

THE INTERACTION BETWEEN DEAF LEARNERS AND HEARING
LEARNERS

IN MAINSTREAM SCHOOLS IN OSHANA AND
KHOMAS REGIONS

A THESIS

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ABSTRACT

This qualitative research study was done to establish the quality of interaction that took place between Deaf learners and hearing learners in mainstream schools in Oshana and Khomas regions. Data was collected by means of semi-structured interviews and observations, with the help of video camera recordings to capture the data. Five Deaf learners, ten teachers teaching in the classroom were Deaf learners are mainstreamed and 30 hearing learners were interviewed separately. The researcher also observed the interaction between Deaf learners and their teachers in the classroom when there is no Sign language interpreter, as well as the interaction between Deaf learners and hearing learners during break and before classes commence. Four Deaf learners, five teachers and fifteen hearing learners were from one school in Oshana region while one Deaf learner, five teachers and fifteen hearing learners were from one school in Khomas region.

The study found that teachers, Deaf learners and hearing learners had ways of communicating with each other including using basic Sign language; writing messages on pieces of paper, on the ground or using mobile phones depending on the prevailing circumstances.

However, Deaf learners were not keen to interact through writing because they found it difficult. Subsequently, they became less involved in the conversations involving hearing learners and limited interactions to other Deaf learners. Deaf learners were not satisfied with the quality of their communication with teachers and hearing learners. On the other hand, hearing learners would only initiate interactions when they wanted Deaf learners to teach them Sign language; when they felt pity for their fellow Deaf learners who appeared to be lonely; and when they needed any kind of help from Deaf learners.

As part of possible solutions, the study recommended formal training for teachers in Sign language; introduction of Sign language classes in schools where Deaf learners are mainstreamed; distribution of Sign language materials in inclusive schools for hearing learners and teachers to learn Sign language.

DEDICATION

This thesis is dedicated to my beloved husband, Mr. Veikko Peelenga and my three lovely children, Veikko Elongo, Daisy Megameno and Hendrina Shagwana-Epandulo Peelenga.

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DECLARATIONS

I, Hendrina Samuel, hereby declare that this study is my own work and is a true reflection of my research, and that this work, or any part thereof has not been submitted for a degree at any other institution.

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CHAPTER 1: INTRODUCTION

1.1. Background of the study

After gaining political independence in 1990, the reform of the education system became one of the priorities of the newly-formed government that was driven by the Namibian Constitution (1990). The educational reforms and policies that have been established since independence are aimed at broadening and diversifying the scope of education and enabling as many learners as possible to benefit from the system. The Namibian Constitution Article 20 (a) guarantees the right to education for all; no Namibian can legitimately be excluded from education because of contextual disadvantages, social problems or learning difficulties (Government of the Republic of Namibia 1990). Consequently, the constitution represents human rights which spell out the right of everyone in so far as basic education is concerned. The constitution of the Republic of Namibia also place enormous responsibility on the fundamental right to basic education by committing the state to quality education and non-discrimination. These clauses are found in the constitution of the Republic of Namibia and are vital as they protect all learners including those living with disabilities. Apart from the Namibia constitution, the National Policy on Disability (1997) also emphasizes that the government shall ensure that children and youth with disabilities have the same right to education as children without disabilities. The government through the Sector Policy on Inclusive Education (2013) encourages the creation of an education system for all learners, including learners who experience barriers to learning. The Sector Policy in Inclusive Education (ibid) also aims to provide access, equity and quality education to all children. Even though the Policy aims at ensuring that all children receive education, it has a specific focus on

children and young people who are more likely to be educationally marginalized in Namibia, who could include children with disabilities and impairments, children with learning difficulties and many others

The Namibia Constitution (1990) states that the Ministry of Education, Arts and Culture is responsible for full filling the major goals of education, embracing the democratic values of liberty, equality and human rights. Sanctioned by the constitution, the Ministry of Education, Arts and Culture (1993) declared “equal access to education for all learners without discrimination in any way. No learner may, therefore be denied access to education on any grounds including disability, language or learning difficulty”.

The Salamanca statement which was signed in 1994 by 96 countries, including Namibia states that “Inclusive education systems must recognize and respond to the varied needs of learners, accommodating both different learning styles and pace of learning and ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnership with their communities” (Donald, Lazarus & Lolwana 2006: p.23).

An inclusive education and training system should cover and address barriers to learning as well as acknowledging and accommodating the variety of learning needs. The Ministry of Education, Arts and Culture (1993) that schools should accommodate this diversity of needs in the classroom where every learner feels valued, safe, and cared for.

Engelbrecht and Green (2011: p.18) declare that active participation by learners within their learning communities will make learning interesting. In addition, Article 20 of the Constitution of the Republic of Namibia (1990), states that “all persons shall have the

right to education, and that primary education shall be free on and obligatory for all children up to the age of 16”. The implementation of Universal Primary Education (UPE) in Namibia in 2013 is one realization of these constitutional rights.

The Ministry of Education, Arts and Culture (1993) prescribes the principles and strategies for addressing the needs of young people with hearing impairments so that they are integrated into regular education programs. There are two special schools in Namibia that cater for learners with hearing impairments, but those schools only cater for learners from pre-primary up to grade 10. Currently, deaf learners who pass grade 10 are enrolled in mainstream schools for grade 11 and 12. Johnsen (2001) supports the idea that all children have the right to attend school in their home community in inclusive classes. The Ministry of Education, Arts and Culture (2003) has established a network of schools so that all learners’ progress through the grades by moving to neighboring schools that offer higher phases rather than having to drop out or moving to distant schools.

The Salamanca Statement and Framework for Action on special needs education (UNESCO, 2002) states that:

“Ordinary schools should accommodate all children, regardless of their physical, intellectual, social emotional, linguistic or other conditions. This should include disabled and gifted children and children from other disadvantaged or marginalized areas or group” (UNESCO, 2002: p.21).

The National Disability Council Act (2004) emphasizes that the provision of education shall be based on the fundamental principles of inclusive education which demand that

all children shall be taught together, whenever possible regardless of individual differences or difficulties they may have. Responding to this declaration, the Ministry of Education, Arts and Culture in Namibia decided in 1995 to have two piloting schools (Mweshipandeka High School and Cosmos High School) to accommodate learners with hearing impairment in grades 11 and 12.

Inclusive classroom means that all learners have the right to feel supported and included at school and in the regular classroom as much as possible. It is important that the teacher fully understands the learning, social and physical needs of all learners. It becomes the role of the educator to create welcoming environment and provide learners with on-going opportunities to learn, share, and engage in all classroom activities. In order for the learners to share what they learn, they need to interact with one another.

Turner (2001) explains interaction as the mutual understanding that individuals have through the exchange of ideas, knowledge and skills. Interaction in the learning environment is a necessary component of everyone's daily life because it contributes to human development and learning. Skjørten (2001) states that through interaction children who are deaf and their hearing peers can learn to share ideas and skills and to work co-operatively as part of their daily activities. Interaction can take place in many different forms such as playing, debates, discussions and learning. Interaction can literally be referred to as communication with somebody especially when one works, plays or spends time with them. As two people interact, each is continuously interpreting her own and the other's actions. Each person reacts to and interprets the individual's act together sharing the constructions of what is going on. Hearing learners focus on the same aim and they communicate verbally and / or non-verbally.

1.2. Statement of the problem

Research findings, elsewhere, show that deaf learners in mainstream schools experience difficulties when interacting with hearing learners. Tobias (2006) who conducted a study on interaction between learners who are hard of hearing and their hearing peers found that deaf learners who were attending classes at the mainstream schools had challenges interacting with hearing learners.

The Ministry of Education, Arts and culture (2011) states that if you go to schools where deaf learners are mainstreamed you hardly find deaf learners and hearing learners interacting with one another inside or outside the classroom. Skjørten (2001) argues that children do not have respect for each other, do not encourage one another, neither do they share experiences nor knowledge about one another if there is no interaction in their learning setup. In other words, they do not have opportunities to discover each other's potential; and to know each other's culture, interests, abilities and difficulties. This case study was, thus, undertaken to investigate the interaction between deaf learners and hearing learners in mainstream schools. This study is important because no research exists that specifically focused on the interaction between deaf learners and their hearing peers in Namibian secondary schools.

The key question of the study was, "How do deaf learners interact with hearing learners in mainstream schools in Oshana and Khomas regions?" Other questions included **(a)** What difficulties do deaf learners and hearing learners experience when interacting with one another; **(b)** How do teachers communicate with deaf learners; and **(c)** In what ways

do the schools encourage interaction between deaf learners and learners without hearing impairments?

1.3. Aim of the study

The specific aim of this study was to establish the quality of interaction between deaf learners and hearing learners in mainstream schools in the Oshana and Khomas regions. This could be accomplished through the means of observations and interviews. It was also the intention of this to identify specific challenges that deaf learners, teachers and hearing learners experience when interacting with one another. It also aimed at identifying and recommending avenues that the schools could use to enhance interaction among deaf learners, teachers and hearing learners.

1.4. Significance of the study

The results of this study were anticipated to benefit the Ministry of Education, Arts and Culture, particularly teachers and learners. The Division of Special Programs and Schools within the Ministry of Education, Arts and Culture might use the results of this study to plan strategies for the improvement of existing programs on inclusion which could pave the way for the new trend of inclusive education in Namibia. Education stakeholders might also gain insights from this study to promote support for deaf learners in mainstream schools.

The Division of Special Programs and Schools could use the information for sensitization campaigns to increase community awareness on inclusive education context and for policies formulation concerning the importance of interaction in schools between hearing learners and teachers and deaf learners.

The results of this study were expected to help teachers to understand how to promote and maintain interaction between deaf learners and learners without hearing impairments in the learning environment with the ultimate aim of facilitating communication between deaf people and hearing people in the Namibian society. Hearing learners were estimated to find out from the results of this study how to relate to, accept and understand deaf learners.

The findings of this study were expected to contribute to the existing body of knowledge by providing some insights for researchers and learners in areas related to this study. Deaf learners often show incredible resilience in overcoming or living in the midst of adversity. Through interaction deaf learners would develop the strategies for caring for themselves, and for friends or family members.

1.5. Limitations of the study

Few studies have been done in Namibia on the interaction between deaf learners and hearing learners. Therefore, this study may lack detailed literature review from other studies. Another possible limitation is that there are few deaf learners in mainstream schools in Namibia thus the small sample size may limit the researcher to gather information from a wider sample. Being a case study, the findings of the current study cannot be generalized to all-inclusive schools in Namibia but they may be important for policy formulation.

1.6. Delimitation of the study

Research participants were restricted to deaf learners, hearing learners and teachers teaching in the classes where deaf learners are mainstreamed. Hearing learners who were

not in classes with deaf learners were not considered. Targeted schools were the mainstream schools in Oshana and Khomas region, where deaf learners are mainstreamed. The researcher chose the above mentioned schools simply because so far they are the only schools where deaf learners are accommodated in Namibia.

1.7. Definition of terms

Inclusive Education is defined as a “process of addressing and responding to the diversity of needs of all children, youth and adults through increasing participation in cultures and communities, and reducing and eliminating exclusion within and from education system” (UNESCO, 2008: 18).

Mainstreaming this term refers to the selective placement of learners with special needs in one or more “regular “education” (Sector Policy on Inclusive Education: 2013).

Mainstream schools refer to schools which, in a historical context did not make provision for learners with special needs, or made very limited provision, without being fully inclusive.

Special Schools are formal settings where education is offered to learners with disabilities and where learners are separated from their peers in regular school settings.

Special Education refers to the education offered to learners with disabilities and extraordinary learning needs.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

This chapter provides the review of literature and presents the theoretical framework for the concept of inclusion of deaf learners in mainstream schools. Literature review mainly focused on the concepts of interaction between deaf learners and hearing learners as well as the deaf culture in an educational setting.

