put into action within the school. It came to view that (besides the principal and one or two teachers who were very helpful and caring) many of the learners and teachers had negative attitudes towards the learners with visual impairments. There were also many stereotypes surrounding the learners with visual impairments. One of the main reasons for this culture of exclusion, that seemed to be reigning in the school, appeared to be a lack of knowledge and information on what inclusive education is as well as the reasons for it. Another possible reason for exclusion as revealed by the data was that the learners with visual impairments had limited social competency skills and did not know how to make friends and communicate effectively. Ways to transform this culture of exclusion to one of inclusion (reculturing) would be to orientate, inform and train the school population with regards to inclusive education. Teachers should also model a respect for diversity, and the values of inclusion should be put into print and should be practised in the school. Finally, the learners with visual impairments should be actively trained with regards to social skills, including how to be assertive and how to make friends.

With regard to curricula, Zimba et al. 2006 stated that the Namibian Curriculum is geared towards the majority of learners who are in mainstream schools. The Final Report of the National Policy on Inclusive Education (2008) also pointed to the fact that the Basic Education Broad Curriculum does not adequately address the diverse needs of all learners. Namibia also does not have an expanded core-curriculum for learners with visual impairment as set out by Hatlen (1996). This came out very clearly in the interviews. There was no orientation and mobility training in the school or any career and transition training for the learners with visual impairments. They did not receive instruction in social or daily living skills and with regard to leisure and recreation, the sport was not adapted for them. There were also no books in the library for these learners to read.

Concerning equipment and instructional methods it was found (both from the interviews and observation) that the school received some specialized equipment, but it was not sufficient to support the needs of all the learners with visual impairments. Within the classes, the teachers did not adapt their teaching methods in order to include the learners with visual impairments, primarily because they did not know how. With the exception of Computer Studies, the learners with visual impairments attended all their classes with the other learners. They did not receive extra enrichment classes to teach them impairment specific skills or to give them training with regard to careers. The specialist teacher brailed and de-brailed their notes and would go into the classes and sit next to the learners with visual impairments to re-explain the work to them. She also supported the teachers by giving them advice on how to teach the learners with visual impairments.

Finally, the findings revealed that the physical environment of the school was not well laid out to accommodate learners with visual impairments. Uneven pavements, too many trees and poles, as well as too low windows were a few examples given by the participants on this matter. They also said that the sighted learners would leave their bags lying around; the learners with visual impairments would then often trip. The teachers also mentioned that the classrooms were not 'blind friendly'. Learners with visual impairments have different disorders and therefore need different support and adaptations. There were no blinds and therefore the classrooms were too light. The blackboards were too small and therefore not enough space for large print.

Even though Namibia has adopted the notion of inclusive education and has started to include learners with visual impairment in a mainstream school, it appears from the findings of this research that the country still has a long way to go. The mainstream school is in need of practical help in the form of resources and training. Without this happening, the learners will just remain (in the words of a participant) "'spectators' in the classroom".

The findings tie in with the theoretical framework of this study which is the bio-ecological model of Bronfenbrenner (in Swart & Pettipher, 2005). This is because the data that was gathered came from a variety of systems within the context of the

school. The findings also showed that the difficulties in the school with regard to including learners with visual impairments do not lie solely in the individual (although person factors are taken into account). Rather the difficulties in the school are caused by a breakdown in and negative influences between the different systems of the school society resulting in 'barriers to learning' (Swart & Pettipher, 2005). The education system should consider a number of issues that relate directly to their decisions and insufficient planning. As a result, a comprehensive restructuring is needed on all the different levels within the education system in order to make inclusive education a reality.

5.3   RECOMMENDATIONS

Namibia is still in the beginning phase of implementing inclusive education. Since inclusion is a process and not a destination, it can be expected that there will be a lot of barriers and challenges to overcome along the way. The recommendations that will be provided should therefore not be seen as a critique of things that are lacking; rather it should be seen as encouragement and guidance of how to move forward. It should also be taken into account that this study is limited to visual impairment and a very specific context as example.

The training of teachers, at the university and college level, but also in-service training for current teachers will provide needed resources and tools on how to best include the learners with visual impairments in their classrooms. In this study, the specialist teacher gave the teachers some advice; however, it seemed that before the teachers could value and apply this information, they needed the background on inclusive education. A thorough understanding of what inclusive education encompasses and its values can also help the teachers to model a respect for and a celebration of diversity within their classrooms. Establishing teacher-support-teams in the school might offer the teachers a safe haven where they can express their frustrations, but also receive encouragement and guidance (Hall et al., 1999). The teachers must understand that implementing inclusion is a process that can best be learnt in practice. However, they will need support on different levels to help them make inclusive education a reality.

Not only should the teachers be trained and made aware of inclusion, but so should the learners within the school. A vision and mission statement that embraces inclusion and that is put up in a place where all can see it, will remind the learners daily of the values of inclusive education. These values (equality, non-discrimination, and respect for diversity) should also be practiced by the learners. Examples of ways to do this are through a buddy system or a circle of friends group. Co-operative learning groups within the class are also helpful. The learners with visual impairments should be provided with plenty of opportunities within the class to show their strengths, and in this way they are the helpers, rather than always being 'the helped' (Vaughn et al., 2000).

It is important that the different directorates within the Ministry of Education work together as a team. A closer connection and clear communication between the Ministry of Education at the top, and the school at the ground level would also be conducive to inclusive education. In this way, misunderstandings would be reduced to a minimum and the school would feel that it is a priority of the Ministry. It is important that the policies set up with regard to inclusive education be geared towards providing practical guidelines for the school on how to implement the theory in practical ways. Collaboration between different professionals within the community and the school can also enhance the implementation of inclusion and might help to overcome many of the barriers faced by the school. A counsellor and a nurse within the school may further help to enhance the social inclusion of the learners as well as their physical well-being. In this way, the focus is on the whole child – emotionally, socially, physically, and academically.

Actively involving the parents of the learners with visual impairments in the school can also be very helpful for the teachers and the learners. This is because parents are experts with regard to their own children and their insights and support will be very valuable and can contribute to a more successful and balanced implementation of inclusive education (Swart, 2004). Parents should also be taught about their children's rights to education (Engelbrecht, Oswald, Swart, Kitching, & Eloff, 2005) and should be supported to make informed decisions with regard to their child's placement in a least restrictive environment.