2.2. Theoretical framework

The theoretical framework for this research is based on social learning theory founded by Vygotsky (1962)). The theory explains in details how people learn in social contexts and how teachers or educators construct active learning communities.

At the center of social learning theory is the idea that cognitive development takes place through social interaction (Vygotsky, 1962). Children construct shared meanings through their social interaction with such people as parents/caregivers, peers, teachers, and others. Vygotsky (1962) argued that people learn through interactions and communications with others. Subsequently, meaningful learning can only take place when learners and teachers interact, intentionally.

The theory of social learning maintains that meanings cannot be separated from their social contexts because meanings are social constructions that are built up and passed on between people in social contexts. It is also postulated that knowledge is constructed in the midst of our interactions with others and is shaped by the skills and abilities valued in a particular culture (Vygotsky, 1978). Donald, Lazarus and Lolwana (2010)

concluded that because meaning is socially constructed, they are not fixed or static. They always developing and changing.

Other proponents for the social learning theory like Anita, Jones, Reed, and Kreimeyer (2009) maintain that learners can easily internalize the outcomes produced by working together with others. Social learning theorists, thus, recommend and urge learners to interact and work together on one task. Teachers should choose meaningful and challenging tasks for learners to participate in a broad range of activities with others (Anitia, Jones, Reed, & Kreimeyer, 2009).

It can thus be concluded that (a) social interaction between learners and teachers helps learners to develop more knowledge of what is taught and is learned; (b) knowledge and meaning are social and culture context bound; and (c) knowledge and meaning are not static but are forever unchanging depending on the levels and nature of social interaction between teachers and learners.

2.3. **Definition of inclusion**

Swart and Pettipher (2005) in Storbeck and Martin (2001) define inclusion as providing equal access to equal education and basic human rights for all learners while at the same time acknowledging diversity in gender, nationality, race language, social-economic background, cultural origin and level of educational achievement or disabilities of the individuals”.

Inclusion of deaf learners implies having deaf learners being educated within one and the same classroom with hearing learners. Teaching deaf learners and hearing learners in the

same classroom at same time is an internationally recognized practice. This is done with the purpose of giving equal opportunities to marginalized persons.

The Namibian government, being a signatory to numerous international agreements with relevance to inclusive education, is committed to establish an Inclusive Education system through national legislations and policies as well Sector Policy on Inclusive Education, (2013). The main idea of inclusion is found in the UNESCO policy documents like the Convention on the Rights of Children (1994), Article 24 of the UN Convention on the Rights of Persons with Disabilities (2006), the Jomtien World Declaration on Education for All (1990), the Standard Rules on the Equalization of Opportunities for Person with Disabilities (1993), the Salamanca Statement and Framework of Action adopted at the World Conference on Special Education (1994), the Dakar World Education Conference for All (2000), the Quality Education (2004), the National Policy on Disability (1997) and the Sector Policy on Inclusive Education (Ministry of Education 2013).

It is also important to point out that the World Conference on Special Needs: Access and Quality Education (June 1994) adopted by 94 Governments and over 20 non-governmental organization makes provision for support to education for children with special needs in regular schools. The provision for support was brought about after realizing that children with special needs, including learners who are deaf, were deprived of equal educational opportunities by their “ordinary” counterparts throughout the world.

The Salamanca Statement put much emphasis on the right of all children to education in terms of (a) providing equal opportunity for every child to access, achieve and maintain

acceptable levels of learning; (b) acknowledging that every child has unique characteristics, abilities and learning needs; (c) ensuring that the designed education systems educational programs take into account the wide diversity of these characteristics and needs; (d) accommodating children with special educational needs within the mainstream schools within a child-centered pedagogy capable of meeting these needs (e) using regular schools to combating discrimination attitudes, create welcoming communities, build an inclusive society and achieve the goals of education for all; (f) effective education for the majority (without special needs) and improve the efficiency and ultimately the cost effectiveness of the entire education system (UNESCO,1994).

However, there seems to be many practical interpretations of inclusive education, especially when the positions of learners who are deaf are considered. Different scholars and conventions have defined the concept of inclusion contextually and operationally. Tobias (2006) defines inclusion as a process of increasing the participation of learners and reducing exclusion from the curricula, culture and communities offered by neighborhood mainstream centers of learning.

UNESCO (2008) defines inclusive education as that children with special needs and ordinary children learn together in ordinary schools with appropriate regular education programs in their neighborhood schools. Inclusive education is believed to be an interaction of all learners in regular schools, regardless of their differences. This concept did away with the traditional way of segregating learners who are deaf from regular schooling into special education institutions. Practically, this constitutes a degree of separation between learners who are deaf and their hearing peers. The idea of inclusive

education is to provide equal and the same education opportunities not only in the learning environment but also with regard to the curriculum and assessment procedures.

The importance of inclusive education lies in the fact that it provides better education in understanding and acceptance of all children, and that opportunities for learning are widened by sharing, interacting and developing a community of togetherness. However, inclusive education, despite being understood by many to a certain degree, much needs to be done. This is due to the lack of awareness, human resources and other educational facilities. There are therefore unequal education opportunities for deaf learners and they are left behind because of these differences.

Skjørten (2001) defines inclusion in reference to and focusing on adjusting the home, the school and the society at large so that all individuals can have the opportunity to interact, play learn, experience the feeling of belonging and develop in accordance with their potentials and challenges. This means that recognizing individual differences and provide for those differences. By doing so deaf learners will gain good quality of life within their natural environment without completely changing the environment. These changes will be an advantage not only to children who are deaf but for all children in school.

Inclusion has to be seen as a never-ending search to find better ways of responding to diversity. It is about learning to live with differences and learning how to learn from a difference. In this way differences can be seen more positively as a stimulus for fostering learning among children and adults. However, it is believed that the extent and direction of the acceptance of children with special needs is determined by how soon the child is

included. Supporting the ideas of inclusion Nambira (1994) in Tobias (2006) states that, to deny children the opportunity to learn together with others, without segregation, is to jeopardize their opportunity of living fully with the larger multicultural society.

Inclusion is also concerned with where children are educated, and how reliably and punctually they attend; how do they participate on the relations to the quality of their experiences whilst they are there. Therefore, educators must incorporate the views of the learners themselves, and also about the outcomes of learning across the curriculum, not merely test or examination results.

The Salamanca Statement and Framework for Action on Special Needs Education (1994) states that “schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions this should include disabled and gifted children, street and working children, children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities and children from other disadvantaged or marginalized areas or group” (UNESCO, 1994).

By accommodating all children in schools that shows the moral responsibility to ensure that those groups are statistically most at risk of exclusion are carefully monitored and that, where necessary, steps are taken to ensure their presence, participation and achievement in the education system. It is important to highlight that a holistic view of the education system, encompassing both the private and public system, must be taken when considering adopting an inclusive approach.

The move towards inclusion is a gradual one that should be based on clearly articulated principles, which address system-wide development and making Namibia a more inclusive society (Ministry of Education, Arts and Culture 2013).

If barriers to learning are to be reduced the policy-makers, educational personnel and other stakeholders need to take certain steps which must involve all members of the local community, including political and religious leaders, local education offices and the media. Consequently, the move towards inclusion is not simply a technical or organizational change but also a movement with a clear philosophy (Ministry of Education, Arts and Culture 2013).

In order for inclusion to be implemented effectively, countries need to define a set of inclusive principles together with practical ideas to guide the transition towards policies addressing inclusion in education. Inclusive Education will help to provide the best solution for a school system which can meet the needs of all learners. Human beings are all different but with the same rights. Deaf learners and hearing learners have the same rights to interact in their school environments. Learners who engage in conversation have more opportunities to learn about the world, develop skills, and find jobs, they can also acquire skills which they can use to live productive, independent lives and take part in life in their communities.

Studies have advocated for the inclusion of learners with special needs. Despite these, much still needs to be learned and improved before successful inclusion and interaction between deaf learners and hearing learners' takes place. Learners who are deaf attending regular classes are still facing communication barriers while interacting with their

hearing peers and struggle in the learning process. For schools and communities to effectively apply inclusion of deaf learners in mainstream settings, it is important for them to take appreciation of Deaf Culture.

2.4. **Deaf culture**

Culture refers to the learned behavior of a group of people which has its own language, customs, beliefs, practices, principles and rules of behaviour and traditions (Luterman, 1985). Deaf communities have many distinctive cultural characteristics, some of which are shaped across different countries. Some of the characteristics of deaf culture include the language, behaviors and so on.

Article 30, paragraph 4 of the United Nations Convention on the Rights of Persons with Disabilities (2006) recognizes deaf culture in the following statements “Persons with disabilities shall be entitled, on an equal basis with others, to recognition and support of their specific cultural and linguistic identity, including Sign languages and Deaf culture”. Sign language is at the center of deaf culture and community and the single most unifying characteristic.

In Namibia, the deaf community’s language is known as Namibian Sign Language (NSL). The NSL is the preferred language for social interaction by deaf people. It is not expected of everyone to be fluent in Sign Language, but what is necessary is the acceptance of Sign Language in its own right and demonstrating respect for it.

Within deaf culture there are behaviors that are considered rude, but which are perfectly acceptable in hearing culture, and vice versa. Some examples of such behaviour are eye

contact and touching. Eye contact is extremely important in deaf culture, while hearing people often talk to each other with comparatively little eye contact. Within deaf culture, avoiding eye contact can be perceived as rude. Looking away while someone is signing to you is definitely not acceptable.

In the deaf culture it is acceptable to touch another person to gain their attention, even if you do not know them. However, there are rules about where or how to touch. A light touch on the arm or shoulder is an acceptable form of calling for someone's attention or showing intent to communicate.

For decades, deafness has been understood to be a disability. The idea of “deaf and dumb” has been prevalent within the medical community for years. This outlook is, however, slowly changing as the culture of being deaf is becoming more recognized within the hearing community (Breivik, 2005). As the majority of people experience the world as hearing individuals, hearing is assumed to be “normal”. This thought then leads to the “medical model” of viewing deafness as impairment. Thus, it is understood through this model that in order for a deaf person to be a “normal” human being, his or her deafness needs to be cured (Lash 2011: p. 55).

In the recent social model of disabilities the focus has shifted from that of “the ‘personal tragedy’ of the individual towards the way in which social environment within which the disabled have to live acts to exclude them from full participation” (UNESCO, 2002: 29). Within the social-cultural paradigm, deaf people are seen as members of a linguistic minority group sharing a strong identity, a common language (Sign Language) and a unique culture (deaf culture).

Lash (2011) argues that deaf people are very aware of their status as members of a minority culture, and have thus shaped an identity around this status - known as members of a linguistic minority. They do not identify themselves as disabled or deaf people who want to be fixed; but they rather want to be respected as a linguistic, cultural minority and treated equally in relation to the hearing majority (Hole, 2007: p 45).

The deaf are also aware of the attempt of mainstream communities to normalize or oppress their community. Several normalizing endeavors including the practice of “oralism” (forcing deaf children to learn to speak and lip-read and prohibiting sign language), the cochlear implant, and mainstreaming deaf learners into hearing schools as an attempt to establish “normalcy.” In fact, it is not uncommon to see individuals who were raised orally but then turn to sign language referred to as oral failure” (Hole, 2007: p, 30). These practices are often viewed by the deaf as examples of oppressive attitude that seeks to eliminate Deaf culture through “curing” deafness (Lash, 2011:50).

Levy (2002) maintains that the deaf community does not view the cochlear implant as an aid, but “a form of cultural genocide” (p.135). This view is supported by those in the deaf community who value deafness as a culture and not as a disability that needs to be “fixed“(Levy 2002). This view is further supported by Sparrow (2005) as he states that “a sizeable portion of deaf individual says that they would not want to be granted hearing even if it were possible” (p.137), thus emphasizing the view of deafness as a culture and not a “problem” that needs to be “fixed” or “cured”.

2.5. **The importance of learner's interaction**

Skjørten (2001) states that through interaction deaf learners and hearing learners can learn to share ideas and skills that are necessary for working together as part of their daily activities. Peer interaction is also accomplished through the use of language and communication.

Heart and Weismann (2001) maintain that an obvious advantage of educating hearing learners with deaf learners in regular schools is that children are exposed to differences in individuals not for the purposes of feeling sorry for another individual but to gain respect for, and appreciate the differences in each other. Awori (2004) stated that social interaction is a vital prerequisite for children in learning set up. Through social interaction, children learn to respect and encourage one another, share experiences and knowledge about one another, and above all, they discover each other's interests, abilities and difficulties. This enables them to care for each other's needs in an interaction environment, because there is a likelihood of influencing the development of positive attitudes towards one another.

Interaction is a two-way process, both deaf learners and hearing learners influence each other. Teachers influence learners by giving them instructions, directions and allowing them to express their ideas, through various learning activities. Eddowes and Ralph (1998) in Mlay (2010) noted that interaction could be between two or more children and or adults or between a person and an object. Any of the interaction engaged in by people can contribute to learner's development and learning. When deaf learners engage in activities with their hearing peers, they learn social interaction skills and also improve

their cognitive abilities. New roles can be practiced and they learn to share, cooperate and collaborate.

Peer interaction is accomplished through the use of language and communication. Skjørten (2001) stated that communication means the exchange of ideas, interest, feeling, thoughts, opinion, or information by sets of codes formed as signals or symbols which all partners can understand and handle. Therefore, in communication, each person is expected to be alert to the needs of the other to ensure that the message is effectively conveyed and understood.

Young and Kretschmer (1994) conducted a study to examine social interaction between a child with hearing impairments and hearing peers. He concluded that the child with hearing impairment successfully demonstrated accessing strategies which led to maintain social interaction with hearing children.

Marschark (1993) in Tobias (2006) has observed that children with hearing impairments who emerge from restrictive home environments are likely to experience interaction behaviors that differ from other children. He notes that restrictions in interpersonal interactions between children with hearing impairments and their parents are likely to have a negative influence on the child's socialization. In addition, Lederberg (1993) in Mlay (2010) stated that hearing impairment can cause a child to be less interested in interacting with peers whose communication is primary through speech. From what is reported above, it is clear that children with hearing impairments can hinder the establishment of positive interaction which in turn influences possibilities for interaction and acceptance.

Muvirimi (2000) shows that when different groups of people are not put together, understanding and acceptance of their differences and a change of their attitudes towards one another can hardly be attained. Interaction promotes positive changes in social attitudes towards one another.

CHAPTER 3: METHODOLOGY

3.1. Introduction

This chapter presents a description of the methodology which was used in collecting and analyzing the data for this study. It also describes the research design used, the population for the study, sample and sampling procedures followed, the research instruments used to collect the data, data collection procedures, data analysis and research ethics.

3.2. Research design

This study employed a qualitative approach, using a case study design to obtain the information about the interaction between deaf learners and hearing learners in mainstream schools in Oshana and Khomas regions. This approach was selected because the researcher was able to interact with the participants. A case study design was used in this project to gain more insight on the interaction experiences of deaf learners and hearing learners as well as teachers in mainstream schools. The case study design would help the researcher to interact with the natural setting in which interaction between role players is taking place and understand it from the participant's point of view.

3.3. Target Population

A population is the larger group with one or more characteristic in common from which a sample is obtained (Gay, Mills, & Airaslan; 2009). The target population for this study consisted of deaf learners and hearing learners as well as teachers at the two mainstream schools that include learners with hearing impairments, one in Oshana region and the other in Khomas region.

3.4. Sample and sampling procedures

“A sample is a group of individuals, items or events that represents the characteristics of the larger group from which the sample is drawn” (Gay et al (2009, p. 247). Schools “X” and “Y” were sampled for this study. The letters “X” and “Y” were used to disguise the names of the participating schools for confidentiality reasons. These two schools were selected because they are the only schools where deaf learners are mainstreamed in those two regions. Subsequently, the two schools were selected through purposive sampling method. Purposeful or purposive sampling is the most common form of sampling in which investigators can learn a great deal about the problem, (Gay et al, 2009).

The study sample included all five deaf learners that were in grades 11 and 12; 30 hearing learners that were classmates of the deaf learners; and ten teachers that were teaching in the classroom where deaf learners were mainstreamed at X and Y schools in Oshana and Khomas regions respectively.

3.5. Research instruments

This study used a semi-structured interviews and observation to collect the data from the participants. Cohen, Manion, and Morison (2000) consider an interview as an exchange of views between two people on a topic of mutual interest and emphasize the social context of research data. It is a research instrument that involves the collection of data through verbal interaction between the interviewer and interviewee. Interview provides a chance for the participants to expand on their ideas, explain their views and identify what they regard as crucial factors. Subsidiary questions and prompts were also used to clarify participants’ responses. The interview has disadvantage as that their analysis of data can be difficult and time consuming.

The interview was one of the methods of data collection used in this study. The added advantage of using interviews is its adaptability, skilled interviewers make an effort to build a trust relationship with respondents thus making it possible to obtain information that the respondent probably would not have revealed through any other data collection method (Gall, Gall & Borg, 2007). It also enables the researcher to follow up on respondents' answers to obtain more information and clarify unclear statements. The participants being interviewed were ten teachers, five deaf learners and 30 learners without hearing impairments, they were all interviewed separately. The interview guides with list of questions were prepared before the field study.

The interview questions for deaf learners were translated by the researcher into sign language during the interview. Open-ended and closed questions were used in the interview. The interview for both teachers and learners was conducted in the staffroom which was not in use during classes and participants who were having free period were interviewed at that time and sometimes some participants were interviewed after classes. The interview for learners took about 15 to 20 minutes. The interview for teachers took about 45 to 60 minutes to complete. All participants were interviewed once without break. The questions for deaf learners were focusing on how Deaf learners interact with hearing learners in their school environment and also focused on difficulties they experience when interacting with hearing learners.

The interview questions for hearing learners was focusing on how Deaf learners interact with hearing learners in mainstream schools and also on what difficulties hearing learners experienced when interacting or attempting to interact with Deaf learners.

The interview for teachers focused on how teachers communicate with Deaf learners in the teaching and learning process. And also in what ways do the schools encourage interaction between deaf learners and hearing learners.

In addition to semi-structured interviews, observations we also used in this study. Observations have potential to provide an opportunity to gather first-hand information. Observation tools were developed from each study question prior to the fieldwork Some of the key points on the observation tools were: ways and means of communication between, the number of times deaf learners and hearing learners took to interact; who initiated the interaction; specific issues that negatively affected the interaction between deaf learners and learners without hearing impairments and many more.

The advantages of observation in qualitative research are that, it helps to obtain the real data directly from the social and physical environment of the participants being studied (Gall, Gall & Borg, 2007). If used properly, observations can provide more reliable information because they draw on the direct evidence the witness has (Cohen, Manion & Morison 2000). Observation can be participant based, where by the researcher becomes part of the community that he or she is to study or non-participant based, where by the observer can be in the targeted community by only observing what is happening.

This study employed a non-participant observation method with emphasis on understanding the natural environment within which participants lived without changing or manipulating it. Deaf learners were observed on how they interacted with their teachers in the classrooms and with hearing learners in and outside classrooms without a sign language interpreter.

Ten teachers were supposed to be observed but only six were observed because four teachers (one at school Y and three at School X) could not engage deaf learners in the conversation without sign language interpreters. The observed participants included six teachers, five deaf learners and thirty hearing learners. A total of six lessons of 30 to 45 minutes were observed. Deaf learners were observed three times per day for two weeks during break, before classes and during lessons when there is no sign language interpreter in the classroom at both schools. Interaction between hearing learners and teachers interacting with deaf learners was recorded on a personal video recorder and also noted in the observation note book. Each deaf learner has been observed three times in three different situations. Within 45 minutes the researcher had 30 minutes to record with a video camera and 15 minutes to note the behavior which was observed as per the observation tools. This has been done for all five deaf learners and six teachers. The data collected through observation were transcribed into notes as presented in the findings and analysis chapters.

3.6. Pilot study

A pilot study was conducted in one regular school with two deaf learners and two teachers to evaluate and validate the effectiveness of the tools, methods and procedures deployed for data collection of the main study. This exercise helped to improve and prevent uncertainties from the research instruments accruing in the main study. After the pilot study insignificant improvement was done on the instruments because it was found that some questions were not clear enough to the participants.

3.7. Validity and reliability of the instruments

Validation of instruments refers to the quality of data gathering instruments which measure (Kothari, 2004). In qualitative research, reliability can be regarded as a fit between what the researcher records as data and what actually occurs in the natural setting that is researched. To ensure validity and reliability of expected data, the supervisors of this study reviewed and subsequently approved the research instruments before they were used in the field. A pilot study was done to check and recheck the validity and reliability of the instruments to which proper corrections were made.

During data collection for the main study, the researcher listened carefully and wrote down all what the participants said in order to obtain accurate data during the interview. The researcher also clarified the questions to the participants when it was needed. During observation the video recorder was used and each Deaf learner was observed three times in three different sessions.

3.8. Data collection procedures

It is unethical to carry out research in Namibian schools without permission from the Ministry of Education Art and Culture. It was for this reason the researcher wrote to the Permanent Secretary for Ministry of Education Art and Culture and also attached an ethical clearance document from the School of Postgraduate Studies of the University of Namibia requesting for permission to do research in two regions at the chosen secondary schools. The letter also explained the objectives and time frame of the study. Permission was granted and the researcher was referred to the offices of the Directors of two regions where the two mainstream schools are allocated.

Another letter was written to the respective Directors of Education asking for their permission to carry out the study in schools in their regions. A letter of approval from the Permanent Secretary was attached to the letter to the directors. The signed letter of permission was then presented to the school principals together with the personal letter.

Study participants were identified and gathered with the assistance of the school principal for debriefing on the objectives of the study, procedures of the research process and equipment to be used. Dates and times of the interviews were scheduled according to the convenience of participants. This process facilitated the access to the schools during the research period.

3.9. Data analysis

Data analysis in qualitative studies is “a process of bringing order, structure and meaning to the mass of collected data” (De Vos, 2011, pp. 339-340). It is a search for general statements about relationships among categories of data and the search for participant’s truths. Frankel and Wallen (2000) explain data analysis as a systematic process involving working with data, organizing and breaking them into manageable units, synthesizing them, searching for patterns, discovering what is important and what is to be learned and deciding what to tell others.

In qualitative studies, the process of data analysis begins while the researcher is collecting data, noting something in an observation or interview to follow up in subsequent data collection. Therefore, data collection and analysis is a simultaneous activity in qualitative research. Kothari (2004) stated that data analysis is a process, which implies editing, coding, classification and tabulation of collected data.

Marshall and Rossman (2006: p.45) stated that “coding is done as a measure of dependability, stability and consistency”. Coding implies the assigning of some sort of shorthand designation to various aspects of the data so that one can easily retrieve specific pieces of the data. The designations can be single words, letters, numbers, phrases or a combination of these. In this study, letters and a combination of words and phrases were used as coding system. Coding of the findings has been done by observing the participants and collected data under the study.

The names of the participants were coded as follows: the five deaf learners were coded A, B, C, D and E, the school in Oshana region was coded X and the school in the Khomas region was coded Y. Two of these five deaf learners were females and the other three were males. Their ages ranged from 17 to 21 years of age.