Providing the learners with visual impairments with the option of entering the mainstream secondary school in Grade 8, might also enhance the inclusion and transition process. The sighted learners can then be taught from the time that they enter the school in Grade 8 that diversity should be celebrated and that all are equal. It might also provide the learners with visual impairments with the opportunity to make friends that will last throughout their secondary school experience. Being included from Grade 8 to Grade 12 can provide the learners with visual impairments ample time to develop their social competency and social interaction skills. The special school should however play a major role in preparing them for social adjustment.

Finally, as Namibia progresses on this road of inclusive education, it should be considered to include learners with visual impairments in the mainstream school during their primary years as well. However, as was mentioned in the literature review, it is often advised that learners, who first enter school, spend the first two years in a specialized environment where they will receive specialized teachings on reading and writing Braille and other disability specific skills.

5.4   LIMITATIONS OF THE STUDY

This study has certain limitations that need addressing in future research. The first limitation has to do with data collection. Being a non-participant observer within the classrooms and at the hostel would have helped me to gather first hand information on the methods of teaching, adaptations made, and social interactions. Rather, this data was gathered from the learners with visual impairments, the teachers, the specialist teacher, and the principal.

Another limitation is that the researcher only interviewed learners who are completely blind, not learners who are partially sighted. Therefore, I did not gather a variety of information concerning the inclusion of learners with visual impairments. This data was actually collected from teachers, the principal and the specialist teacher. Because of the limited scope of the study, I also did not interview a large number of participants. This would have provided for a comprehensive study of the unit of

analysis. Even though qualitative research claims that in-depth information can be gathered from a small group of participants, larger groups increase the transferability of the research findings.

A third limitation is the fact that I interviewed the parents of the learners with visual impairments telephonically. This, however, was a judgement call due to the fact that the learners' parents live very far away. I was therefore not able to observe their body language and facial expressions during the interview. However, I am of the opinion that I received the information that I seeked to answer the research question.

A final limitation was that there was not another person involved in the data analysis and coding. This would have added to the reliability of the study.

5.5   STRENGTHS OF THE STUDY

The participants in the study provided valuable information and insight into what inclusion looks like in practice in a Namibian mainstream school. This study has provided the participants with the opportunity to express their fears and frustrations of, as well as their hopes and dreams for inclusive education. Through this study the researcher was able to identify areas where improvements still need to be made and was therefore able to make useful recommendations for the key role players in the implementation of inclusive education. The recommendations involve ways to improve school environments, teacher efficiency, peer support, and the overall well-being of the learners. The study also highlighted the important role that the community can play in inclusion and therefore it emphasizes collaboration and the changing and addressing of the attitudes of the whole community towards inclusive education. The final strength of the study is that it gathered in-depth and first-hand information from those directly influenced by and involved in the process of inclusion. This enhanced the trustworthiness of the study.

5.6   FURTHER RESEARCH POSSIBILITIES

Further research can be done within a special school to investigate all the different ways in which they teach the learners with visual impairments. This can provide useful insight into the adaptations and specialized equipment needed by the learners with visual impairments.

A research study can also be done focusing mainly on the social inclusion of the learners with visual impairments. The learners are often physically present in the school, but socially they are excluded and often invisible.

A further study can be conducted using learners with a variety of different visual impairments and the many different ways of including all of these learners.

The important role that an educational psychologist can play in inclusive education can also be investigated.

Finally, a study can be conducted on the important role that parents can play in inclusion, focussing on all the things that they can do practically to help make inclusive education a reality.

5.7   REFLECTION

Through this research study I learnt that including learners with visual impairments in a mainstream school is a process, a journey, with many obstacles along the way. These obstacles often cause those intimately involved in the process to become disheartened and discouraged. The fear of the unknown also causes many to back out before the process has even started. However, I learnt that inclusive education CAN work if every role player does his part, if we're not afraid to take risks, if we make others aware of inclusion and equip ourselves with knowledge, if we listen to the voices of those with the impairments (they are the experts after all), and if we keep our ideals high, but our feet on the ground. As a novice Educational Psychologist in

Namibia, I look forward to doing my part in order to make inclusive education a reality.

5.8   CONCLUSION

In this final chapter, I drew the different parts of the study to a conclusive whole; I revealed the limitations and strengths of the study and discussed further research possibilities. I ended this chapter with some final reflections on the process of including learners with visual impairments in a Namibian mainstream school.

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ADDENDUM A

Semi- structured Interview Schedule: Specialist Teacher

1. You came from the School for Visually Impaired Learners, what is your role in the mainstream school?

2. What role does the special school play in the inclusion of learners with visual impairments?

3. What (if any) adaptations are made to the curriculum in order to accommodate these learners?

4. What specialized equipment is available?

5. How are the learners supported within the class?

6. What are your thoughts on the concept "array of options"? (That is, placing learners from a least to a most restrictive environment, depending on the severity of their disability).

7. Did the learners go through an orientation program on arrival at the school?

8. Do you think inclusion is a reality within the school at the moment?

Semi-structured Interview Schedule: Parents of learners with visual impairments

1. Do you know what the meaning is of the concept "inclusive education"? (*If they don't, explain to them in simple language*).

2. How do you feel about your child's schooling at the Higher Technical School?

3. What support does your child receive in the school?

4. Do you think that your child could perform better academically if he/she received more support in the school? Why do you say that?

5. What support do you receive from the external community?

6. What do you think can the school do differently in order to better support and accommodate your child?

7. What is the school doing that works well?

8. What are the teachers' attitudes towards you?

9. Do you feel that you can easily and freely approach the principal and teachers if you have requests or questions? How often do you approach them?

10. What contribution (if any) do you make to your child's schooling?

Semi- structured Interview Schedule: The peer

This interview was conducted in Afrikaans, since this is the home language of the learner.

1. Beskryf vir my jou houding en gevoelens teenoor die leerders wat blind is.

2. Hoekom het jy die bepaalde gevoelens/houding teenoor hul?

3. Watter (indien enige) stereotiepes het jy aangaande die leerders wat blind is?

4. Kry jy hul soms jammer? Hoekom?

5. Is jy soms onseker oor hoe om teenoor hul oop te tree?

6. Kan jy voorbeelde noem waar jy gesien het hoe ander leerders negatief optree teenoor die leerders wat blind is?

7. Kan jy voorbeelde noem waar jy gesien het hoe ander leerders positief optree teenoor die leerders wat blind is?

8. Is jy ongemaklik in die teenwoordigheid van 'n leerder wat blind is? Hoekom of hoekom nie?

9. Dink jy daar is 'n kultuur van aanvaarding teenoor die leerders wat blind is in die skool? Aanvaar jy hul?

10. Word die kinders wat blind is ingetrek by die sosiale en sport aktiwiteite van die skool? Kan jy voorbeelde noem?

11. Hoe tree die onderwysers teenoor die kinders wat blind is op? Hoekom sê jy so?

12. Dink jy die kinders word waarlik ingesluit in die skool? Hoekom of hoekom nie?

13. Wat dink jy moet verander om hul waarlik in te sluit?

Semi- structured Interview Schedule: Learners with Visual Impairments

1.   Tell me about your experiences in the mainstream school.

2.   Did you go through an orientation program when you arrived in order to familiarize yourself with the physical surroundings as well as some of the other aspects of the school? Tell me about the process.

3.   Which (if any) structures were in place when you arrived in order to support you in the school?

4.   What are the attitudes of your peers towards you?

5.   What are the attitudes of the teachers towards you?

6.   What physical activities/sport are you involved in?

7.   In the class, how are you supported?

8.   How are you helped to access the curriculum?

9.   Do you receive career guidance and training?

10.   Tell me about the assessment of your work.

11.   What specialized equipment is available for you to use?

12.   Is there a counsellor in the school to whom you can talk?

13.   How "visually-impaired-friendly" is the external environment of the school?

What do you find helpful and what would you like to change?

Semi- structured Interview Schedule: The Principal

1. What is your attitude towards the whole notion of Inclusive Education?

2. What was your attitude initially towards the learners with visual impairments?

3. How did it come about that the Higher Technical School (HTS) was chosen as part of the Ministry of Education's inclusion project?

4. Will you please take me through the process of placing the learners with visual impairments in the school?

5. What support has the Ministry of Education provided? (Please make reference to the letters that you've written and the replies you've received).

6. Within the classrooms, what alternative teaching, learning and assistive devices/methods are used?

7. How has the curriculum been adapted? And with regards to career guidance?

8. Does the school have a vision and a mission statement that promotes inclusion? What does it say?

9. Do you have enough human resources to deal with the learners with visual impairments? Please elaborate on this.

10. How has the school building and the physical aspects of the school been adapted?

11. What stereotypes and prejudices (if any) exist in the school towards learners with visual impairments that you know of?

12. What role does the external community (parents, businesses, organizations, universities) play in the inclusion of the learners?

13. What role does the School for Visually Impaired Learners play in the inclusion of the learners?

14. Have the teachers at the school received any training with regard to working with learners with visual impairments?

15. What support do the teachers receive? (Are there teacher-support-teams in the school of district-support-teams?)

16. What do you think are the attitudes of the teachers towards learners with visual impairments? Why do you say that?

17. Are other professionals involved in the inclusion of the learners? (For example occupational therapists, speech therapists, counsellors, and an orientation-mobility trainer?)

18. Do you think that the different governmental departments and/or the different wings within the Ministry of Education collaborate and work together?

Semi-structured Interview Shedule: Teachers

1. Tell me about the inclusion of the learners with visual impairments in your school.

2. What training have you received with regard to including learners with visual impairments?

3. What support do you receive while teaching the learners with visual impairment?

4. What alternative teaching methods do you use to include the learners with visual impairment?

5. How do you support the learners with visual impairments to help them access the curriculum?

6. Do the learners with visual impairments use any specialised equipment in your classroom? What type of specialised equipment do they use?

7. How do you adapt the content of the curriculum for the learners with visual impairments?

8. What are your attitudes towards the learners with visual impairments?

9. How do you adapt your assessment for the learners with visual impairments?

10. What did you learn from the whole process of inclusion?

11. What is difficult for you?

12. What is the physical environment of the classroom like? Do you think it is inclusive? Why or why not?

13. How do the learners with visual impairments adapt socially and academically to the mainstream environment?

14. What can you recommend in order to improve the process of inclusion of learners with visual impairments.

ADDENDUM B

A section of a transcribed interview between the researcher and the two learners with visual impairment:

Researcher (R): What are the attitudes of the teachers towards you?

Learner 1 (L1): They are friendly and want to help, but they don't know how.

Learner 2 (L2): I asked a teacher to help, she said she wants to, but doesn't know how, because she's never been trained.

Learner 1 (L1): There are a lot of kids in the class; they can't pay attention to all of us.

R: How are you supported in the class?

L1: Teachers make summaries, but do not Braille them, my friends must read it to me so that I can Braille it.

L1: The Braille printer broke and we had to do a lot of things ourselves.

L2: We didn't write tests during the year because the teachers didn't Braille the tests. This made it more difficult in the exams.

L2: They don't explain pictures well, even if someone explains I can't get a picture in my mind. It doesn't make sense. The teachers only emboss pictures in the exams, not in class.

R: Do you partake in sport and other activities.

L1: Not yet, but I would love to take part in a lot of stuff…nobody really knows about blind cricket…we had a choir but it died out. It took piano lessons outside the school…the church support me.

R: What is the physical environment of the school like?

L2: There are too many poles and trees and the pavement go up and down.

L1: We often bump into things because the children are very careless in leaving things lying around.

L1: At the special school we loved to walk around fast, this school slows us down.

L2: Yes, at the blind school on the pavement you were warned when you're going to touch the ground because there are rough bricks on the edges. Here I have a fear to go on my own. The way kids walk around…am I going to be safe?

ADDENDUM C

Observation Schedule of the work room for the learners with visual impairments

Date:	
Observer:	
Name of School:	
Position/Place of work room:	
Size of work room:	
Lighting in the room:	
Noise levels inside the room:	
Noise levels outside the room:	
Types and numbers of assistive devices and materials:	
Condition (whether it is working effectively/not at all) of the equipment:	
Number of learners in the room:	
Learner activity:	
Adaptations made for the learners:	
Teacher activity:	

Seating in the room:	

ADDENDUM D

8 September 2009

Tel.: 021 - 808-2687
Enquiries: Sidney Engelbrecht
Email: sidney@sun.ac.za

Reference No. 215/2009

Ms T-M Zulch
Department of Educational Psycology
University of Stellenbosch
STELLENBOSCH
7602

Ms T-M Zulch

APPLICATION FOR ETHICAL CLEARANCE

With regards to your application, I would like to inform you that the project, *Investigating the inclusion of learners with visual impairments within a Namibian mainstream secondary school*, has been approved on condition that:

1. The researcher/s remain within the procedures and protocols indicated in the proposal;
2. The researcher/s stay within the boundaries of applicable national legislation, institutional guidelines, and applicable standards of scientific rigor that are followed within this field of study and that
3. Any substantive changes to this research project should be brought to the attention of the Ethics Committee with a view to obtain ethical clearance for it.
4. The researcher will implement the foregoing suggestions to lower the ethical risk associated with the research.