Ten teachers from both schools were coded as T1, T2, T3, T4, T5, T6, T7, T8, T9 and T10. Their ages ranged from twenty-six to forty-five years. Six of these teachers were females and four of them were males. Their working experience with deaf learners varies from one to four years.

The 30 hearing learners were just referred to as hearing learners from school X or Y. Eighteen of them were females and twelve were males. Their ages ranged from 16 to 20. A total of forty-five participants were interviewed while eleven of them were interviewed and observed. Data was not reduced to numerical symbols, but observed and recorded in all its richness.

3.10. Research Ethics

It is of paramount importance that the researcher considers the right, privacy, dignity and sensitivities of her study participants and the institutions in which the study takes place. In order to undertake the study in an ethical manner, the following ethical principles were included into the research process. To start with, the researcher had to apply for permission from the relevant authorities to conduct research. Robson (2003) stresses the need for researchers to get permission from relevant authorities before the study has started. Getting ethical clearance from the University of Namibia provided the researcher permission to carry out this study. The ethical clearance enabled the researcher to seeking permission from the Permanent Secretary of the Ministry of Education, Arts and Culture, Directors of Oshana and Khomas regions, principals of selected schools, teachers and parents or guardians of learners who are considered to be minors before taking part in the study

Furthermore, approval was also obtained from the learners who are mature enough by completing and signing the consent form. Upon arrival at selected schools, the researchers had meetings with teachers and learners during the meeting the researcher explain carefully the objectives of the study and the researcher made it clear to the participants that they have the right to withdraw any time they feel like doing so. The participants were informed that their identities will remain confidential.

Confidentiality was considered by assuring participants that all issues discussed remained between the researcher and the participants and all the information will be presented in an anonymous fashion. The researcher spent some time with learners to get to know each other better. This has also reduced fear to participate in the study. To

respect privacy, the participant's real names and the names of their schools were not revealed in the final thesis.

For confidentiality and safety reasons, teachers were requested by the researcher to identify a suitable place for the interviews within the schools. The study was carried out with respect and concern for the dignity and welfare of the research participants. The instruments were administered without interfering with the school daily timetable.

CHAPTER 4: PRESENTATION OF THE RESULTS

4.1. Introduction

All the data collected was analyzed and presented in this chapter. It includes the demographic information of all participants, the researchers' observations, as well as the respondents' view points on specific issues raised in the interviews and discussions of this study as responding to the research questions under the study.

4.2. Demographic data of participants

Four Deaf learners from school X and one from school Y and were interviewed and observed. Two of these five deaf learners were females and the other three were males. Their ages ranged from 17 to 21 years of age. Thirty hearing learners were interviewed from both from, of whom eighteen of them were females and twelve of them were males. Their ages ranged from 16 to 20. Ten teachers from both schools were interviewed and six of them were observed. Their ages ranged from twenty-six to forty-five years. Six of these teachers were females and four of them were males. Their working experience with Deaf learners varies from one to four years. A total of forty-five participants were interviewed while eleven of them were interviewed and observed.

4.3. Views of Deaf learners

Deaf learners were interviewed to express their views on the nature and quality of interaction (communication) and support they received from the hearing learners as well as teachers at their respective schools. Listed below were their recorded responses and the observations made by the researcher.

4.3.1. Means of communication

To establish the manner in which they communicate, Deaf learners were requested to reply to this question: *“What do you do to communicate with hearing learners?”*

Participant	Responses from participants	Researcher’s observation
A	<i>“I write on a piece of paper or on the ground if we do not have a paper.”</i>	Participant A communicated through writing
B	<i>“I write on a piece of paper or on the ground if we do not have a paper. I sometimes sign because there are some hearing learners who understand sign language.”</i>	Participant B communicated by sign language; would write when not show how to sign the message; was always friendly
C	<i>“I write on the paper and sign because I taught hearing learners sign language; it depends on with whom I communicate.”</i>	Participant C would write and use informal signs which can be understood by others
D	<i>“Most of the times we communicate through writing.”</i>	Participant D communicated through writing and sign language; was friendly and was always eager to teach others the sign language
E	<i>“Through writing, but some times when I am with my friend we communicate in sign language because he knows Sign language.”</i>	Participant E writes on cell phone and sometimes writing on piece of paper to communicate during break time; was friendly and eager to teach others the sign language.

Table 1: Means of communication

Table 1 show that Deaf learners use various ways to communicate with hearing learners. They write messages either on piece of paper or on the ground depending on where they find themselves. Sometimes they use informal Sign language to some hearing learners whom they had taught basic Sign language. The researcher observed that indeed Deaf learners and hearing learners do communicate.

In addition, the researcher observed that, apart from using a paper and pen, learners could use their cellphones to write on message at times. They would write on the ground when they are outside the classroom.

4.3.2. Frequency of interaction

To find out how frequent Deaf learners interacted with hearing learners, Deaf learners were asked this question: *“How often do you interact with hearing learners?”*

Participant	Responses from participants	Researcher’s observation
A	<i>“Sometimes, because they do not know Sign language”.</i>	Interact sometimes with hearing learners and their interaction lasted for a short period of time because the deaf learners want to know more.
B	<i>“Rarely; only when there is a need.”</i>	Interaction is Rare and takes few minutes.
C	<i>“Sometimes, because hearing learners tend to communicate often amongst themselves.”</i>	Many times and the causes mostly is when wants to borrow something from the other one. Tell her what has been said by others.
D	<i>“Sometimes, because you do not express well to them because there</i>	Sometimes and the interaction lasted for a very short period of

	<i>are always misunderstandings because of the language problem”.</i>	time.
E	<i>“Always, because he is my friend and taught him sign language so it is easy to talk to him. I am the only deaf learner at this school and sometimes I am bothered because I follow hearing learners, watching them talking and laughing to each other while I do not understand what they are talking about when my friend is not there to tell me what has been said”.</i>	Always communicate with hearing learners.

Table 2: frequency of interaction

As depicted in Table 2, three deaf learners indicated that they only interacted with hearing learners at times because learners tended to communicate more often amongst themselves. Participant B mentioned that he rarely communicates with the hearing learners and he only does it when there is a need.

The researcher also observed that some Deaf learners occasionally communicated with hearing learners in the classroom and during break time. During break time the researcher noted that Deaf learners tended to be together communicating with one another. This was observed at school X where there were four deaf learners.

Participant E stated that he always interacted with one particular hearing learner because he was his friend and he knew Sign language that he taught him so it was easy to communicate with him. He further reported that, being the only Deaf learner at the school, he sometimes merely watched hearing learners as they talked and laughed with

each other. He does not understand nor follow what they say when his friend is not there to translate for me.

4.3.3. Initiators of communication

To know who mostly starts the communication between Deaf learners and hearing learners, participants were asked this question, “*From your experience, who mostly starts the communication between Deaf learner and hearing learners?*”

Participant	Responses from participants	Researcher’s observation
A	<i>“Deaf learners”</i>	A Deaf learner mostly starts the communication between deaf learner and hearing learners.
B	<i>“Deaf learners”</i>	Deaf learners mostly start the communication between deaf learner and hearing learners.
C	<i>“Deaf learners”</i>	Learners without hearing impairments mostly start the communication between deaf learner and hearing learners.
D	<i>“Hearing learners.”</i>	Deaf learners mostly start the communication between Deaf learner and hearing learners.
E	<i>“Hearing learners.”</i>	Anyone depends on who wants to say something.

Table 3: Initiators of communication

Based on Table 3, participants A, B, and C indicated that deaf learners who mostly initiated the communication between Deaf learners and learners without hearing impairments; whereas D and E reported that it was hearing learners that mostly initiate

the interaction. To the contrary, the researcher observed that either the Deaf learners or hearing learners could start the communication.

4.3.4. Challenges

To find out the difficulties Deaf learners experience when they interact with hearing learners, Deaf learners were asked to answer to this question: *“What difficulties do you experience when you are interacting with hearing learners?”*

Participant	Responses from participants	Researcher’s observation
A	<i>“Communication problem, sometimes”</i>	Language barriers
B	<i>“Communication problem, which leads to misunderstanding”</i>	Communication problem due to sign language
C	<i>‘Communication problem because hearing learners do not know Sign language.’</i>	Language barriers that causes them to resort to writing.
D	<i>“I do not understand them”, because they do not know Sign language”</i>	Communication problem,
E	<i>“Communication is a problem, when communicating with some hearing learners we do not understand each other well, there is always a misunderstanding.”</i>	Communication problem, deaf learner show interest in communicating with hearing learners but one can see how they are struggling to communicate.

Table 4: Challenges

All Deaf learners interviewed stressed that communicating with hearing people was very difficult at mainstream schools. They associated such poor communication with very serious misunderstandings between and among learners and teachers. Participant D

reported that Deaf learners do not understand most of the hearing learners because of the Sign language barriers. The researcher observed that deaf learners in mainstream schools were struggling to communicate with their peers; and were not engaging in meaningful conversations because of the language barriers.

4.3.5. Learners' socialization

To find out how Deaf learners socialized with hearing learners outside the classroom, Deaf learners were asked this question: *“When there are no Sign language interpreters, how do you socialize with hearing learners?”*

Participants	Responses from participants	Researcher's observation
A	<i>“I socialize only with some of learners from our class, because they know a little about Sign language”.</i>	<ul style="list-style-type: none"> • Using Sign language (informal) and writing.
B	<i>“We communicate in Sign language because we taught them basic Sign language but many times we write because sometimes we do not understand each other.”</i>	<ul style="list-style-type: none"> • Through doing different activities and they communicate in sign language, but lasted for a short period of time.
C	<i>“We communicate through writing what we want to tell each other's.”</i>	<ul style="list-style-type: none"> • They communicate through writing and using Sign language.
D	<i>“We socialize using Sign language but when we do not understand one another we write on the paper.”</i>	<ul style="list-style-type: none"> • Sign language and sometimes writing on the ground.
E	<i>“I only socialize with my friend who knows Sign language because we understand each other very well.”</i>	<ul style="list-style-type: none"> • Sign language and writing on the ground and mobile phone.

Table 5: Learners' socialization

Based on Table 5, Deaf learners socialize by using basic Sign language they have taught their friends and / or by writing either on the paper or on the ground. Participant A stated that he only socialized with learners from his class because they knew little about Sign language. Participant E said that he only socialized with a friend who understands him well. The researcher observed that when there were no Sign language interpreters, Deaf learners socialized by using Sign language and writing the message on the paper, ground or mobile phones.

4.3.6. School interventions

To find out what the schools had done to encourage the communication between Deaf learners and hearing learners, Deaf learners were asked to answer this question: *“What has your school done to encourage the communication between deaf learners and other hearing learners?”*

Participant	Responses from participants	Researcher’s observation
A	<i>“Nothing”.</i>	<ul style="list-style-type: none"> • No activities taking place at schools. • Centre for Communication and Deaf Studies (Centre for Communication and Deaf Studies) as well as Namibia National Association for the Deaf (NNAD). • Make use of Sign Language interpreters or Deaf learners themselves to teach hearing learners after school.
B	<i>“Nothing really, but the principal encourage hearing learners to learn Sign language so that they can communicate with us” but no platform to learn the Sign language”.</i>	
C	<i>“Nothing”.</i>	
D	<i>“Nothing”.</i>	
E	<i>“The school manager distributed Sign language alphabet to hearing learners when I came at the school.”</i>	

Table 6: School intervention

According to Table 6, all Deaf learners at reported that their schools has done nothing to encourage the communication between Deaf learners and other hearing learners. However, Participant B indicated that the school principal encouraged hearing learners to learn Sign Language so that they can communicate with us but he did not create a platform to learn Sign language. The Deaf learner at (school Y) noted that the school manager only distributed copies of the Sign language alphabet to all hearing learners at the beginning of the year. The researcher has observed that there are no activities taking place at the schools to encourage the interaction between Deaf learners and hearing learners. It was discovered that there is a Namibia National Association for the Deaf community as well as Centre for Communication and Deaf Studies and hearing impaired schools in the surrounding of those mainstream schools were hearing learners and teachers can learn the sign language.