We wish you success with your research activities.

Best regards

MRS. MALÉNE FOUCHÉ
Manager: Research Support

ADDENDUM E

(*Weens die aard van die deelnemers se gestremdheid word herdie vorm mondeling en stap-vir-stap in samewerking met die onderwyser wat daagliks met hul werk met elke individuele deelnemer deurgewerk voor die onderhoud.*)

Investigating the inclusion of learners with visual impairments within a Namibian mainstream secondary school.

Learners with visual impairments

Jy word gevra om deel te neem aan 'n navorsingstudie uitgevoer te word deur *Tanya-May Zulch M Ed Psig* learner van die Departement vir Opvoedkundige Sielkunde aan die Universiteit Stellenbosch. Die resultate sal deel word van 'n tesis vir die M Ed Psig graad. Jy is as moontlike deelnemer aan die studie gekies omdat jy een van die kinders is wat as deel van die regering se inklusiewe onderwysprojek oorgeplaas is in 'n hoofstroomskool.

1. DOEL VAN DIE STUDIE

Die doel van die studie is om na te vors hoe leerders wat blind is ingesluit word in 'n hoofstroomskool.

2. PROSEDURES

Indien jy inwillig om aan die studie deel te neem, sal jy versoek word om die volgende te doen:

Vrae beantwoord oor jou ervaring in die nuwe hoërskool. Jy sal ook versoek word om enige ander materiaal (soos bv briewe, prente, fotos, dokumente) wat kan verduidelik wat jou ervaring is beskikbaar te stel. 'n Minimum van 1 onderhoud sal gehou word en die plek waar dit sal geskied sal vooraf met jou gereël word.

3. MOONTLIKE RISIKO'S EN ONGEMAKLIKHEID

Daar word van jou verwag om oop en eerlik te wees. Dit mag dus soms ongemaklik wees om te praat oor dinge wat vir jou as gesigsgestremde ongemaklik is

4. MOONTLIKE VOORDELE VIR DIE SAMELEWING

Jy kan deur jou deelname bydra tot 'n beter verstaan van hoe effektief die oorplasing vanaf 'n skool vir gesigsgestremdes na 'n hoofstroomskool in Graad 10 is. Inklusie gaan nie net daaroor dat die kind in die gewone klaskamer geplaas word nie; daar is baie aspekte wat na gekyk moet word, baie aanpassings wat gemaak moet word. Jy kan raad gee hoe om hierdie proses vir ander kinders met gesiggestremdheid makliker te maak.

5. VERGOEDING VIR DEELNAME

Daar sal geen direkte vergoeding vir deelname wees nie.

6. VERTROULIKHEID

Enige inligting wat jy met my sal deel sal vertroulik bly en slegs met jou toestemming bekend gemaak word of soos deur die wet vereis. Ek sal skuilname gebruik wanneer ek die inligting verwerk en die bevindinge sorgvuldig beskryf sodat jy nie geïdentifiseer kan word nie. Jy moet egter in ag neem dat jou klasonderwyser jou goed ken en moontlik sal kan aflei uit die

data wie wat gesê het. Ek sal die inligting op 'n veilige plek bewaar. Net ek en my studieleier sal toegang hê tot inligting wat jou besonderhede op het.

7. DEELNAME EN ONTTREKKING

Jykan self besluit of jy aan die studie wil deelneem of nie. Indien jy vrae het kan jy my self vra. Indien jy inwillig om aan die studie deel te neem, kan jy te enige tyd daaraan onttrek sonder enige nadelige gevolge. Jy kan ook weier om op bepaalde vrae te antwoord, maar steeds aan die studie deelneem. Ek kan jou aan die studie onttrek indien omstandighede dit noodsaaklik maak.

8. IDENTIFIKASIE VAN ONDERSOEKERS

Indien jy enige vrae of besorgdheid omtrent die navorsing het, kan jy my kontak
Tanya-May Zulch.
Selnommer: 0813554646.
My epos adres is tzulch@wis.edu.na
My huisadres is:
Luisenhof 15
John Ya Otto Straat
Avis
Windhoek

My studieleier se kontakbesonderhede is:
Prof Estelle Swart
Departement Opvoedkunkundige Sielkunde
Stellenbosch Universiteit
Privaatsak X1
Matieland
7602

+27 21 808 2305/6 (kantoor)
estelle@sun.ac.za

9. REGTE VAN Deelnemers

Jy kan te eniger tyd u inwilliging terugtrek en jou deelname beëindig, sonder enige nadelige gevolge. Deur deel te neem aan die navorsing doen jy geensins afstand van enige wetlike regte, eise of regsmiddel nie. Indien jy vrae het oor jou regte as deelnemer by navorsing, skakel met Me Malene Fouche (mfouche@sun.ac.za; 021 808 4622) van die Afdeling Navorsingsontwikkeling.

VERKLARING DEUR DEELNEMEROF SY/HAAR REGSVERTEENWOORDIGER

Die bostaande inligting is aan my, [*naam van deelnemer*], gegee en verduidelik deur *Tanya-May Zulch* in *Afrikaans/Engels* en *ek is//die deelnemer is*] dié taal magtig. *Ek/die deelneme* is die geleentheid gebied om vrae te stel en my/sy/haar vrae is tot my/sy/haar bevrediging beantwoord.

[*Ek willig hiermee vrywillig in om deel te neem aan die studie/Ek gee hiermee my toestemming dat die proefpersoon/deelnemer aan die studie mag deelneem.*] 'n Afskrif van hierdie vorm is aan my gegee.

_____

Naam van deelnemer

_____   _____

Handtekening van deelnemer of regsverteenwoordiger   **Datum**

VERKLARING DEUR ONDERSOEKER

Ek verklaar dat ek die inligting in hierdie dokument vervat verduidelik het aan [*naam van die deelnemer*] en/of sy/haar regsverteenwoordiger [*naam van die regsverteenwoordiger*]. Hy/sy is aangemoedig en oorgenoeg tyd gegee om vrae aan my te stel. Dié gesprek is in *Afrikaans* gevoer en *geen vertaler is gebruik nie.*

_____   _____

Handtekening van ondersoeker   **Datum**

ADDENDUM F

Investigating the inclusion of learners with visual impairments within a Namibian mainstream secondary school.