4.3.7. Suggestions of deaf learners

To solicit their views on what should be done to improve the interaction between them and hearing learners at schools, Deaf learners were asked this question: *“What do you suggest should be done to improve the interaction between (you) Deaf learner and hearing learners?”*

Participant	Responses from participants
A	<i>“Afternoon classes for everybody in the school where people can learn Sign language”.</i>
B	<i>“The school can introduce afternoon classes for Sign language for hearing learners, teachers and matrons’ cooks, cleaners and everybody in the school to attend.</i>
C	<i>“Afternoon classes for everyone in the school who wants to</i>

	<i>learn Sign language”</i>
D	<i>“Hearing learners can be given Sign language books to learn Sign language”</i>
E	<i>“Hearing learners can be given Sign language books”</i>

Table 7: Suggestions of Deaf learners

As shown in Table 7, participants had suggestions as alternatives to the presenting problem. They proposed introduction of afternoon classes of Sign language for all learners without hearing impairments, teachers, institution workers and everybody at mainstream schools. They also suggested giving Sign language books to hearing learners from which they could learn how to sign.

4.4. Views’ of hearing learners

As part of the study, thirty hearing learners were interviewed and asked to respond to the same questions that were asked to deaf learners. Due to the fact that they are many (30 learners) and their responses are found to be the same, were grouped and referred according to their schools (Y and X). Below are their responses and the researcher’s observation results.

4.4.1. Means of communication

To establish the manner in which they communicate with Deaf learners, hearing learners were requested to reply to this question: *“How do you communicate with Deaf learners?”*

Participant	Responses from participants	Researcher’s observation
X learners	<i>“Sometimes we communicate in sign language because Deaf learners</i>	<ul style="list-style-type: none"> • Sign language • Sometimes writing

	<i>taught us basic Sign language, but when we do not understand each other in Sign language we turn to writing”.</i>	
Y learners	<i>“We communicate in Sign language because Deaf learners taught Sign language, but when we do not understand each other in Sign language we turn to writing”, but sometimes we misunderstand each other. “</i>	<ul style="list-style-type: none"> • Sign language • Sometimes writing

Table 8: Means of communication

As depicted in Table 8, hearing learners from both school X and Y had ways of communicating with Deaf learners. They used basic Sign Language which Deaf learners taught them. They resorted to writing whenever they did not understand the messages being communicated to them by deaf learners. Some learners indicated that even though they used Sign language there were misunderstandings in the communication with Deaf learners.

4.4.2. Frequency of interaction

To find out how frequent the hearing learners interacted with Deaf learners, hearing learners were asked this question: *“How often do you interact with Deaf learners?”*

Participant	Responses from participants	Researcher’s observation
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X learners	<i>“Always we communicate with them, because we do not want them to feel isolated; and if there is a need, because it is not easy and deaf learners perceive their interaction as inadequate and social ability as poor, because most of the time they are quite.”.</i>	They communicate most of the time especially during break time.
Y learners	<i>“Often, because they are eager to learn the Sign Language and they are in the same classroom and sit next to each other. Sometimes, because we feel pity for him he is the only one in the school. He has no other deaf people to communicate with in the Sign Language so we just try to make him feel part of the class.”</i>	Most of the time he is involve in conversation with hearing learners.

Table 9: Frequency of interaction

Table 9 shows that hearing learners always communicated with Deaf learners for various reasons. These included eagerness to learn the Sign Language; sharing classroom seats with Deaf learners; feelings of pity for Deaf learners; and to make Deaf learners feel part of the class. However, some hearing learners said that they only communicated with deaf learners if there was a need because it is not easy and that Deaf learners perceived the interaction as inadequate.

4.4.3. Initiators of communication

To better understand who mostly started the communication between Deaf learners and hearing learners were asked this question: *“From your experience who mostly starts the communication between you and Deaf learners?”*

Participant	Responses from participants	Researchers’ observation
X learners	<i>“Deaf learners want to know what</i>	Hearing learners initiate

	<i>has been said by hearing learners during their conversation”.</i>	communication because they want to learn the Sign language.
Y learners	<i>“Deaf learners want to know what has been said by hearing learners during their conversation.”</i>	Deaf learners and sometimes hearing learners.

Table 10: Initiators of communication

Based on Table 10, hearing learners indicated that it was the deaf learners who usually initiated the communication between them. The explanation was that it was always the Deaf learners who were curious to know what has been said by during their conversation. However, during break time the researcher observed that at school X hearing learners initiated communication at times because they were eager to learn the Sign Language - they wanted Deaf learners to teach them the Sign Language.

4.4.4. Challenges

To find out the difficulties hearing learners experienced when interacting with Deaf learners, hearing learners were asked to answer to this question: *“What difficulties do you experience when you are interacting with deaf learners?”*

Participant	Responses from participants	Researchers ‘observation
X learners	<i>“I am not able to use the sign language. I cannot express myself well to deaf learners. Even if you write on a piece of paper, when a Deaf learner writes; you do not understand what they are trying to tell you. Their English is not clear and this sometimes brings frustration and withdrawal from the conversation with them.”</i>	Sign language; LWHI were not able to communicate in Sign language. They write the message on the paper, when they are outside they write on the ground.

Y learners	<i>“I cannot communicate effectively using the Sign Language. My lack of knowledge on the Sign Language affected communication with Deaf learners, Most of the time we misunderstand one another.”</i>	Sign language; Not able to communicate in sign language. They write the message on the paper, when they are outside they write on their cell phone.
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Table 11: Challenges

As displayed in Table 11, hearing learners indicated that they experienced difficulties when interacting with Deaf learners due to their inability to communicate effectively through Sign Language. Lack of knowledge in the Sign Language greatly hampered their communication with Deaf learners resulting, at times, in gross misunderstandings between them and deaf learners. At times, they found it very difficult to comprehend Deaf learners write on paper because their English is not clear. Such miscommunications sometimes brought unnecessary frustrations and withdrawals from the conversation with Deaf learners.

4.4.5. Learners’ socialization

To find out how hearing learners socialize with Deaf learners outside the classroom in the absence of Sign Language interpreters, hearing learners were asked to reply to the following question: *“When there is no Sign Language interpreter, how do you socialize with Deaf learners outside the classroom?”*

Participant	Responses from participants	Researchers’ observation
X learners	<i>“We socialize with Deaf learners in different occasions. Communicate by using few signs that Deaf learners taught us. Informal signs and also writing on</i>	Using Sign language. By writing on the ground.

	<i>the ground. We do not socialize with them because it is not easy to communicate with him”</i>	
Y learners	<i>“By writing on the ground. We communicate by using few signs that deaf learners taught us. We do not socialize with him because it is not easy to communicate with him”</i>	By writing on the ground and or creating a message on a mobile phone. Using Sign language

Table 12: Learners socialization

Table 12 shows that hearing learners socialized with deaf learners in different activities. They communicated by signs that Deaf learners taught them, by informal Sign language, and by writings on the ground, paper or cell phones. The researcher observed learners writing on the ground and on their phones at school Y. Nonetheless, some learners reported that they did not socialize with Deaf learners because they find it hard to communicate with them. From the observation, the researcher noted evidence more socialization themselves than with Deaf learners.

4.4.6. School interventions

To determine what schools were doing to encourage the communication between Deaf learners and hearing learners, hearing learners were asked to answer to the following question: *“What has your school done to encourage the communication between you and Deaf learners?”*

Participant	Responses from participants	Researcher’s Observation
X learners	<i>“Our school has done nothing to encourage the communication between deaf learners and hearing learners. We learn the Sign Language from the Deaf learners at</i>	No strategies in place

	<i>our school.”</i>	
Y learners	<i>“Our school has done nothing to encourage the communication between Deaf learners and hearing learners. Only learn the sign language from the Deaf learner/s at their school.”</i>	No activities taking place at school Centre for Communication and Deaf Studies (CCDS) as well as Namibia National Association for the Deaf (NNAD). Make use of Sign Language interpreters or deaf learners themselves to teach them.

Table 13: Schools interventions

As depicted in Table 13, all the learners indicated that their schools have done nothing to encourage the communication between them and Deaf learners. They learn the Sign language from the Deaf learners at their school on their own. The researcher did not observe activities that encouraged the interaction between Deaf learners and hearing learners. It was discovered that there is a school for hearing learners in the surrounding of those mainstream schools where they could go and learn the Sign Language or could ask interpreters or Deaf learners to give them lessons for Sign language.

4.4.7. Suggestions of hearing learners

To find out from hearing learners as to what should be done to improve the interaction between Deaf learners and hearing learners at schools, hearing learners were asked to reply to the questions: “What do you suggest should be done to improve the interaction between you (hearing learners) and Deaf learners?”

Participants	Responses from participants
X learners	<i>“Sign language classes in mainstream school. “Books for the Sign Language can be distributed to hearing learners”.</i>
Y learners	<i>“We need Sign Language classes” or maybe we can be given books on Sign language if there is. Sign language can be included in the curriculum for life skill.”</i>

Table 14: Suggestions of hearing learners

Table 14 shows that learners had ideas on what could be done to address the presenting problem of poor communication between Deaf learners and hearing learners. They mentioned the need for Sign language classes (from Deaf learners) and books (from schools) to learn the Sign language. Provision of Sign language interpreters; and including Sign language in the curriculum for Life skills could be very helpful. This last part does not occur in the data you presented above.

4.5. Views of teachers

Teachers that interacted with both groups of learners were also interviewed and asked to respond specific and relevant questions. Following are their perceptions on the situation and the researcher’s observation results as recorded during and after the interview sessions.

4.5.1. Teachers’ training qualifications

To establish the level of training that each teacher had received in working with Deaf learners, teachers were asked this question: *“Have you ever undergone training on teaching Deaf learners?”*

Participant	Responses from participants
Teacher 1	<i>“Yes, I received training on learners with special needs when I was working at a special school.”</i>
Teacher 2	<i>“No, I did not receive training on how to work with Deaf learners”</i>
Teacher 3	<i>“No, I did not receive training on how to work with Deaf learners”</i>
Teacher 4	<i>“Yes I attended a workshop but that was too general and I still feel I am not prepared to work with deaf learners. And it was just a week. One week is too short which it was supposed to be a continuous program for teachers in inclusive schools”</i>
Teacher 5	<i>“No. I did not, but I did inclusive education module at University of Namibia when I was doing my teachers training. It was on learners with special needs not specifically on deaf education.”</i>
Teacher 6	<i>“No.”</i>
Teacher 7	<i>“No training but I did a module on inclusive education at University” of Namibia. Everything I know I basically taught myself. “</i>
Teacher 8	<i>“No training but I taught myself a few signs”</i>
Teacher 9	<i>“No training”</i>
Teacher 10	<i>“No training, but I can greet them in Sign language”</i>

Table 15: Teacher’s training qualifications

Based on Table 15, none of the participating teachers had formal training in working with or teaching Deaf learners. However, two of the ten participants reported to have received in- service training on learners with special needs but the training did not prepare them to work with Deaf learners in particular. The remaining eight teachers said that they did not receive official training in dealing with Deaf learners. They taught themselves basic Sign language just for communication purposes but they cannot go into details.

4.5.2. Challenges for teachers

To find out specific challenges educators experienced when interacting with Deaf learners teachers were asked to respond to this question: *“What are your specific challenges when interacting with Deaf learners?”*

Participants	Responses from participants	Researcher’s observation
Teacher 1	<i>“I do not know Sign language”</i>	No observation
Teacher 2	<i>“I cannot communicate with them”</i>	No observation
Teacher 3	<i>“I do not know Sign language”</i>	No observation
Teacher 4	<i>“I do not know Sign language well so I cannot talk to them directly only through the sign language interpreter, but sometimes they look like not also understanding what is being interpreted to them.</i>	Sign language become a challenge
Teacher 5	<i>“I do not know Sign Language well, I rely on interpreters.”</i>	Deaf Learners instructions were written down, because the teacher cannot communicate in Sign Language.
Teacher 6	<i>“Sign Language, because I cannot sign”</i>	No observation
Teacher 7	<i>“I do not know sign language, I was never taught or introduced to sign language but I try.”</i>	Sign language; Writing on the board
Teacher 8	<i>“I do not know sign language well but I try but communication remains a challenge.”</i>	Sign language; Use other learners without hearing impairment to interpret for deaf learners.

Teacher 9	<i>“I do not know Sign Language. When deaf learners came here we never be taught how to communicate with deaf learners”.</i>	Sign language and write
Teacher 10	<i>“Communication is a challenge, but I always try using the few signs that I can”</i>	Sign language Opted to write it down

Table 16: Challenges for teachers

As indicated in Table 16, all teachers that participated in this study mentioned specific challenges that they experience when interacting with Deaf learners. They noted that they did not know the Sign language; and thus relied on the Sign language interpreters to teach Deaf learners. The researcher noted that some teachers in mainstream schools could not interact with Deaf learners in the absence of Sign language interpreters. Some teachers said that, once they want to communicate with them, they had to write messages on the chalkboard or ask those learners without hearing impairments who know a bit of Sign language to interpret for Deaf learners. Four teachers interviewed stressed that communication is a challenge but “they try to use a bit of Sign Language they know”. They indicated that they mostly rely on Sign language interpreters. The researcher observed that Sign language is a challenge to the mainstream school teachers some try to involve Deaf learners but in a shortest time. It was observed that teachers sometimes opted to write the message down and some teachers use learners without hearing impairments to interpret for Deaf learners when there is no Sign language interpreter but during teaching and learning teachers rely on Sign language interpreters.

4.5.3 Learners' interactions

In order to gauge teachers' views on the interaction between deaf Learners and hearing learners, teachers were asked this question: *“What are your views on the interactions between Deaf Learners and hearing learners?”*

Participant	Responses from participants
Teacher 1	<i>“The interaction is quite good.”</i>
Teacher 2	<i>“It’s good, because hearing learners are eager to learn Sign Language. Most of the time you find hearing learners trying to interact with deaf learners”</i>
Teacher 3	<i>“Very limited”</i>
Teacher 4	<i>“Quite good, hearing learners are trying to communicate with Deaf Learners”</i>
Teacher 5	<i>“Very limited, because you only find Deaf learners with communicating with the same learners always”</i>
Teacher 6	<i>“Not much”</i>
Teacher 7	<i>“Not much”</i>
Teacher 8	<i>“Is good, because most of the tie you find Deaf learners and hearing learners interacting with each other’s.”</i>
Teacher 9	<i>“Not much”</i>
Teacher 10	<i>“Quite good”</i>

Table 17: Learners interactions

As displayed in Table 7, five teachers indicated that the interaction between Deaf learners and hearing learners was quite good. They said this was because hearing learners were eager to learn the Sign Language. However, five teachers reported that communication between Deaf learners and hearing learners was limited except to those who knew a bit of Sign language.

4.5.4 Initiators of communication

On the issue of the party that initiates the communication between the Deaf learners and hearing learners, teachers were requested to respond to this question: *“From your experience, who mostly starts with the communication between Deaf learners and hearing learners?”*

Participant	Responses from participants
Teacher 1	<i>“Deaf learners , when they want to know what others are saying”</i>
Teacher 2	<i>“Hearing learners”</i>
Teacher 3	<i>“Deaf learners, what has been said by others”</i>
Teacher 4	<i>“Sometimes is hearing learners because they want to be taught Sign language”</i>
Teacher 5	<i>“Deaf learners”</i>
Teacher 6	<i>“Deaf learner, when fails to guess what was said then they seek for clarity”</i>
Teacher 7	<i>“Deaf learners”</i>
Teacher 8	<i>“Hearing learners want others to be involved and understand the discussion”</i>
Teacher 9	<i>“Depends on who wants to say something first”</i>
Teacher 10	<i>“Hearing learners want Deaf learners to be involved in the lesson.”</i>

Table 18: Initiators of communication

Table 18 Four teachers’ indicated that Deaf learners were the ones who mostly initiated the interactions with the hearing learners because Deaf learners wanted to know what others were saying; sought clarity when they failed to guess what had been said by hearing learners.

Four teachers indicated that at times hearing learners also initiated the interaction especially when they wanted deaf learners to be involved and to understand what had been said; and also when they wanted to learn Sign language for better communication. Two educators mentioned that anyone would initiate the communication depending on who wanted to convey the message.

4.5.5 Frequency of interaction

To know their standing point on how frequent Deaf learners and hearing learners interacted, teachers were asked, *“How often do Deaf learners and hearing learners interact with one another?”*

Participant	Responses from participants
Teacher 1	<i>“Often they interact, during break time and free time.”</i>
Teacher 2	<i>“Very rare, Deaf learners communicate among themselves, to avoid misunderstanding.”</i>
Teacher 3	<i>“Very often, especially with hearing learners from their class, sometimes they even interpret for them.”</i>
Teacher 4	<i>“Very rare”</i>
Teacher 5	<i>“Often, Deaf learners taught LWHI the Sign language now they communication has improved not like at the beginning he came to the school”</i>
Teacher 6	<i>“Rare, because of the Sign language that hearing learners do not know”.</i>
Teacher 7	<i>“Through the Sign language, because hearing learners do not know Sign language”.</i>
Teacher 8	<i>“Rare”.</i>
Teacher 9	<i>‘Often they communicate through the interpreter many of them do not know Sign language’.</i>

Teacher 10	<i>“Through the interpreter”.</i>
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Table 19: frequency of interaction

Based on Table 19, Deaf learners and hearing learners often interacted with one another. The interaction was possible because there were individual learners whom Deaf learners taught the Sign language who would serve as interpreters for others. More interaction took place during break times and free times in their classrooms. In the table above three teachers, shows that the majority of hearing learners did not know the Sign language and that affected the frequency of interaction with the Deaf learners.

4.5.6 Means of communication

Teachers were also asked to share strategies that they used to interact with Deaf learners when teaching: *“What do you do to interact with the Deaf learners when teaching in order to ensure that they are also learning?”*

Participant	Responses from participants
Teacher 1	<i>“Make use of the interpreter”.</i>
Teacher 2	<i>“The interpreter signs what I teach”.</i>
Teacher 3	<i>“Interpreter interprets what I teach in the classroom”.</i>
Teacher 4	<i>“Use interpreters, but sometimes when they are not there other hearing learners translate for his friend. There are some hearing learners who are good at Sign language”.</i>
Teacher 5	<i>“There is always someone to interpret for them, but interpreters are finding it hard to interpret”.</i>
Teacher 6	<i>“During the lesson Interpreters are always there but when they are not there I write the message”.</i>
Teacher 7	<i>“The school is provided with Sign language interpreters; therefore</i>

	<i>they always interpret during the lessons”.</i>
Teacher 8	<i>“I use Sign language interpreters to translate Deaf learners but sometimes they find it hard because of may be the subject content that they do not have”.</i>
Teacher 9	<i>“Interpreters, but when they are not in the class I write the message either on the board or on paper then I give them to read it”.</i>
Teacher 10	<i>“Interpreters but sometimes I write on the chalkboard”.</i>

Table 20: Means of communication

As displayed in Table 20, teachers had strategies as means to communicate with their Deaf learners in and outside classrooms. These were (a) making use of the Sign language interpreters though interpreters, at times, found it difficult to interpret what is being taught especially with difficult terms; (b) writing on the chalkboard what they wanted to tell Deaf learners because they are not skilled at using the Sign language; and (c) using other learners who know a bit of Sign language to convey the message to the Deaf learners.

4.5.7 School interventions

To identify strategies that schools had in place to motivate the interaction between Deaf learners and hearing learner’s teachers were asked, *“What strategies are in place at your school to motivate the interaction between Deaf learners and hearing learners?”*

Participant	Responses from participants	Researcher’s observation
Teacher 1	<i>“No strategies in place”.</i>	No strategies in place.
Teacher 2	<i>“Nothing yet, but school offer classes for Sign language to anyone who wants to learn Sign language during the holiday, but I heard that they</i>	No strategies takes places at

	<i>targeted parents or guardians of Deaf children. Namibia National Association of the Deaf (NNAD) also offers classes for Sign language to the public”.</i>	both the schools
Teacher 3	<i>“No strategies”.</i>	
Teacher 4	<i>“Nothing but sometimes Deaf learners teach hearing learners sign language”.</i>	
Teacher 5	<i>“Nothing”</i>	
Teacher 6	<i>“No strategies at our school, but Deaf learners are included in most events because interpreters sometimes are there to interpret especially on big events”.</i>	
Teacher 7	<i>“No strategies in place so far”</i>	
Teacher 8	<i>Nothing going on here.</i>	
Teacher 9	<i>“Nothing yet but it has been my concern that teachers in inclusive schools, where Deaf learners are mainstreamed should get staff development courses on deafness and deaf related topics as well as on sign language so as to be in a position to motivate the interaction between deaf learners and hearing learners and also to communicate with deaf learners effectively. We, teachers cannot interact with deaf learners therefore we cannot motivate hearing learners to interact with deaf learners.”</i>	
Teacher 10	<i>“No strategies in place so far at our school”.</i>	

Table 21: School interventions

As shown in Table 21, all respondents said that there were no strategies in place at their schools that were meant to motivate the interaction between Deaf learners and hearing learners. However, there was mention of including deaf learners in every event; Deaf learners teaching hearing learners the Sign language at times; and the presence of a

school for the Deaf in their surrounding that offered classes for Sign language to anyone who wants to learn Sign language during the holiday, but they mostly targeted parents or guardians of deaf children. The association for the deaf Namibia National Association of the Deaf (NNAD) also offered classes for Sign language to the public.

4.5.8 Teachers' suggestions

The study solicited for the teachers' opinions on what could be done to improve the interaction between teachers and deaf learners, as well as between deaf learners and hearing learners at mainstream schools. The question was, *“What else do you suggest should be done to improve the interaction between teachers and Deaf learners, as well as between Deaf learners and hearing learners at your school?”*

Participant	Responses from participants
Teacher 1	<i>“Sign language classes for teachers and hearing learners in mainstream schools to learn sign language to be able to communicate with Deaf learners”.</i>
Teacher 2	<i>“Sign language classes for teachers and hearing learners”.</i>
Teacher 3	<i>“Sign language classes for teachers and hearing learners to learn Sign language to be able to communicate with Deaf learners”.</i>
Teacher 4	<i>“Sign language classes for teachers and hearing learners to learn Sign language to be able to communicate with Deaf learners. The regional offices should organize workshops or training on the Sign language for them to effectively interact with deaf learners”.</i>
Teacher 5	<i>“Sign language classes for teachers and hearing learners. Teachers should be given continuous in-service training in the assessments and support of Deaf learners”.</i>
Teacher 6	<i>“Sign language classes for teachers and hearing learners to learn Sign language to be able to communicate with deaf learners”.</i>
Teacher 7	<i>“Sign language classes for teachers and hearing learners to learn Sign</i>

	<i>language to be able to communicate with Deaf learners”.</i>
Teacher 8	<i>“Sign language classes for teachers and hearing learners. Teachers should be given continuous in-service training in the assessments and support of Deaf learners”.</i>
Teacher 9	<i>“Sign language classes for teachers and hearing learners to learn Sign language to be able to communicate with Deaf learners”.</i>
Teacher 10	<i>“Sign language classes for teachers and hearing learners to learn Sign language. Teachers should be given continuous workshops on the assessments and support of the barriers to learning that Deaf learners could experience”.</i>

4.5.8 Table 22: Teachers’ suggestions

Table 22 displays a list of individual opinions from teachers who were interviewed in this study. They proposed (a) formal Sign language classes for teachers and hearing learners in mainstream schools where they could learn basic Sign language; (b) continuous in-service training through workshops on the assessment and support of deaf learners; and (c) staff developmental courses on deafness and Deaf related topics as well as on Sign language educators for the teachers that teach in inclusive schools where Deaf learners are mainstreamed.