OUERS

U word gevra om **toestemming te gee** dat u kind mag deelneem aan 'n navorsingstudie deur *Tanya-May Zulch M Ed Psig* learner van die Departement vir Opvoedkundige Sielkunde aan die Universiteit Stellenbosch. U kind is as moontlike deelnemer gekies omdat hy/sy een van die kinders is wat as deel van die regering se inklusiewe onderwysprojek oorgeplaas is in 'n hoofstroomskool.

10. DOEL VAN DIE STUDIE

Die doel van die studie is om na te vors hoe leerders wat blind is ingesluit word in 'n hoofstroomskool.

11. PROSEDURES

Indien u toestemming gee en indien u kind inwillig om aan die studie deel te neem, sal hy/sy versoek word om die volgende te doen:

Vrae beantwoord oor sy/haar skoolervarings. 'n Minimum van 1 onderhoud sal by die skool geskied.

12. MOONTLIKE RISIKO'S EN ONGEMAKLIKHEID

Daar word van u kind verwag om oop en eerlik te wees. Dit mag dus soms ongemaklik vir u kind wees om oor kwessies aangaande sy/haar gestremdheid te praat.

13. MOONTLIKE VOORDELE VIR DIE SAMELEWING

U kind kan deur sy/haar deelname bydra tot 'n beter verstaan van hoe effektief die oorplasing vanaf 'n skool vir gesigsgestremdes na 'n hoofstroomskool in Graad 11 is. Inklusie gaan nie net daaroor dat die kind in die gewone klaskamer geplaas word nie; daar is baie aspekte wat na gekyk moet word, baie aanpassings wat gemaak moet word. U kind kan raad gee hoe om hierdie proses vir ander kinders met gesiggestremdheid makliker te maak.

14. VERGOEDING VIR DEELNAME

Daar sal geen direkte vergoeding vir deelname wees nie.

15. VERTROULIKHEID

Enige inligting wat u kind met my sal deel sal vertroulik bly en slegs met u toestemming bekend gemaak word of soos deur die wet vereis. Ek sal skuilname gebruik wanneer ek die inligting verwerk en die bevindinge sorgvuldig beskryf sodat u kind nie geïdentifiseer kan word nie. Ek sal die inligting op 'n veilige plek bewaar. Net ek en my studieleier sal toegang hê tot inligting wat u kind se besonderhede op het.

16. DEELNAME EN ONTTREKKING

U kind kan self besluit of hy/sy aan die studie wil deelneem of nie. Indien u of u kind vrae het kan jul my self vra asook die skoolhoof en die onderwyseres wat gereeld met u kind werk. Indien u kind inwillig om aan die studie deel te neem, kan hy/sy te enige tyd daaraan onttrek sonder enige nadelige gevolge. Hy/sy kan ook weier om op bepaalde vrae te antwoord, maar steeds aan die studie deelneem. Ek kan hom/haar aan die studie onttrek indien omstandighede dit noodsaaklik maak.

17. IDENTIFIKASIE VAN ONDERSOEKERS

Indien u enige vrae of besorgdheid omtrent die navorsing het, kan u my kontak:

Tanya-May Zulch.
Selnommer: 0813554646.
My epos adres is tzulch@wis.edu.na
My huisadres is:
Luisenhof 15
John Ya Otto Straat
Avis
Windhoek

My studieleier se kontakbesonderhede is:
Prof Estelle Swart
Departement Opvoedkunkundige Sielkunde
Stellenbosch Universiteit
Privaatsak X1
Matieland
Suid-Afrika
7602

+27 21 808 2305/6 (kantoor)
estelle@sun.ac.za

18. REGTE VAN Deelnemers

U en u kind kan te eniger tyd inwilliging terugtrek en deelname beëindig, sonder enige nadelige gevolge. Deur deel te neem aan die navorsing doen hy/sy geensins afstand van enige wetlike regte, eise of regsmiddel nie. Indien u kind vrae het oor sy/haar regte as deelnemer by navorsing, skakel met Me Malene Fouche (mfouche@sun.ac.za; 021 808 4622) van die Afdeling Navorsingsontwikkeling.

Toestemming van Ouer:

Hiermee gee ek _____ (naam) toestemming dat my kind _____ mag deelneem aan die bogenoemde navorsingstudie.

_____
Handtekening

VERKLARING DEUR ONDERSOEKER

Ek verklaar dat ek die inligting in hierdie dokument vervat verduidelik het aan [*naam van die deelnemer*] en/of sy/haar regsverteenwoordiger [*naam van die regsverteenwoordiger*]. Hy/sy is aangemoedig en oorgenoeg tyd gegee om vrae aan my te stel. Dié gesprek is in *Afrikaans* gevoer.

_____   _____

Handtekening van ondersoeker   **Datum**

Investigating the inclusion of learners with visual impairments within a Namibian mainstream secondary school.

OUERS

U word gevra **om deel te neem** aan 'n navorsingstudie deur *Tanya-May Zulch M Ed Psig* student van die Departement vir Opvoedkundige Sielkunde aan die Universiteit Stellenbosch. U is as moontlike deelnemer gekies omdat u die ouer is van een van die kinders wat as deel van die regering se inklusiewe onderwysprojek oorgeplaas is in 'n hoofstroomskool.

19. DOEL VAN DIE STUDIE

Die doel van die studie is om na te vors hoe leerders wat blind is ingesluit word in 'n hoofstroomskool.

20. PROSEDURES

Indien u inwillig om aan die studie deel te neem, sal u versoek word om die volgende te doen:

Vrae beantwoord oor hoe u u kind se skoolervarings beleef. 'n Minimum van 1 onderhoud sal telefonies geskied.

21. MOONTLIKE RISIKO'S EN ONGEMAKLIKHEID

Daar word van u verwag om oop en eerlik te wees. Dit mag dus soms ongemaklik wees om te praat oor u kind se gestremdheid.