However, when the researcher asked more in-depth questions regarding this issue, most teachers still felt unprepared with regard to these issues. Some mentioned that the training they received was too general and did not prepare them to deal with Deaf learners in particular. One teacher mentioned that the regional offices should organize workshops or training on the Sign language for them to effectively interact with Deaf learners.

CHAPTER 5: DISCUSSION

5.1. Introduction

The results of the study presented in the previous chapter (i.e. the fourth chapter of this study) are discussed in full details in this chapter. The objective is to explain and attach meaning to these findings.

5.2 Communication

The findings of this study showed that teachers, Deaf learners and hearing learners had ways of communicating with each other. The most common means of communication included using basic Sign language; and writing on piece of paper, on the ground or mobile phones depending on the prevailing circumstances. On the same sentiment UNESCO (1994: p.18) stress the importance of Deaf learners being educated in their natural language (Sign language). “The importance of Sign Language as a medium for communication among the deaf, for example must be recognized and provision made to ensure that all deaf people have access to education in their national Sign Language (Namibian Sign Language).

However, Deaf learners were not keen to interact through writing because they found it difficult. Subsequently, they became less involved in the conversations with hearing learners and just interacted with other Deaf learners – they were not satisfied with the manner they communicated with teachers and hearing learners.

The findings of this study affirmed the work of Awori (2003) who found that when Deaf child perceives his social ability as poor, effective interaction is not likely to take place. They were also supported by Schimer’s (2001) study that concluded that Deaf children

often felt apprehensive about communicating with hearing peers; and such apprehension inhibited their interaction with children without hearing impairments.

On the question of who usually initiated the conversation between the Deaf and hearing learners, this study found that anyone could do it depending on the need, thereof. It was found that Deaf learners would start the communication if they would want to know what was being said or laughed at by hearing learners; or if they wanted to make friends with hearing learners. On the other hand, hearing learners would initiate the interactions when they wanted Deaf learners to teach them the sign language; felt pity for their fellow Deaf learners who appeared to be lonely; and when they needed any kind of help from Deaf learners.

It was intriguing to note that some hearing learners would socialize with Deaf learners in different activities even in the absence of Sign language interpreters. The use of basic Sign language taught by Deaf learners and the use of informal Sign language enabled learners to do so. Densham (2004) stated that “successful socialization can lead to individual self-development and fulfilment, mutually satisfying interactions and effective participation”.

5.3 Challenges

This study established that teachers, Deaf learners, and hearing learners faced specific challenges that negated interpersonal relations and social interactions among them. The problems that were identified included, among others, lack of knowledge and understanding of the Sign language on the part of teachers and hearing learners.

It was noted that relying on only the basic Sign language from the Deaf learners and informal Sign language learned from personal experiences was helpful but not effective; it brought serious challenges of misunderstanding and poor communication. Though learners professed that the communication between Deaf and hearing learners was good, teachers (on the other hand) disputed this claim by saying that the communication between Deaf learners and hearing learners was actually very limited.

The views of the teachers, in this study, was in harmony with the results of the research work by Anita (2000) that affirmed that Deaf learners interact infrequently with their hearing peers – they prefer, most of the time, to be in the group of other Deaf people where they communicate with one another with much ease. In the same vein the results of this study has proven this, when three Deaf learners make it categorically clear that hearing learners tend to communicate more often amongst them (table 2). The research work by Thomas (2000) also came to a similar conclusion that a common medium of communication which is the process of transmitting information from sender to receiver as well as the sender having the ability to encode and the receiver to decode the information remains a necessary ingredient for meaningful and effective communication.

It was evident in this study that teachers and hearing learners lacked the desired knowledge and understanding of Sign language because they did not receive formal training in the that discipline. The situation was so bad such that some teachers literary avoided interpersonal communication with a deaf learner in the absence of a sign language translators. Others resorted to writing messages on the chalkboard or asking hearing learners to translate for them. In order for effective teaching and learning to occur, effective communication is paramount. For deaf learners, for example Sign

language instructions and the training of teachers in Sign language are essential to enhance interaction and good relationship.

It was also found, in this study, that Sign language translators usually wrongly interpreted what teachers were teaching because in addition to their limited Sign language vocabulary, they lacked the required subject content knowledge. The teachers' lack of training in working with deaf learners and subsequent limited understanding of the Sign language did not only make them feel incompetent and unconfident, but also grossly deprived Deaf learners of their basic rights to quality education.

Furthermore, this study found that teachers, Deaf learners, and hearing learners had serious reservations with writing messages as means of communication because it was not only cumbersome, but also and time-consuming and tedious. Additionally, the strategy made one either to choose to communicate with Deaf learners or withdraw from the conversation, at all.

Apart from interactions for academic purposes, this study also found that some hearing learners were very reluctant to socialize with deaf learners because of miscommunication problems. They excluded deaf learners in most of their social conversations and social games to avoid Sign language translation and miscommunication problems.

Finally, it was rather intriguing to note that amidst of all the visible and tangible problems of miscommunication among teachers, deaf and hearing learners, in this study found that none of the two schools had feasible and sustainable strategies in place to address them.

5.3 Suggestions

Individual teachers, Deaf learner and hearing learners that participated in this study had and expressed personal opinions as feasible and sustainable solution for each of the identified problem.

Teachers articulated the need for receiving training in the Sign language for them to effectively communicate with deaf learners. Understanding and knowing how to sign would enable teachers to assist and communicate with Deaf learners directly not always through the interpreters. For that reason, they proposed that all teachers who teach in inclusive schools where deaf learners are mainstreamed should get staff developmental courses on deafness and Deaf related topics as well as on Sign language. Such training would not only empower them, but would also motivate them in the position to promote the interaction between deaf learners and learners without hearing impairments and also to communicate with deaf learners effectively. They wanted to be equipped with special skills for teaching, handling and guiding of Deaf learners. Such skills would enable teachers to correctly observe, listen and understand what Deaf learners needed.

In addition, teachers called for a continuous in-service training in how to assess, how to support, and how to remove learning barriers that deaf learners could experience in mainstream schools. This proposal was in line with the research of Eloff, et.al (2007:p.352) who found that educators need support from the departments of Inclusive education in the form of pre-service and in-service training with regard to barriers that are experienced in mainstream schools. The point was that teachers should be given training that would enable them to work with learners that have specific disabilities in mainstream schools.

To minimize misinterpretations, teachers in this study emphasized the fact that Sign language interpreters need to have subject knowledge of the subject they are interpreting otherwise the problem of misinterpreting would remain challenge to teachers, deaf learners and Sign language interpreters. This point of view was supported by Andrew (2000) who maintained that there was a need for schools to appoint Sign language interpreters in all schools where Deaf learners are enrolled.

As another possible alternative, teachers urged parents to consider taking their children to a school for the deaf in the neighborhood to learn Sign language during school holidays. They also proposed an institution of Namibia National Association for the Deaf (NNAD) that offers classes for Sign language to the public throughout the year on different session for consideration.

On their part, Deaf learners suggested introduction of afternoon Sign language classes in mainstream schools for all learners, all teachers, and all institution workers to attend. Sign language interpreters or deaf learners would teach the suggested classes or school managers could ask from the Centre for Communication and Deaf Studies (CCDS) or Namibia National Association for the Deaf (NNAD) to provide Sign language teachers.

Hearing learners who participated in this study requested to be provided with Sign language books from specials schools for the deaf so that they could learn signs on their own. They also advocated for including the Sign language in the curriculum for Life Skills because the subject is designed to address all issues that affect schooling and education.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

This chapter provides conclusions as well as recommendations as per the findings of the study.

6.1. Conclusion

This study found that teachers, Deaf learners, and hearing learners in the selected mainstream schools of the Oshana and Khomas regions faced many challenges.

It was evident that teachers did not possess the required training and expertise that would enable them to deal with Deaf learners, hence the use of less effective alternatives including writing on the chalkboards and hearing learners to translate the Sign language for them. David, Lolwana and Lazarus (2007) stress the importance of language in all its forms including speaking, reading and writing; is an especially important tool in teaching and learning. It is the principle way people interact, and therefore, transmit knowledge. It is therefore very important that teacher and hearing learners in mainstream schools be equipped with Sign Language skills to be able interact with Deaf learners in their classrooms.

The communication among Deaf learners and hearing learners was apparent. Neither the deaf learners nor the hearing learners were happy with the quality and frequency of the communication among them. As a result, they would avoid each other's company except when there was a need for interaction. In contrary with this finding is the Vygotsky theory of learning as a social process is the notion that certain kinds of interaction can assist the learning process. Therefore, it is very important that Deaf learners and hearing learners interact with one another to be able to learn from each other's.

Awori (2004) postulates that children learn to respect and encourage one another, share experiences and knowledge about one another, and above all, discover each other's interests, abilities and difficulties through social interaction. Hearing learners and Deaf learners should engage in activities with their hearing peers, learn social interaction skills and improve their cognitive abilities.

To this end, it was very clear that the selected mainstream schools that participated in this study were not prepared enough and subsequently not ready to accommodate Deaf learners and their special needs.

The main aims of this study were to make observations and interviews in order to observe the interaction between Deaf learners and hearing learners in mainstream schools in Oshana and Khomas regions. The data collected and analyzed indicated that Deaf learners, hearing learners and teachers do communicate, though they do encounter problems because of Sign language. The results also indicated that schools where Deaf learners are mainstreamed are not doing much when it comes to encouraging interaction between Deaf learners and hearing learners, therefore it is recommended that such schools need to create a platform so that people within the schools learn Sign language.

As indicated in the first chapter that, few studies have been done in Namibia on the interaction between deaf learners and hearing learners, therefore this study lacks a detailed literature review from other studies. Having few Deaf learners in mainstream schools in Namibia has forced the researcher to have a small sample size and this limited the researcher to gather more information from a wider sample. Being a case study, the findings of this

study cannot be generalized to all-inclusive schools in Namibia but they may be important for policy formulation.

6.2. Recommendations

On the basis of the findings of this study, the following recommendations are made:

1. Teachers need to receive training in the Sign language and other developmental courses on deafness and deaf related topics for them to be competent and confident in teaching, assisting and communicating with Deaf learners directly.
2. There is a necessity to introduce classes for Sign language in schools where deaf learners are mainstreamed so as to improve the interaction between Deaf learners and hearing learners.
3. Sign language books should be distributed to everyone in schools that caters for Deaf learners to benefit hearing learners and school personnel, alike.
4. The Ministry of Education and Culture should regularly organize workshops on deaf education for teachers in mainstream schools for the deaf.
5. The Ministry of Education need to consider incorporating special education topics in particular to deaf related topics in the curriculum of Life Skills subject to successfully implementation of inclusive education in mainstream schools.
6. Teachers should only use Sign language interpreters who have subject content knowledge of the subjects that they interpret. They may give the content of what to be taught to Sign language interpreters to go through in advance so as to familiarize themselves with difficult terms.