22. MOONTLIKE VOORDELE VIR DIE SAMELEWING

U kan deur u deelname bydra tot 'n beter verstaan van hoe effektief die oorplasing vanaf 'n skool vir gesigsgestremdes na 'n hoofstroomskool in Graad 11 is. Inklusie gaan nie net daaroor dat die kind in die gewone klaskamer geplaas word nie; daar is baie aspekte wat na gekyk moet word, baie aanpassings wat gemaak moet word. U kan raad gee hoe om hierdie proses vir ander kinders met gesiggestremdheid makliker te maak.

23. VERGOEDING VIR DEELNAME

Daar sal geen direkte vergoeding vir deelname wees nie.

24. VERTROULIKHEID

Enige inligting wat u met my sal deel sal vertroulik bly en slegs met u toestemming bekend gemaak word of soos deur die wet vereis. Ek sal skuilname gebruik wanneer ek die inligting verwerk en die bevindinge sorgvuldig beskryf sodat u nie geïdentifiseer kan word nie. Ek sal die inligting op 'n veilige plek bewaar. Net ek en my studieleier sal toegang hê tot inligting wat u besonderhede op het.

25. DEELNAME EN ONTTREKKING

U kan self besluit of u aan die studie wil deelneem of nie. Indien u vrae het kan u my self vra asook die skoolhoof en die onderwyseres wat gereeld met u kind werk. Indien u inwillig om aan die studie deel te neem, kan u te enige tyd daaraan onttrek sonder enige nadelige gevolge. U kan ook weier om op bepaalde vrae te antwoord, maar steeds aan die studie deelneem. Ek kan u aan die studie onttrek indien omstandighede dit noodsaaklik maak.

26. IDENTIFIKASIE VAN ONDERSOEKERS

Indien u enige vrae of besorgdheid omtrent die navorsing het, kan u my kontak:
Tanya-May Zulch.
Selnommer: 0813554646.
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7602
Suid-Afrika

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estelle@sun.ac.za

27. REGTE VAN Deelnemers

U kan te eniger tyd u inwilliging terugtrek en u deelname beëindig, sonder enige nadelige gevolge. Deur deel te neem aan die navorsing doen u geensins afstand van enige wetlike regte, eise of regsmiddel nie. Indien u vrae het oor u regte as deelnemer by navorsing, skakel met Me Malene Fouche (mfouche@sun.ac.za; 021 808 4622) van die Afdeling Navorsingsontwikkeling.

Die bostaande inligting is aan my, [*naam van proefpersoon/deelnemer*], gegee en verduidelik deur Tanya-May Zulch in *Afrikaans* en *ek is* dié taal magtig vertaal. *Ek die deelnemer* is die geleentheid gebied om vrae te stel en my vrae is tot my bevrediging beantwoord.

Ek willig hiermee vrywillig in om deel te neem aan die studie en gee hiermee my toestemming dat my kind mag deelneem aan die studie. 'n Afskrif van hierdie vorm is aan my gegee.

_____

Naam van deelnemer

_____   _____

Handtekening van deelnemer of regsverteenwoordiger   Datum

Ek verklaar dat ek die inligting in hierdie dokument vervat verduidelik het aan _____ . Hy/sy is aangemoedig en oorgenoeg tyd gegee om vrae aan my te stel. Dié gesprek is in *Afrikaans* gevoer en *geen vertaler is gebruik nie.*

_____   _____

Handtekening van ondersoeker   *Datum*

Investigating the inclusion of learners with visual impairments within a Namibian secondary school.

Teacher

You are asked to participate in a research study conducted by Tanya-May Zulch, M Ed Psych student from the Department of Educational Psychology at Stellenbosch University. The results of the study will contribute to a thesis for the degree. You were selected as a possible participant in this study because you are a teacher of the learners with visual impairments in the mainstream secondary school.

28. PURPOSE OF THE STUDY

The aim of the study is to investigate how learners with visual impairments are included in the mainstream school.

29. PROCEDURES

If you volunteer to participate in this study, I would ask you to do the following things:

To answer questions about your role as teacher of the learners with visual impairments as well as about how the learners with visual impairments are included in the school.

A minimum of one interview will be held. The place of the interview will be discussed in advance.

30. POTENTIAL RISKS AND DISCOMFORTS

It will be expected of you to answer the questions asked honestly. Pointing out aspects where the school is lacking might cause some discomfort.

31. POTENTIAL BENEFITS TO PARTICIPANTS AND TO SOCIETY

By participating in this study, you can contribute to a better understanding of how effective the process of moving the learners with visual impairments to the mainstream school was. Inclusion involves a lot more that just placing the learners in the mainstream school. There are many aspects that should be taken into consideration. By participating in the study, you can give advice on how to make the inclusion of learners with visual impairments more of a reality.

32. PAYMENT FOR PARTICIPATION

There will be no payment for the participation.

33. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by using pseudo names and by describing the information with care so that you will not be identifiable. I will store the information in a safe place. Besides myself, only my study leader will have access to the information.

34. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

35. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact me Tanya-May Zulch at 0813554646.
Email: tzulch@wis.edu.na
Home address:
15 Luisencourt
John Ya Otto Str.
Avis

You can also contact my supervisor:
Prof Estelle Swart
Department of Educational Psychology
Stellenbosch University
Private Bag X1
Matieland
7602
SOUTH AFRICA

+27 21 808 2305/6 (office)
estelle@sun.ac.za

36. RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Me Malene Fouche (mfouche@sun.ac.za; +27 21 808 4622) at the Unit for Research Development; University of Stellenbosch.

SIGNATURE OF RESEARCH PARTICIPANT

The information above was described to *me* by Tanya-May Zulch in *English* and *I am* in command of this language. *I* was given the opportunity to ask questions and these questions were answered to *my* satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

_____
Name of Participant

_____   _____
Signature of Participant   **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____.

*Sh*e was encouraged and given ample time to ask me any questions. This conversation was conducted in *English* and *no translator was used.*

_____   _____
Signature of Investigator   **Date**

Investigating the inclusion of learners with visual impairments within a Namibian secondary school.

Specialist teacher

You are asked to participate in a research study conducted by Tanya-May Zulch, M Ed Psych student from the Department of Educational Psychology at Stellenbosch University. The results of the study will contribute to a thesis for the degree. You were selected as a possible participant in this study because you were appointed by the Namibian Ministry of Education to support the learners with visual impairments both academically and emotionally in the mainstream secondary school

37. PURPOSE OF THE STUDY
The aim of the study is to investigate how learners with visual impairments are included in the mainstream school.

38. PROCEDURES

If you volunteer to participate in this study, I would ask you to do the following things:

To answer questions about your role in the school as well as about how the learners with visual impairments are included in the school.