7. It is very crucial and imperative for schools to take pro-active steps to ensure that effective interaction is taking place between Deaf learners and hearing learners in mainstream schools.
8. There is a need for the Ministry of Basic Education, Arts and Culture to regularly organize workshops to sensitize teachers on deafness to encourage the interaction between deaf learners and hearing learners.
9. Schools could prevent some of their challenges and barriers by actively encouraging interaction, recognizing potential, increasing participation, overcoming and reducing barriers and removing stigmatization and labelling.

This study only focused on the interaction between Deaf learners and hearing learners in mainstream schools in Oshana and Khomas regions. It would be intriguing to see what kind of findings it would bring if a similar research study was replicated at other schools in the country or elsewhere. It is very important that education planner consider both the public and private system in planning in order to effectively address the needs of all learners and fight exclusion.

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Appendix A: Permission letter from the University of Namibia

UNIVERSITY OF NAMIBIA

Private Bag 13301, 340 Mandume Ndemufayo Avenue, Pionerspark, Windhoek, Namibia



The School of Postgraduate Studies
Private Bag 13301
Windhoek, Namibia
Tel: 2063523
E-mail: cshaimemanya@unam.na

Date: 27 June 2014

TO WHOM IT MAY CONCERN

RE: RESEARCH PERMISSION LETTER

1. This letter serves to inform that student: **Hendrina Samuel** (Student number: **201306594**) is a registered student in the Department of Educational Psychology and Inclusive Education at the University of Namibia. Her research proposal was reviewed and successfully met the University of Namibia requirements.
2. The purpose of this letter is to kindly notify you that the student has been granted permission to carry out postgraduate studies research. The School of Post- graduate Studies has approved the research to be carried out by the student for purposes of fulfilling the requirements of the degree being pursued.
3. The proposal adheres to ethical principles.

Thank you so much in advance and many regards.

Yours truly,

Name of Main Supervisor: Dr. Charles Chata

Signed: Chata

Dr. C. N.S. Shaimemanya

Signed: Shaimemanya

Director: School of Postgraduate Studies

Appendix B: Permission letter from the Ministry of Education



REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION

Enquiries: Mr C. Muchila
E-mail: Cavin.Muchila@moe.gov.na
Tel: +264 61 2933200
Fax: +264 61 2933922

Private Bag 13186,
WINDHOEK
Namibia

File no: 11/1/1

06 August 2014

To: Ms Hendrina Samuel
P.O. Box 90035
Ongwediva
Cell: 0814940400

Dear Ms Samuel

**SUBJECT: PERMISSION TO CONDUCT A RESEARCH STUDY IN OSHANA AND
KHOMAS REGIONS**

Your correspondence regarding the subject above, seeking permission to conduct a research study in Oshana and Khomas Regions has reference.

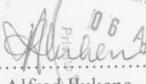
Kindly be informed that the Ministry does not have any objection to your request to conduct a research study at identified schools in the regions concerned.

You are, however, kindly advised to contact the Regional Council Office, Directorate of Education, for authorisation to go into the schools and for proper information coordination.

Also take note that the research activities should not interfere with the normal school programmes. Participation by teachers or learners should be on a voluntary basis.

By copy of this letter the Regional Education Directors are made aware of your request.

Sincerely yours


.....
Mr. Alfred Hukena
PERMANENT SECRETARY
cc: Directors of Education: Oshana & Khomas

All official correspondence must be addressed to the Permanent Secretary

Appendix C: Permission letter from Khomas Region Council



REPUBLIC OF NAMIBIA

KHOMAS REGIONAL COUNCIL
DIRECTORATE OF EDUCATION

Tel: [09 264 61] 293 4410
Fax: [09 264 61] 231 367/248 251
Enquiries: Ms. S. Hamutenya

Private Bag 13236
WINDHOEK

08 August 2014

Ms. Hendrina Samuel
Nambaxu@yahoo.com
P O Box 90035
Ongwediva

Dear Ms. Hendrina

RE: PERMISSION TO CONDUCT A RESEARCH AT COSMOS HIGH SCHOOL.

This communiqué serves to grant you permission to do your research on the interaction between Deaf learners and learners without hearing impairments in mainstream School in Khomas Region; therefore the Regional Offices has no objection for you to visit the following schools: Cosmos High School.

Your request is approved with the following conditions:

- ❖ The Principal of different schools to be visited must be contacted before the visit and agreement should be reached between you and the principal.
- ❖ The school programme should not be interrupted
- ❖ School should not be forced to take part in the programme.
- ❖ Teachers and learners who will take part in this exercise will do so voluntarily.
- ❖ Khomas Education Directorate should be provided with a copy your findings

Your interest in promoting anti-intimate partner violence among the youth is indeed appreciated.

Yours sincerely


.....
MS. A. STEENKAMP
ACTING DIRECTOR OF EDUCATION

MINISTRY OF EDUCATION
PRIVATE BAG 13236, WINDHOEK
CIRCULAR-3

INSPECTOR
KHOMAS REGION

Appendix D: Permission letter from Oshana Regional Council



REPUBLIC OF NAMIBIA

OSHANA REGIONAL COUNCIL
DIRECTORATE OF EDUCATION
Aspiring to Excellence in Education for All

Private Bag 5518
Oshakati, NAMIBIA

Tel: 065-230057
Fax: 065 – 230035
E-mail: otrc_physical_science@yahoo.co.uk
Enquiries: Maria Udjombala
Ref 12/2

29 August 2014

To
Ms Hendrina Samuel
Box 90035
Ongwediva

Dear Ms Samuel

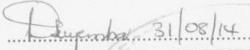
**RE: REQUEST FOR PERMISSION TO CONDUCT EDUCATIONAL RESEARCH
AT MWESHIPANDEKA SS IN OSHANA REGION**

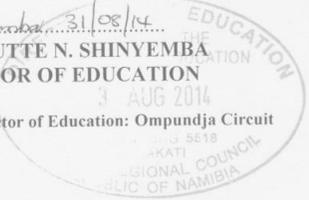
Your letter dated 7 August 2014 regarding the above mentioned subject has a reference.

It is my pleasure to inform you that the Office of the Permanent Secretary in the Ministry of Education has granted you permission to conduct educational research at Mweshipandeka SS in Oshana Region. However, please kindly take note that the research activities should not interfere with the normal programmes of the schools and the participation should be on a voluntary basis.

You should present this letter to the principal of the school to arrange the most appropriate time of carrying out your research activities.

We wish you success in your research activity and hoping that your findings will be shared with other stakeholders in the Circuit, the Region and beyond.

Yours Sincerely

MRS. DUTTE N. SHINYEMBA
DIRECTOR OF EDUCATION
3 AUG 2014
CC. Inspector of Education: Ompundja Circuit



Appendix E: Consent form to the school principals

Circle the number that corresponds to the statements that you are agree:

1. I allow teachers to participate in the research
2. I don't allow teachers to participate in the research.
3. I allow pupils to participate in the research
4. I don't allow pupils to participate in the research.

Researcher's Signature: Date:

School principal's signature:..... Date:.....

Appendix F: Consent form to the parents/guardians

Parents/Guardian consent letter form for participation in the Research

I give my consent for my child.....to participate in the research titled” **The interaction between deaf learners and learners without hearing impairments in mainstream schools in Oshana and Khomas regions**”. A study which is contacted with Ms. Hendrina Samuel, from Departments of Psychology and Inclusive Education, University of Namibia.

I understand that this participation is entirely voluntary; I or my child can withdraw consent at any time, without any penalty. The reason of the research is to investigate how deaf learners and learners without hearing impairments interact in mainstream schools. The researcher will be collecting data using two instruments such as observation and interview.

The results of this participation will be confidential, and will not be released in any individual identifiable form. The observation will be video recorded. Access to the video will be restricted to the researcher. The video will be stored securely and later destroyed immediately after transcribing my data.

The researcher can answer any question about the research; she can be reached at 0814940400. Please sign this form and the child should return it to the researcher.

.....

.....

Researchers’ Signature

Parents’/guardians’ signature

Date.....

Date.....

Appendix G: Interview guide for Deaf Learners

1. What is your age group?
 - 15- 17
 - 18- 20
 - 21-23
 - 24- 26
2. What is your gender?
 - Male
 - Female
3. What do you do to communicate with learners without hearing impairments?
4. How often do you interact with learners without hearing impairments?
5. From your experience, who mostly starts the communication between you and learners that is without hearing impairments'?
6. What difficulties do you experience when you interacting with learners without hearing impairments?
7. When there no Sign Language interpreters, how do you socialize with learners without hearing impairments outside the classroom?
8. What has your school done to encourage the communication between you and other fellow learners without hearing impairments?
9. What do you suggest should be done to improve the interaction between you and learners without hearing impairments?

Appendix H: Interview guide for hearing learners

1. What is your age group?
 - 15- 17
 - 18- 20
 - 21-23
 - 24- 26
2. What is your gender?
 - Male
 - Female
3. What do you do to communicate with deaf learners at your school?
4. How often do you interact with deaf learners
5. From your experience, who mostly starts the communication between you and deaf learners?
6. What difficulties do you experience when you interacting with deaf learners?
7. When there is no Sign Language interpreter, how do you socialize with deaf learners outside the classroom?
8. What has your school done to encourage the communication between you and deaf learners?
9. What do you suggesting should be done to improve the interaction between you and deaf learners?

Appendix I: Interview guide for teachers

1. What is your age group?
 - 20- 25
 - 26- 30
 - 31-35
 - 36- 40
 - 41-45
2. What is your gender?
 - Male
 - Female
3. How long have you been working with deaf learners at this school?
4. Have you ever undergone training on teaching deaf learners?
5. What are your specific challenges in interacting with deaf learners?
6. What are your views on the interaction between deaf learners and learners without hearing impairments?
7. From your experience, who mostly starts the communication between the deaf learners and learners without hearing impairments?
8. How often do deaf learners and learners without hearing impairments interact with one another?
9. What do you do to interact with deaf learners when teaching and to make sure they are also learning?
10. What strategies are in place at your school to motivate the interaction between deaf learners and learners without hearing impairments?

11. What else do you suggest should be done to improve the interaction between teachers and deaf learners, as well as between deaf learners and learners without hearing impairments at your school?

Appendix J: Observation tools

Reflective question (Researcher)	Key points for the Researcher to observe
1. How do deaf learners interact with learners without hearing impairments	<ul style="list-style-type: none"> - ways and means of communication - communication skills - how they behave towards learners without hearing impairments
2. When do deaf learners interact with learners without hearing impairments?	<ul style="list-style-type: none"> - what triggers the interaction - time they take to interact - how frequent do they interact
3. Who initiate the interaction?	<ul style="list-style-type: none"> - who approach who, first - conditions to start the interaction -
4. What challenges deaf learners experience while interacting with learners without hearing impairments?	<ul style="list-style-type: none"> - specific issues that negatively affect the interaction between the two groups - barriers that are between the deaf and learners without hearing impairments - how deaf learners struggle to communicate with learners without hearing impairments

<p>5. What challenges are encountered by learners without hearing impairments while trying to interact with deaf learners?</p>	<ul style="list-style-type: none"> - specific issues that negatively affect the interaction between the two groups - barriers that are between the deaf and learners without hearing impairments - how learners without hearing impairments struggle to communicate with deaf learners
<p>6. What difficulties do teachers experience while interacting with learners in teaching?</p>	<ul style="list-style-type: none"> - specific issues that negatively affect the interaction between teachers and deaf learners - barriers that are between teachers and deaf learners - how teachers struggle to communicate with deaf learners
<p>7. What strategies are in place at school to improve the communication between the teachers, deaf learners and learners without hearing impairments</p>	<ul style="list-style-type: none"> - available opportunities at school - available opportunities outside school - existing but undiscovered potentials of the school and surrounding community