A minimum of one interview will be held. The place of the interview will be discussed in advance.

39. POTENTIAL RISKS AND DISCOMFORTS

It will be expected of you to answer the questions asked honestly. Pointing out aspects where the school is lacking might cause some discomfort.

40. POTENTIAL BENEFITS TO PARTICIPANTS AND TO SOCIETY

By participating in this study, you can contribute to a better understanding of how effective the process of moving the learners with visual impairments to the mainstream school was. Inclusion involves a lot more that just placing the learners in the mainstream school. There are many aspects that should be taken into consideration. By participating in the study, you can give advice on how to make the inclusion of learners with visual impairments more of a reality.

41. PAYMENT FOR PARTICIPATION

There will be no payment for the participation.

42. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by using pseudo names and by describing the information with care so that you will not be identifiable. I will store the information in a safe place. Besides myself, only my study leader will have access to the information

43. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

44. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact me Tanya-May Zulch at 0813554646.
Email: tzulch@wis.edu.na
Home address:
15 Luisencourt
John Ya Otto Str.
Avis

You can also contact my supervisor:
Prof Estelle Swart
Department of Educational Psychology
Stellenbosch University
Private Bag X1
Matieland
7602
SOUTH AFRICA

+27 21 808 2305/6 (office)
estelle@sun.ac.za

45. RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Me Malene Fouche (mfouche@sun.ac.za; +27 21 808 4622) at the Unit for Research Development; University of Stellenbosch.

SIGNATURE OF RESEARCH PARTICIPANT

The information above was described to *me* by Tanya-May Zulch in *English* and *I am* in command of this language. *I* was given the opportunity to ask questions and these questions were answered to *my* satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

_____

Name of Participant

_____   _____

Signature of Participant   **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____.

*Sh*e was encouraged and given ample time to ask me any questions. This conversation was conducted in *English* and *no translator was used.*

_____   _____

Signature of Investigator   **Date**

Investigating the inclusion of learners with visual impairments within a Namibian mainstream secondary school.

Peer

Jy word gevra om deel te neem aan 'n navorsingstudie uitgevoer te word deur *Tanya-May Zulch M Ed Psig* student van die Departement vir Opvoedkundige Sielkunde aan die Universiteit Stellenbosch. Die resultate sal deel word van 'n tesis vir die M Ed Psig graad. Jy is as moontlike deelnemer aan die studie gekies omdat jy 'n leerder is in die hoofstroomskool wat deur die regering gekies is vir sy inklusiewe onderwys projek.

DOEL VAN DIE STUDIE

Die doel van die studie is om na te vors hoe leerders wat blind is ingesluit word in 'n hoofstroomskool.

46. PROSEDURES

Indien jy inwillig om aan die studie deel te neem, sal jy versoek word om die volgende te doen:

Vrae beantwoord oor jou ervaring in die nuwe hoërskool. Jy sal ook versoek word om enige ander materiaal (soos bv briewe, prente, fotos, dokumente) wat kan verduidelik wat jou ervaring is beskikbaar te stel. 'n Minimum van 1 onderhoud sal gehou word en die plek waar dit sal geskied sal vooraf met jou gereël word.

47. MOONTLIKE RISIKO'S EN ONGEMAKLIKHEID

Daar word van jou verwag om oop en eerlik te wees.

48. MOONTLIKE VOORDELE VIR DIE SAMELEWING

Jy kan deur jou deelname bydra tot 'n beter verstaan van hoe effektief die oorplasing vanaf 'n skool vir gesigsgestremdes na 'n hoofstroomskool in Graad 10 is. Inklusie gaan nie net daaroor dat die kind in die gewone klaskamer geplaas word nie; daar is baie aspekte wat na gekyk moet word, baie aanpassings wat gemaak moet word. Ander leerders in die skool moet ook ingelig en voorberei word ten opsigte van inklusie. Jy kan raad gee hoe om die ander leerders in die skool in te lig en voor te berei ten opsigte van die inklusie van kinders met gesiggestremdhede.

49. VERGOEDING VIR DEELNAME

Daar sal geen direkte vergoeding vir deelname wees nie.

50. VERTROULIKHEID

Enige inligting wat jy met my sal deel sal vertroulik bly en slegs met jou toestemming bekend gemaak word of soos deur die wet vereis. Ek sal skuilname gebruik wanneer ek die inligting verwerk en die bevindinge sorgvuldig beskryf sodat jy nie geïdentifiseer kan word nie. Jy moet egter in ag neem dat jou klasonderwyser jou goed ken en moontlik sal kan aflei uit die data wie wat gesê het. Ek sal die inligting op 'n veilige plek bewaar. Net ek en my studieleier sal toegang hê tot inligting wat jou besonderhede op het.

51. DEELNAME EN ONTTREKKING

Jy kan self besluit of jy aan die studie wil deelneem of nie. Indien jy vrae het kan jy my self vra. Indien jy inwillig om aan die studie deel te neem, kan jy te enige tyd daaraan onttrek sonder enige nadelige gevolge. Jy kan ook weier om op bepaalde vrae te antwoord, maar steeds aan die studie deelneem. Ek kan jou aan die studie onttrek indien omstandighede dit noodsaaklik maak.

52. IDENTIFIKASIE VAN ONDERSOEKERS

Indien jy enige vrae of besorgdheid omtrent die navorsing het, kan jy my kontak Tanya-May Zulch. Sel nommer: 0813554646.
Epos Adres: tzulch@wis.edu.na
Huis Adres: 15 Luisenhof, John Ya Otto Str., Avis, Windhoek, Namibië.

53. REGTE VAN Deelnemers

Jy kan te eniger tyd u inwilliging terugtrek en jou deelname beëindig, sonder enige nadelige gevolge. Deur deel te neem aan die navorsing doen jy geensins afstand van enige wetlike regte, eise of regsmiddel nie. Indien jy vrae het oor jou regte as deelnemer by navorsing, skakel met Me Malene Fouche (mfouche@sun.ac.za; 021 808 4622) van die Afdeling Navorsingsontwikkeling.

Investigating the inclusion of learners with visual impairments within a Namibian secondary school.

Principal

U word gevra om deel te neem aan 'n navorsingstudie uitgevoer te word deur *Tanya-May Zulch M Ed Psig* student van die Departement vir Opvoedkundige Sielkunde aan die Universiteit Stellenbosch. Die resultate sal deel word van 'n tesis vir die M Ed Psig graad. U is as moontlike deelnemer vir die studie gekies omdat u die hoof is van die sekondêre skool wat deur die regering gekies is vir hul inklusiewe onderwysprojek.

54. DOEL VAN DIE STUDIE

Die doel van die studie is om na te vors hoe leerders wat blind is ingesluit word in 'n hoofstroomskool.

55. PROSEDURES

Indien u inwillig om aan die studie deel te neem, sal u versoek word om die volgende te doen:

Vrae beantwoord oor die leerders wat blind is - bv hoe hul in die skool ingesluit word. U sal ook versoek word om enige ander materiaal (soos bv briewe, prente, fotos, dokumente) wat kan verduidelik wat u ervaring is beskikbaar te stel. 'n Minimum van 1 onderhoud sal gehou word en die plek waar dit sal geskied sal vooraf met u gereël word.

56. MOONTLIKE RISIKO'S EN ONGEMAKLIKHEID

Daar word van u verwag om oop en eerlik te wees. Dit mag dus soms ongemaklik wees om te praat oor dinge wat die skool se tekortkominge gaan uitwys.

57. MOONTLIKE VOORDELE VIR DIE SAMELEWING

U kan deur u deelname bydra tot 'n beter verstaan van hoe effektief die oorplasing vanaf 'n skool vir gesigsgestremdes na 'n hoofstroomskool in Graad 10 is. Inklusie gaan nie net daaroor dat die kind in die gewone klaskamer geplaas word nie; daar is baie aspekte wat na gekyk moet word, baie aanpassings wat gemaak moet word. U kan raad gee hoe om hierdie proses vir ander kinders met gesiggestremdheid makliker te maak.

58. VERGOEDING VIR DEELNAME

Daar sal geen direkte vergoeding vir deelname wees nie.

59. VERTROULIKHEID

Enige inligting wat u met my sal deel sal vertroulik bly en slegs met u toestemming bekend gemaak word of soos deur die wet vereis. Ek sal skuilname gebruik wanneer ek die inligting verwerk en die bevindinge sorgvuldig beskryf sodat u nie geïdentifiseer kan word nie. Ek sal die inligting op 'n veilige plek bewaar. Net ek en my studieleier sal toegang hê tot inligting wat u besonderhede op het.

60. DEELNAME EN ONTTREKKING

U kan self besluit of u aan die studie wil deelneem of nie. Indien u vrae oor die projek het kan u my self vra. Indien u inwillig om aan die studie deel te neem, kan u te enige tyd daaraan onttrek sonder enige nadelige gevolge. U kan ook weier om op bepaalde vrae te antwoord, maar steeds aan die studie deelneem. Ek kan u aan die studie onttrek indien omstandighede dit noodsaaklik maak.

61. IDENTIFIKASIE VAN ONDERSOEKERS

Indien u enige vrae of besorgdheid omtrent die navorsing het, kan u my kontak

Tanya-May Zulch.
Selnommer: 0813554646.
My epos adres is tzulch@wis.edu.na
My huisadres is:
Luisenhof 15
John Ya Otto Straat
Avis
Windhoek

My studieleier se kontakbesonderhede is:
Prof Estelle Swart
Departement Opvoedkunkundige Sielkunde
Stellenbosch Universiteit
Privaatsak X1
Matieland
7602
Suid-Afrika

+27 21 808 2305/6 (kantoor)
estelle@sun.ac.za

62. REGTE VAN Deelnemers

U kan te eniger tyd u inwilliging terugtrek en u deelname beëindig, sonder enige nadelige gevolge. Deur deel te neem aan die navorsing doen u geensins afstand van enige wetlike regte, eise of regsmiddel nie. Indien u vrae het oor u regte as deelnemer by navorsing, skakel met Me Malene Fouche (mfouche@sun.ac.za; 021 808 4622) van die Afdeling Navorsingsontwikkeling.

VERKLARING DEUR DEELNEMER

Die bostaande inligting is aan my, [*naam van deelnemer*], gegee en verduidelik deur *Tanya-May Zulch* in *Afrikaans* en *ek is*] dié taal magtig. *Ek is die geleentheid gebied om vrae te stel en my vrae is tot my bevrediging beantwoord.*

Ek willig hiermee vrywillig in om deel te neem aan die studie. 'n Afskrif van hierdie vorm is aan my gegee.

_____

Naam van deelnemer

_____   _____

Handtekening van deelnemer   Datum

VERKLARING DEUR ONDERSOEKER

Ek verklaar dat ek die inligting in hierdie dokument vervat verduidelik het aan [*naam van die deelnemer*]. *Sy* is aangemoedig en oorgenoeg tyd gegee om vrae aan my te stel. Dié gesprek is in *Afrikaans* gevoer en *geen vertaler is gebruik nie.*

_____   _____

 # Handtekening van ondersoeker   Datum

VERKLARING DEUR DEELNEMEROF SY/HAAR REGSVERTEENWOORDIGER

Die bostaande inligting is aan my, [*naam van proefpersoon/deelnemer*], gegee en verduidelik deur [*naam van die betrokke persoon*] in [*Afrikaans/English/Xhosa/other*] en [*ek is/die proefpersoon is/die deelnemer is*] dié taal magtig of dit is bevredigend vir [*my/hom/haar*] vertaal. [*Ek/die deelnemer/die proefpersoon*] is die geleentheid gebied om vrae te stel en my/sy/haar vrae is tot my/sy/haar bevrediging beantwoord.

[*Ek willig hiermee vrywillig in om deel te neem aan die studie/Ek gee hiermee my toestemming dat die proefpersoon/deelnemer aan die studie mag deelneem.*] 'n Afskrif van hierdie vorm is aan my gegee.

_____

Naam van proefpersoon/deelnemer

_____   _____

Handtekening van proefpersoon/deelnemer of regsverteenwoordiger   Datum

Ek verklaar dat ek die inligting in hierdie dokument vervat verduidelik het aan [*naam van die proefpersoon/deelnemer*] en/of sy/haar regsverteenwoordiger [*naam van die regsverteenwoordiger*]. Hy/sy is aangemoedig en oorgenoeg tyd gegee om vrae aan my te stel. Dié gesprek is in [*Afrikaans/*Engels/*Xhosa/*Ander*] gevoer en [*geen vertaler is gebruik nie/die gesprek is in* _____ *vertaal deur* _____].

_____   _____
Handtekening van ondersoeker   **Datum**